

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

N374845934

FACILITY: Belding Tank Technologies, Inc.		SRN / ID: N3748
LOCATION: 200 N Gooding St., BELDING		DISTRICT: Grand Rapids
CITY: BELDING		COUNTY: IONIA
CONTACT: Paul Crystler, Purchase Manager		ACTIVITY DATE: 08/30/2018
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced compliance inspection		
RESOLVED COMPLAINTS:		

FACILITY DESCRIPTION

Belding Tank Technologies manufactures fiberglass reinforced plastic tanks.

REGULATORY ANALYSIS

The facility is operating under ROP No. MI-ROP-N3748-2017, which was issued on May 3, 2017. Permit to install (PTI) No. 93-18 was issued on July 19, 2018.

PTI No. 93-18 addresses the use a vapor suppressed resin. As of the date of the inspection the facility had not started using the new resin. The facility is aware of the requirement to submit an M-001 form prior to commencing operation under PTI No. 93-18.

The facility is subject to Subpart WWW – Reinforced Plastics Composites Production NESHAP.

COMPLIANCE EVALUATION

Prior to entering the facility, a survey of the perimeter was made. No abnormal odors or opacity were noted.

At the facility, staff met with Paul Crystler, Purchasing Manager.

The facilities operations are located in five separate structures:

1. Resin storage building (Building 1)
2. Building housing: EUMOLDROOM1, EUMOLDROOM2, EUMOLDROOM5 (Building 2)
3. Building housing: EU3&4NORTHMOLD, EU3&4MIDMOLD, EU3&4SOUTHMOLD (Building 3)
4. Tank Assembly building: EUTANKASSEMBLY
5. Tank Assembly building: EUTANKASSEMBLY2

Below is a summary of the facility's compliance with the ROP/PTI and MACT requirements. Records required by the permit and Subpart WWW were requested and provided by the facility (attached). Monthly

records were requested for the previous 12 months, daily and hourly records were requested for the previous 60 days.

EUMOLDROOM1

EUMOLDROOM1 contains one tank mold and is located in Building 2.

The facility is currently in the process of converting the bay from manual to automated. The same tools/process/resin will be used as was prior to the automated process. It does not appear that automating some of the tank making process is prohibited by the permit conditions or would require a permit modification at this time.

I.1. VOC limit of 438 pounds per calendar day

While undergoing the process of automating Mold Room1, the facility has used minimal resin recently. Review of the facility's daily records showed no usage or emissions. The 12-month rolling total for VOC emissions is 2.9 tons.

Status: Compliant

I.2. VOC limit of 15.3 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (2.96 tons emitted)

Status: Compliant

I.3. Styrene limit of 17.8 pounds per hour

Daily records reviewed showed no material usage.

Status: Compliant

I.4. Styrene limit of 15.1 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit. (2.92 tons emitted)

Status: Compliant

VIII.1. Stack height of 60 feet, 30-inch maximum diameter

Visual observation of stack showed that it appeared to meet the required dimensions.

Status: Compliant

EUMOLDROOM2

Mold Room 2 contains two tank molds and is located in Building 2, adjacent to Mold Room 1.

I.1. VOC limit of 937 pounds per calendar day

Review of the facility's daily records showed VOC emissions below the daily limit.

Status: Compliant

I.2. VOC limit of 29.7 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (9.24 tons emitted)

Status: Compliant

I.3. Styrene limit of 38.0 pounds per hour

Review of the facility's daily records showed styrene emissions below the pound per hour limit.

Status: Compliant

I.4. Styrene limit of 29.2 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (9.02 tons emitted)

Status: Compliant

VIII.1. Stack height of 60 feet, 36-inch maximum diameter

Visual observation of stack showed that it appeared to meet the required dimensions.

Status: Compliant

EUMR3&4NORTHMOLD

Mold Room 3&4 North Mold contains one tank mold and is located in Building 3.

I.1. VOC limit of 391 pounds per calendar day

Review of the facility's daily records showed VOC emissions below the daily limit.

Status: Compliant

I.2. VOC limit of 6.6 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (1.87 tons emitted)

Status: Compliant

I.3. Styrene limit of 15.8 pounds per hour

Review of the facility's daily records showed styrene emissions below the pound per hour limit.

Status: Compliant

I.4. Styrene limit of 6.5 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (1.84 tons emitted)

Status: Compliant

EUMR3&4MIDMOLD

Mold Room 3&4 Mid Mold contains one tank mold and is located in Building 3.

I.1. VOC limit of 391 pounds per calendar day

Review of the facility's daily records showed VOC emissions below the daily limit.

