# DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION ACTIVITY REPORT: On-site Inspection

A008000909			
FACILITY: PANEL PROCESSING	SINC	SRN / ID: A0085	
LOCATION: 120 N INDUSTRIAL	HWY, ALPENA	DISTRICT: Gaylord	
CITY: ALPENA		COUNTY: ALPENA	
CONTACT: Chris Boyk , Environn	nental Engineer	ACTIVITY DATE: 02/02/2021	
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT	
SUBJECT: 2021 Scheduled site is	nspection for HAPs Opt-out Facility. No compliance i	ssues noted, sgl	
RESOLVED COMPLAINTS:		,	

On February 2, 2021, AQD District Staff conducted a scheduled site inspection of Panel Processing, Inc. (A0085). The referenced Facility is located at 120 North Industrial Highway, Alpena, Alpena County, Michigan. The Facility operates under Permit to Install (PTI) 243-09A, approved on April 27, 2016. The most recent site inspection was conducted on February 23, 2016. District Staff met with Mr. Chris Boyk, Engineer for this and other Company Facilities.

Weather conditions at the time of the site inspection included sunny skies, scattered clouds brisk winds to the south, and temperatures in the low 30's.

#### **FACILITY**

The Panel Processing Facility is an existing hardboard and composite wood panel fabrication and coating plant. Established in 1971, the Facility has been in operation for 50 years. The Facility takes raw material boards and recycled boards and cuts, cleans and coats them to customer order. The facility website indicates that the company is 100% employee owned, with 9 manufacturing facilities nationwide. Readily available internet sources indicated that company specializes in engineered, wood, flat panel products, which include pegboards, slat wall, point of purchase displays, markerboard, kitchen and bath cabinets, flooring, toy and game boards, laminated paper products and furniture components. Facility representatives indicated that the pegboard market has declined in recent years, and activities/production in the Facility have been changing with the market.

In the earlier years of the company, they reportedly blended their own coatings but have since shifted to purchasing water-based coatings and adding tints at the facility to meet orders. Multiple drums were noted at the time of the inspection. All material containers were neatly organized, clearly labeled, and appropriately covered. Storage areas were noted to be free and clear of debri.

From the road it is clear the Facility has undergone a number of expansions. Facility staff indicate that the plant has undergone 21 different additions to the original plant. At the time of the inspection, it was noted that production activities are conducted in different sections/additions of the plant. The western portions of the building housed the paint lines, with eastern sections housing fabrication equipment and material storage. The Facility also contained a repair shop, a solvent cleaning station, and a particulate collection area, where the baghouse/cyclone dust collector located on the roof, emptied into a semi-trailer below for later disposal. The facility was noted to be very tidy and organized.

At the time of the inspection, the multiple wood fabricating stations were in operation. Coating activity at the time of the inspection was limited to paint line #1. Earlier in the company history the paint lines operated for three shifts a day. This is reported to no longer be the case.

To reach the Facility, District Staff traveled east on M-32 to Alpena. Rather than drive straight through residential and business sections of Alpena to the intersection of US Highway 23, Staff at the intersection of M-32 and Bagley Street (stop light just east of Wal-Mart and Meijers) turn left (north) and travel approximately 1.10-mile to Long Rapids Road and turn right (east) traveling approximately 1-1.25 miles to US Highway 23. From the intersection of Long Rapids Road and US Highway 23, turn left and travel approximately 1.25 miles to N. Industrial Highway located on the west(left) side of the road. After turning onto N. Industrial Highway, drive apx. 0.20 miles to where the road curves to the north. The Facility is located at the south side of the curve. You have went too far if you reach Hamilton Road.

### **EQUIPMENT**

Permitted equipment associated with the site includes EUFABRICATING, EUPAINTLINE1 and EUPAINTLINE2. EUFABRICATING consists of board fabricating equipment used for cutting and perforating of boards prior to coating operations controlled by a baghouse dust collector that vents into the facility. The PTI does not indicate any limits to the number of work stations. A total of 17-18 different fabricating stations with dust collection are located onsite. Each station appears to be computerized/programable with captured particulate/dust going to either a Torit that exhausts inhouse or a large baghouse-cyclone system located on the buildings south roof. With the collected particulate material being staged in a building that allows for a semitruck to be backed in under the baghouse/cyclone for the particulate to load into for storage until it can be transported offsite.

