

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

N676954757

FACILITY: Sunsation Products Inc		SRN / ID: N6769
LOCATION: 9635 Kretz Dr, ALGONAC		DISTRICT: Warren
CITY: ALGONAC		COUNTY: SAINT CLAIR
CONTACT: Jeff Love ,		ACTIVITY DATE: 07/29/2020
STAFF: Robert Joseph	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled inspection of boat manufacturer		
RESOLVED COMPLAINTS:		

On July 29, 2020, I, Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) staff Robert Joseph, conducted a scheduled inspection of Sunsation Products, Inc. located at 9666 Kretz Drive, Algonac, MI 48001. The purpose of the inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, EGLE-AQD Administrative Rules, and conditions of the facility's Permit to Install (PTI) 459-99E.

Opening Introduction

I arrived at the facility shortly before 1 p.m and met with Purchasing Manager, Jeff Love, and the facility's environmental consultant, Nikki McKenna. I introduced myself and presented my identification and credentials and stated the purpose of my visit. I asked Jeff to provide me some general information regarding the facility. He indicated Sunsation Products Inc. is a boat manufacturing process facility. It involves a resin process, fiberglass lamination process, gel-coat application process, and an adhesive application. He indicated that the facility began operations in 1982 in Chesterfield before moving to its present day location in Algonac in 1999. There are approximately 41 employees at the facility, and the hours of operation are generally Monday through Thursday 6:30 a.m. to 3:30 p.m. and Fridays 6:30 a.m. to 2:30 p.m.

The facility offers three boat models and completes the entire boat manufacturing in-house, however, some boats which require special customization are shipped to a third party contractor for additional work. The facility provides services to customers nationwide which includes boat dealerships.

Facility Tour

The facility has operations in buildings #1 and #2. The majority of the work is performed building #2. Jeff led me on a tour to building #2 where we met John Schaldenbrand, Production Manager. Jeff explained the resin process indicating that it is the process used to manufacture the boat parts and molds. This process is applied using a non-atomized spray gun in the open plant environment with no spray booth. The resin process includes tooling resin, putties, coreboard materials, and catalyst materials. The gel-coat process also occurs in building #2 and is an atomized application to the molds and is also performed in the open plant environment. This process includes production gel-coats (clear and pigmented), as well as tooling gel-coats, wax solutions, and catalyst materials.

The process begins with the mechanical cutting of the boat mold followed by the resin process (production and tooling) which is heated before application to the bare boat mold. Once applied, the resins are smoothed over onto the surface and then reinforced with fiberglass and a gel-coat application. The gel-coat application typically is a one week process, and the fiberglass is fitted around the boat mold for a smooth finish. Adhesive applications are also added to the mold where needed for reinforcement. All tooling equipment is cleaned with soapy emulsifiers and acetone in closed containers. The facility indicated they do not have much acetone waste as it either is used or evaporates during usage.

Once the boats are completed, they are transferred to building #1 and await customer delivery or are sent out for additional decals. The facility disposes of all non-usable parts in the dumpster. I did not observe any spills, opened containers, or detect any orders on-site.

Environmental Compliance per PTI 459-99E: Records were viewed on-site and then submitted via email by Nikki McKenna, environmental consultant, from Integrated Environmental, Inc. Only the permit sections and special conditions that are applicable to the compliance inspection are listed below.

FG-FIBERGLASS

(EU-RESIN, EU-GELCOAT, EU-ADHESIVE, EU-CLEANUP)

I. EMISSION LIMITS

1. VOC (including styrene): 9.9 tons/year for a 12-month rolling time period as determined at the end of each calendar month. Records indicate the total varies between 5 tons and 7 tons since 2018.
2. Acetone: 8.1 tons/year for a 12-month rolling time period as determined at the end of each calendar month. Records indicate the total varies between 2 tons and 3 tons since 2018.

II. MATERIAL LIMITS:

The following materials each have a specified maximum Styrene and Methyl Methacrylate content by weight (%) that shall not be exceeded;

Material ID	Maximum Styrene Content (wt %)	Maximum Methyl Methacrylate (MMA) Content (wt %)
Production Resin	35	NA
Tooling Resin	37	2
Putty Materials	30	NA
Core Bond Materials	35	NA
Poly Bond Materials	27	NA
Tooling gelcoat(s)	43	5
Black gelcoat(s)	40	5
Marine Clear Coat gelcoat	37	6
All other gelcoats not listed above	32	10

SDS were reviewed for some of the common materials used by the facility which included resin (33.0% 33.5% Styrene), gel-coat (30.76% Styrene, MMA 5%-1), other gel-coats not listed (24.37% Styrene, 10% MMA), poly-bond (23.974% Styrene), core bond (32.213% Styrene). All appeared to be under the limits.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The facility appears to capture all waste cleanup solvent(s), catalyst(s), resin(s), and gel-coat(s) used in closed containers. They also state they have very little waste and that products that are not used in the material process are placed in the facility dumpster.

IV. DESIGN/EQUIPMENT PARAMETERS

1. The facility performs the resin application process (production and tooling resin applications) with non-atomized applicators.

VI. MONITORING/RECORDKEEPING

2. The facility maintains a log book of all materials used in the production process primarily consisting of Safety Data Sheets.
3. The following records are maintained by the facility;

- a.) The facility maintains the identity and amount (in pounds) of each material used via spreadsheet.
- b.) The facility maintains the styrene content, MMA content, acetone content, and total VOC content of each material used via spreadsheet.
- c.) The facility maintains the amount of acetone reclaimed via spreadsheet.
- d.) The facility lists the emission factors from the U.S. EPA used for each material via spreadsheet.
- e.) The facility provided records for the monthly VOC emission rate in tons per calendar month averaging less than 0.5 tons/month. The annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month was as follows; 2017: 5.65 tons; 2018: 6.75 tons; 2019: 6.90 tons.
- f.) The facility provided records for the monthly acetone emission rate in tons per calendar month averaging approximately 0.2 tons/month. The annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month was as follows: 2017: 2.04 tons; 2018: 2.67 tons; 2019: 2.28 tons.

FG-FACILITY

I. EMISSION LIMITS

- 1. Each individual HAP: Less than 9.0 tons/year for a 12-month rolling time period as determined at the end of each calendar month. Records indicate the total varies between 2 to 3 tons since 2018.
- 2. Aggregate HAPs: Less than 22.5 tons/year for a 12-month rolling time period as determined at the end of each calendar month. Records indicate the total varies between 2 to 4 tons since 2018.

V. TESTING/SAMPLE

- 1. The AQD has not requested the facility verify the manufacturer's HAP formulation using EPA Test Method 311.

VI. MONITORING/RECORDKEEPING

- a.) The facility maintains the gallons of each HAP containing material used via spreadsheet.
- b.) The facility does not reclaim any HAP material.
- c.) The facility maintains the HAP content, in pounds per gallon, of each HAP containing material used via spreadsheet.
- d.) The individual and aggregate HAP monthly emission rate of each in tons per calendar month varies under 1 ton per month.
- e.) The individual and aggregate HAP emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month varies between 2 tons to 4 tons, respectively.

Conclusion

Based on the EGLE-AQD inspection and records review, Sunstation Product, Inc. is in-compliance with the requirements of the Federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, Michigan Department of Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) Administrative Rules, and conditions of the facility's Permit to Install (PTI) 459-99E.

NAME Robert Joseph DATE 09/03/20 SUPERVISOR Sebastian Kallumkal