Ingham, general

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

N003338912

FACILITY: Bekum America Corporation		SRN / ID: N0033
LOCATION: 1140 W GRAND RIVER AVE, WILLIAMSTON		DISTRICT: Lansing
CITY: WILLIAMSTON		COUNTY: INGHAM
CONTACT: Ryan Fensom , Assistant Manufacturing Manager		ACTIVITY DATE: 03/16/2017
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection of facility for which there is no record of past AQD inspections, but which has received two permits to install, since 1979.		
RESOLVED COMPLAINTS:		

On 3/16/2017, the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of Bekum America Corporation, a facility which has received two air use permits in the past, but does not appear in AQD files as ever having been inspected.

Facility contact:

Ryan Fensom, Assistant Manufacturing Manager; 517-655-4331; rfensom@bekumamerica.com

Facility description:

Bekum America Corporation manufactures machines which are used by their customers to produce blow molded plastic bottles and other containers.

Emission units:

Emission unit*	Description of emission unit	Permit to install (PTI) and/or exemption rule	Compliance status
Metal machining	Cutting metal stock to length	Rule 285(2)(l)(vi)(B)	Compliance
Metal fabrication	Cutting, turning, drilling, etc. of metal parts	Rule 285(2)(l)(vi)(B)	Compliance
Welding	Welding of metal parts	Rule 285(2)(i)	Compliance
Parts cleaning	Wiping metal parts with solvent for cleaning	Rules 285(2)(r)(iv), 290, or 291	Pending
Paint booth	Painting of metal parts	PTI 633-79, Rule 287(2)(c)	Compliance
Plastic extrusion	Plastic extruder maintained at site, to test assembled products with	Rule 286(2)(a)	Compliance
Two plastic shredding processes	Two shredding processes for recycling of plastic trim/flash	Rule 285(2)(l)(vi)(B)	Compliance

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

Regulatory overview:

This facility is likely 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. The facility operates a number of metal working processes, which generally have a very low PTE. The facility also operates a single paint booth. A paint booth is typically considered to have a PTE of 6 TPY, far below the 100 TPY major source threshold.

The facility is also likely to be a minor, or *area source*, for *Hazardous Air Pollutants* (HAPs). A *major HAPs source* has a PTE of 10 TPY or more for a single HAP, or has a PTE of 25 TPY or more for combined HAPs. If all VOCs emitted by the paint booth were also HAPs, the HAPs PTE from the booth would be considered to be no more than 6 TPY.

It is unknown if the facility is subject to 40 CFR Part 63 Subpart XXXXXX, *National Emissions Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source*

Categories. A facility is subject or not subject to this regulation, based on their North American Industrial Classification Code (NAICS) or Standard Industrial Code (SIC) code. Information was e-mailed to the company, the week following the inspection, so that they may determine if they are under one of the nine codes that is subject to this federal regulation.

The Michigan Air Compliance Enforcement System (MACES) database lists a State Registration Number (SRN) for this facility, and an active Permit to Install (PTI) No. 633-79, for a paint booth. This PTI also appears in the Permit Cards database, along with a voided PTI, No. 895-87, also for a paint booth. The permit file for PTI 895-87 has been sent to the Records Center, according to Permit Cards, so I could not review it and see why it was voided. Permit Cards shows the PTI was voided on 6/29/1995. It is possible that this PTI was voided because the paint booth could be considered exempt under the Rule 287 exemption for surface coating operations. It is unknown if PTI No. 895-87 was a second permit for the same booth, or if the two permits were for two different booths.

Fee status:

This facility is not a Category I fee subject source, because it is not a major source for criteria pollutants. It is not a Category II fee-subject source because it is not a major source for Hazardous Air Pollutants (HAPs), nor is it subject to federal New Source Performance Standards. Additionally, it is not Category III fee-subject, because it is not known to be subject to federal Maximum Achievable Control Technology standards. The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

The facility is located on the west side of Williamston, on the north side of Grand River Avenue. To the west and east are residences. The closest houses are about 60 feet to the south, 70 feet to the east, and 580 feet to the northwest, as measured in ArcGIS Explorer. Beyond the houses to the immediate south are commercial properties. To the north is undeveloped land.

Recent history:

I could not find any records of AQD staff ever having visited this facility, as there is no plant file in the Lansing District office, nor at the State of Michigan Records Center. However, the facility has an active PTI No. 633-79 for a paint booth, as discussed earlier in this report, and a voided PTI No. 895-87 for a paint booth.

Arrival:

I drove to a residential area which began about 70 feet east of the plant. I drove along Love Street and Williams Street, and could not detect odors. Weather conditions were sunny, clear, and 25 degrees F, with winds out of the west, at 0-5 miles per hour.

I arrived at approximately 9:30 AM. No visible emissions could be seen from any exhaust stacks or the roofline. No odors were detectable in the parking lot. I entered the lobby, and called the general number for assistance. I explained the reason for my visit, and was met by plant staff, who said they would find an appropriate plant contact. I provided my credentials, per AQD procedure. I soon met Mr. Ryan Fensom, Assistant Manufacturing Manager. I provided a copy of the DEQ federal boiler regulation card, per AQD procedure. I also provided a copy of the January 2017edition of the *Permit to Install Exemption Handbook.*

We briefly discussed the federal boiler regulation for area sources of Hazardous Air Pollutants, 40 CFR Part 63, Subpart JJJJJJ. A natural gas-fired boiler at an area source of HAPs would not be subject to 40 CFR Part 63, Subpart JJJJJJ, under Section 63.11195(e), while 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. AQD has not been delegated authority to enforce Subpart JJJJJJ, so this would be under the jurisdiction of the U.S. Environmental Protection Agency. Mr. Fensom was not aware of there

being any boiler onsite; his recollection was that a boiler had been removed, some years ago.