Also reported to be part of EUFABRICATING is a shredder or scrapper used to shred wood for disposal by the facility. At the time of the inspection, it appeared to be disconnected from a power source, and was not operating. The February 23, 2016, inspection report reported the presence of the equipment onsite, but it was not clear if this was considered part of EUFABRICATING at that time. The unit is presently under repairs, and is reported to be connected to the baghouse when operational.

MAERS reporting does not include PM emissions for EUFABRICATING, as the Facility reports that emissions are into the plant work environment, not into the atmosphere.

Two paint lines exist and are combined into FGPAINTLINE. Each paint line consists of an initial roll coater that applies "filler", followed by a pre-heat oven with two horizontal stacks that empty into a narrow alley between two buildings. A curtain coater follows next, followed by a flash-off area and a curing oven. For the most part, the various stages are conducted in enclosed equipment. EUPAINTLINE1 is used for water-based coatings, EUPAINTLINE2 uses either water-based or UV-cured coatings. Coating usage is determined by material weight measurements collected. No odors were noted during the site inspection.

A review of MAERS reports for recent years indicates that the submittal consists of emissions for FGPAINTLINE, including two < 10 million BTU/Hr cure ovens (one each of 1-million and a 2.5 million BTU/Hr burner oven).

In addition to the emission units identified by the permit, the facility also includes the following:

Cold Cleaners

In addition to the fabrication work stations, one cold cleaner station was located in the far eastern building. The cold cleaning station was a relatively small one, with the lid closed. Based on the unit size it appears to be exempt from Rule 201 permitting under Rule 281(2)(h) as a cold cleaner with an air/vapor interface of not more than 10 square feet. The Facility has reported that only a non-volatile cleaner is used.

Edge coating of panels

The Facility does a limited amount of edge coating activities. At the time of the inspection, these activities are conducted in a small screened off work area in the south end of the Facility with a fabric filter to control emissions. This is not an automated system, and as it is not commented on in either the engineer's eval form (243-09 or 243-09A) or the February 23, 2016, site inspection report. The facility reports that the coating records are maintained on a monthly basis and are well below the 200 gallon limit to meet exemption requirements under Rule 287(2)(c).

Rule 287(2)(c) exempts from Rule 201 "a surface coating line if all of the following conditions are met:

- i. The coating rate in not more than 200 gallons as applied minus water per month
- ii. (ii) Any exhaust system that serves only coating spray equipment is supplied with a dry filter control or water wash control which is installed, maintained and operated in accordance with manufacturer's specification or owner or operator develops a plan which provides to the extent practicable for the maintenance and operation of equipment in a manner consistent with good air pollution control practices for minimizing emissions
- iii. (iii) Monthly coating use records are maintained on file for most recent 2-year period and made available to the department upon request."
- · Emergency Generator

The facility reports having a NG fired, emergency generator in their server room. The referenced unit is reported to be operated every Friday for approximately 30-minutes. This emission unit would appear to be exempt from Rule 201 permitting under Rule 285(g), which exempts internal combustion engines of less than 10 million BTU/hr maximum heat input. The facility reports a maximum of 9.6 million BTUs.

AQD presently does not have delegation for Federal regulations associated with Spark Ignition (SI) or Compression Ignition (CI) internal combustion engines (40 CFR Part 60, Subpart JJJJ or IIII, respectively), or the RICE MACT (40 CFR Part 63, Subpart ZZZZ). Therefore, no evaluation has been made with regards to compliance with the referenced regulations. Information has been provided electronically to the facility, to help make them aware as to the potential applicability of the referenced regulations to the unit.

Space Heaters

The Facility reports using NG fired IR tube heaters in the ceiling to heat the plant. These are indirect heat sources, which radiate heat and would appear to be exempt under Rule 282(2)(b) which exempts fuel burning equipment used for space heating, which burns sweet NG and has a maximum rated heat input of 50 million BTU/hr or less. The heaters are reported to have a maximum value of 6 million BTUs.

