Saginaw Metal Casting Operations
Casting, Engine & Transmission
1629 N. Washington Ave
Saginaw, MI 48601

January 27, 2014

Kathy Brewer, Environmental Quality Analyst
Air Quality Division, Saginaw Bay District Office
Michigan Department of Environmental Quality
401 Ketchum Street, Suite B
Bay City, MI 48708

Dear Ms. Brewer:

Re: Response to MDEQ Letter Dated January 23, 2014
Permit Number: MI-ROP-B1991-2009a

General Motors LLC – Saginaw Metal Casting Operations (GM SMCO) submits the following response to the Michigan Department of Environmental Quality Violation Notice received electronically on January 23, 2014 (MDEQ Letter). The MDEQ Letter was issued following the submittal of the compliance evaluation of particulate matter (PM) and volatile organic compounds (VOC) emission rates from various exhaust stacks associated with the with Mold Line 6 operations. Verification of emission rates from the process by testing at owner's expense is required under Special Conditions VI.1 of EU-6ML-DC-67 and FG-6ML-ALMELT, on or before six months of the Renewable Operating Permit (ROP) expiration date. Testing was conducted November 7th – 13th, 2013 and results were submitted via a valid test report to the Michigan Department of Environmental Quality, Air Quality Division on January 10, 2014.

Table 1 Summary of Compliance Test Results

Source	Condition	Pollutant	Compliance Test Result	Emission Limit
EU-6ML-DC-67	I.2	PM	3.40 lbs/hr	2.1 lbs/hr
	I.1		0.017 lb/1000 exhaust gas	0.01 lb/1000 exhaust gas
EU-6ML-EF-04	I.2	PM	16.11 lbs/hr	11.3 lbs/hr
	I.1		0.077 lb/1000 exhaust gas	0.05 lb/1000 exhaust gas
EU-6ML-GV-02 Furnace (Flux)	I.23	PM	6.12 lbs/hr	4.1 lbs/hr
	I.24		0.058 lb/1000 exhaust gas	0.04 lb/1000 exhaust gas
	I.26	VOC	0.27 lbs/hr	0.23 lbs/hr
EU-6ML-GV-02 Furnace (Dross)	I.41	VOC	0.32 lbs/hr	0.23 lbs/hr

Preliminary analysis of these systems was conducted in August and October of 2013 and indicated the following results.

Table 2 Summary of Preliminary Test Results

Source	Condition	Pollutant	Preliminary Test Results	Emission Limit
EU-6ML-DC-67	I.2	PM	0.52 lbs/hr	2.1 lbs/hr
	I.1		0.003 lb/1000 exhaust gas	0.01 lb/1000 exhaust gas
EU-6ML-EF-04	I.2	PM	4.80 lbs/hr	11.3 lbs/hr
	I.1		0.023 lb/1000 exhaust gas	0.05 lb/1000 exhaust gas
EU-6ML-GV-02 Furnace (Flux)	I.23	PM	3.28 lbs/hr	4.1 lbs/hr
	I.24		0.049 lb/1000 exhaust gas	0.04 lb/1000 exhaust gas
	I.26	VOC	0.24 lbs/hr	0.23 lbs/hr
EU-6ML-GV-02 Furnace (Dross)	I.41	VOC	0.45 lbs/hr	0.23 lbs/hr

The particulate matter emissions of EU-6ML-DC-67, EU-6ML-EF-04, and EU-6ML-GV-02 (Flux) are inconclusive as demonstrated by the variance in average results noted within Tables 1 and 2. In addition, VOC test results for EU-6ML-GV-02 (Flux) and EU-6ML-GV-02 (Dross) were in excess of their corresponding VOC emission limitation of 0.23 pounds per hour; however, the VOC emission limitation of 0.23 pounds per hour from a stack that has an exhaust gas flowrate on the order of 23,000 scfm corresponds to a VOC concentration limitation of less than approximately 1.5 ppmv. Because the majority of total hydrocarbons in the exhaust stream are methane, the accuracy of Method 25A is inadequate to demonstrate compliance with a VOC concentration limitation of 1.5 ppmv. In addition, it is unlikely that any U.S. EPA reference test method would be adequate to measure a VOC concentrations at that level. Therefore based on the currently available test methods and process operations it is not conclusive whether there was actually an exceedence of the emission limit.

As described above, the cause (including duration and whether on-going) of the issues related to PM and VOC emissions are not fully known. The following is a summary of the actions that have been taken and are proposed to be taken to correct and prevent a reoccurrence.

