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

N375129478

FACILITY: DECC CO INC		**SRN / ID:** N3751
LOCATION: 1266 WALLEN SW, GRAND RAPIDS		**DISTRICT:** Grand Rapids
CITY: GRAND RAPIDS		**COUNTY:** KENT
CONTACT: Fred Mellema , President		**ACTIVITY DATE:** 05/22/2015
STAFF: David Morgan	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

At 9:30 A.M. on May 22, 2015, Air Quality Division staff Dave Morgan and Kaitlyn DeVries conducted a scheduled inspection of the Decc Company located at 1266 Wallen Street in Grand Rapids. AQD staff explained that the purpose of the inspection was to determine the facility's compliance with state and federal air pollution regulations; an inspection brochure was provided. Accompanying staff on the inspection was Fred Mellema, President; Mark Piersma, Engineering Manager; and Michelle Zaagman, assisted with records.

FACILITY DESCRIPTION
The Decc Company is a specialty coater of metal parts using dry film lubricants such as Teflon, anti-corrosive coatings, and decorative coatings. The company has conveyorized coating lines, hand coating booths, and tumble-barrel coating machines used to apply water- and solvent-based coatings. The facility is currently a synthetic minor source for VOCs and HAPs. The metallic coating lines are exempt from RACT requirements under Rule 621(10). Also, the facility has a general permit for surface coating operations.

COMPLIANCE EVALUATION
Coating Operations:
PTI No. 87-09 is a general permit for coating lines EUArea4 (electrostatic turbines), EUTSM (spindle line), EU Area 14, EUTUMBLE (two tumble-barrel coating machines), EUArea5 and all associated curing ovens.

EUArea14 consists of two robotic spray guns (in two separate booths) working in parallel to apply a coating to the interior and exterior of parts. The gun has two interchangeable heads for spraying both the inside and outside of parts using a Binks BBR automatic HVLP gun and a Binks conventional interior diameter (ID) gun. Although a conventional gun is used, the transfer efficiency is very high because it is used to coat ID portions of parts. These booths were not operating at the time of inspection, but typically operate one day per week.

EUArea4 is a conveyorized coating line that consists of one enclosed booth with an associated bake oven. The booth was operating at the time of the inspection and typically runs daily. The line uses four reciprocating turbine spray nozzles which apply an electrostatic coating. Essentially solvent-based coatings are used on this line. All coatings are mixed in five gallon pails at the booth and are reduced to the proper viscosity. Filters were installed and appeared to be maintained properly.

EUTSM consists of one coating machine used to apply a primer and top coat to the exterior of metal parts. It does have conventional spray heads, but they run at a pressure of 9 psi.

EUTSM16 consists of a coating machine similar to EUTSM and is installed under the Rule 287(c) exemption. This booth paints ID parts and uses a small volume of paint.

EUArea5 consists of EUArea5East and EULine6 (formerly EUArea5West), which are covered under PTI 87-09. EUArea5East consists of two manual spray booths in series. These booths use both HVLP and ID spray guns. These booths were not operating at the time of the inspection. All filters were installed and appeared to be maintained properly.

EULine6 consists of one robotic spray booth and oven. A solvent based primer and topcoat is applied in these booths with electrostatic spray guns. Filters were in place and maintained appropriately.

EUTumble consists of two tumble stations; a south station and a north station. Each station has five individual barrel units where small metal and rubber parts are placed in a barrel and turned while a spray applicator is applying the coating. Each barrel uses automatic, conventional spray applicators. The use of conventional spray applicators in this process was determined during the permit issuance process to be equivalent transfer efficiency to HVLP per the AQD Permit Section. There are banks of filters associated with each tumbler. According to Mr. Mellema, the tumble units are used on a very limited basis.

EUArea10 consists of two small spray booths and a tumble-barrel machine with oven that are exempt under Rule 287(c). Historically, these booths have had very small volume usage. These booths use conventional spray equipment but do not fall under the general permit and therefore do no have an HVLP gun requirement. All filters were installed properly.

There is a *regenerative thermal oxidizer* (RTO) on site that can control emissions from EUArea4, EUArea14 and EUTSM. Under the general permit, the company is not required to operate the RTO. However, the company used the unit in order to comply with permit limits if necessary. The company closely monitors VOC emissions from the lines and implements procedures to power up the unit if emissions trend toward applicable limits. Typically the unit is operated more at the beginning of the month to provide a buffer with emission limits and production. Once operating, the company monitors the temperature of the RTO through the use of a data logger to ensure that the unit is operated at 1,400°F or above. Records reviewed on site showed that the RTO, when operating, is operated above the 1,400°F limit in the permit.

