

October 1, 2021

Ms. Amanda Chapel
Senior Environmental Quality Analyst
EGLE – AQD
Kalamazoo District Office
7953 Adobe Road
Kalamazoo, Michigan 49009-5025



Re: Response to VN
Musashi Auto Parts (SRN: N2074)

Dear Ms. Chapel

I am writing on behalf of Musashi Auto Parts (Musashi), in response to the August 23, 2021 Violation Notice (VN) issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Although you had initially requested a response by September 13, 2021, it is our understanding that the above-referenced deadline was extended by mutual agreement until October 4, 2021.

Please see our response below to each of the alleged violations identified in the VN, in the order as presented in the VN.

Sixth Induction Furnace (Rule 336.1201)

The facility does have six (6) induction heating furnaces used to heat steel billets to a temperature at which they can be formed into a particular part. The six furnaces are itemized in the following table.

Furnace No.	Year of Installation	Emission Unit ID	PTI / Exempt
1	2000	EUINDFURN1	46-00
2	2000	EUINDFURN2	46-00
3	2002	Induction Furnace #3	See below
4	2009	EUINDFURN3	98-09
5	2009	EUBILLETHEATERS	192-09
6	2009		192-09

Five of the six induction furnace processes were installed under one of the three permit-to-install applications. The sixth induction furnace process was installed in late 2002, which by dates of installation makes it the third induction furnace process.¹ We believe the installation of this induction furnace² process was exempt from a requirement to obtain a PTI.

¹ Please note that VN incorrectly indicated that the unpermitted induction furnace was installed in 2009.

Please note that each induction heating furnace is actually comprised of three separate processes: 1) an induction furnace (heats steel billets to 2000 °F); 2) a forge press (compresses the heated billet to a particular part shape); and 3) a normalizing furnace (uses electric heat to slow down the rate of cooling for each heated part). The exemptions covering each of these processes are discussed below:

1. Induction Furnace –The purpose of the induction furnace is to pre-heat the steel billet to a temperature that allows for forge pressing of the metal to a desired shape. This furnace does not utilize oil-coated parts or quench oils. The induction furnace is exempt pursuant to Michigan Rule 336.1282(1)(a)(i), which exempts “*furnaces for heat treating or forging glass or metals, the use of that does not involve ammonia, molten materials, oil-coated parts, or oil quenching.*”
2. Forge Press – The forge press is the used exclusively for forging and pressing hot metals. Thus, it is exempt from the requirement to obtain an air permit pursuant to Michigan Rule 336.1285(1)(i) which applies to “ equipment used exclusively for bending, forming, expanding, rolling, forging, pressing, drawing, stamping, spinning, or extruding either hot or cold metals.
3. Normalizing Furnace – This furnace is only used to slow the rate of par cooling. By the time the parts arrive at the normalizing furnace, the forging press lubricants have either been collected from the press or vaporized within the press. Therefore, the normalizing furnace does not result in an emission that would require permitting under Michigan Rule 201.

Recordkeeping Emissions Exceedance (PTI 46-00 S.C. 4)

It has come to our attention that the lubricant (Lubrodal F 645AB), used in the forging presses, is the only potential source of volatile emissions in this emission unit. The supplier for that lubricant (Fuchs) has confirmed that Lubrodal F 645AB is a water-based material in which 18% by weight is solids and 82% by weight is water. The, the Company was inadvertently calculating VOC emissions using data from its previous lubricant. The company will update its record –keeping to reflect the use of a lubricant with no VOCs.

It should also be noted that record keeping has historically tracked the lubricating fluid volume for all six forging presses collectively. The violation notice (VN) identified an exceedance of the 12 month total emission of 2.8 tons of VOC per 12 month rolling total by assuming 100% of the lubricant recorded for all six forging presses as being used only by EUINDFURN1 and EUINDFURN2, which is not consistent with actual operating conditions at the facility. The company is investigating the ability to separate lubricant usage records by emission unit; however, as noted above the Company does not believe that there were any VOC emissions from this emission unit.

Therefore, the reported emissions of 3.5 tpy VOC should actually be zero.

² Each induction heating furnace is actually comprised of three separate processes: 1) an Induction Furnace (heats billets to 2000°F); 2) a Forge Press (compresses the heated billet to a particular part shape); and 3) a Normalizing Furnace (electrically heated to slow down the rate of cooling of each heated part).

