

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

P045539342

FACILITY: ELITE CLEANROOM SERVICES		SRN / ID: P0455
LOCATION: 548 S COURT STREET, LAPEER		DISTRICT: Lansing
CITY: LAPEER		COUNTY: LAPEER
CONTACT: Robert Schodowski, General Manager		ACTIVITY DATE: 04/11/2017
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

On 4/11/2017, the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an unannounced, scheduled inspection of Elite Cleanroom Services. The purpose was to check compliance with applicable air regulations and the facility's air use permit.

Environmental contact:

Robert Schodowski, General Manager; 810-667-8940; bob@elitecleanroom.com

Facility description:

This facility launders cloth rags used for cleaning at industrial facilities.

Emission units:

Emission unit* ID	Emission unit description	Flexible Group ID	Permit to Install (PTI) No. or Rule	Compliance status
EUWASHPROCESS	Nine (9) industry standard washers	FGLAUNDRY	101-13B	Compliance
EUDRYER1	Natural gas-fired industry standard dryer	FGLAUNDRY	101-13B	Compliance
EUDRYER2	Natural gas-fired industry standard dryer	FGLAUNDRY	101-13B	Compliance
EUDRYER3	Natural gas-fired industry standard dryer	FGLAUNDRY	101-13B	Compliance
EUDRYER4	Natural gas-fired industry standard dryer	FGLAUNDRY	101-13B	Compliance
EUDRYER5	Natural gas-fired industry standard dryer	FGLAUNDRY	101-13B	Compliance
EUDRYER6	Natural gas-fired industry standard dryer	FGLAUNDRY	101-13B	Compliance
EUDRYER7	Natural gas-fired industry standard dryer	FGLAUNDRY	101-13B	Compliance
EUDRYER8	Natural gas-fired industry standard dryer	FGLAUNDRY	101-13B	Compliance
Natural gas-burning processes	Natural gas-fired air makeup unit, gas heater, and hot water heaters	NA	Rule 282(2)(b)(i)	Compliance

*An *emission unit* is any part of a stationary source which emits or has the potential to emit an air contaminant.

Flexible Group summary table:

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGLAUNDRY	Nine (9) industry standard washers and eight (8) industry standard dryers. The washers are programmed to wash at various times and temperatures. The dryers are programmed to dry at various times and temperatures.	EUWASHPROCESS, EUDRYER1 through EUDRYER8

Regulatory overview:

This facility is considered to be a true minor source, rather than a major source of air emissions. A

major source has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. *Criteria pollutants* are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds (VOCs), lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns.

This facility is also considered a minor, or *area source*, for Hazardous Air Pollutants (HAPs), because it is not known to have a PTE of 10 TPY or more for a single HAP, nor to have a PTE of 25 TPY or more for combined HAPs.

The facility has an air use permit, Permit to Install (PTI) No. 101-13B. There are no HAPs in their raw materials that they use, according to the permit evaluation notes in the PTI, but they are allowed to use materials with toxic air contaminants (TACs). The most notable among these is propylene carbonate. The PTI limits use of propylene carbonate to 20,000 lbs/year, to demonstrate compliance with Rules 225, and to limit the compound to 10 TPY per Best Available Control Technology for Toxics (T-BACT), pursuant to Rule 224. The previous PTI, No. 101-13 A, allowed for use of Diethylene glycol monobutyl ether (DGME), which was found in the Uniclean cleaning product. However, the Uniclean product was reformulated, and no longer contains DGME.

The facility also has natural gas-fired processes which are exempt under Rule 282(2)(b)(i) from the requirement to obtain a permit to install, because the total heat input capacity of 1.7 million Btu/hr is less than the 50 million Btu/hr threshold. These processes include a natural gas-fired air makeup unit, gas heater, and hot water heaters. They were installed as exempt under Rule 282(b)(i), originally, and on 12/20/2016, this rule was revised as 282(2)(b)(i).

