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

N243044431

FACILITY: Owosso Composites, LLC		**SRN / ID:** N2430
LOCATION: 401 S DELANEY RD, OWOSSO		**DISTRICT:** Lansing
CITY: OWOSSO		**COUNTY:** SHIAWASSEE
CONTACT: Diane Gagnier , Operations Manager		**ACTIVITY DATE:** 04/25/2018
STAFF: Julie Brunner	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Inspection for compliance with PTI 129-16A and discussion of the initial ROP application		
RESOLVED COMPLAINTS:		

On April 25, 2018, I conducted a scheduled inspection as part of a Full Compliance Evaluation (FCE) of Owosso Composites, LLC (N2430) in Owosso. The last inspection of this facility was on July 19, 2017 and multiple violations were cited for exceedance of permit limits, recordkeeping and Rule 201. As part of the resolution of the violations, an application to modify Permit to Install (PTI) 126-16A has been submitted. The assigned permit engineer, Jeff Khaled, came with me on the inspection.

Contacts:
Ms. Diane Gagnier, National Composites, phone: 989-723-8997, dgagnier@nationalcomposites.com

Facility Description:
Owosso Composites manufactures fiberglass paddleboats, fiberglass boat components and other fiberglass components using open and closed molding techniques. They produce traditional paddleboats along with paddleboats that are duck, dragon, and swan shaped. The facility can paint components using an existing coating line, but to date have not used the coating line. Owosso Composites also manufactures boat parts for other boat manufacturers such as Crest Marine Pontoons in Owosso, and makes some fiberglass parts for John Deere and coats fan blade wheels with resin for a local air pollution control company.

Owosso Composites moved from a smaller facility at 403 South State Street (SRN N0598) to the building that contained Wausaukee Composites. The building and the assets for Wausaukee Composites were purchased by Owosso Composites. The move greatly expanded the manufacturing capacity for Owosso Composites.

The facility is located in an industrial park on the west side of Owosso. The facility is surrounded by commercial and industrial properties. To the north and south are agricultural and residential properties.

Regulatory Overview:
Owosso Composites is a major source of hazardous air pollutants (HAPs) with the issuance of PTI 129-16A and a minor source of criteria pollutants. PTI 129-16A contains equipment from PTI 55-07A, PTI 352-95, and new equipment for the expansion in manufacturing capacity. The facility is now subject to the Renewable Operating Permit (ROP) program as a major 40 CFR 70 source. An initial ROP application is due 12-months from the start of facility operations. Commercial operation started in May 1, 2017 so the initial ROP application is due May 1, 2018. The initial ROP application was submitted on May 1, 2018.

As a major source of HAPs, Owosso Composites is subject to the following National Emission Standards for Hazardous Air Pollutants:

40 CFR 63, Subpart PPPP, National Emission Standard for Hazardous Air Pollutants for Surface Coating of Plastic Parts - The facility falls under this subpart as it is a major HAP source that performs surface coating of plastic parts (40 CFR 63.4481(b)). The requirements of this subpart are included in FGMACTPPPP of the permit. The coating line is considered existing under 40 CFR 63, Subpart PPPP.

40 CFR 63, Subpart VVVV, National Emission Standard for Hazardous Air Pollutants for Boat Manufacturing – The facility falls under this subpart as it is a major HAP source that is a boat manufacturing facility (40 CFR 63.5683(a)). The requirements of this subpart are included in FGMACTVVVV of the permit. The applicant has agreed to comply with reconstructed/new requirements.

40 CFR 63, Subpart WWWW, National Emission Standard for Hazardous Air Pollutants for Reinforced Plastic Composites Production - The facility falls under this subpart as it is a major HAP source that is a reinforced plastic composites production facility (40 CFR 63.5785(a)). The requirements of this subpart are included in FGMACTWWWW of the permit. The applicant has agreed to comply with reconstructed/new requirements.

MACT Notifications - Initial compliance notifications for 40 CFR 63, Subparts PPPP, VVVV, and WWWW will need to be made on the following schedule:

40 CFR 63, Subpart PPPP - Initial notification for an existing source must be submitted no later than 1 year after the source becomes major per 40 CFR 63.4510(d).

40 CFR 63, Subpart VVVV - The first compliance notification for a new source must cover the first 12-months of operation ending on June 30 or December 31, whichever date is the first date following the end of the first 12-month period after the compliance date per 40 CFR 63.5764(b)(1).

40 CFR 63, Subpart WWWW - Per 40 CFR 63.5787(d), facilities subject to both 40 CFR 63, Subpart VVVV and 40 CFR 63, Subpart WWWW may elect to have the operations covered by CFR 63, Subpart VVVV if they can demonstrate that this will not result in any organic HAP emissions increase compared to complying with 40 CFR 63, Subpart WWWW.

Delegation to Implement - Michigan does not currently have the authority to implement 40 CFR 63, Subparts PPPP, VVVV, and WWWW. All compliance notifications and compliance reports will need to be submitted to U.S. EPA, Region V, 77 West Jackson Blvd., Chicago, IL 60604-3507 and a copy submitted to the MDEQ, Lansing District Office, Air Quality Division. Michigan does have the authority to implement these regulations through the ROP program, so once the ROP is issued this information will not need to be submitted to EPA.

