

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

N596233177

FACILITY: GLW Finishing, LLC		SRN / ID: N5962
LOCATION: 741 WAVERLY COURT, HOLLAND		DISTRICT: Kalamazoo
CITY: HOLLAND		COUNTY: ALLEGAN
CONTACT: Doug Isenga , Plant Manager		ACTIVITY DATE: 01/26/2016
STAFF: Dale Turton	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

A compliance inspection was conducted on this facility. This location is the coating facility for a wood furniture operation located in Holland, Ottawa County. Amanda Chapel, AQD was also present for the inspection. Doug Isenga, Plant Manager was the company contact.

They primarily finish wood parts for their own company and also act as a job shop for other industries. They are developing their own line of furniture and trying to get away from being a job shop for outside companies. There is also a small amount of metal coating being done for an outside customer. They have not painted any plastic in a few years.

The company has a plant-wide Permit to Install No. 328-96B, still listed under the KC Industries name. There are six emission units (coating operations) that are listed in the permit under one flexible group (FG-COATINGLINES). They also have a FG-Facility table in the permit that has the HAP opt-out language and covers all listed and exempt equipment.

Coating Booths

The facility has 3 conveyerized paint lines, designated orange, green, and blue. The orange conveyor line has two booths in-line with an oven. They may be removing the oven in the near future. The blue line and the green line each have one booth and one oven. The ovens are not being used. There are two other batch paint booths (#3 & #4).

Every booth had filters properly in place during the visit. The booths have inclined manometers to assist the plant personnel as to when to change the filters. We have not received any complaints due to paint solids on cars, etc. nor is there any discoloration of the top of the stacks. The stacks are all equipped with hoods that exhaust vertically upwards.

The company only uses HVLP guns in the plant. Despite that, the transfer efficiency is not very high due to the geometry of the parts being coated. For instance, while spraying baby cribs, they may only transfer a third of the coating solids onto the part and the rest is bypassed into the filters. Electrostatic methods are not an option with wood coating.

Flat Line Coating

The existing "Flat Line" operation is designed to coat long strip type wood pieces such as molding, edging, or slats. The piece of wood enters into the spray zone on a conveyor belt and spans an opening where there are two opposing spray nozzles angled down. With this design, the overspray is directed downwards and much of the somewhat evaporated coating is collected and dripped down into a pan. This thick coating can then be rejuvenated with a little more solvent and can be reused.

A second flat line is in the plant and will be operational in a month or so. This line should be added to the plant-wide permit.

UV Coaters

There is also an existing UV vacuum coating operation that is not listed on the permit due to negligible emissions. The coating is UV cured and does not need to be baked. The operation is exempt from permitting. A second vacuum coater has been recently installed to apply primers. This is also does not require a permit due to negligible emissions.

Solvent Recovery

A Crystal Clean distillation unit is used to reclaim clean solvents from dirty solvents and excess coatings. The reclaimed solvent are not suitable to use as coating thinners but can be used as cleanup solvents. There is not expected to be any emissions from the distillation unit itself.

Recordkeeping

GLW uses an internet based program to input coating usage data, track compliance, and generate emission reports. Whenever GLW staff removes a quantity of coating or solvent from the storage room, the type and amount is entered into the computer database prior to being delivered to the coating line. GLW should be able to call up various reports at any time based on the data they have entered. Their consultant (Environmental Partners – EPI) can also get into the program and create reports. The company did not know how to generate reports, although they have the ability to do so. The person responsible for entering data will be getting training on how to better use the software.

The permit requires that they keep detailed coating usage records. They are required to keep VOC emission data for the FG-COATINGLINES and HAP emission data for the FG-FACILITY group.

A spreadsheet attached to the 2014 MAERS report showed the monthly compiled totals for the year and the VOC emissions for each coating line. It also showed the cleanup solvent usage for the Vacuum Coater. The records of each individual coating are available but it is unpractical to print it out due to the large number of different coatings used. The 12.3 tpy reported for 2014 in MAERS was well under the allowed 34.2 tpy VOC emissions for the 12-month period. The Flatline emissions reported were 5.15 tpy, under the 13 tpy limit. I have asked for a review of the pounds VOC per gallon of coating numbers they are using to calculate the emissions.

A spreadsheet sent by EPI showed the emissions of each individual and aggregate HAPs for each month. The total HAPs for 2015 were about 3.7 tpy, and the largest single HAP (toluene) was emitted at 1.86 tpy. Both the individual and total HAPs are well under the opt-out limits in the FGFACILITY table in the permit.

GLW only uses one of the three toxics limited in conditions 1.1e through 1.1k of FGCOATINGLINES. Butyl Carbitol (diethylene glycol monobutyl ether) is the only one used. The company does not use any of the isocyanate containing coatings.

According to the manufacturer's data sheets, all of the coating lb/gal limits in the permit are being complied with. They do not paint any metal furniture or plastic parts.

Wood Sanding

Currently there is a 5 headed DMC sander that is controlled by an outdoor Torit pulse jet baghouse. They will be connecting another 8 head sander soon. These sanders are exempt by R285(l)(vi)(C). The exhaust from the baghouse is diverted indoors during the cold months and is emitted outdoors during the warm months. The sanders were not operating during the inspection, so the baghouse could not be evaluated for differential pressure gauge reading. The area around the collector is clean, indicating that the unit is not leaking from the housing, ductwork, or ID fan.

Other

The company keeps track of the natural gas used in the heaters and ovens in the plant. This amount is reported in MAERS.

I suggested that the company consider applying for a permit to revise some of the outdated conditions in the current permit. 1) They don't use any coatings containing p-chlorobenzotrifluoride that is specifically identified in conditions 1.1e through 1.1g, nor do they use any coatings containing hexamethylene diisocyanate that is specifically identified in conditions 1.1j and 1.1k. 2) They only have HVLP guns which are certified by the manufacturer when purchased. Therefore condition 1.9, requiring test caps may be outdated. 3) They don't intent to coat plastic parts. 4) The oven on the orange line may be removed in the near future and they will just use air-dried coatings. 6) A new Flat Line coating operation is being installed. 8) The permit is under a former owners (KC Industries) name.

NAME Dale Turton

DATE 2/2/2016 SUPERVISOR ma 2/4/2016