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

B753068307

FACILITY: Acument Global Technologies - Fenton Processing		**SRN / ID:** B7530
LOCATION: 2480 OWEN RD, FENTON		**DISTRICT:** Lansing
CITY: FENTON		**COUNTY:** GENESEE
CONTACT:		**ACTIVITY DATE:** 07/24/2023
STAFF: Daniel McGeen	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Unannounced inspection of facility last inspected by AQD in 2018.		
RESOLVED COMPLAINTS:		

On 7/24/2023, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality division (AQD) conducted a scheduled inspection of Acument Global Technologies - Fenton Processing.

Environmental contact:

Troy Smith, Regional EHS Manager; (586) 200-7657; tsmith@acument.com

EGLE, AQD contact:

Dan McGeen, inspector; 517-648-7547; mcgeend@michigan.gov

Facility description:

This facility processes metal fasteners and washers for the automotive industry.

Emission units:

Emission Unit* ID	Emission unit Description	Permit To Install (PTI) or Exemption Rule	Compliance Status
EU-HeatTreat1	2-part heat treatment line including natural gas-fired hardening furnace and draw furnace, and quench oil bath. Identified as 566 line.	PTI 143-97	Compliance
EU-HeatTreat2	2-part heat treatment line including natural gas-fired hardening furnace, draw furnace, and quench oil bath. Identified as 834 line.	PTI 143-97	Not operating

EU-PlatingLine	**Zinc electrolytic plating line.**	**Rule 285(2)(r)**	**Compliance**
EUTinZincChromate, FGPLATING	**Tin/Zinc Plating line consisting of 22 Tanks for zinc plating. Tanks include acid pickling, desmut, acid activate HCL, and a Tin Zinc Plating bath along with associated rinse tanks. The plating line is equipped with an acid gas scrubber with a packed bed and chevron mist eliminator.**	**PTI 92-17**	**Not operating**
EUZincNickel, FGPLATING	**Zinc/Nickel plating line consisting of 22 tanks. Tanks include cleaners, acid pickling, desmut, and Zinc Nickel plating bath along with associated rinse tanks. The plating line is equipped with an acid gas scrubber with a packed bed and chevron mist eliminator.**	**PTI 92-17**	**Compliance**
2 coating lines	**2 removed coating lines once operated by Ring Screw Textron.**	**General PTI 70 -11**	**Removed, PTI can be voided**

***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 considered a *minor source* of *criteria pollutants*, that is, those pollutants for which a National Ambient Air Quality Standard (NAAQS) exist. These include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds (VCOs), lead, particulate matter smaller than 10 microns (PM10), and particulate matter smaller than 2.5 microns (PM2.5). A *major source* of criteria pollutants has the potential to emit (PTE) of 100 tons per year (TPY) or more of any one of the criteria pollutants and would be subject to the Renewable Operating Permit program.

This facility is also considered to be a minor or *area source* for hazardous air Pollutants (HAPs), because it has a PTE of less than 10 TPY for any single HAP and less than 25 TPY for all HAPs combined.

On 8/3/2017, PTI No. 92-17 was approved for a new dual plating line.

There is an existing boiler onsite which is exempt from needing a PTI, under Rule 282(b). A natural gas-fired boiler which burns no other fuel at an area source of HAPs would not be subject to 40 CFR Part 63, Subpart JJJJJJ, National Emissions Standards for Hazardous Air Pollutants: Industrial, Commercial and Institutional Boilers, Area Sources, under Section 63.11195(e).

A new boiler onsite is for providing water for restrooms, as of 2018. It has a rated heat input capacity of 0.967 million Btu/h, and satisfies the exemption criteria of Rule 282(b). This exemption has been revised, as of 12/20/2016, as Rule 282(2)(b), but the exemption criteria are unchanged. It may qualify as a hot water heater, rather than a boiler, under the JJJJJJ definition. 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. A hot water heater <120 gallons in size would not be subject, under Section 63.11195(f).

