



August 27, 2019

Sent via e-mail: Robinsonc17@michigan.gov

Mr. Chris Robinson
Department of Environment, Great Lakes, and Energy
Air Quality Division
350 Ottawa Ave, Unit 10
Grand Rapids, MI 49503

**Re: Violation Notice Response (SRN: N6798, Ottawa County), Revised
Magnum Coffee Roastery, 1 Java Blvd, Nunica, Ottawa County, Michigan**

Dear Mr. Robinson:

Lakeshore Environmental, Inc. (LEI), on behalf of Magnum Coffee Roastery (Magnum Coffee), provides this response to the Department of Environment, Great Lakes, and Energy (EGLE) second violation notice letter (SRN: N6798, Ottawa County) dated July 29, 2019. This violation notice response is provided to summarize the violation, outline the actions initiated to correct the violation, and provides information for the exemption demonstration.

Violation Summary

On May 9, 2019, EGLE Air Quality Division conducted an inspection of Magnum Coffee in order to determine compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); and the Air Pollution Control Rules. In response to that site inspection, EGLE issued a violation notice citing "failure to obtain a permit to install".

Magnum Coffee has reviewed the production process and provides the following information to demonstrate that an exemption is warranted. Upon EGLE review and approval of this information this violation will be closed.

Actions Initiated to Correct Violation

Upon receipt of the above referenced violation notice, Magnum Coffee completed preliminary review of their air emissions and ultimately contracted LEI to review their exemption status and/or apply for a Permit to Install (PTI), as necessary.

LEI reviewed the facility, available production information, and potential emissions units/emissions factors. LEI determined that there were no significant concerns regarding the unpermitted use of the equipment and recommended moving forward with providing the necessary information to classify the processing as exempt, based on the Michigan Air Pollution Control Rules, R336.1290 (Rule 290).

Exemption Demonstration

Utilizing the emission factors in EPA AP 42 Bulletin, Section 9.13.2 *Coffee Roasting* (AP 42), an exemption based on Rule 290 was determined. **Table 1**, below, summarizes the applicable emissions factors for the Magnum Coffee equipment in use at the time of inspection. The values expressed are pounds of emissions per ton of green coffee bean feed.

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Table 1: Emissions Factors, Magnum Coffee

Emissions Unit ID	Machine Code/ Description	Controlled* or Uncontrolled**	Applicable Emissions Factor (lbs./ton)		
			Carbon Monoxide (CO)	Particulate Matter (PM)	VOC as Methane
1	M-BA1/ Barth 1	Uncontrolled	1.5	0.66	0.86
2	M-JB1/ Jabez Black 1	Controlled	0.55	0.12	0.047
3	M-JR1/ Jabez Red 1	Controlled	0.55	0.12	0.047
4	M-PR1/ Probat 1	Uncontrolled	1.5	0.66	0.86

*Controlled: AP42 Average emission factor for "batch roaster with thermal oxidizer"

**Uncontrolled: AP42 Average emission factor for "continuous roaster" (CO, PM) and Average emission factor for "batch roaster" (VOC)

The use of "continuous roaster" emission factors for CO and PM on the uncontrolled units is conservative, since Magnum Coffee only operates batch roasters at the Nunica, Michigan facility.

Attachment A provides the emissions, expressed as pounds per month, for calendar years 2018 and 2019 (year to date).

As defined in Part 290(a)(i), the requirement of R336.1201(1) to obtain a PTI does not apply to any emission unit that emits only noncarcinogenic volatile organic compounds (VOCs) or noncarcinogenic materials if the uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively.

Each roaster at Magnum Coffee is considered an individual emission unit, since each roaster is equipped with its own stack. Emission units at Magnum Coffee emit only noncarcinogenic VOCs or materials and are calculated using the appropriate emissions factors outlined in this correspondence. As demonstrated in Attachment A, no air contaminants are above 1,000 pounds per month (Individual or combined total).

Therefore, based upon the actual 19-month emissions for Magnum Coffee, the requirement of obtaining a PTI is not required based on the exemption as demonstrated by Rule 290.

Facility Improvements, Future Production

At the time of inspection, Magnum Coffee operated four roasters, as identified in Table 1. Since that time, two roasters (M-JB1 and M-JR1) have been decommissioned and are in the process of being replaced. Additionally, one new roaster will be added to the production facility. These units will not be equipped with thermal oxidizers. **Table 2**, below, summarizes the applicable emissions factors for the equipment expected to be in use at Magnum Coffee moving forward.

Table 2: Emissions Factors, Magnum Coffee Revised

Emissions Unit ID	Machine Code/ Description	Controlled* or Uncontrolled**	Applicable Emissions Factor (lbs./ton)		
			Carbon Monoxide (CO)	Particulate Matter (PM)	VOC as Methane
1	M-BA1/ Barth 1	Uncontrolled	1.5	0.66	0.86
2	New 1	Uncontrolled	1.5	0.66	0.86
3	New 2	Uncontrolled	1.5	0.66	0.86
4	M-PR1/ Probat 1	Uncontrolled	1.5	0.66	0.86
5	New 3	Uncontrolled	1.5	0.66	0.86

In this review of these emissions rates, LEI also calculated the maximum tons produced per year that would remain below the monthly emissions limits (combined 1,000 pounds per month uncontrolled emissions). Based on the information provided in Table 2, the maximum allowable production is 331 tons/month per stack (i.e. per roaster) to remain below the Part 290 exemption for uncontrolled emissions. This is not a concern for current or proposed operations at Magnum Coffee. In the event that production increases in the future, the emissions rates will be reevaluated.

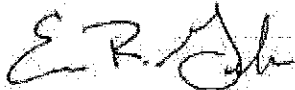
Conclusion

Magnum Coffee received a violation notice for "failure to obtain a PTI" during a recent EGLE inspection at their coffee roasting facility. Magnum Coffee contracted with LEI to assist with emissions review, calculations, and permitting, as necessary. LEI herein provides the above demonstration for exemption based on Rule 290. Furthermore, a PTI is not required for the new roasters that are to be installed this fall (operational by December 2019).

Based on the information provided in this letter, this violation is resolved pending review by the EGLE Air Quality Division. A hard copy of this letter will not be provided, unless requested.

Thank you for your consideration. Please contact me with any questions, comments, or concerns regarding this information

Sincerely,
Lakeshore Environmental, Inc.



Erin R. Gerber, P.E.
Vice President | Environmental Engineer
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Attachments: A: Emissions Calculations – 2018, 2019 YTD

Cc: Mr. Tanner Hubert – Magnum Coffee (thubert@magnumcoffee.com)
File – LEI (19-401 /ck: /ERG)