

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

P076145980

FACILITY: Van der Graaf Corporation		SRN / ID: P0761
LOCATION: 51515 Celeste Dr., SHELBY TWP		DISTRICT: Southeast Michigan
CITY: SHELBY TWP		COUNTY: MACOMB
CONTACT: Corey Johnson, Plant Manager		ACTIVITY DATE: 06/15/2018
STAFF: Joe Forth	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: On-site inspection		
RESOLVED COMPLAINTS:		

On June 15th, 2018, I, Joe Forth, from the Department of Environmental Quality's (DEQ), Air Quality Division (AQD), conducted a scheduled inspection of Van der Graaf Corporation, State Registration Number (SRN): P0761, located at 51515 Celeste Dr., Shelby Twp, Michigan. For the inspection, I was accompanied by AQD district supervisor Joyce Zhu. The purpose of this inspection was to determine the facility's compliance with Permit to Install (PTI) No. 193-16, the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and Michigan's Air Pollution Control Rules.

Facility Description

Van der Graaf manufactures drum motors and conveyor systems for various industries such as: food, pharmacy, coal mining, and airports. The facility has approximately 12 employees. The hours of operation are Monday-Thursday 7:30-3:45pm and Friday 6:30-2:45pm. The company has been in the building for approximately 8 years. The facility has a variety of different machines used for their work. The machining equipment includes lathes, CNC machines, and vertical mills. There are small amounts of wood working done. Both wood and metal work are vented to the in-plant environment and thus exempt from permitting per R285 (2)(l)(vi)(B).

The facility also has a permitted natural gas burnoff oven. The oven is used to remove coatings from engines and parts so they can be worked on. The oven emits to ambient air. According to the information plate, the oven has a maximum heat input capacity of 350,000 British thermal units (BTUs) per hour. The oven has a water injection system used to control smoke emissions and temperature. The oven is equipped with a secondary chamber/afterburner.

There is an area of the building which used to be a paint booth. This area has now been repurposed as a welding area which is open to the general in-plant environment. Some very rare painting still occurs but only with hand held spray cans. There is also a smaller powder coating booth which has an air pull vacuum on it. The air pull is filtered and vents to the in-plant general environment. The booth is equipped with an electrostatic spray gun and three filter cartridges. A pressure gauge measures the pressure differential. The spray booth appears to be exempt from permitting per R287(2)(d).

There is also a cold cleaner in the building. The cold cleaner does not seem to use any VOC containing solution or contain any Hazardous Air Pollutants (HAPs). The cold cleaner did not have operating instructions posted conspicuously. We provided a cold cleaner operating procedures sticker for the company to adhere to the cleaner. The cold cleaner appears to be exempt from permitting per R281(2)(h).

Facility Inspection

We arrived at the facility at 10:00 am. We were met by Chris Dunsmore, Repair Service Coordinator, and Kristoff Luboch, Operator. We stated the purpose of the inspection and provided our credentials. They explained that previous plant manager Scott Schowiak was no longer with the company. He was replaced by Mr. Corey Johnson, the new plant manager. Mr. Dunsmore and Mr. Luboch explained that Mr. Johnson was not in that day but they would help all they could. I asked if any changes had been made to the facility. They said no but later in the year the facility will be moving locations to another building close by. AQD staff will inspect the new facility when the move is complete to confirm no changes to the process have occurred.

Mr. Luboch gave us a tour of the facility. Starting with the cold cleaner. He showed us the cold cleaner, which didn't have operating procedures posted, so we gave him a cold cleaner operations sticker to post conspicuously on the unit. He showed me the SDS for the cleaning solution used in the cleaner,

Oneedon Alkaline Cleaner. It does not contain any VOCs or HAPs. Mr. Luboch showed us the various machining, milling and CNC machines the facility uses. All of which appeared to vent to the general in-plant environment.

Next, we were shown the powder coating booth. It is an open face booth with filters along the back wall with air pulling behind them. The operating pressure drop range for the booth is 1.5 to 4.5 inches of water. I asked Mr. Luboch to turn on the filtering device so I could observe the current pressure drop. At the time of inspection, the pressure drop for the powder coating booth was 2.1 inches of water. There was some orange powder fallout, but it appeared fairly contained near the booth. The booth is vented to the general in-plant environment.

Mr. Luboch then showed us the burnoff oven they have at the facility. Mr. Luboch explained how since the last inspection the burnoff oven had been equipped with a temperature recorder, and had some gaskets replaced, but had not had any significant changes to the equipment otherwise. He showed us the part of the equipment that was the afterburner, distinguishing it from the main chamber. He explained the only things that gets loaded into the oven are engines and some smaller parts. It's used to burn off coatings such as cured paints and oils. The recording sheet that was currently on the machine showed some temperatures just under 1400 F towards the start of the process. I had reviewed past temperature charts and this does not seem to be a recurring issue. I recommended that the facility get the thermocouple calibrated soon and until then to compensate by increasing the temperature slightly to offset the low temperature.

Finally, we were shown the old surface coating process which was a large booth with a wall of filters. Despite the filters still being in place the area has been decommissioned and the area is now used for various welding projects. Mr. Luboch said they will occasionally still do sparse painting with hand held aerosol cans in the area but have not done so for months. I did not see any evidence that significant painting was taking place in the area.