The two natural gas-fired hot water heaters at a facility which is considered a minor, or area source of HAPS may possibly be considered exempt from the area source boiler MACT, 40 CFR Part 63, Subpart JJJJJJ, *National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*. A hot water heater at an area source would not be subject, under Section 63.11195(f). To meet the definition of a hot water heater in this area source Generally Achievable Control Technology (GACT) standard, the unit must be no more than 120 gallons in capacity. It is my understanding that each hot water heater has a capacity of less than 50 gallons per unit., and so both units are exempt from this federal regulation. AQD has not been delegated authority to enforce Subpart JJJJJJ.

Fee category:

This facility is not considered fee-subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for Hazardous Air Pollutants (HAPs), and is not subject to federal New Source Performance Standards, it is not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III.

This facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

The facility is located near the northern edge of a small industrial area within the City of Lapeer. There are industries to the immediate west and the immediate south. There are offices or commercial businesses to the east. To the north is a small parking lot, followed by residences. The nearest residences are about 100 feet to the north and to the northwest.

Recent history:

On 2/22/2017, I had conducted an odor evaluation in the vicinity of Elite Cleanroom Services, and attempted to conduct an unannounced, scheduled inspection (documented in a separate activity report). I detected no odors from Elite Cleanroom Services, although odors were detected from one or more other industries in the area.

Prior to that, in 2012 and 2013, AQD had investigated several odor complaints which were attributed to Elite Cleanroom Services. The company went through New Source Review, and obtained a PTI for their cleaning processes. They additionally pursued reformulating some of the cleaning products which they use onsite. No complaints have been received since 2013.

Odor evaluation:

Upon arrival in the area today, I conducted an odor evaluation in the vicinity of Elite Cleanroom Services. Please see attached odor evaluation form, map, and summary of weather data. Weather conditions were overcast, humid, and 55 degrees F, with winds out of the west at an estimated 10 miles per hour.

Odor readings were as follows:

- 10:14 AM: a level 2 solvent odor was detected east of Elite Cleanroom Services. Potential sources were Elite Cleanroom Services, or Lapeer Industries, to the immediate west.
- 10:30 AM: a level 2 solvent odor was detected at a driveway to the immediate north of Elite Cleanroom Services. It was not clear if this was the same solvent odor detected at 10:14 AM.
- 10:31 AM: a level 2 solvent and detergent odor was detected east of Elite Cleanroom Services, at a driveway entrance for trucks. The suspected source for the detergent part of the odor was Elite Cleanroom Services. The solvent odor may have come from either Lapeer Industries or Elite Cleanroom Services.
- 10:32 AM: a level 2 detergent odor was detected at a driveway to the immediate north of Elite Cleanroom Services, which was the suspected source.

0 to 5 odor scale used by AQD:

- 0 - Non-Detect
- 1 - Just barely detectable
- 2 - Distinct and definite odor
- 3 - Distinct and definite objectionable odor
- 4 - Odor strong enough to cause a person to attempt to avoid it completely
- 5 - Odor so strong as to be overpowering and intolerable for any length of time

The detergent odors detected above were believed to come from Elite Cleanroom Services. The origin of the solvent odors was not clear. The odors I detected were not sufficient to constitute a violation of Rule 901(b), which prohibits unreasonable interference with the comfortable enjoyment of life and property.

Arrival:

There were no visible emissions from the exhaust stacks, during the odor evaluation discussed above.

I arrived at the plant office at approximately 10:35 AM. I provided my identification/credentials, per AQD procedure. I met with Mr. Robert Schodowski, General Manager, who is the environmental contact. I explained that I would like to conduct an inspection of the facility to check compliance with air regulations and their PTI.

Mr. Schodowski advised me that there have been no changes to the equipment at the plant since the 2013 site visits by AQD's Brian Culham. He mentioned that originally their industrial clothes dryers were vented horizontally, until B. Culham recommended that they exhaust vertically, with a rain cap. He explained that originally they used a 100% VOC product as part of the washing process, but as they went through the permitting process, the quantity of VOC went down. They ceased use of the Uniclean cleaning product around 2015 or 2016, I was informed, and still try to reduce VOCs.