PTI 129-16A contains the following emission units (EU) and flexible groups (FG):

EU ID	Emission Unit Description (Process Equipment & Control Devices)
EUOPENMOLDING1	One open molding spray layup booth with handheld mechanical non-atomized applicators for the production of fiberglass boats and other plastic parts. Operations include the use of resin, foam, putty, adhesives, and catalyst materials. Particulate emissions are controlled by dry filters.
EUOPENMOLDING2	One open molding spray layup booth with handheld mechanical non-atomized applicators for the production of fiberglass boats and other plastic parts. Operations include the use of resin, foam, putty, adhesives, and catalyst materials. Particulate emissions are controlled by dry filters.
EUOPENMOLDING3	One open molding spray layup booth with handheld mechanical non-atomized applicators for the production of fiberglass boats and other plastic parts. Operations include the use of resin, foam, putty, adhesives, and catalyst materials. Particulate emissions are controlled by dry filters.

EUGELCOAT	One spray booth equipped with a handheld mechanical non-atomized applicator for the application of gelcoat materials. Operations include the use of gelcoats and catalysts. Particulate emissions are controlled by dry filters.
EURTM	Resin transfer molding (RTM) operation to manufacture boat(s) and boat parts in a closed mold process. Operations include the use of RTM resin and catalyst materials.
EUADHESIVEDISPING	Mechanical gun for the manual application of adhesives. Operations include the use of resin and catalyst materials.
EUCLEANUP	Miscellaneous cleanup activities including an acetone recycle system.
EUCOATINGLINE	Coating line consisting of two paint spray booths, one natural gas-fired curing oven, and two natural gas-fired infrared unit heaters. Particulate emissions are controlled by dry filters.

FG ID	Flexible Group Description	Associated EU IDs
FGOPENMOLDING	Three open molding spray layup booths with handheld mechanical non-atomized applicators for the production of fiberglass boats and other plastic parts. Operations include the use of resin, foam, putty, adhesives, and catalyst materials. Particulate emissions are controlled by dry filters.	EUOPENMOLDING1, EUOPENMOLDING2, EUOPENMOLDING3
FGMACTPPPP	Each existing affecting source engaged in the surface coating of plastic parts and products, identified within each of the four subcategories listed in 40 CFR Part 63, Subpart PPPP,63.4481(a)(2) to (5). Surface coating is defined by 40 CFR 63.4481 as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating.	EUCLEANUP, EUCOATINGLINE
FGMACTVVVV	All open molding operations utilizing production resin, tooling resin, pigmented gel coat, clear gel coat, and tooling gel coat including the application of gel coat or skin coat layers that are applied before lamination by closed molding for the purpose of compliance with 40 CFR Part 63 Subpart VVVV.	EUOPENMOLDING1, EUOPENMOLDING2, EUOPENMOLDING3, EUGELCOAT, EURTM, EUCLEANUP

FG ID	Flexible Group Description	Associated EU IDs
FGMACTWWWW	Each new or reconstructed affected source at reinforced plastic composites production facilities as identified in 40 CFR, Part 63, Subpart WWWW, 63.5785 and 63.5790. Reinforced plastic composites production is defined in 40 CFR 63.5785. Reinforced plastic composites production also includes associated activities, such as cleaning, mixing, HAP-containing materials storage, and repair operations associated with the production of plastic composites.	EUOPENMOLDING1, EUOPENMOLDING2, EUOPENMOLDING3, EUGELCOAT, EURTM, EUCLEANUP
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.	NA

Michigan Air Emissions Reporting System (MAERS):
The facility reports to MAERS as a Category I facility and is fee subject.

I looked at the 2017 MAERS when initially submitted. There were errors. It was resubmitted at my request, and there are still errors. The following emissions of volatile organic compounds (VOCs) were reported.:

EUGELCOAT – 49,652 lb (24.8 tpy) which appeared to be incorrectly calculated and was above the permit limit of 14.0 tpy
EUADHESIVEDISPING – 40,058 lb (20 tpy) which appeared to be incorrectly calculated and was well above the permit limit of 350 lb
EUCLEANUP – 10740 lb (5.4 tpy) most of which is actually acetone and not VOC.

Apparently, FGOPENMOLDING, EURTM, and EUCOATINGLINE were not operated in MAERS. Since they were spraying material in an open molding booth when I last inspected, I question that no open molding was done during the 2017 year. As part of the inspection, Diane confirmed that FGOPENMOLDING and EURTM had operated during 2017 and provided correct material usages for all emission units that had operated.

I estimated (conservatively) 8-months of emissions for 2017. The summary is below:

2017 MAERS (N2430) - DEQ Corrected

	Total VOC (lbs)	Total VOC (tons)	Styrene (lbs)	Styrene (tons)	MMA (lbs)	MMA (tons)
EUGELCOAT	11,376.3	5.7	8,723.8	4.4	2,537.3	1.3
EURTM	3.5	0.0	3.3	0.0		
FGOPENMOLDING	6,311.2	3.2	6,219.2	3.1		
EUADHESIVEDISPING	326.8	0.2	6.2	0.0	123.5	0.1
EUBLADES	184.2	0.1	183.6	0.1		
Total =	**18,202.0**	**9.1**	**15,136.0**	**7.6**	**2,660.8**	**1.3**

	Acetone (lbs)	Acetone (tons)	% Recycled
EUCLEANUP	3,326	1.7	68%

Inspection:
Arrived: 9:05 am

Departed: 12:00 pm
Weather: 44°F, NNW 7 MPH, UV Index 1 Low

When we arrived, no odors were detected around the facility. There were no visible emissions from any exhaust stack vents.