Recordkeeping Emissions Exceedance (PTI 98-09 S.C. I.1)

It has come to our attention that the lubricant (Lubrodal F 645AB), used in the forging presses, is the only potential source of volatile emissions in this emission unit. The supplier for that lubricant (Fuchs) has confirmed that Lubrodal F 645AB is a water-based material in which 18% by weight is solids and 82% by weight is water. The, the Company was inadvertently calculating VOC emissions using data from its previous lubricant. The company will update its record –keeping to reflect the use of a lubricant with no VOCs.

Additionally, consistent with its response to the previous alleged violation, the facility calculated VOC emissions of 3.5 tpy from all six forging presses operating collectively. The violation notice (VN) identified an exceedance of the 12 month total emission of 2.8 tons of VOC per 12 month rolling total by assuming 100% of the lubricant recorded for all six forging presses as being used only by EUINDFURN3, which is not consistent with actual operating conditions at the facility. The company is investigating the ability to separate lubricant usage records by emission unit; however, as noted above the Company does not believe that there were any VOC emissions from this emission unit.

EU-AMMONIA Emergency Response Plan (PTI 235-04 SC III.3)

The facility filed an emergency response plan with the Battle Creek Fire Department. The plan is periodically reviewed but the review has not included the local fire department. The company has contacted the Battle Creek Fire Department Emergency Planning office to share a copy of the plan and seek their input.

EU-AMMONIA Hose Replacement (PTI #235-04 SC IV.5)

The General Permit for Ammonia Storage tanks has a special condition (SC IV.5) requiring that all hoses shall be replaced 5 years after the date of manufacture. However, the ammonia storage tank at issue is not equipped with hoses. As a result, the Company did provide records demonstrating compliance with the hose replacement requirement, as it was not applicable.

EU-S-TFC-100-6 Material Limit Exceedance (PTI #26-13 SC II.1)

Section II of PTI #26-13 places a monthly limit on the volume of quench oil that may be used to replenish lost quench oil on Continuous Carburizing Heat Treat Furnace EU-S-TFC-100-6. The VN identified three months during in which the recorded addition of quench oil exceeded 110 gallons.

Records of quench oil additions are recorded for each carburizing heat treat furnace (11 units total) and GSN furnaces (2 units). The record keeping section (SC VI.3) provides for the collection and recording of four sets of numbers: 1) quench oil purchases or usage rates to replenish quench oil, 2) recovered oil sent off-site for recycling, 3) spent oil or sludge sent off-site for disposal, and 4) oil spilled. It is the company's assertion that SC II.1 was intended to represent the net volume lost and therefore emitted (rather than just simply the amount of quench oil added to a tank).

Ms. Amanda Chapel, EGLE-AQD
October 1, 2021

EUPHOSPHATELINE MAP (PTI #8-19 SC III.1)

The August 23, 2021 VN identifies that a malfunction abatement plan (MAP) for the phosphatizing line wet scrubber has not been filed with the district supervisor. A MAP was developed and implemented at the time of installation of the process. We have not been able to locate any documentation indicating that the MAP was sent to the district supervisor. However, it should be noted that the MAP has been periodically reviewed. The document was originally dated March 29, 2019 and last updated May 25, 2021. A copy of the plan is included with this letter.

EUPHOSPHATELINE Record Keeping (PTI #8-19 SC VI.3)

PTI #8-19 special condition number VI.3 requires that monthly volume usage records be maintained for each material used on a 12 month rolling basis. The VN letter states that the method of tracking monthly purchases is not sufficient to show compliance with the above-referenced permit requirement. We do not understand this statement as this process has neither a material usage restriction nor an emission restriction. It simply has a requirement to maintain monthly records. At the same time, EU-S-TFS-100-6 carburizing furnace has a material limit of 110 gallons and the record keeping clearly states that purchase data is acceptable. Thus, the Company reasonably assumed that if it is acceptable to use purchasing records for a process with a material limit it would be sufficient for a process which has neither a material limit nor an emission limit.

Notwithstanding the foregoing, the Company plans to incorporate monthly inventory volumes, along with the purchase records, for each material, to allow for a net volume monthly calculation.

Summary

Musashi is committed to compliance with all applicable environmental regulations and is continuing to take all appropriate steps to achieve compliance and/or ensure continued compliance. We believe that we have addressed each of the concerns outlined in your August 23, 2021 violation notice. Should you have any further questions, please send these inquiries to my attention at bruce.connell@enviro-partners.com or feel free to call me at 616-928-9127.

Sincerely,
ENVIRONMENTAL PARTNERS, INC.



Bruce H. Connell
Principal

cc: Michelle Doston, Musashi Auto Parts, Inc.
Jenine Camilleri, EGLE