Another entity, Ring Screw Textron, Inc. once leased space from them, and had a General PTI, No. 70-11 for 2 coating lines with up to 10 TPY VOCs. It was under the same SRN, B7530, as Acument Global Technologies - Fenton Processing. That equipment was said to have been removed from the plant, as Ring Screw Textron acquired their own facility nearby. On 9/30/2023, AQD requested that the Permit Section void General PTI 70-11.

Fee status:

This facility is not considered a fee-subject facility, because it is not a major source of either criteria air pollutants or HAPs, nor is it subject to a federal New Source Performance Standard or Maximum Achievable Control Technology standard.

This facility is not required to submit an annual air emissions report because it does not meet the criteria for reporting of having more than 10 TPY VOC emissions.

Location:

- Address: 2480 Owen Road, Fenton, Genesee County.
- Description: The facility is surrounded by a mix of commercial and industrial businesses. The closest residences are about 800 feet to the south, 725 feet to the southeast, and 1,00 feet to the east, as measured in Google Maps.

Operating schedule:

Mon.-Fri., 3 shifts/day, occasional weekends for preventative maintenance.

Most recent inspections:

- 4/16/2016: Compliance.
- 6/25/2014: Compliance.

Safety equipment required:

Hearing protection and safety glasses are required, as are closed toe shoes.

Odor evaluation:

- Start time: 10:58 AM
- Weather conditions: Sunny, hazy, and humid, 73 degrees F, with winds out of S shifting to out of SSW at at 11:00 AM and out of SW at 11:01 AM.
- Route taken S. Fenway Rd. to Grant St, east on Grant St. to Meadowridge Road, west to S. Fenway Rd., and south to entrance to Acument Global Technologies -Fenton Processing.

Odors detected were as follows:

- 10:59 AM: Level 1 solvent at Copper Ave. and S. Fenway.
- 11:01 AM: Level 1 solvent at Copper Ave. and Meadowridge Rd.

The AQD 0 to 5 odor scale is as follows:

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 plastic odors detected today were not suspected to be from Acument Global Technologies, but from an auto body shop which was upwind of AQD's location. The odors were not of sufficient intensity, frequency, and duration so as to constitute a violation of Michigan Air Pollution Control (MAPC) Rule 901(b), which prohibits unreasonable interference with the comfortable enjoyment of life and property.

Visible emissions check:

Driving south on S. Fenway Road at 11:01 AM D. McGeen glimpsed through a few trees what appeared to him to be light gray smoke, with an opacity of 30-40%, slightly backlit. The plume appeared to be issuing from an overhead door on the north side of the plant, and traveling horizontally, at ground level, through the north parking lot.

Arrival:

- Arrival time: 11:02 AM.
- Odors by plant office: None.
- Current weather conditions: Sunny, humid, hazy, and 73 degrees F, with winds 5-10 mph out of SW.

This was an unannounced inspection. AQD was represented by Dan McGeen, inspector. He entered the plant lobby, and called listed phone numbers until he reached the current plant contact, Troy Smith, Regional EHS Manager. D. McGeen provided his credentials, per procedure, and explained that he was here to conduct an inspection. He inquired as to the source of the apparent opacity glimpsed north of the plant, but T. Smith indicated that nothing unusual has happened this morning, and he was not aware of any opacity, although the heat treating processes are at the north end of the building. Discussion with other plant personnel during the inspection did not provide any answers on this.

T. Smith mentioned that they will be installing a new electric induction furnace which they believe to be exempt. D. McGeen saw no reason to disagree with their determination, and T. Smith said they wrote an exemption demonstration document for their files.

Inspection:

EUHeatTreat1 (566 line), and EUHeatTreat2 (834 line); PTI 143-97:

The 566 line, EUHeatTreat1, was operating. The 834 line, EUHeatTreat2, was not operating. The heat treat process is as follows:

Manufactured parts are shipped to the company where they are processed to meet customer specifications. This is not a manufacturing facility, as that is done at their other locations. This is considered a processing facility, because the parts are heat treated in one of the two heat treat lines, and/or plated or coated to customer specs. The furnaces operate using natural gas.