We thanked Mr. Luboch and Mr. Dunsmore for their help. We left the facility at 11:00 am.

Compliance

PTI No. 193-16 Special Conditions

SC I.1: There shall be no visible emissions from the burnoff oven. At the time of inspection, the oven was not operating, no visible emissions were seen.

SC II.1: The burnoff oven shall only use natural gas as fuel. Mr. Luboch showed the natural gas intake on the engine and said that was the only fuel source.

SC II.2: The facility shall not process any material other than cured paints, oil or grease on metal parts, racks and/or hangers. The facility is burning product from Von Roll USA, Inc., 716C a polyester resin that coats some of the wires that are processed in the oven. This substance does not fit the description of the materials that are permitted to be processed in the burn-off ovens. This is a violation of this permit condition. (See Attachment A)

SC III.1: The facility shall not use the burnoff oven for the destruction of rubber, plastics, uncured paints or any other materials containing sulfur or halogens (chlorine, fluorine, bromine, etc.) such as plastisol, polyvinyl chloride (PVC) or Teflon. The facility does not appear to be processing any of these materials.

SC III.2: The facility shall not load any transformer cores, which many be contaminated with PCB-containing dielectric fluid, wire or parts coated with lead or rubber, or any waste materials such as paint sludge or waste powder coatings into the oven. The facility does not appear to be processing any of these materials.

SC IV.1: The permittee shall not operate the burnoff oven unless a secondary chamber or afterburner is stalled, maintained, and operated in a satisfactory manner: maintaining a minimum temperature of 1400 F with a retention time of 0.5 seconds. The burnoff oven does have a secondary burnoff oven. According to records it appears to be operating at 1400 F with a retention time of 0.5 seconds. (See Attachment B)

SC IV.2: The facility shall not operate the burnoff oven unless an automatic temperature control system for the primary and secondary chamber is installed, maintained, and operated in a satisfactory manner. The burnoff oven does have an automatic temperature control system that appears to be operating satisfactorily.

SC IV.3: The facility shall not operate the burnoff oven unless an interlock system that shuts down the primary chamber when the secondary chamber is not operating properly, is installed, maintained, and operated properly. We asked Mr. Luboch if the system had an interlock and he confirmed that it does.

SC IV.4: The facility shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor the temperature in the burnoff oven secondary chamber or afterburner and record the temperature at least once every 15 minutes. The secondary chamber is equipped with a temperature monitor device. The temperatures were for the most part within compliance, but more recently had dipped approximately 5 degrees below 1400 F, I instructed the facility that a calibration must be done soon. AQD staff elected to not issue violation due to the recency and magnitude of the discrepancy. If the issue does not get fixed a violation may be issued in the future.

SC VI.1: The facility shall continuously monitor the temperature in the burnoff oven secondary chamber or afterburner and record the temperature at least once every 15 minutes. The temperature monitor records continuously while the oven is operating.

SC VI.2: The facility shall calibrate the thermocouples associated with the primary and secondary chambers at least once per year. The facility has not calibrated the thermocouples since new ones were installed in May 2017. This is a violation of this permit condition.

SC VI.3: The facility shall keep, in a satisfactory manner, temperature data records for the burnoff oven secondary chamber or afterburner. On the days that the burnoff oven is operated, the temperature is monitored and recorded automatically for the duration that it is operating. (See Attachments)

SC VI.4: The facility shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction of the control equipment, any maintenance performed and any testing results for the burnoff oven. The facility has records of service orders from May 2017 for when maintenance was performed on the oven. (See Attachment C)

SC VI.5: The facility shall maintain a current listing from the manufacturer of the chemical composition of each material (cured coating, oil or grease) processed in the burnoff oven, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both. The SDS for the material processed in the ovens was provided. (See Attachment A)

SC VI.6: The facility shall maintain current information from the manufacturer that the burnoff oven is equipped with a secondary chamber or afterburner, an automatic temperature control system for the primary chamber and secondary chamber or afterburner, and an interlock system that shuts down the primary chamber burner when the secondary chamber or afterburner is not operating properly. Mr. Johnson provided excerpts from the oven's manual confirming that the oven is equipped with the afterburner, temperature monitor and interlock system. (See Attachment D)

SC VIII.1: The exhaust from the burnoff oven shall be discharged unobstructed vertically upwards to the ambient air from a stack 1.5 with exit point 1.5 times the building height. The exhaust appeared to be vertically unobstructed. The stack parameters were not confirmed during this inspection.

SC IX 1: The facility shall not replace or modify any portion of burnoff oven, including control equipment, unless all of the following conditions are met:

- a) The facility shall update the general permit by submitting a new Process Information Form (EQP5784) to the Permit Section and District Supervisor, identifying the existing and new equipment a minimum of 10 days before the replacement or modification.
- b) The facility shall continue to meet all general permit to install applicability criteria after the replacement or modification is complete.
- c) The facility shall keep records of the date and description of the replacement or modification.

The facility appears to be meeting the conditions for SC IX.

Conclusion

The facility appears to not be operating in compliance with PTI No. 193-16. The facility will be issued a violation notice seeking compliance with the permit conditions that are in violation.

NAME John M. Felt

DATE 9-12-18

SUPERVISOR SK