Status: Compliant

I.2. VOC limit of 8.9 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (2.92 tons emitted)

Status: Compliant

I.3. Styrene limit of 15.8 pounds per hour

Review of the facility's daily records showed styrene emissions below the pound per hour limit.

Status: Compliant

I.4. Styrene limit of 8.8 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (2.87 tons emitted)

Status: Compliant

EUMR3&4SOUTHMOLD

Mold Room 3&4 South Mold contains one tank mold and is located in Building 3.

I.1. VOC limit of 391 pounds per calendar day

Review of the facility's daily records showed VOC emissions below the daily limit.

Status: Compliant

I.2. VOC limit of 14.0 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (3.41 tons emitted)

Status: Compliant

I.3. Styrene limit of 15.8 pounds per hour

Review of the facility's daily records showed styrene emissions below the pound per hour limit.

Status: Compliant

I.4. Styrene limit of 13.8 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (3.36 tons emitted)

Status: Compliant

EUMOLDROOM5

Mold Room 5 contains two tank molds and is located in Building 2, adjacent to Mold Room 2.

I.1. VOC limit of 391 pounds per calendar day

Review of the facility's daily records showed VOC emissions below the daily limit.

Status: Compliant

I.2. VOC limit of 24.8 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (6.13 tons emitted)

Status: Compliant

I.3. Styrene limit of 15.8 pounds per hour

Review of the facility's daily records showed styrene emissions below the pound per hour limit.

Status: Compliant

I.4. Styrene limit of 23.6 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (6.08 tons emitted)

Status: Compliant

EUCLEANUP

The facility only uses acetone for cleanup. The facility utilizes a small distiller to recycle used acetone. The distiller is exempt from permitting under Rule 285(2)(u).

I.1. Acetone emission limit of 55 tons per year.

Review of the records on-site showed that the facility was under the usage limit for the 12-month period ending at the date of the inspection.

Status: Complaint

EUTANKASSEMBLY

Emission unit associate with the assembly of tank components.

I.1. VOC limit of 62.2 pounds per calendar day

Review of the facility's daily records showed VOC emissions below the daily limit.

Status: Compliant

I.2. VOC limit of 3.6 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (1.0 tons emitted)

Status: Compliant

I.3. Styrene limit of 2.6 pounds per hour

Review of the facility's daily records showed styrene emissions below the pound per hour limit.

Status: Compliant

I.4. Styrene limit of 3.6 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (1.0 tons emitted)

Status: Compliant

II.1. Styrene content in resin not to exceed 35%, for resins that do not contain a vapor suppressant.

II.2. Styrene content in resin not to exceed 45%, for resins that contain a vapor suppressant.

Records reviewed show that the facility is currently only using resin with a styrene content of 35%. No vapor suppressed resin is currently in use.

Status: Compliant

EUTANKASSEMBLY2

Emission unit associate with the assembly of tank components.

I.1. VOC limit of 62.2 pounds per calendar day

Review of the facility's daily records showed VOC emissions below the daily limit.

Status: Compliant

I.2. VOC limit of 3.6 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (1.0 tons emitted)

Status: Compliant

I.3. Styrene limit of 2.6 pounds per hour

Review of the facility's daily records showed styrene emissions below the pound per hour limit.

Status: Compliant

I.4. Styrene limit of 3.6 tons per year

Records reviewed for the 12-month rolling time period showed compliance with the limit (1.0 tons emitted)

Status: Compliant

II.1. Styrene content in resin not to exceed 35%, for resins that do not contain a vapor suppressant.

II.2. Styrene content in resin not to exceed 45%, for resins that contain a vapor suppressant.

Records reviewed show that the facility is currently only using resin with a styrene content of 35%. No vapor suppressed resin is currently in use.

Status: Compliant

FGMR3&4

North, Middle and south tank molds in Room 3&4.

I.B.1. Stack height of 60 feet, 36-inch maximum diameter

Visual observation of stack showed that it appeared to meet the required dimensions.

Status: Compliant

I.B.2. Stack height of 60 feet, 36-inch maximum diameter

Visual observation of stack showed that it appeared to meet the required dimensions.

Status: Compliant

FGCOMPOSITESMACT

Subpart WWW – Reinforced Plastics Composites Production NESHAP

Subpart WWW had a compliance date of April 21, 2006. The facility has opted to show compliance with the standard via Option C. Option C allows for demonstration of compliance with a weighted average emission limit for all open molding operations. Option C compliance is based on a 12-month rolling average. The facility is using the software created by ACMA for recordkeeping and compliance demonstration with the NESHAP.

Review of the facility's records shows compliance with the MACT weighted average emission limit for the 12-month period ending in July 2018. The facility was at 78.4 percent of the limit at that time.