We met with Ms. Diane Gagnier, and discussed the purpose of the visit. I gave a brief overview of the purpose of our visit and the inspection process. We discussed the status of the plant and the permit application (PTI 129-16B). We then toured the facility operations. Equipment has been moved from their State Street location and adjustments were still being contemplated. The facility was making paddleboats and boat parts, and other fiberglass parts during the inspection.

Plant Capacity: 50%

Staff #: 53 Shifts/Day: 1 (Mon.-Fri., 6:00 am to 3:30 pm and Sat., 6:00 am to 11:00 am)
Days of Operation/Week: 5-6 days/week

There are no emergency generators, and the facility is heated by natural gas-fired tube heaters (radiant) per exemption Rule 282(2)(b)(i).

EUGELCOAT (PTI 129-16A) – An existing walk-in spray booth for gelcoat application with one manual spray gun set-up is in place. A second walk-in spray booth for gelcoat application with one manual spray gun set-up is across from it. The two spray booths are separated by a drying area that is heated by a natural gas-fired tube heater. The second spray booth and drying area are not on PTI 129-16A and will be added to the permit modification. It was not realized on the last inspection that there were two (2) gelcoat booths with a heating/drying area. Also, the second booth will be extended out the back when the EUBLADES process is moved and another stack installed for ventilation.

The spray guns using in EUGELCOAT are an internal mix air assisted airless which is considered non-atomizing and meets the intent of Special Condition (SC) IV.2. The notification that installation is complete as required by SC VII.1 should have been submitted within 30-days of startup. The install date is considered 05-01-2017 for the process. Fabric filters are installed in the sidewalls of the north gelcoating booth as required by SC IV.1. The fabric filter has been installed in the ceiling across the intake of the stack for the south booth that is not listed on PTI 129-16A. The filters are changed every week or as needed. The filters looked to be in good shape. Spent filters are rolled up and taken to a closed trash compactor located in a covered bay. This practice minimizes the introduction of air contaminants to the outer air in compliance with SC III.2. Exceedance of maximum styrene content listed in SC II.1.b is still on-going.

FGOPENMOLDING (PTI 129-16A) – The 3 – 3-sided open molding booths (EUOPENMOLDING1, EUOPENMOLDING2, and EUOPENMOLDING3) are all installed. Mounted chop guns and mobile chop guns are used in the layup process. Three new stacks have been constructed as required by the permit. The stacks are approximately 10 ft. above the roofline. The fabric filters have been installed in the ceiling across the intakes of the stacks. The three stacks are the ventilation for the 3 - 3-sided booths in the room. They were in compliance with SC IV.1 which requires that in order to operate any spray booth in FGOPENMOLDING, its respective exhaust filter needs to be installed, maintained and operated in a satisfactory manner. The filters are changed weekly or sooner if needed. The notification that installation is complete as required by SC VII.1 should have been submitted within 30-days of completion. Based on the ROP initial application, the install date is listed as 05 -01-2017.

EURTM (PTI 129-16A) – The resin transfer molding (RTM) equipment is currently located by the open molding booth. The emission unit is proposed to be moved (PTI Application no. 129-16B) to the Assembly and Finishing Area. It is taking up about half the area and consists of vacuum molding and molding tables. Portable spray apparatus are located beside the molds. The RTM equipment will be moved to the northside of the plant when renovations are complete. The exterior door in the area was closed. Exceedance of maximum styrene content listed in SC II.1 is still on-going.

EUCLEANUP (PTI 129-16A) – There are two (2) acetone reclamation units, Model 710.3. The units are maintained by Safety-Kleen which provides the recycling services. The units can recover 95% of the acetone that is put in. PTI 129-16A requires a minimum of 75% by weight recovery of all acetone used. According to the updated usage information provided during the inspection, 68% of the acetone was recovered which is below what the permit requires.

EUCOATINGLINE (PTI 129-16A) – The existing coating line is intact but not in use. It was part of Wausaukee's business. Owosso Composites is still hoping to bring in a product that will utilize the coating line.

EUBLADES – The process is still located in a small coating room on the back side of one of the gelcoat booths. The coating of metal or plastic fan blade wheels with a resin for a local air pollution control company is done. The room has fabric filters to catch overspray, and vents into the open molding area. The small fan blade coating operation is proposed to be moved across to where the RTM area currently is located. A booth will be constructed, and a vent stack installed. The emission unit is proposed to be added in the permit application to modify PTI 129-16A to resolve a Rule 201 violation. Since the fly wheels are metal or plastic but coated with styrene containing resin whether 40 CFR 63, Subpart MMMM and 40 CFR 63, Subpart PPPP, or 40 CFR 63, Subpart WWWW applies is yet to be determined.

Assembly and Finishing Area (Plant North and East sides) – Parts are taken out of the molds, cut, sanded, assembled, and finished.

Two (2) trim/sanding booths with indoor exhaust is where parts are cut and sanded. The booths are in two (2) different areas of assembly and finishing. United Air Specialist System(s) are used to control particulate emissions from the trimming and sanding. The control systems are a filter banks which collect the particulate and drops it into trays. The trays are then emptied of particulate after use. The trim/sanding booths appear to meet exemption from permitting Rule 285(2)(l)(vi)(B).

