

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

N314570767

FACILITY: FLORACRAFT CORPORATION		SRN / ID: N3145
LOCATION: ONE LONGFELLOW PLACE, LUDINGTON		DISTRICT: Cadillac
CITY: LUDINGTON		COUNTY: MASON
CONTACT: James Morkert , EH&S Manager		ACTIVITY DATE: 02/06/2024
STAFF: Rob Dickman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On site inspection of this opt out source.		
RESOLVED COMPLAINTS:		

The source is a polystyrene foam extrusion/production facility with two tandem extrusion lines. A central dust collection system (cyclone and fabric filter baghouse) collects dust from the foam cutters and a recycle grinder. FloraCraft is currently a minor source and does not have a renewable operating permit (ROP).

It should be noted that FloraCraft is part of the same source as a proposed new company, Victoria FC USA, LLC (Victoria FC). Victoria FC will produce foam products for the floral industry, and currently has application APP-2023-0226 under review with the AQD. Once Victoria FC is permitted, this source will become a major source of VOC emissions and will need to obtain an ROP.

This facility was inspected per Permit to Install 245-09C which was issued November 16, 2023. Records review associated with this ROP were reviewed and documented separately by AQD staff and are addressed in a separate activity report. Additionally, any required testing and reporting for this facility has been previously reviewed and documented and is not address as part of this inspection unless otherwise noted. A heading noted with "NA" indicates no restrictions associated. Following are the findings of this inspection.

EU-EXTRUSIONLINE1 - Tandem extrusion system with primary and secondary extruders and a die to manufacture extruded polystyrene foam. The primary extruder is 4 inch diameter and the secondary extruder is 5 inch diameter. Ethyl chloride, pentane, butane, and difluoroethane are the blowing agents. A collection hood and exhaust system is located above the extruder.

Emissions Limits

Volatile Organic Compound (VOC) emissions from EU-EXTRUSIONLINE1 are limited to 18.6 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. Compliance with this limit is through usage records and emission factor calculations. Records submitted by the facility demonstrated these records are being kept monthly and the highest of VOC emissions for the review period were 5.93 tons per year based on a 12-month rolling time period in November of 2023.

Difluoroethane (HFC-152A) emissions from EU-EXTRUSIONLINE1 are limited to 15.3 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. Compliance with this limit is through usage records and emission factor calculations. Records submitted by the facility demonstrated these records are being kept monthly and the highest HFC-152A emissions for the review period were 2.77 tons per year based on a 12-month rolling time period in October of 2023.

Material Limits

NA

Process or Operational Restrictions

NA

Design or Equipment Parameters

A collection hood and exhaust system are to be installed, operated, and maintained on EU-EXTRUSIONLINE1. This line is so equipped, and this equipment was in operation at the time of the inspection.

Stack or Vent Restrictions

The stack on EU-EXTRUSIONLINE1 is to have an exhaust diameter of no more than 12 inches and a minimum height of 22 feet above ground. This stack appears to meet these parameters and does not appear to have been recently modified.

Other Requirements

NA

EU-EXTRUSIONLINE2 - Tandem extrusion system with primary and secondary extruders and a die to manufacture extruded polystyrene foam. Pentane (with small percentage of ethyl chloride), butane, and difluoroethane are the blowing agents.

Emissions Limits

Volatile Organic Compound (VOC) emissions from EU-EXTRUSIONLINE2 are limited to 68.3 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. Compliance with this limit is through usage records and emission factor calculations. Records submitted by the facility demonstrated these records are being kept monthly and the highest of VOC emissions for the review period were 23.02 tons per year based on a 12-month rolling time period in November of 2022.

Difluoroethane (HFC-152A) emissions from EU-EXTRUSIONLINE2 are limited to 55.8 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. Compliance with this limit is through usage records and emission factor calculations. Records submitted by the facility demonstrated these records are being kept monthly and the highest HFC-152A emissions for the review period were 32.43 tons per year based on a 12-month rolling time period in November of 2023.

Material Limits

NA

Process or Operational Restrictions

NA

Design or Equipment Parameters

NA

Stack or Vent Restrictions

The stack on EU-EXTRUSIONLINE2 is to have an exhaust diameter of no more than 12 inches and a minimum height of 30 feet above ground. This stack appears to meet these parameters and does not appear to have been recently modified.

Other Requirements

NA

EU-DUSTCOLLECT2- A central dust collection system that collects dust utilizing three blowers and two cyclone dust collectors. Air from the cyclone dust collectors is filtered through a self-contained bagless system and then vented internally. Exhaust from the reclaimer line is controlled by a fabric filter and exhausted from stack SV-DUSTCOLLECT2. Pollution control consists of Cyclone dust collectors (2) and bagless dust collector controlling the foam cutter stations and recycle grinder and fabric filters on exhaust stack controlling the reclaimer line.

Emissions Limits

NA

Material Limits

NA

Process or Operational Restrictions

This unit is required to have an associated Malfunction Abatement Plan (MAP) in accordance with Rule 911. This plan is due to be submitted to the AQD no later than February 16, 2024 for review and approval.

Fabric filters are to be disposed of in a manner that minimizes emissions. These filters are similar to baghouse filters and can be cleaned. Facility staff indicated that replacement of these is recommended every two years.

Design or Equipment Parameters

The reclaimer portion of this line is not to be operated without fabric filters in place. These filters were in place at the time of the inspection and appeared in good condition.

Air from the cyclone dust collectors is filtered through a self-contained bagless system is to be only exhausted to the in-plant environment. This unit is so equipped.

Stack or Vent Restrictions

The stack on EU-DUSTCOLLECT2 for the reclaimer line is to have an exhaust diameter of no more than 40 inches and a minimum height of 32 feet above ground. This stack appears to meet these parameters and does not appear to have been recently modified.

Other Requirements

NA

FGFACILITY – These conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

Emissions Limits

Individual Hazardous Air Pollutant (HAP) emissions from the facility are limited to 9 tons per year and aggregate HAP emissions are limited to 22.5 tons per year, both based on a 12-month rolling time period as determined at the end of each calendar month. Compliance with this limit is through usage records and emission factor calculations.

The only HAP that had been in use by the facility is an ethyl chloride blowing agent. Records submitted by the facility indicate this agent had not been used during the review period and when I inquired about this, facility staff indicated it had not been used for several years and likely would not be.

Material Limits

NA

Process or Operational Restrictions

NA

Design or Equipment Parameters

NA

Testing

Upon request, the facility is to determine HAP content of any material used utilizing Method 311. This request has not been made to the facility and is not recommended at this time as HAP containing material is not in use at the facility.

Stack or Vent Restrictions

NA

Other Requirements

NA

At the time of this inspection, this facility was in compliance with applicable air permitting.

NAME *Paul Dickman*

DATE 4-23-24

SUPERVISOR *Shane Nixon*