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AIR QUALITY DIVISION GRAND RAPIDS DISTRICT

## **Diversified Machine - Montague**

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June 29, 2016

Michigan Department of Environmental Quality Grand Rapids District Office Attn: Eric Grinstern, Air Quality Division State Office Building, 5th Floor 350 Ottawa Avenue NW, Unit 10 Grand Rapids, MI 49503-2341

RE: Diversified Machine – Montague (SRN B1925)
Written Response to June 15, 2016 MDEQ Letter of Violation

Dear Mr. Grinstern:

Diversified Machine – Montague (DMI Montague) hereby submits this letter report in response to MDEQ's June 15, 2016 Letter of Violation. The MDEQ Letter of Violation required that DMI provide a written response to cited violations by July 5, 2016 (within 21 calendar days of the June 15, 2016 letter). The following violations were cited by MDEQ:

- PTI No. 41-00C EU\_Dryer Special Condition VI.3 and 40 CFR Part 63: Failure to maintain the furnace 3-hour block average temperature above the temperature established during the performance testing for 31 occurrences from October 2015 through April 2016.
- PTI No. 225-10A EU\_CorePUCB Special Conditions II.3 & 4: Failure to maintain the flow rate and pressure drop across the scrubber in accordance with the permit for 13 flow rate occurrences and 4 pressure drop occurrences from October 2015 through April 2016.

The following paragraphs and referenced attachments provide requested information pertaining to the dates of the violations, causes and durations of the violations, and a summary of actions taken to correct the violations. The details and information are also consistent with that documentation provided to EPA Region V in quarterly reports as part of

the facility's compliance with Administrative Consent Order (ACO) EPA-5-15-113(a)-MI-04, Paragraph 40.

While some of the circumstances did recur, none of the cited violations are ongoing. Where relevant, referenced corrective actions also include certain actions which were preventative supporting DMI's continued progress in reducing the causes and likeliness of experiencing such deviations.

## Furnace 3-Hour Block Average Temperature (1274 deg F limit)

The following are dates and timeframes of deviations which were experienced from October-December 2015 when Furnace B/2 was combusting exhaust gases from the chip dryer and from January-April 2016 when Furnace A/1 was combusting exhaust gases from the chip dryer:

- October 7 (18:00-21:00: 1179 deg F): 1 Temperature deviation.
- October 12 (9:00-12:00: 1230 deg F: 1 Temperature deviation.
- October 13 (9:00-12:00: 1084 deg F, 15:00-18:00: 943 deg F ): 2 Temperature deviations.
- October 15 (6:00-9:00: 1268 deg F): 1 Temperature deviation.
- October 19 (3:00-6:00: 1126 deg F; 9:00-12:00: 1144 deg F and 12:00-15:00: 1257 deg F): 3 Temperature deviations.
- October 20 (12:00-15:00: 865 deg F and 15:00-18:00: 672 deg F): 2
   Temperature deviations.
- October 25 (15:00-18:00: 987 deg F, 21:00-24:00: 1260 deg F): 2 Temperature deviations.
- October 26 (6:00-9:00: 1258 deg F): 1 Temperature deviation.
- October 27 (9:00-12:00: 1270 deg F, 15:00-18:00: 1225 deg F): 2 Temperature deviations.
- October 28 (18:00-21:00: 1243 deg F and 21:00-24:00: 1261 deg F): 2
   Temperature deviations.
- November 1 (6:00-9:00: 1270 deg F, 21:00-24:00: 1263 deg F): 2 Temperature deviations.
- November 3 (6:00-9:00: 1273 deg F): 1 Temperature deviation.
- November 4 (3:00-6:00: 1256 deg F: 1 Temperature deviation.
- November 5 (21:00-24:00: 1261 deg F: 1 Temperature deviation.
- November 6 (21:00-24:00: 1266 deg F: 1 Temperature deviation.

- November 7 (3:00-6:00: 1213 deg F, 6:00-9:00: 1244 deg F, 9:00-12:00: 1272 deg F and 12:00-15:00: 1273 deg F): 4 Temperature violations.
- November 9 (0:00-3:00: 1262 deg F, 9:00-12:00: 933 deg F and 12:00-15:00: 1230 deg F): 3 Temperature deviations.
- November 10 (0:00-3:00: 1260 deg F, 3:00-6:00: 962 deg F and 6:00-9:00: 1182 deg F): 3 Temperature deviations.
- November 11 (3:00-6:00: 1265 deg F, 18:00-21:00: 1103 deg F and 21:00-24:00: 1096 deg F): 3 Temperature deviations.
- November 12 (9:00-12:00: 1183 deg F): 1 Temperature deviation.
- December 9 (21:00-24:00: 1223 deg F: 1 Temperature deviation.
- January 17 (0:00-3:00: 1037 deg F): 1 Temperature deviation.
- February 7 (0:00-3:00: 1215 deg F): 1 Temperature deviation.