EUADHESIVEDISPING (PTI 129-16A) – A glue adhesive gun filling station and two (2) adhesive guns are located in the Finishing Area (Plant Northside). The adhesive is a two component (10:1 ratio) black adhesive. The adhesive application is done in finishing. Installation of this process was on 05-01-2017.

Repair Area – Gelcoat and acetone are used to repair parts. The materials used are not tracked separately.

Cut Room(s) – An air cutter (scissors) is used to cut plastic parts. In another area is a robotic cutter (router type) that is being installed. Cutters and routers meet the exemption from permitting Rule 285(2)(l)(vi)(B).

Foam Application – A two-part MDI foam (Elastopor P1001U Isocyanate) is mixed in 5-gallon pails and poured into the underside of the paddlewheel boat seats. The materials react to create a foam for floatation in case the boat hull takes on water. There was 920 lbs of Elastopor P1001U Isocyanate used in 2017. This operation may need to be added to PTI 129-16B as part of the finishing area.

Also, in the assembly and finishing area is an existing electric pre-form oven that has been used about five (5) times. The oven is used to heat up a fiberglass mat so that it can be wrapped around a mold to form a part. The pre-formed fiberglass part is then put into a molding machine press. Resin is poured in and the mold is closed for the reaction. Parts for John Deere are made on this equipment. This operation will need to be added to PTI 129-16B.

A water jet cutter in another room is used to cut fiberglass from modeled parts. It has been used about five (5) times. It meets the exemption from permitting Rule 285(2)(l)(vi)(B).

Chemical Storage – In a separate room with an overhead door, chemicals are stored. Resin totes, acetone, gelcoats, and various chemicals for the operations are stored in the room. All chemical storage appears to meet the exemption from permitting Rule 284(2)(i) for containers.

All chemical and waste containers throughout the plant were closed to minimize fugitive emissions as required by the permit.

Records Review Notes:
All records obtained during the course of this inspection are attached in hard copy to this report.

SDS for materials used at the facility were available and any SDSs that were necessary for the permit review were obtained during the course of the inspection. Recordkeeping for the emission units and flexible groups – The 2017 MAERS submittal includes all 2017 usage since start-up. Records for January 2018 to April 2018 were requested and obtained in the course of the inspection. All records had to be "fixed" by AQD. The problems included incorrect UEF factors and incorrect or incomplete

calculations for all emissions. No usage for EUADHESIVEDISPING materials were included in the January 2018 to April 2018 records. Below is the summary of the corrected records.

January 2018 to April 2018

	Total VOC (lbs)	Total VOC (tons)	Styrene (lbs)	Styrene (tons)	MMA (lbs)	MMA (tons)
EUGELCOAT	7,310.7	3.7	5,476.8	2.7	1,694.4	0.8
EURTM	2.8	0.0014	2.7	0.0014		
FGOPENMOLDING	5,261.1	2.6	5,216.5	2.6		
EUADHESIVEDISPING	0.0	0.0	0.0	0.0	0.0	0.0
EUBLADES	34.4	0.017	33.1	0.017		

	Acetone (lbs)	Acetone (tons)	% Recycled
EUCLEANUP	2,578	1.68	% to 77%

TOTAL for 12-months from May 2017 to April 2018

	Total VOC (lbs)	Total VOC (tons)	Styrene (lbs)	Styrene (tons)	MMA (lbs)	MMA (tons)
EUGELCOAT	18,687.0	9.3	14,200.6	7.1	4,231.7	2.1
EURTM	6.3	0.0031	6.0	0.0030		
FGOPENMOLDING	11,572.3	5.8	11,435.7	5.7		
EUADHESIVEDISPING	326.8	0.16	6.2	0.0031	123.5	0.062
EUBLADES	218.6	0.109	216.7	0.108		

	Acetone (lbs)	Acetone (tons)	% Recycled
EUCLEANUP	5,904	3.68	% to 77%

The emission limits on PTI 129-16A and the status are as follows:

EUGELCOAT: VOC - 14.0 tpy; Styrene - 9.1 tpy; Compliance

EURTM: VOC - 100 lb/yr; Compliance

EUADHESIVEDISPING: VOC - 350 lb/yr; Estimated will be above the limit.*

EUCLEANUP: VOC - 1.0 tpy; Acetone - 13.0 tpy; Compliance

FGOPENMOLDING: VOC - 10.0 tpy; Styrene - 7.3 tpy; Compliance

*** Only received 8-months of data for EUADHESIVEDISPING and AQD staff are projecting that the limit could be exceeded. Recommend increasing the limit with PTI Application No. 129-16B.**

Summary:

The facility was installed, and operating. Modifications, additions and corrections to emission units are being addressed in the application to modify PTI 129-16A. The Initial ROP Application will be amended when PTI 129-16B is issued. PTI Application No. 129-16B is to address and resolve the violations in the styrene content limits and Rule 201.

Many facilities have a consultant put together the recordkeeping and/or provide the service. With the ROP program, recordkeeping is the key. If compliance can't be demonstrated, then a compliance plan will be included in the ROP. Due to the record keeping issues, it is recommended that semi-annual reporting of records be required in the PTI.