#### **PERMIT HISTORY**

A review of records indicate that multiple permits have been issued for the Facility. The permit history is summarized below:

PTI NO.	APPROVED	VOIDED	COMMENT
250-84	6/13/1984	2/4/1998	
250-84A	2/4/1998	11/30/2009	Painting and fabricating panels
408-99	2/25/2000	4/27/2016	Flatwood panel line
243-09	11/30/2009	4/27/2016	Combine two permits
243-09A	4/27/2016	NA	Requested limit increase in VOC lb/gallon

## **FEDERAL REGULATIONS**

Applicable Federal Regulations appear to be limited to 40 CFR Part 63, Subpart QQQQ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Wood Building Products (effective May 28, 2003). The referenced subpart is applicable to wood coating lines for construction materials which use 1,100 gallons of coating per year and are located at a major source of HAPs.

A review of the 2009 eval form by the permit engineer for 243-09 indicated that the Facility had an existing "opt-out" permit, and that the opt-out limits were brought forward into 243-09. The opt-out limit applies to HAP(s) and would keep the Facility below major source thresholds. In addition, 243-09 was a combination of two previous permits (408-99 and 250-84A) approved prior to the 2003 effective date for the subpart, and would indicate that the Facility would not have been subject to the subpart in 2003.

As mentioned briefly previously, the Facility has a NG-fired emergency generator. The unit is a Reciprocating Internal Combustion Engine (RICE), and potentially be subject to requirements under the following Federal RICE Regulations:

- The RICE MACT (40 CFR Part 63, Subpart ZZZZ)
- 40 CFR Part 60 Subpart JJJJ, Spark Ignition (SI) Internal Combustion Engine (ICE) NESHAP
- 40 CFR Part 60 Subpart IIII, Compression Ignition (CI) ICE NESHAP

No compliance determination has been made for any of the above referenced Federal regulations as at the time of the inspection, AQD had no delegation for the referenced subparts at area sources.

#### COMPLIANCE

No complaints, violation notices or consent orders/judgements are of record for the Facility. A review of readily available files indicated that annual emissions reporting thru the Michigan Air Emissions Reporting (MAERS) program has been conducted in a timely manner since as far back as 2008. In addition, no compliance issues were noted during the February 23, 2016, site inspection.

#### **EUFABRICATING**

Is reported to consist of board fabricating equipment used for cutting and perforating of boards prior to coating operations and is controlled by a baghouse dust collector that vents into the facility during winter months.

<u>Emissions</u> - EUFABRICATING emissions of concern appear to be limited to particulate and consist of the following emission limits:

- 0.01 lb PM/1000 lbs of exhaust gases (SC I.1)
- 1.76 pph of PM10 (SC I.2), and

Emissions are to be unobstructed discharges from SVFABRICATING, a stack with a minimum height of 29 feet above land surface, and a maximum exhaust diameter of 54-inch by 54-inch.

Discussions with Facility representatives indicated that stacks associated with EUFABRICATING have not been modified since issuance of 243-09A. No request for verification testing has been made by the District.

VE 6-minute average of 5% opacity (SC I.3)

PTI 243-09A as indicated above has a visible emission limit of 5% average opacity over a 6-minute period. No monitoring and record keeping requirements were specified in the referenced PTI. Discussions with Facility Staff indicated that emissions from the baghouse are checked daily by the maintenance staff, and that it is very obvious when the baghouse is not properly operating. At the time of the inspection, no visible emissions were noted.

<u>Other Limits</u> – EUFABRICATING has no material, operational, monitoring or recordkeeping limits. In addition there are no testing requirements.

#### **FGPAINTLINES**

This flexible group consists of two wood panel coating lines (EUPAINTLINE1 and EUPAINTLINE2) which include roll coaters, curtain coaters and cure ovens for application of water-based coatings (EUPAINTLINE1 and EUPAINTLINE2) and UV coatings (EUPAINTLINE2).

