

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

A225451433

FACILITY: NUCRAFT FURNITURE CO		SRN / ID: A2254
LOCATION: 5151 W RIVER DR, COMSTOCK PARK		DISTRICT: Grand Rapids
CITY: COMSTOCK PARK		COUNTY: KENT
CONTACT: Scott Hubbard , Facilities Engineer		ACTIVITY DATE: 11/19/2019
STAFF: David Morgan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

At 12:45 P.M. on November 19, 2019, Air Quality Division (AQD) staff Dave Morgan conducted an unannounced scheduled inspection of Nucraft Furniture Company located at 5151 West River Drive in Comstock Park. The purpose of the inspection was to determine the facility's compliance with state and federal air pollution regulations including Permit to Install (PTI) No. 155-95E. The primary contact accompanying AQD staff on the inspection was Scott Hubbard, Maintenance Manager.

FACILITY DESCRIPTION

Nucraft manufactures high-end conference room, reception, specialty and custom wood furniture. The facility consists of various woodworking equipment with dust collection controls, four coating lines for stains, sealers, clear coats and paints, and consists of various assembly operations.

Under PTI 155-95E the company is considered a synthetic minor source of hazardous air pollutants (HAPs).

COMPLIANCE EVALUATION

WOODWORKING EQUIPMENT:

The company operates several baghouse collectors to control particulate from a variety of woodworking equipment used for sawing, sanding and planing. There is a Carter Day Dust Collector with a maximum rated airflow of 52,800 cubic feet per minute which was installed under PTI No. 110-84. The dust collector appeared to be installed and operating properly. At the time, the dust collector was being vented back into the building for heat recovery. No visible emissions were observed as required by the permit.

There is also a Steelcraft Dust Collector which has a maximum airflow of 40,000 cfm which was installed as exempt from permitting under Rule 285(2)(l)(vi). The dust collector appeared to be installed and operating properly. At the time, the dust collector was being vented back into the building for heat recovery. No visible emissions were observed from the process. Bags for this unit were last replaced in 2016.

There is a Torit Dust Collector which has a maximum airflow of 20,000 cfm which was installed as exempt from permitting under Rule 285(2)(l)(vi). This unit had a slight leak on the outside resulting in sawdust on the ground. Mr. Hubbard indicated that this housekeeping issue would be addressed. No other visible emissions were observed.

Despite the leak, the unit appeared to be operating properly. Again, this collector was being vented back into the building.

It is noted that the company is verifying proper operation of each baghouse by monitoring the pressure drop across the bags.

FGFINISHING:

The facility has four coating lines covered under PTI No. 155-95E, EUPAINTLINE, EU-MAINLINE, EUCTLINE, and EUGEOCELL.

EU-MAINLINE was observed first. This emission unit consists of spray booths, flash off booths and ovens used for wood furniture coating including Stain booth (#1), Washcoat booth (#5), a Fill oven, Seal booth (#3), Seal Oven, Shade booth (#8), Topcoat booth (#4), topcoat flashoff and topcoat oven. Parts may go through the entire line or portions of the line depending on the part. At the time of the inspection, there were fabric filters in all booths and each appeared installed and maintained properly. In addition, each booth was equipped with either Devilbiss Compact HVLP or Graco G15 HVLP spray guns which meet requirements of PTI No. 155-95E. According to Mr. Hubbard HVLP test caps are maintained on site in accordance with the permit. The booths in this line are used for wood staining and finishing including clearcoats; no metal or plastic parts are coated in these booths.

It is noted that the company is looking into expanding the Shade booth (#8) to accommodate larger sized parts. According to Mr. Hubbard, the change would eliminate the existing spray booth, but keep the existing fan and exhaust ductwork. A large 'room' would be used to conduct the spraying with some level of exhaust system. Mr. Hubbard was advised to contact AQD with specific project details to better determine whether the changes would

require a permit revision.

EU-CTLINE consists of two booths and one oven including CTStain booth (#11) , CTSeal booth (#12) and CTSeal Oven. This line is used for wood furniture coating only. Again, fabric filters were installed in each booth and each booth was equipped with either Devilbiss Compact HVLP or Graco G15 HVLP spray guns which the meet the requirements of PTI No. 155-95E.

EU-PAINTLINE consists of two booths and associated ovens including a primer spray booth (#10) and a topcoat spray booth (#6), each with a flash off booth and oven. Both of these coating booth systems are used for the application of paint to various substrates including wood furniture, metal parts, and plastic parts. Filters were installed and maintained properly. Each booth was equipped with Devilbiss Compact HVLP spray guns. It is noted that company records for EU-PAINTLINE are reflected under the names EUFLATLINE and EUOFFLINE.

EU-GEOCELL consists of one spray booth used to apply contact adhesive using Devilbiss Compact HVLP spray guns. A fabric filter was installed and maintained properly. The booth was not operating at the time of the inspection.

The company is maintaining records in accordance with PTI No. 155-95E. The following table summarizes emission and material usage from November 2018 through October 2019.

Emission Unit	Pollutant	Limit	Actual Value	Compliance	Comment
EUPAINTLINE	VOC	2,000 lbs/month	<1,962 lbs/mnth	Y	These limits are only for metal and plastic parts. The company only painted wood parts during the time period. Therefore the limit is not applicable.
		10.0 tpy	<8.7 tons per year	Y	
FGFINISHING	VOC	76.8 tpy	37.99 tpy	Y	
	VOC (Sealer)	3.5 lb/lb solid	<1.88 lb/lb solid	Y	
	VOC (Topcoat)	3.5 lb/b solid	<2.72 lb/lb solid	Y	
	VOC (Primer)	1.0 lb/lb solid	<0.71 lb/lb solid	Y	
	Acetone	14.6 tpy	4.79 tpy	Y	
	Formaldehyde	0.19 pph	0.0	Y	No formaldehyde in coating records
	Xylene	43.2 lb/day	< 20.4 lb/day	Y	
FGFACILITY	Individual HAPS	9.0 tpy	2.95 tpy	Y	
	Aggregate HAPS	22.5 tpy	5.65 tpy	Y	

All calculations included thinners and reducers to yield as applied emissions. No testing of any coatings were required as part of this compliance evaluation.

OTHER EQUIPMENT:

The company has the following other exempt equipment:

- Research/lab spray booth installed under Rule 283(2)(a)
- Two adhesive rollcoaters installed under Rule 287(2)(c),
- Contact adhesive spray booth installed under Rule 287(2)(c),
- Distillation unit installed under Rule 285(2)(u),
- Cold cleaner installed under Rule 281(2)(h),
- Welding operations installed under Rule 285(2)(i),
- 300-980 MMbtu/hr natural gas-fired, boiler to heat oil on the hot press installed under Rule 282(2)(b),
- Emergency generator rated at 47 horsepower installed under Rule 285(2)(g) and subject to 40 CFR Part 63 Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines. The unit is maintained in accordance with manufacture specifications which satisfies Subpart ZZZZ requirements.

EVALUATION SUMMARY

Nucraft Furniture Inc. appears to be in compliance with all applicable requirements. Records obtained during the inspection are attached.

NAME

[Handwritten Signature]

DATE

12/17/19

SUPERVISOR

[Handwritten Signature]