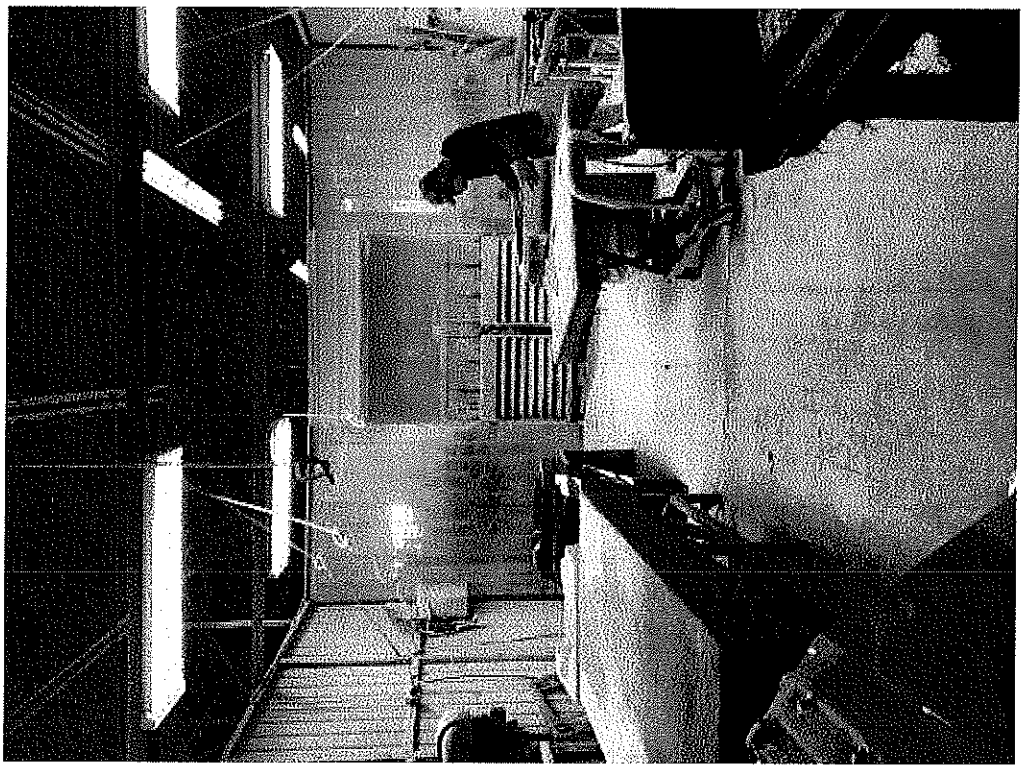

Image 1(0138) : Trim/sanding booth area in Plant North

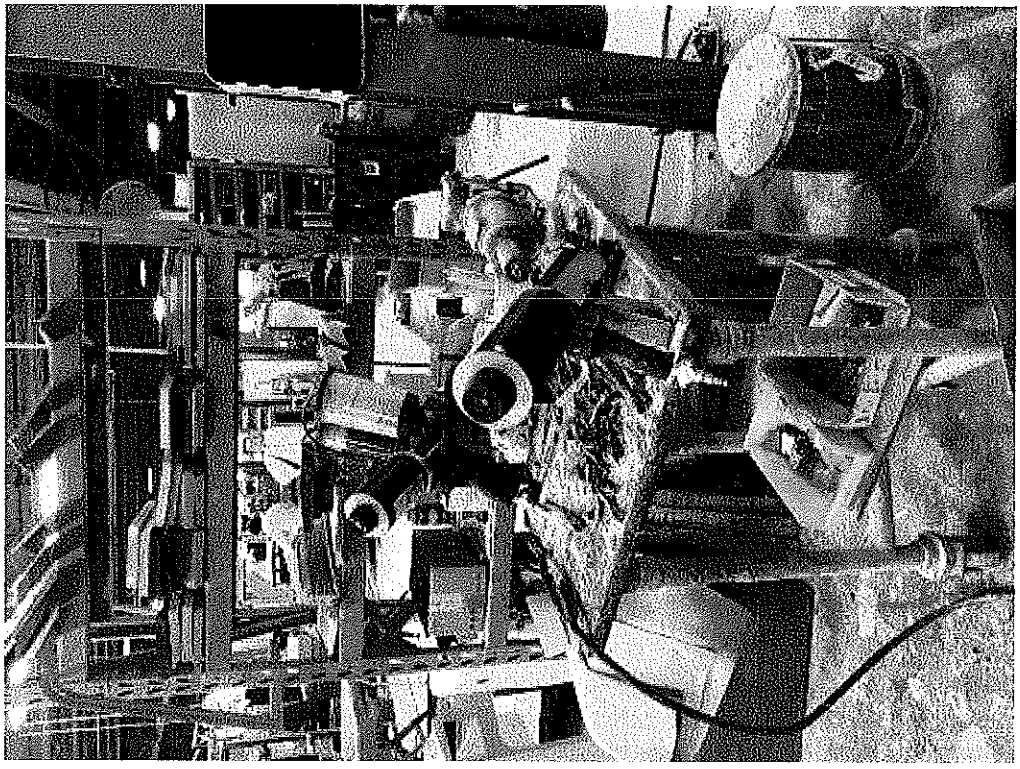

Image 2(0139) : EUADHESIVEDISPING