The 2-part heat treatment process begins with a pre-wash hot water bath prior to the part entering the hardening furnace where parts are subjected to a temperature of approx. 1650 degrees F. Parts are then quenched in an oil bath and rinsed in a water wash station. The metal parts then enter a second heat treating furnace (draw furnace) that is heated to approx. 700-1,000 degrees F, depending on customer needs. Emissions from each part of the process are captured and emitted to atmosphere.

PTI 143-97 has only two special conditions, described below.

- 13. Visible emissions from the metal heat treating process and associated equipment as described in this permit application, hereinafter "process," shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a).
- 14. Monthly usage rates of quench oils shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.

For SC 13, it was explained that their operator, Jessie, who is a Method 9 certified visible emission reader, takes opacity readings on a monthly basis. Opacity readings tended to vary from 3-5% in their records, with an average of 3.6%. It was pointed out that for parts with finer threads, opacity might be higher if they ran all day, because this would use more quench oil.

For SC 14, it was explained that Ron keeps quench oil usage rate records. D. McGeen requested a copy, which was emailed after the inspection (please see attached). It covered the time from January 2012 through present.

D. McGeen was introduced to Ron, Heat Treat Supervisor. D. McGeen asked if anything unsual had happened today resulting in smoke, and was told no. There was no evidence of opacity inside the plant.

D. McGeen asked to go outside, to try to obtain a viw of the exhaust stacks from ground level. He, T. Smith, and Ron walked into the parking lot north of the plant, to look at the heat treat exhaust stacks from ground level. Each of the 2 heat treat lines has a pre-wash stack, and a post-wash stack, for 4 exhaust stacks total. The post-wash is situated after the rinse from the hardening furnace, and before the tempering furnace.

It could be seen that there was whitish opacity from EUHeatTreat1's post-wash stack, and occasionally the plume would downwash (please see attached photos). There did appear to be some steam involved, as there was a steam plume breakoff point visible at times, and some tailoff of 0-5% afterwards, but it was difficult to discern against the hazy white background of clouds. The plume was backlit, so it was not possible to obtain a proper visible emission reading.

D. McGeen asked if it was possible to view the stacks from the east side of the plant, but it was not possible to get to a vantage point and still be on plant property. He asked if it was possible to go up on the roof, to take opacity readings. He was informed that there is a ladder with safety cage against the north wall of the plant, but contractors doing work on it had failed to reattach the top of the ladder and cage to the roof (please see attached photograph). D. McGeen agreed that it did not appear safe to try to access the roof this way.

D. McGeen asked about any other way to get on the roof. He was told their opacity reader uses a ladder that goes up through a hatch in the roof of a boiler room. T. Smith and D. McGeen attempted to access the roof this way. However, the ladder went no higher than the hatch in the roof, whereas having the rungs and side rails of a ladder go higher than a roof is an important safety feature. When T. Smith attempted to climb out onto the roof, he received a cut to his arm and it was decided that it would be safer to save the roof for a future occasion, when their exterior ladder with safety cage has been reattached to the roof properly. T. Smith subsequently cleaned and bandaged the cut on his arm.

EU-PlatingLine; Rule 285(2)(r):

An existing zinc plating line is considered exempt under MAPC Rule 285(2)(r), which exempts metal cleaning processes where emissions are only released into the general, in-plant environment. Tanks appeared to be open to the in-plant air. There were no visible emissions. Treated parts go into a bake oven which Acument considers exempt.

AQD should verify in the future that no part of the process exhausts directly to the outside air, as exhausting outdoors would prevent use of the exemption.

EUTinZincChromate; FGPLATING; PTI No. 92-17:

The tin-zinc portion of the process was not operating, and was said to have never been operated yet. They reportedly keep it in the PTI, in case there is ever a demand for it.