<u>Emissions</u> – This flexible group has a total of 6 contaminants of concern, and the following emission limits:

Contaminant	Emission Limit	Equipment	Compliance Method
VOC	1.5 lb/1000 square feet of coated product from class II finishes on hardboard panels	Individual coating lines	Daily volume weighted average
voc	18 TPY	FGPAINTLINES	12-month rolling total
Acetone	700 lb/Yr	FGPAINTLINES	12-month rolling total
Dipropylene Glycol Monomethyl Ether	142.0 lb/day	FGPAINTLINES	Calendar Day
Butyl Cellosolve	309.0 lb/day	FGPAINTLINES	Calendar Day
Formaldehyde	24.1 lb/yr	FGPAINTLINES	12-month rolling total
1,3-Dichloropropene	60.2 lb/yr	FGPAINTLINES	12-month rolling total

# Contaminant levels reported for select dates since the last site inspection include the following:

DATE	VOC (TPY)	Acetone (lb/yr)	Formaldehyde (lb/yr)	1,3- Dichloropropene (lb/yr)
December 2020	1.51	155	2.77	1.74
July 2019	1.77	150	3.16	2.55

February 2018	1.99	176	9.49	0
October 2017	2.14	281	9.66	.60
LIMIT (12-month rolling total)	18 TPY	700 lb/yr	24.1 lb/yr	60.2 lb/yr

DATE	Dipropylene Glycol Monomethyl Ether	Butyl Cellosolve	VOC (lb/1000 square feet of coated product from class II finishes on hardboard panels)
December 23, 2020	0.0 lbs	24.0114 lbs	0.582
July 18, 2019	0.0 lbs	28.96 lbs	0.419
February 12, 2018	0.0 lbs	30.86 lbs	0.535
October 24, 2017	1.61 lbs	12.9 lbs	0.328
LIMIT (daily)	142.0 lbs	309.0 lbs	1.5 lb/1000 square feet for each line

Note: that the facility documentation is kept in the form of an excel spreadsheet that auto-populates based on known contaminant concentrations and usage volume of materials. Contaminant totals are generated daily, monthly and yearly as required by permit for each of the contaminants of interest. Contaminant concentrations for the various materials are obtained from manufacturer data sheets for each material. Material usage is recorded on a daily basis, on a handwritten log. Volumes used are based on weight of material as determined by a scale.

<u>Material Limits</u> – The permittee is restricted to use of class II hardboard paneling finishes on FGPAINTLINES as defined in R. 336.1103(e) (SCII.1). Communications with facility staff indicated that the finish classification is a voluntary product standard based on PS-59-73 and referenced

such characteristics as resistance to abrasion, adhesion, gloss, etc. In addition, it had a VOC limit of 10 lbs per 1,000 square feet. The Facility reports that though the finish standard was developed in the 90's, they continue to to monitor the coating characteristics as well as the average VOC content per 1,000 square feet. The VOC limit of which is now 1.5 lbs/1,000 square feet.

The Facility reports annual usage for FGPAINTLINES for water-based coating, solvents and UV coating are reported under MAERS. Usage rates for the referenced materials since the previous inspection are summarized below:

Calendar Year	Water Based Coatings	Solvents	UV Coating
2016	19,369	15.5	7.8
2017	17,259	10.5	6
2018	15,836.49	12.87	0.2
2019	13,971.8	22.4	0
2020	12447.2	22.4	0

<u>Equipment/Operational Restrictions</u> - Permit conditions include equipping and maintaining each coating line in the flexible group with roll coaters and/or curtain coaters, or comparable technologies with equivalent transfer efficiencies (SC IV.1). Equipment observed as part of the February 2, 2021, site inspection noted that equipment associated with the FG appeared to meet the permit condition.

All waste solvents and coating are to be stored in closed containers. The permittee shall dispose of all waste solvents and coatings in an acceptable manner in compliance with all applicable state rules and federal regulations (SC III.1). Collected waste solvents and coatings were noted to be kept in closed containers for storage, and were fairly limited in quantity.

The permittee shall handle all VOC and/or HAP containing materials, including coating, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. Materials used while in containers shall keep the containers covered at all times. (SC III.2) As indicated in the previous paragraphs materials of concern were stored in closed containers. No open containers were noted at the time of the site inspection.