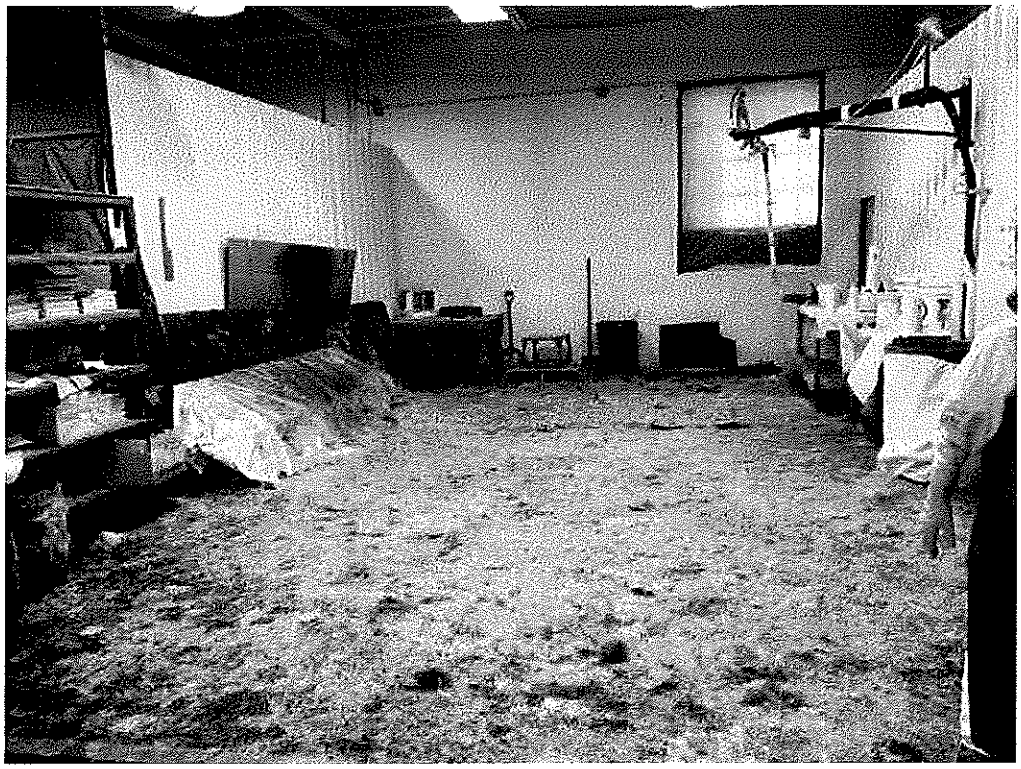

Image 3(0145) : Open molding area

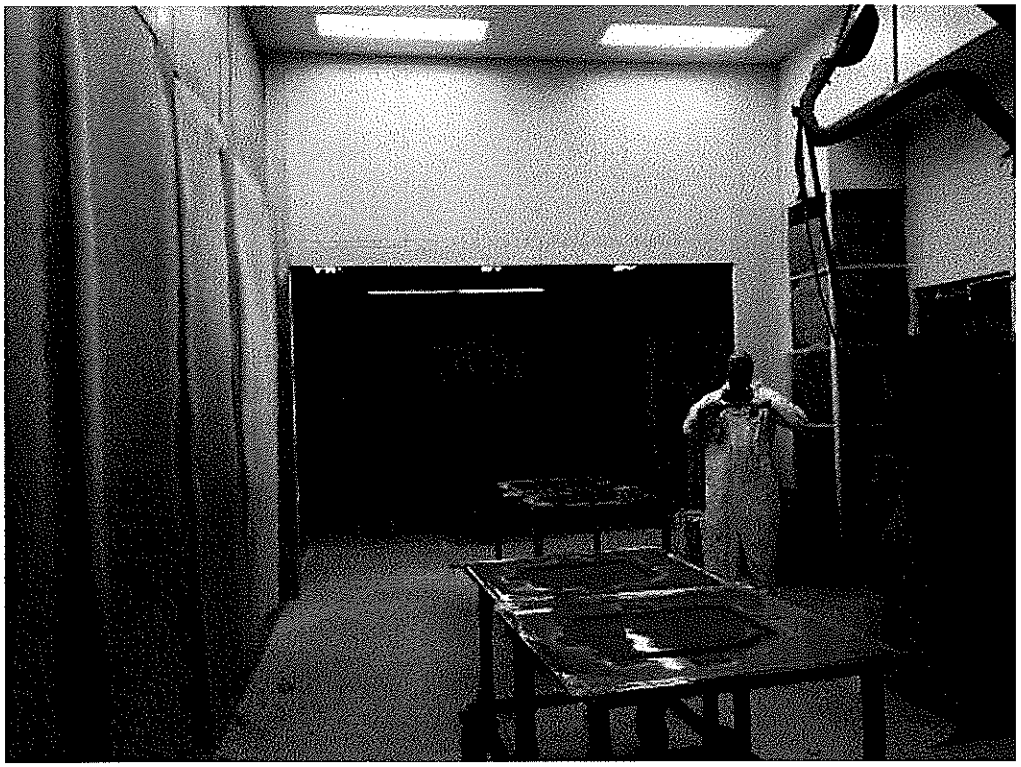

Image 4(0155) : Gelcoat booth