The scrubber for one of the two permitted plating lines was recently replaced with a new unit, although D. McGeen was not clear on if the EUTinZIncChromate scrubber was replaced, or the EUZincNickel scrubber. The unit was said to be identical to the original, except for having a housing made of thicker material. Michigan Air Pollution Control (MAPC) Rule 285(2)(d) allows for replacement of air pollution conrol equipment with equivalent or more efficient equipment. The old unit is stored outside the plant, partially visible in the attached photos 1-4.

AQD has previously received from Acument the Malfunction Abatement Plan (MAP) required by the PTI.

EUZincNickel; FGPLATING; PTI No. 92-17:

As noted earlier, the scrubber for one of the two permitted plating lines was recently replaced by a unit said to be identical except for having a thicker housing.

AQD has previously received from Acument the Malfunction Abatement Plan (MAP) required by the PTI.

They track pressure drop, flowrate, and pH daily, D. McGeen was told. He asked to obtain scrubber data, but it was his understanding that the pressure drop, flow rate, and pH monitors were located up on the roof, where there was currently no access other than the unsecured exterior ladder or the boiler room roof ladder T. Smith had been injured. Therefore, D. McGeen requested and was sent recordkeeping via email, please see attached.

D. McGeen received an emailed record, please see attached, from their "Bigfoot" brand program in which maintnenance is tracked.

- On page 1 of the 7/22/2023 record, in comments, it states: 0.7/7.1/61 gpm, meaning a pressure drop of 0.7 inches water column, a pH of 7.1, and scrubber flowrate of 61 gallons per minute.
- On page 1 of the 7/24/2023 record, in comments, it states: 0.7 / 7.12/60 gpm, meaning a pressure drop of 0.7 inches water column, a pH of 7.12, and scrubber flowrate of 60 gallons per minute.

40 CFR Part 63, Subpart WWWWWW:

On 5/2/2018,Subpart WWWWWW, for educational purposes. The requirements which may potentially apply under Section 63.11507(g), based on a review of applicability criteria, are:

(g) If you own or operate an affected new or existing plating and polishing process unit that contains, applies, or emits one or more of the plating and polishing metal HAP, you must implement the applicable management practices in paragraphs (g)(1) through (12) of this section, as practicable.
(1) Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.

(2) Maximize the draining of bath solution back into the tank, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.
(3) Optimize the design of barrels, racks, and parts to minimize dragout of bath solution (such as by using slotted barrels and tilted racks, or by designing parts with flow-through holes to allow the tank solution to drip back into the tank), as practicable.
(4) Use tank covers, if already owned and available at the facility, whenever practicable.
(5) Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).
(6) Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.
(7) Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable.
(8) Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.
(9) Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.
(10) Minimize spills and overflow of tanks, as practicable.
(11) Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.
(12) Perform regular inspections to identify leaks and other opportunities for pollution prevention.

Note: AQD does not have delegation of authority from U.S. EPA to enforce Subpart WWWWWW.

2 coating lines under General PTI No. 70-11:

The 2 coating lines formerly operated by Ring Screw Textron inside the plant have been removed. On 9/30/2023, D. McGeen requested that the Permit Section void General PTI No. 70-11.

Departure from plant:

Departure time: 1:16 PM.

Conclusion:

No instances of noncompliance were found. However, AQD should return to the site in the future to determine opacity from the heat treating lines, as time and resources allow. On 9/30/2023, D. McGeen requested that the AQD Permit Section void General PTI 70-11, as the two coating lines covered by it have been removed.

Image 1(1) : Backlit opacity from EUHeatTreat1 post-wash stack.

Image 2(2) : Continued opacity from EUHeatTreat1 post-wash stack.

Image 3(3) : Continued opacity.

Image 4(4) : Exterior ladder with safety cage not secured to plant roof. Do not climb if not secured.

NAME _____ DATE 9/30/2023 SUPERVISOR RB