Table 3 Compliance Plan and Schedule of Expected Completion Dates (*)

Action	Schedule
Set point of water flow rate was adjusted from 95 to 115 gallons per minute on EU-6ML-DC-67.	1/9/2014
Monometer replaced on EU-6ML-DC-67.	1/17/2014
Set point of water flow rate was adjusted from 115 to 140 gallons per minutes on EU-6ML-DC-67	1/27/2014
Review Historical Planned Maintenance Activities	2/15/2014
Review Process and Abatement System Operations	2/28/2014
Develop a Schedule of Compliance to Evaluate Potential Abatement System and Permit Modifications	3/15/2014
Complete evaluation of potential abatement system and permit modifications	Based upon schedule of compliance developed to evaluate abatement and permit modifications.
Implement System, Operational, Abatement and / or Permit Modifications as Required*	Based upon schedule of modifications selected during evaluation period.
Submit Test Protocol, 30 day notification & MDEQ AQD Approval	Based upon implementation of elected operational, abatement and / or permit modifications, as required.
Conduct Compliance Test	After 30 day notification & MDEQ Approval of Test Protocol.
Submit Complete Test Report	Within 60 days of test completion.

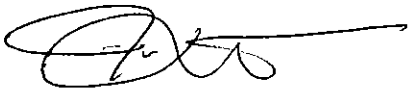
**Implementation of abatement modifications, if any, may require additional time to complete engineering, construction, and/or permitting activities, which are dependent upon the outcome of evaluations conducted and may require the hiring of external resources.*

It is important to note that although there may potentially have been individual source exceedences of particulate matter and volatile organic compounds associated with the mold line 6 operations, the overall performance of the operations is well below total pounds per hour and annual ton limitations. GM SMCO would also like to note that flux and dross operations were based upon 365 hours of operation per year. Current operations are only conducted once per week and each process is approximately 30 minutes in duration, for a total of 52 hours per year. Since compliance testing was conducted in November 2013, flux operations have been conducted ten (10) times on EU-6ML-GV-02 and seven (7) times on EU-6ML-GV-01, while dross operations have been conducted ten (10) times on EU-6ML-GV-02 and seven (7) times on EU-6ML-GV-01.

In addition, GM SMCO has had several communications with MDEQ AQD pertaining to these issues, including meeting on January 24, 2014. GM SMCO looks forward to working with the Agency to resolve this matter.

Please contact Renee Mietz, at (989) 757-1566, or by e-mail at renee.mietz@gm.com if you have questions about this response.

Sincerely,
On Behalf of General Motors LLC



John Lancaster
Plant Manager
GM Saginaw Metal Casting Operations

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

RENEWABLE OPERATING PERMIT
REPORT CERTIFICATION

Authorized by 1994 P.A. 451, as amended. Failure to provide this information may result in civil and/or criminal penalties.

Reports submitted pursuant to R 336.1213 (Rule 213), subrules (3)(c) and/or (4)(c), of Michigan's Renewable Operating Permit (ROP) program must be certified by a responsible official. Additional information regarding the reports and documentation listed below must be kept on file for at least 5 years, as specified in Rule 213(3)(b)(ii), and be made available to the Department of Environmental Quality, Air Quality Division upon request.

Source Name GM LLC Saginaw Metal Casting Operations County Saginaw

Source Address 1629 N. Washington City Saginaw

AQD Source ID (SRN) B1991 ROP No. 2009a ROP Section No. 1

Please check the appropriate box(es):

☐ **Annual Compliance Certification (Pursuant to Rule 213(4)(c))**

Reporting period (provide inclusive dates): From _____ To _____

☐ 1. During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the ROP, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the ROP.

☐ 2. During the entire reporting period this source was in compliance with all terms and conditions contained in the ROP, each term and condition of which is identified and included by this reference, **EXCEPT** for the deviations identified on the enclosed deviation report(s). The method used to determine compliance for each term and condition is the method specified in the ROP, unless otherwise indicated and described on the enclosed deviation report(s).

☐ **Semi-Annual (or More Frequent) Report Certification (Pursuant to Rule 213(3)(c))**

Reporting period (provide inclusive dates): From _____ To _____

☐ 1. During the entire reporting period, **ALL** monitoring and associated recordkeeping requirements in the ROP were met and no deviations from these requirements or any other terms or conditions occurred.

☐ 2. During the entire reporting period, all monitoring and associated recordkeeping requirements in the ROP were met and no deviations from these requirements or any other terms or conditions occurred, **EXCEPT** for the deviations identified on the enclosed deviation report(s).

☒ **Other Report Certification**

Reporting period (provide inclusive dates): From 1-27-2014 To 1-27-14

Additional monitoring reports or other applicable documents required by the ROP are attached as described:

Response to MDEQ Letter dated 1-24-14

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this report and the supporting enclosures are true, accurate and complete

John Lancaster	Plant Manager	989-757-1432
Name of Responsible Official (print or type)	Title	Phone Number
		1/27/14
Signature of Responsible Official		Date

* Photocopy this form as needed.

EQP 5736 (Rev 11-04)