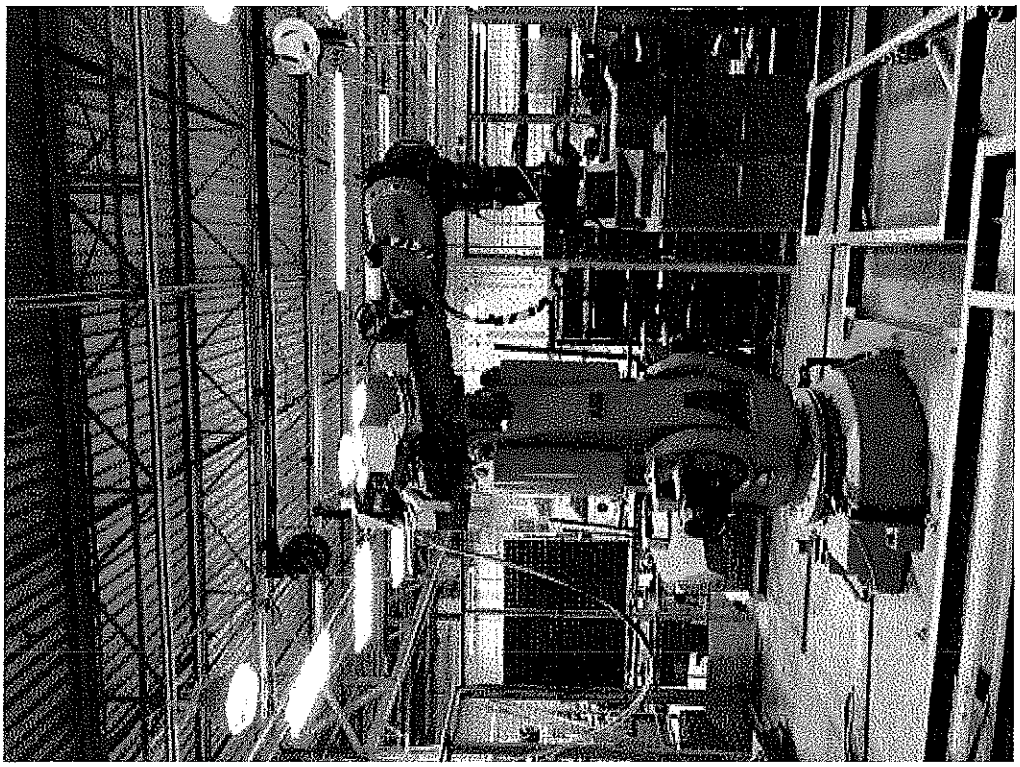

Image 5(0156) : New robotic cutter

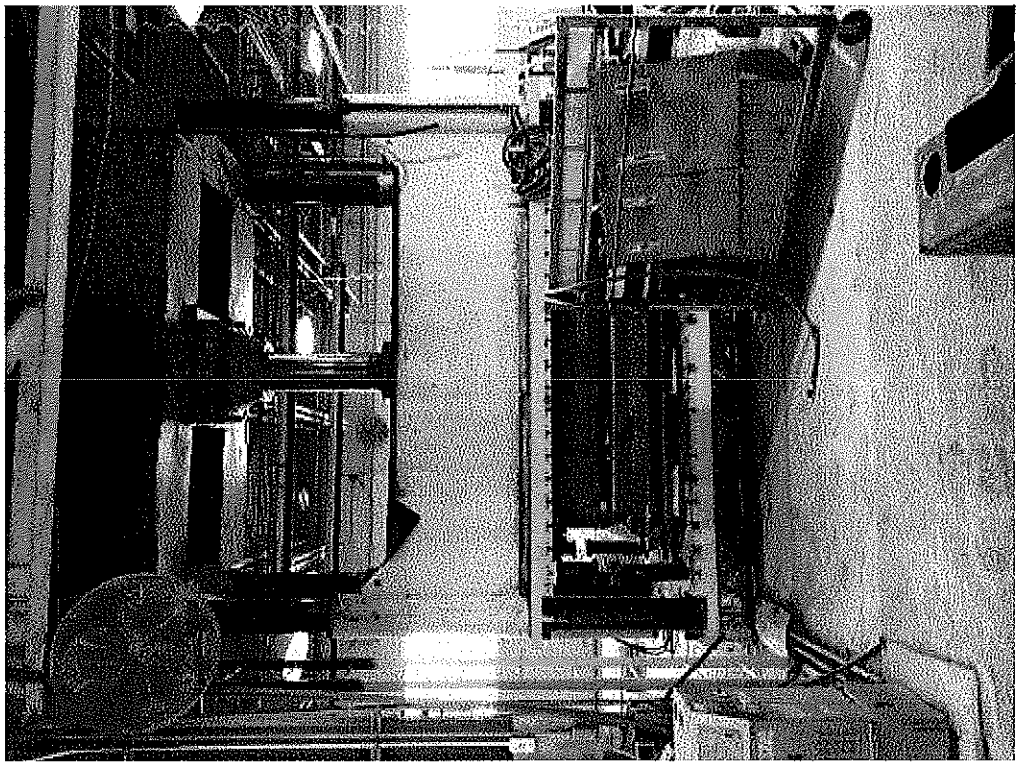

Image 6(0157) : Molding machine

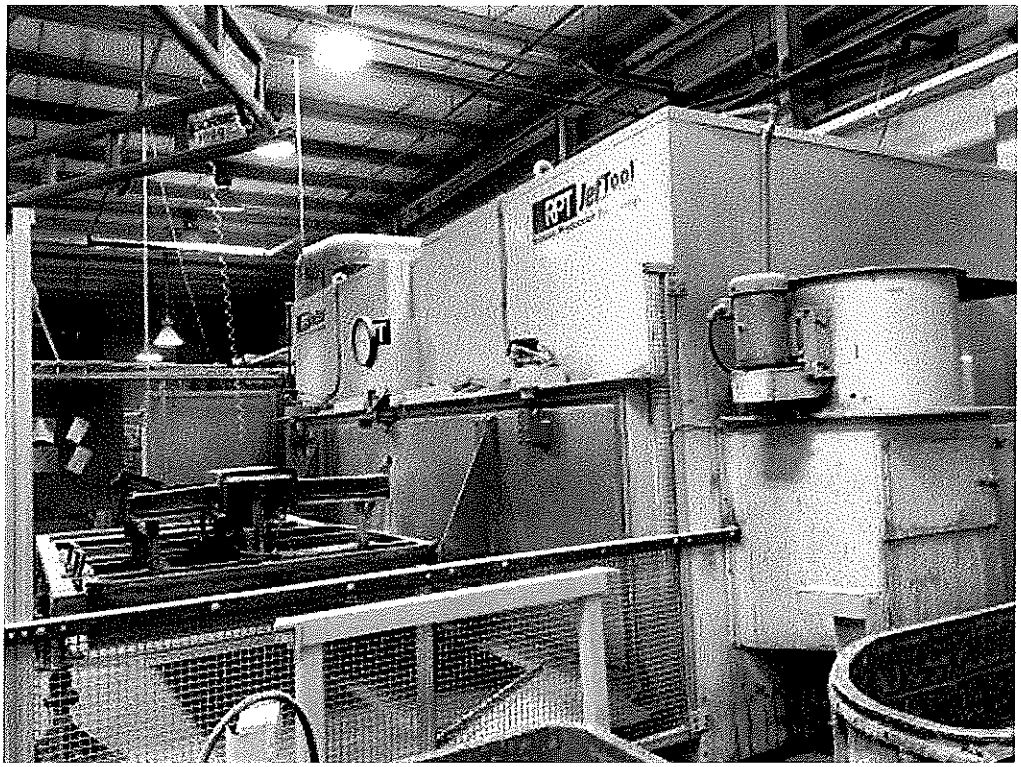