<u>Testing-</u> The permittee is required to determine the VOC content, water content, and density of any material (filters, coatings, purge and clean-up solvents, etc) as applied and as received using Federal Reference Test Method 24 or an alternative with approval of the District Supervisor.

Alternative methods can include information from Material Safety Data Sheets, Manufacturers formulation data, etc. (SC V.1). At the time of the inspection, The Facility had in their files a copy of a July 19, 2010, approval letter for use of Material Safety Data Sheets and Manufacturers formulation data to determine VOC and other contaminant concentrations.

Monitoring and Recordkeeping – FGPAINTLINES have a number of monitoring and recordkeeping requirements to show compliance with PTI 243-09A conditions. All required calculations are to be in a form acceptable by the AQD District Supervisor by the 15<sup>th</sup> of the month (SC VI.1). The Facility maintains a detailed spreadsheet containing the VOC and HAP content of each coating, solvent, etal used under the FG. The content information is obtained as approved of in the July 19, 2010 District approval letter.

Emissions are to be determined by mass balance and records provided by the Facility at the time of the February 2, 2021, site inspection were sufficient to show compliance with the following requirements:

- 1. Calculations required include the following for materials containing dipropylene glycol monomethyl ether (SC VI.5), butyl cellosolve (SC VI.6) and VOC (SC VI.3) on a daily basis:
- Identity and amount (lbs) of each material containing one or more of the above referenced contaminant applied to unfinished product.
- Volume (lbs) of material reclaimed of the above referenced contaminant maintaining material(s).
- Contaminant content in lb/lb or lb/gallon (as applicable) of each contaminant containing material used.
- Above referenced contaminant emission calculations determining the daily emission rate in lbs/calendar day.
- For VOC containing materials the permittee is also required to determine the total surface area of coated finished product in square feet, and VOC daily emission calculations in lbs per 1,000 square feet of coated finished product. (SC VI.3)
- Monthly monitoring and recordkeeping requirements under 243-09A include the following for materials containing VOC (SC VI.4), acetone (SC VI.4), 1-3 dichloropropene (SC VI.8) and formaldehyde (SC VI.7):
- Identify the identity and amount (lbs) of each material containing one or more of the above referenced contaminants used.
- Volume reclaimed of each contaminant containing material.
- Contaminant content in lbs/gallon (with water) or lbs/lb of each material as applied.
- Emission calculations determining the monthly emission rate in lbs/calendar month, using mass balance or other pre- approved alternative method.
- Emission calculations for 12-month rolling total emissions for the above referenced contaminants.

Emission limits and data for select dates and contaminants of concern were provide previously summarized under "emissions".

<u>Stack/Vent Requirements</u> - Seven stacks are associated with FGPAINTLINES, and are associated with the various pre-heat and curing ovens. They are summarized below:

STACK/VENT ID		Minimum Stack/Vent Height (feet above ground)
SVPREHEAT1A	11 X 8	10.5
SVPREHEAT1B	11 X 8	10.5
SVCUREOVEN1	18	25
SVPREHEAT2A	14 X 16	10
SVPREHEAT2B	10	11.5
SVCUREOVEN2A	21	24
SVCUREOVEN2B	12	30

The above referenced stack/vent dimensions were verified by the Facility as part of the 2016 permit modification. The Facility reports that no modifications have occurred since that date.

# **FGFACILITY**

This FG is considered source wide, and identifies only one pollution control device, specifically the baghouse dust collector for EUFABRICATING. Conditions are limited to HAP limits, verification testing of HAP content via Method 311 at the request of the AQD District Supervisor and monitoring and recordkeeping conditions associated with HAP content and emissions determination.

**Emission Limits** – Individual and Total HAP emission limits for FGFACILITY are limited to:

ate HAP	Aggregate HA	Each Individual HAP*	Calendar Month
5 ТРҮ	.004016 TPY	2.77 lbs	December 2020
ТРҮ	.00467 TPY	3.16 lbs	July 2019
ТРҮ	.00479 TPY	9.49 lbs	February 2018
_	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	J.43 IU3	reprudry 2016

October 2017	9.66 lbs	.00568 TPY
Limit	<9.0	<22.5
(12 month rolling total TPY)		

• Formaldeyde is reported to be the highest individual HAP concentration and is reported here.