Status: Compliant

Work Practice Standards – The facility is subject to five work practice standards under the NESHAP (63.5805, Table 4). The facility became subject to these standards on April 21, 2006.

For each cleaning operation, the permittee shall not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin. (40 CFR 63.5805, Table 4)

The facility stated that they do not use any HAP containing solvents. The only solvent currently in use is acetone.

Status: Compliant

For each HAP-containing materials storage operation, the permittee shall keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety. (40 CFR 63.5805, Table 4)

The facility has two 5500 bulk tanks that that are divided for iso and vinyl resins. Each side has a vent. The facility has appropriate covers on the bulk tanks as observed during the inspection.

Status: Compliant

For each mixing operation, the permittee shall use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. (40 CFR 63.5805, Table 4)

The facility has two "day tanks" located adjacent to the southern bulk tank. Both day tanks have mixers in them. During the inspection, both day tanks had appropriate lids with allowable gaps around the mixer shafts. The facility noted that they plan to replace both of the day tanks. The existing storage and mixing tanks, as well as any replacement tanks, appear to be exempt under Rule 284(2)

Status: Compliant

For each mixing operation, the permittee shall close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety. Vents routed to a 95 percent efficient control device are exempt from this requirement. (40 CFR 63.5805, Table 4)

Review of the process showed compliance.

Status: Compliant

FGFACILITY

I.1. VOC limit of 89.9 tons per year based on a 12-month rolling average.

Review of the facility records show the 12-month rolling total VOC emissions ending in July 2018 to be 27.57 tons (combined styrene and MMA)

Status: Compliant

I.2. Styrene limit of 57.6 pounds per hour based on a calendar day facility-wide and calendar day hours of operation calculation

Review of the facility's daily records showed styrene emissions below the pound per hour daily limit. The highest observed rate was under 30 pounds per hour.

Status: Compliant**II.1. Styrene content of chop/hoop winding not to exceed 50%**

Review of facility's records showed compliance with this limit. The facility does not use any resins with a styrene content that exceeds 50%.

Status: Compliant**II.2. Styrene content of vinyl ester lamination resins not to exceed 35% that do not contain vapor suppressants.**

Vinyl ester laminate resin used by the facility has a styrene content of 35% (without a vapor suppressant)

II.3. Styrene content of vinyl ester lamination resins not to exceed 45% that contain vapor suppressants.

As of the date of the inspection, the facility has not started production with the vapor suppressed resin.

Status: Compliant**II.4. Styrene content of resin for wet filament winding not to exceed 50% -**

Review of facility records showed compliance with this limit. The facility does not use any resins with styrene content greater than 48%.

Status: Compliant**II.5. Styrene content of isophthalic resins not to exceed 50%.**

Review of facility records showed compliance with this limit. The facility does not use any resins with styrene content greater than 48%.

Status: Compliant**II.6. Styrene content of gelcoats not to exceed 37%**

Review of facility records showed compliance with this limit. The facility does not use any non-tooling gelcoat with styrene content greater than 32.9%.

Status: Compliant**II.7. Styrene content of tooling gelcoat not to exceed 42%**

Review of facility records showed compliance with this limit. The facility does not use any tooling gelcoats with styrene content greater than 41.8%.

Status: Compliant

III.1. Operate mold rooms with exhaust filters.

Review of the exhaust filters showed there to be a few filters missing. The facility stated that they recently hired a new maintenance worker and was training him on filter replacement. Mr. Crystler took immediate action to address the missing filters with the responsible personnel. The facility immediately replaced the missing filters.

Status: Compliant

IV.1. Use of non-atomizing applicator guns.

Mr. Crystler stated that the facility uses all non-atomized guns.

Status: Compliant

IV.2. Filament chop/hoop shall be done using dry winding in combination with non-atomizing guns with chop.

Status: Compliant

Misc

The facility continues to use a two-part foam, on some of the tanks. The manufacture has previously supplied a letter indicating no VOC emissions or extremely small amount of emissions.

The facility is maintaining records of material usage per a previous request. The facility recently switched to purchasing the material directly from BASF. The facility will be contacting BASF to determine if there are any updated emission factors for the foam.

The facility is currently in the process of evaluating the construction of an additional building adjacent to the building housing Mold Rooms 3&4, South, Middle and North. The building could possibly have four bays. Three of the bays would be used for the production of lids/cones and one bay would be used for assembly. The building is needed to remove this work from the existing bays. At this time the facility does not believe that an increase in the facility emissions limits would be needed. Emissions from the new building would likely be accommodated by reductions from the existing mold rooms.

Summary

Based on this inspection the facility is in compliance with applicable air quality rules and regulations.

NAME  DATE 9/11/2018 SUPERVISOR 