Image 7(0159) : Wet jet cutter

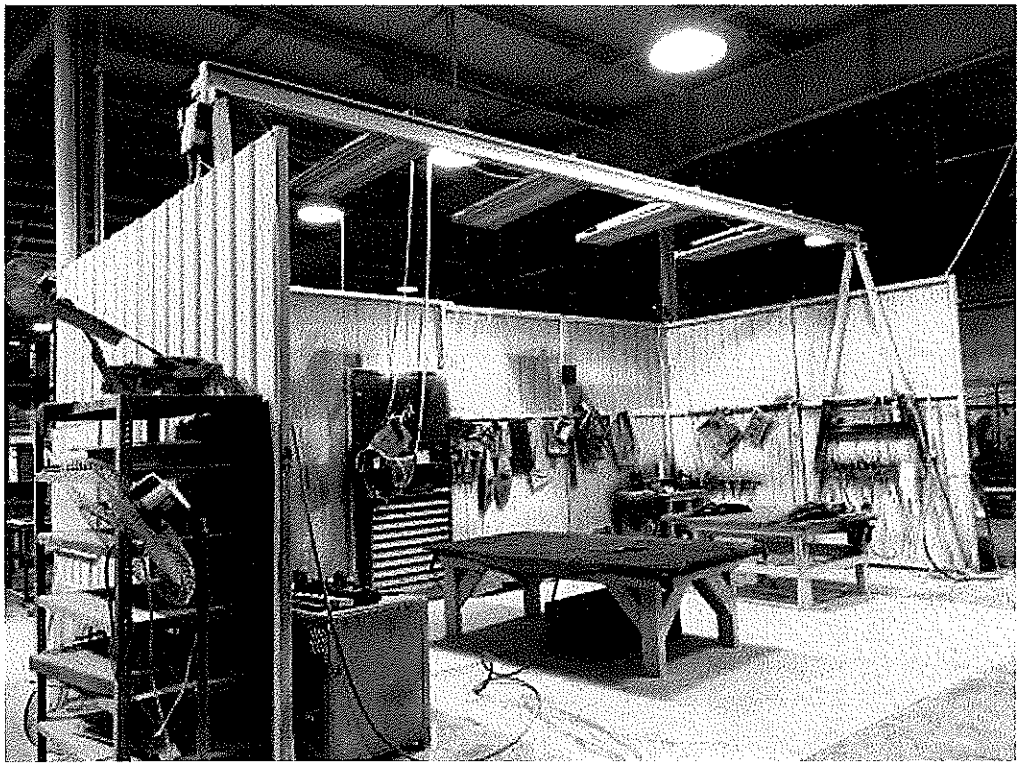

Image 8(0160) : Trim/cutting booth area on east side

NAME Julie L. Brunn DATE 5/25/18 SUPERVISOR