



Flat Rock Metal Inc. 26601 W. Huron River Dr. PO Box 1090 Flat Rock MI 48134

June 1, 2022

Michigan Department of Environment, Great Lakes, and Energy

Air Quality Division – Detroit District

3058 West Grand Boulevard, Suite 2-300

Detroit, Michigan 48202-6058

Subject: Response to Violation Notice
Flat Rock Metal (SRN: M4768)

To Whom It May Concern:

Flat Rock Metals, Inc. (FRM), Source Registration Number (SRN) M4768, received a Violation Notice (VN) dated May 11, 2022. On August 17, 2021, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), conducted an inspection of Flat Rock Metal located at 26601 W Huron River Drive, Flat Rock, Michigan. During the inspection EGLE-AQD reviewed documentation and facility operation to determine compliance with the requirements of two Permits to Install (PTIs), PTI 71-98 and PTI 59-09 along with other rules outlined in the Michigan Air Pollution Control Rules. Three observations were communicated to FRM and are included in the VN dated May 11, 2022. Those are outlined in the table below:

Table 1: VN Summary Table from VN Dated May 11, 2022

Process Description	Rule/Permit Condition Violated	Comments
Stationary source	Rule 210(4)	Facility did not submit a timely application for a renewable operating permit. The facility became a Title V major source upon the installation of EUROUGHLINE3 in March of 2018.
EUROUGHLINE3 - Dry grinding line with belt grinder heads for polishing steel sheets. Exhaust is controlled by a water spray type wet dust collector. Installed in March of 2018.	Rule 201(1)	Flat Rock Metal provided a determination that EUROUGHLINE3 is exempt under Rule 285(2)(l)(vi)(C). AQD does not consider this exemption appropriate because the control is a water spray type wet dust collector; not a fabric filter as indicated in the exemption.



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<p>FGROUGHLINES in PTI 71-98 - Two dry grinding lines with belt grinder heads for polishing steel sheets. Exhausts are controlled by water spray type wet dust collectors.</p>	<p>Rule 201(1)</p>	<p>Rough line control equipment appears to have been modified from using two water spray type wet dust collectors per line to one water spray type wet dust collector per line.</p>
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The first two violations in the table are related to the installation and operation of EUROUGHLINE3, a process installed in March of 2018 that mirrors other roughlines installed at the facility and permitted under FGROUGHLINES listed in PTI 71-98. The third violation in the table above discusses changes to the control devices on process FGROUGHLINES

EUROUGHLINE3

FRM installed EUROUGHLINE3 as exempt from obtaining a Permit to Install per Rule 285(2)(l)(vi)(C). This exemption is for surface grinding of metals where external emissions are controlled by a fabric filter that, for all specified operations with metal, is preceded by a mechanical precleaner. Per the VN, FRM understands that while the controlled potential emissions for EUROUGHLINE3 is less than the new source review major source threshold, emission control for the unit was incorrectly applied to calculate the potential to emit (PTE) when determining the source status under Rules 211(1)(a)(ii)(E) and (F). To determine the source status under Rule 211 uncontrolled PTE must be applied if control of the unit is not integral to the emission unit. As the unit’s uncontrolled potential emissions are greater than the major source threshold, a legally enforceable limit on emissions would be required to operate the facility without a Renewable Operating Permit (ROP).

It should be noted that while uncontrolled potential emissions are relevant to the permitting of the unit, the actual emissions presented in Table 2 below demonstrate that EUROUGHLINE3 has produced very limited emissions since its installation in 2018.

Table 2: EUROUGHLINE3 Actual Emissions (TPY)

	2021	2020	2019	2018
PM	1.08	0.97	1.26	0.91
PM10	0.76	0.69	0.90	0.65

Regardless, FRM is in the process of submitting a PTI application to include EUROUGHLINE3 in the flexible group FGROUGHLINES currently listed in PTI 71-98. FRM plans to submit the PTI application in June 2022. This application will make control of emissions from EUROUGHLINE3 a legally enforceable condition of its operation in the PTI and limit the PTE from the facility to less than the major source threshold. This would eliminate the requirement for the facility to pursue an ROP.



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FGROUGHLINES Control and Process Modification

The VN indicates that EUROUGHLINE1 and EUROUGHLINE2, permitted as FGROUGHLINES in PTI 71-98, were initially approved with two water spray type wet dust collectors each. This is consistent with the description in PTI 71-98. Each of the four initially installed collectors controlled 5 of the 10 grinding heads on each of the two installed lines. However, in 2011 FRM realized that all 20 available cutting heads were not necessary to process the metal the facility was receiving. Therefore, FRM reduced the capacity of the grinding heads installed in EUROUGHLINE1 and 2. Specifically, 4 grinding heads were removed from EUROUGHLINE2 and 1 head was removed from EUROUGHLINE 1. Further, grinding heads operating at any one time on each of the lines are limited to a maximum of 6. This reduction in grinding heads coincided with a change to the grinding belts which changed from a rougher to finer grit as the quality of the metal received improved. This reduction in the number of heds and grit reduced the quantity of material removed from each metal sheet. As the grinding on the lines were reduced one of the two collectors on each of the two lines were also removed. Finally, over the life of the permit FRM has replaced the wet type dust collectors with in kind equipment for maintenance purposes. The updates were conducted without changes to ventilation rates, control efficiency, or stack characteristics.

Per the design of the control devices each wet type collector is capable of controlling the installed grinding heads to the emission rate listed in the permit. Therefore, FRM is proposing to include EUROUGHLINE3 into FGROUGHLINES without changes to the emission limits listed in PTI 71-98. Ultimately, 20 grinding heads were permitted in PTI 71-98 between EUROUGHLINE1 and 2. Currently there are 21 grinding heads installed at the facility when accounting for EUROUGHLINE1, 2, and 3. However, operation of grinding heads is limited to a maximum of 18, or 6 per line, and those grinding heads are controlled by three separate wet collectors which control a maximum of 6 heads each at any one time.

FRM will include an update to the description of FGROUGHLINES in PTI 71-98 to reflect the current and on-going operation of the units with a single wet type collector for each line and the associated stack. This information will be included in the PTI application to be submitted soon.

If you have any questions or comments on the proposed path forward please contact me at 616-304-7639 or blemley@trccompanies.com.

Sincerely,

Gregory J. Zang

V.P. of Operations

Flat Rock Metal, Inc.



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Attachments

cc: Jenine Camilleri, Enforcement Unit Supervisor – EGLE
Ben Lemley – TRC



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