Zinc phosphate and other cleaning:
There is a zinc *phosphate cleaning line* which consists of 10 externally vented tanks of various soap, rinse, and zinc phosphate solutions. In 2009 and 2010, the company made a demonstration that the *phosphate cleaning line* was exempt from air use permitting under Rule 290. For the phosphate cleaning line it was demonstrated that worse case nitric acid emissions would be less 15 pounds per month, which is well below Rule 290 limits. No changes have been made to this process since the last determination.

In addition, there are two *CRST conversion coating processes* that have a small tray of a mild phosphoric acid solution used to apply a conversion coating to parts. One unit is batch and the other is automated. These units vent externally. In 2010 it was determined that if the CRST conversion coating process had material usage below 905 gallons per month that the process would meet the 20 pound per month limit in Rule 290 for metal oxides. The company is well below applicable limits (see table below).

Recordkeeping:
The company is maintaining material usage data, coating information, and VOC and HAP calculations using a set of detailed spreadsheets to demonstrate compliance with permits and applicable exemptions. At Decc, as applied coatings are physically weighed after coatings and reducers have been mixed. Thus, the company has a record of the weight of coatings actually sprayed. This information is then entered into the company's tracking system. It is noted that the primary reducer and cleaning agent is acetone which is not considered a VOC.

Emissions for the period from March 2014 through April 2015 were as follows:

	Emissions (in lbs)	Limit	Applicable Rule/Permit	Compliant
EUArea4	17,900 lbs	10 tpy	87-09	Y
EULine6	0	10 tpy	87-09	Y
EUArea5East	6327.83 lbs	10 tpy	87-09	Y
EUArea10 (tumble)	67 lbs	10 tpy	87-09	Y
EUTSM16	129.22 (< 13.5 gallons)	<200 gallon/month	Rule 287	Y
EUTSM	369 lbs	10 tpy	87-09	Y
EUArea14	239.52 lbs	10 tpy	87-09	Y
EUTUMBLE	830.50 lbs	10 tpy	87-09	Y
EUCRSTIC	0 (<30 gallons)	< 905 gallons	Rule 290	Y
EUCRSTBatchOven	0 (< 35 gallons)	<905 gallons	Rule 290	Y
EUArea10boothA	629 lbs (<25.25 gallons)	<200 gallon/month	Rule 287 (c)	Y
EUArea10boothB	129 lbs (<5.1 gallons)	<200 gallon/month	Rule 287 (c)	Y
	67.8 lbs (<2	<200	Rule 287	

EUArea10tumble	**gallons)**	**gallon/month**	**(c)**	**Y**
FGSource	**13.3 tons**	**30 tons**	**87-09**	**Y**
Individual HAP	**1.1 tons**	**9 tons**	**7-07B**	**Y**
Aggregate HAP	**3.5 tons**	**25 tons**	**7-07B**	**Y**

Burn-off Oven:
The company has a burn-off oven with afterburner covered under PTI No. 183-93. This burn-off oven cleans coated part racks (including those with Teflon or polytetrafluoroethylene [PTFE] coatings). The only special condition of this permit is for no visible emissions. The unit was not operating at the time of the inspection, thus no visible emissions were observed. Typically this oven is operated everyday.

Welding Booths:
There are two welding booths at the facility which are exempt from permitting under Rule 285(i).

Blast Cleaning:
There are ten blast machines used to clean parts prior to coating application. All ten units are vented through a Torit dust collector which is vented internally. All units are exempt under exempt from permitting under Rule 285(l)(vi). The blasting media, aluminum oxide, is all reclaimed and reused.

PTI No. 7-07B
PTI No. 7-07B limits the company's HAP emissions to below the major source thresholds. HAP emissions were in compliance with the 9.0 ton per year limit for individual HAPs and 22.5 ton limit for aggregate HAPs (see table above).

SUMMARY
The DECC Company appears to be in compliance with all applicable requirements. Attached to this report are company records obtained as part of the inspection.

NAME _____ DATE 5/29/15 SUPERVISOR PMB