Inspection:

Metal machining; Rule 285(2)(l)(vi)(B):

I was shown the area where metal stock enters the plant. They receive steel as well as aluminum stock, I was told. This is cut to the desired length by metal saws which exhaust to the in-plant environment. The saws appear to meet the exemption criteria of Rule 285(2)(l)(vi)((B), which exempts metal cutting processes that exhaust to the general in-plant environment. I did not see any visible emissions from the cutting processes.

Metal fabrication; Rule 285(2)(l)(vi)(B):

Various metal working activities are performed in this area, I was shown. Amongst the metal working processes were a number of computer nurmerical controlled (CNC) machines. These units were enclosed, and, I was advised, utilized water-based lubricants and coolants. Mr. Fensom opened the cover to one of these units, a metal lathe, which was not running at the moment, and I could see the large size of the metal shavings, which did not appear likely to become airborne. No visible emissions were observed from any of the metal fabrication processes.

Note: On 3/20/2017, I e-mailed to Mr. Fensom a link to the DEQ AQD webpage for 40 CFR Part 63, Subpart XXXXXX, *National Emissions Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories*, so that he can determine if they belong to one of the 9 SIC codes which is subject to Subpart XXXXXX.

Welding; Rule 285(2)(i):

I was shown the area inside the plant where welding is done, though none was taking place at this time. Welding is exempted from needing a PTI, under Rule 285(2)(i).

Parts cleaning with solvent on rags; Rules 285(2)(r)(iv), 290, or 291:

I was informed that they do not have any parts cleaning units on site, but they use solvent on fabric rags to wipe down metal materials as they enter the facility. I inquired as to how much solvent was used. Mr. Fensom showed me one of the small metal cans with a pump dispenser, used to dispense the solvent onto the cloth rags.

The Rule 290 exemption for emission units with limited emissions would be an appropriate exemption for this process, although it would require monthly calculation of solvent emissions. The Rule 291 exemption for emission units with "de minimis" emissions would be another appropriate choice for this process, but it would require a one-time PTE calculation. Rule 285(2)(r)(iv) is a much simpler exemption. It exempts processes for metal parts cleaning which only exhaust into the general in-plant environment, and contains no recordkeeping requirement. It appears to me that this a viable option. On 8/11/2017, I forwarded information on all three of these exemptions to Mr. Fensom, and indicated that they could decide for themselves which of these exemptions they would like to utilize for the solvent wiping process. I also asked for a Safety Data Sheet (SDS) for the solvent.

Paint booth; PTI No. 633-79; Rule 287(2)(c)(2):

As mentioned previously in this report, there is still an active air permit for a paint booth, PTI No. 633-79. This permit was issued on 10/19/1979, years before the Rule 287(c) and subsequent Rule 287(2)(c) exemption became available for coating operations. This permit sets a 20% opacity limit equivalent to that in the current Rule 301. It also requires that the booth not be operated unless all exhaust filters are in place. However, it also sets a VOC limit for the paint booth of 23.7 lbs/hr and 0.6 TPY. It does not appear that the company has been tracking VOC emissions. Therefore, it would be advantageous for the company to utilize the Rule 287(2)(c) exemption for surface coating operations, instead, as the

exemption does not set a VOC limit.

The paint booth was not running, at the moment, but some freshly painted parts were drying at ambient temperatures, in the booth. Exhaust filters were in place, and appeared to be in good condition.

Mr, Fensom e-mailed to me, on 3/17/2017, a spreadsheet (attached for reference) from their paint manufacturer, Sherwin-Williams, showing how much paint they had purchased each month throughout calendar year 2016 and during January and February of 2017. They were well below the maximum 200 gallons per month allowed by the Rule 287(2)(c) exemption, as shown in the tables below.

Paint purchase records for 2016

Date	Jan. 2016	Feb. 2016	March 2016	April 2016	May 2016	June 2016	July 2016	Aug. 2016	Sept. 2016	Oct. 2016	Nov. 2016	Dec. 2016
Paint purchased	65	54	88	91	67	64	86	96	64	61	52	88

Paint purchase records year to date for 2017

Date	Jan. 2017	Feb. 2017	March 2017
Paint purchased	69	82	10

Plastic extrusion process; Rule 286(2)(a):

They keep a plastic extrusion process onsite, which is used in the quality assurance/quality control (QA/QC) testing of their assembled blow molding machines. It was not operating, at the time of the inspection.

Two plastic shredding processes; Rule 285(2)(l)(vi)(B):

They have two plastic shredding processes, in different areas of the plant. They are used to shred scrap plastic, which, to my understanding, comes from flash or trim on plastic parts. The units exhaust to the plant interior. They were not running, at the time of the inspection.

Rule 285(l)(vi)(B) exempts from the requirement of Rule 201 to obtain a permit to install::

(l) The following equipment and any exhaust system or collector exclusively serving the equipment:
(vi) Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, graphite, plastics, concrete, rubber, paper board, wood, wood products, stone, glass, fiberglass, or fabric which meets any of the following:
(A) Equipment used on a nonproduction basis.
(B) Equipment that has emissions that are released only into the general in-plant environment (emphasis added).
(C) Equipment that has externally vented emissions controlled by an appropriately designed and operated fabric filter collector that, for all specified operations with metal, is preceded by a mechanical precleaner.

Conclusion:

The facility appeared neat, clean, and organized. I could not find any instances of noncompliance, nor any areas of concern. The active PTI No. 633-79 can be voided, as the Rule 287(2)(c) exemption can be utilized instead. On 8/9/2017, I sent an e-mail to Ms. Sue Thelen of AQD's Permit Section, requesting that the permit be voided.

NAME _____ DATE 8/15/2017 SUPERVISOR _____