Corrective action documentation including the time and duration of each deviation, the applicable measurement, the root cause, and the short term and long term corrective actions as applicable is included in Attachment 1 – consistent with corrective action documentation provided to EPA in the 4<sup>th</sup> quarter 2015 and 1<sup>st</sup> quarter 2016 ACO Quarterly reports.

It's understood that MDEQ has cited 31 of the 40 deviation occurrences listed above (as reported to EPA) as violations, possibly due to the circumstances or findings of some deviations being monitoring equipment issues or due to a monitoring equipment or alarm testing event. While several of the deviations/violations which occurred in October and November were monitoring equipment or testing related, most of the low temperature deviations occurred due to low temperatures experienced in the latter portion of a three-hour block after chip charges ceased. Changes in operating practices and continued training served to minimize such occurrences after the month of November.

## Core Box Packed Bed Scrubber Flow Rate and Pressure Drop

The following are dates and timeframes of violations when core box packed bed scrubber flow rate and pressure drop deviations were experienced from October-December 2015 and January-April 2016 during periods of core machine operation:

- October 23 (1:15 AM: 14.5 gpm): 1 Flow rate deviation and violation.
- October 26 (12:55 AM: 42.6 gpm, 1:00 AM: 3.3 gpm, 5:50 PM: 0.16 gpm): 3 Flow rate deviations and violations.
- November 30 (2:20 PM: -0.15 in H20, 2:25 PM: 0.01 in H20): 2 Pressure drop deviations and violations.

- December 7 (9:30 AM: 26.4 gpm): 1 Flow rate deviation and violation.
- January 10 (9:35 PM: 0.04 in H2O, 0.06 gpm): 1 Pressure drop and 1 flow rate deviation.
- January 26 (12:00 PM: 53.2 gpm): 1 Flow rate deviation and violation.
- February 15 (11:00 AM: 8.95 gpm): 1 Flow rate deviation and violation.
- March 7 (9:00 AM: 57.3 gpm): 1 Flow rate deviation and violation.
- March 9 (11:45 AM: 0 gpm): 1 Flow rate deviation and violation.
- April 19 (8:20 PM: 0.00 gpm; 8:25 PM: 0.00 gpm): 2 flow rate deviations and violations.
- April 26 (1:20 AM: 0.07 gpm; 0.02 in H2O): 1 Flow rate deviation and 1 Pressure Drop Deviation.

Corrective action documentation including the time and duration of each deviation, the applicable measurement, the root cause, and the short term and long term corrective actions as applicable is included in Attachment 2 – consistent with corrective action documentation provided to EPA in the 4<sup>th</sup> quarter 2015 and 1<sup>st</sup> quarter 2016 ACO Quarterly reports (with the exception of April 2016 deviations which have not yet been reported).

DMI continues to investigate core box scrubber parametric monitoring deviations as they occur and take corrective and preventative measures to address such deficiencies.

## Conclusions

In summary, DMI made significant progress reducing the total number of reported deviating operating periods (an operating period is 3 hours for the furnace temperature and 5 minutes for the packed bed scrubber) from the 4<sup>th</sup> quarter 2015 to the 1<sup>st</sup> quarter 2016. The total number of deviating operating periods for both monitoring systems reduced from 45 in the 4<sup>th</sup> quarter 2015, to 8 in the 1<sup>st</sup> quarter 2016. DMI will continue to investigate deviations and take corrective and preventative actions as appropriate to minimize the likeliness of experiencing recurring events in the future.

Please contact us with any questions or requests for additional information pertaining to this response for the cited violations.

Sincerely,

Diversified Machine Montague, LLC

General Manager

cc: Mary Twa, DMI Montague HSE Specialist

Brad Saunders, P.E., ARCADIS

Enclosures:

Attachment 1: Furnace Temperature Corrective Action Report Log

For Oct-Dec 2015 and Jan-Apr 2016

Attachments 2: Packed Bed Scrubber Corrective Action Report Log

For Oct-Dec 2015 and Jan-Apr 2016