Mr. Schodowski mentioned that although they are permitted to use up to 20,000 lbs of the TAC propylene carbonate, they have been working with their chemical supplier to reduce the amount of this TAC in their raw materials, while still being able to clean industrial laundry effectively, at an affordable

price. I was informed that when they tweak the formula for their cleaning products, they are staying under the 0.1 millimeters of mercury vapor pressure exemption threshold of Rule 281(2)(e). Other exemptions which may relate to the reformulation of cleaning products used onsite include Rule 285(2)(b)(i)(A) and 285(2)(c)(iii).

Rule 285(2)(b)(i)(A) exempts:

(b) Changes in a process or process equipment which do not involve installing, constructing, or reconstructing an emission unit and which do not involve any meaningful change in the quality and nature or any meaningful increase in the quantity of the emission of an air contaminant therefrom.

(i) Examples of such changes in a process or process equipment include, but are not limited to, the following:

(A) Change in the supplier or formulation of similar raw materials, fuels, or paints and other coatings.

Rule 285(2)(c)(iii) exempts:

(c) Changes in a process or process equipment that do not involve installing, constructing, or reconstructing an emission unit and that involve a meaningful change in the quality and nature or a meaningful increase in the quantity of the emission of an air contaminant resulting from any of the following:

(i) Changes in the supplier or supply of the same type of virgin fuel, such as coal, no. 2 fuel oil, no. 6 fuel oil, or natural gas.

(ii) Changes in the location, within the storage area, or configuration of a material storage pile or material handling equipment.

(iii) Changes in a process or process equipment to the extent that such changes do not alter the quality and nature, or increase the quantity, of the emission of the air contaminant beyond the level which has been described in and allowed by an approved permit to install, permit to operate, or order of the department.

I inquired about the configuration of vents on the building. I was informed that a large, square vent on the north side of the building is inactive. It is my understanding that there is a smaller square vent on the north side of the building which draws air in. I was advised that SVGENEXHAUST is actually on the south side of the building. There is also an air intake for the office on the south side of the building, I was told.

Inspection:

We went through the plant, observing their clean room, which was in use. We also observed the washing and drying equipment, some of which was in use. As described in the PTI, the washers are programmed to wash at various times and temperatures, while the dryers are programmed to dry at various times and temperatures.

I observed one of the 2 hot water heaters, a Raypak unit. As previously mentioned in this report, I have been advised that each unit has a capacity of less than 50 gallons of water. It is my understanding that the heated water is then routed to a storage tank. Because each heater has a capacity of no more than 120 gallons, they are exempt from 40 CFR Part 63, Subpart JJJJJJ.

I detected a solvent odor in the washing room, but I did not detect this odor outside the plant, during my odor evaluation, earlier in this report. The solvent odor which I had detected outside I attributed to the operations of another industrial facility in the immediate area. The odor which I noticed in the washing room was barely detectable in other parts of the plant.

I was shown a recirculating carbon treatment unit for cleaning indoor air, which exhausted into the general, in-plant environment. I was informed that there are two new, larger units, which will go into the washing room, and will not exhaust to the outside air.

Compliance with PTI No. 101-13B was checked. The following Special Conditions apply to the Flexible Group FGLAUNDRY:

I. EMISSION LIMITS

Special Condition (SC) No. I. 1. Volatile organic compounds (VOCs) are limited to emissions of 10.7 TPY. As shown in the attached recordkeeping provided by Mr. Schodowski, the total VOC emissions for the 2016 operating year were 9.8 tons, below the permitted limit. The 12-month rolling total is also shown for each individual month.

II. MATERIAL LIMITS

SC No. II. 1. The facility is limited to use a maximum of 20,000 lbs/year of propylene carbonate. The Underlying Applicable Requirements (UARs) are Rules 224 and 225. As shown in the attached recordkeeping, in 2016, propylene carbonate use was 12,310 lbs, well below the permitted limit.