Emissions reported as part of the annual MAERS reporting for the facility included the following:

Contaminant	2017 (lb/yr)	2018 (lb/yr)	2019 (lb/yr)	2020 (lb/yr)
voc	4549.61	4438.87	4062.50	3892.75
Acetone	41.50	37.5	45	77.40
Formaldehyde	10.15	8.42	7.90	5.55
PM10	26.29	22.74	24.74	23.42
SO2	2.08	1.80	1.95	1.85

Monitoring and Recordkeeping - On a monthly basis, the permittee is required to keep the following information/records (SC VI.2):

- Gallons or pounds of each HAP containing material used.
- Where applicable, gallons or pounds of each HAP containing material reclaimed.
- HAP content, in lbs per gallon or lgs/lb, of each HAP containing material used.
- Individual and aggregate HAP emission calculations determining the monthly emission rate as well as 12-month rolling HAP emission rates in tons per calendar year.

As previously reported, documentation provided by the Facility at the time of the February 2, 2021, site inspection was sufficient to verify that the Facility is meeting the above referenced monitoring requirement.

### **SUMMARY**

On February 2, 2021, AQD District Staff conducted a scheduled site inspection of Panel Processing, Inc. (A0085). The referenced Facility is located at 120 North Industrial Highway, Alpena, Alpena County, Michigan. The Facility operates under Permit to Install (PTI) 243-09A,

approved on April 27, 2016. The most recent site inspection was conducted on February 23, 2016. District Staff met with Mr. Chris Boyk, Engineer for this and other Company Facilities.

The Panel Processing Facility is an existing hardboard and composite wood panel fabrication and coating plant. Established in 1971, the Facility has been in operation for 50 years. The Facility takes raw material boards and recycled boards and cuts, cleans and coats them to customer order. The facility website indicates that the company is 100% employee owned, with 9 manufacturing facilities nationwide. Readily available internet sources indicated that company specializes in engineered, wood, flat panel products, which include pegboards, slat wall, point of purchase displays, markerboard, kitchen and bath cabinets, flooring, toy and game boards, laminated paper products and furniture components.

Facility representatives indicated that the pegboard market has declined in recent years, and activities/production in the Facility have been changing with the market. In the earlier years of the company, they reportedly blended their own coatings but have since shifted to purchasing water-based coatings, and adding tints at the facility to meet orders.

Permitted equipment associated with the site includes EUFABRICATING, EUPAINTLINE1 and EUPAINTLINE2. EUFABRICATING consists of board fabricating equipment used for cutting and perforating of boards prior to coating operations controlled by a baghouse dust collector that vents into the facility during winter months. Two paint lines exist and are combined into FGPAINTLINE. Each paint line consists of an initial roll coater that applies "filler", followed by a pre-heat oven with two horizontal stacks that empty into a narrow alley between two buildings. A curtain coater follows next, followed by a flash-off area and a curing oven. For the most part, the various stages are conducted in enclosed equipment. EUPAINTLINE1 is used for water-based coatings, EUPAINTLINE2 uses either water-based or UV-cured coatings. Coating usage is determined by material weight measurements collected. No odors were noted during the site inspection.

In addition to the permitted equipment, District Staff noted that the Facility also has on site the following exempt equipment: cold cleaner, side coating station, emergency generator, and space heaters.

Based on information obtained as a result of the February 2, site inspection, as well as supplemental information provided by the facility it appears that they are operating in general compliance with PTI 243-09A.

NAME		DATE	SUPERVISOR	_
Sharon LeBlanc	Digitally signed by: Sharon Leßlanc DN; CN = Sharon Leßlanc email = lebłancs@michigan.gov C = US O = / CSLE CU = AQD Date: 2021.03.24 13:33:03 -04'00'		Shane Nixon Digitally signed by: Shane Nixon DN, CN = Shane Nixon EN Shane Nixon DN, CN = Shane Nixon email = //signed gridlingan, gov C = US O : / egil E OJ = Air Quality Division Date: 2021.03 24 1133:36-0490	=