III. PROCESS/OPERATIONAL RESTRICTIONS

SC No. III. 1. The facility is required to handle all VOC and/or HAP containing materials in a manner to minimize the generation of fugitive emissions. I did not see any evidence that the facility was failing to meet this requirement.

IV. DESIGN/EQUIPMENT PARAMETERS

Non-applicable (NA).

V. TESTING/SAMPLING

NA.

VI. MONITORING/RECORDKEEPING

SC No. VI. 1. This requires that all required calculations shall be completed in an acceptable format by the 15th calendar day of the calendar month, for the previous calendar month, unless otherwise specified. I did not check to see if calculations from March 2017, the month prior to today's inspection, had been completed, but the deadline, 4/15/2017, was still 4 days away.

SC No. VI. 2. This requires that the permittee shall maintain a current listing from the manufacturer of the chemical composition of each cleaner and solvent, including weight percent of each component. This data may consist of Material Safety Data Sheets (MSDS), now known as Safety Data Sheets (SDS) or manufacturer formulation data. It is my understanding that hard copy SDS sheets are kept onsite for all the products which Elite Cleanroom Services uses.

SC No. VI. 3. This requires the permittee keep the following information on a monthly basis for FGLAUNDRY:

a.) Gallons or pounds (with water) of each cleaner and solvent used.

The attached recordkeeping for 2016 shows the monthly usage in gallons of each cleaning product or solvent. Because there is no mention of water being subtracted, it appears that gallons (with water) are being tracked, as required.

b.) VOC content, in percent by weight, of each cleaner and solvent.

VOC content is provided in the attached records, although in lbs/gallon. I asked Mr. Schodowski, via e-mail late in the day on 9/20/2017, if they track VOC content in percent by weight, per the permit. Mr.

Schodowski replied the first thing the following morning that they do not currently do so, but a column for % by weight would be added to their recordkeeping. Enforcement discretion is being used to not cite this minor paperwork issue as a violation, given the company's commitment to correct the issue.

c.) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.

The attached recordkeeping includes monthly VOC mass emissions, for each month in 2016.

d.) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period.

The attached recordkeeping contains calculations for emissions in tons per 12-month rolling time period, for each month in 2016.

SC No. VI. 4. This requires records of the amount of propylene carbonate used in pounds per calendar month, and pounds per 12-month rolling time period. Propylene carbonate use is provided in the attached recordkeeping on a monthly basis, and as a 12-month rolling total, as required.

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The 8 dryer stacks each appeared to meet their minimum height above ground requirements of 22 feet. The SVGENEXHAUST (horizontal) exhaust vent is required to attain a minimum height above ground of 15 feet, and it appeared to meet this requirement.

IX. OTHER REQUIREMENTS

NA

(End of permit special conditions)

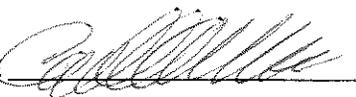
The facility appeared to be clean and neat. I left the site at 11:54 AM.

Conclusion:

The facility was in compliance with PTI No. 101-13B. The only area of concern was that while VOC content of their cleaning materials was being tracked in lbs per gallon, it was not presently being tracked in % by weight. This could, however, be calculated from their past records, if the need arose. Mr. Schodowski indicated that a column would be added for % by weight, in their recordkeeping. Because he committed to correcting this well within 24 hours of my bringing the issue to his attention, enforcement discretion is being used to not cite this as a violation of the permit.

Solvent odors which I detected offsite today appeared to not be associated with this facility, but with another industry in the surrounding area. There were occasional detergent odors that I detected downwind of Elite Cleanroom Services, but those odors were determined to be insufficient to constitute unreasonable interference with the comfortable enjoyment of life and property.

NAME



DATE

9/21/2017

SUPERVISOR

