



**GREDE**



October 14, 2015

Mr. Eric Grinstern  
Environmental Quality Specialist  
Michigan Department of Environmental Quality  
Air Quality Division - Grand Rapids District Office  
350 Ottawa Avenue, N.W.  
Unit 10  
Grand Rapids, MI 49503

Re: Grede Response to Notice of Violation Dated September 23, 2015, Grede, LLC – Iron Mountain,  
801 S. Carpenter Avenue, Kingsford, MI, SRN: B1577, Dickinson County

Dear Mr. Grinstern:

Grede, LLC – Iron Mountain (Grede) has prepared this letter to address the issues outlined in the Michigan Department of Environmental Quality (MDEQ)'s Notice of Violation (NOV) dated September 23, 2015. Based on our review of the situation and our records, Grede concurs with MDEQ staff observations made on July 20, 2015 and the violations noted in the NOV. In our response, we have consolidated our replies to these violations around four main themes:

1. Lapses in recordkeeping of 9 processes over numerous occasions,
2. Fan amperage (6 Processes) and differential pressure (5 Processes) Outside of Established Ranges on July 20, 2015
3. Visible emissions on July 20, 2015 related to the cupola baghouse, and
4. Untimely fugitive opacity testing on two occasions.

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Each of these issues is further discussed in more detail below. We have specified the dates the violations occurred, have offered an explanation of the causes and durations of the violations; provided a status of the violations and provided a summary of the actions that have been taken and will be taken to prevent a reoccurrence.

## **I. Lapses in Recordkeeping of 9 Processes**

### **A. Recordkeeping - Dates of Violations**

Based on a review of available Preventative Maintenance records, days of operation and days of no operation, Grede was unable to locate documentation of daily pressure drop and fan amperage on 28 occasions between January 1, 2015 and July 31, 2015 for the following processes (Main Plant Sand System EU-P012, Main Plant Finishing EU-P014, Module Sand System EU-P032, Module Finishing EU-P034, Module Shakeout EU-P038, and Sand Conditioning System EU-P040). The dates of violation occurred on January 5, 6, 7, 8, 9, 14, 15, 19, and 24; no missed days in February; March 6 (cupola only), 13, 20, and 28; April 20 and 21; May 5 and 6; and June 3, 4, 5, 10, 17 and 24; and July 1, 8, 14, 15 and 22.

On the same 28 occasions listed above, Grede was unable to locate documentation of acid scrubber pH and flow rate each shift for the Isocure process EU-P021 and Module Isocure process EU-P043. Additionally, on those days when pH and flow rate were successfully recorded on a daily basis, Grede only recorded pH and flow rates daily instead of the requisite per shift recordings for EU-P021 and EU-P043.

### **B. Explanation of the Violation Causes**

The assigned maintenance staff responsible for daily and per shift recordkeeping was re-assigned to other assignments, and he was scheduled to work predominantly on weekends, when the plant was not operating to allow for important equipment repairs and complete preventative maintenance. Grede unintentionally failed to re-assign the daily recordkeeping obligations to others during the work week to complete the requisite recordkeeping. Grede did not realize the pressure drop and amperage recordings were not occurring on all days of operation and that pH and flow rate recordings were not occurring on both shifts of operation until the MDEQ inspection occurred.

### **C. Duration of Violations**

The maximum lapse of monitoring/recordkeeping varied depending on when a successful day of recordings did occur.

Jan. 5 – Jan. 9 (5 operational days)

June 3 – June 5 (3 operational days)

Jan. 14 - Jan. 15 (2 operational days)

Apr. 20 – Apr. 21 (2 operational days)

May 5 – May 6 (2 operational days)

Jul. 14 – Jul. 15 (2 operational days)

Jan. 19, Jan. 24, Mar. 6, Mar. 13, Mar. 20, and Mar. 28 , Jun. 10, 17, and 24; July 1, 8, and 22  
(all 1 day in duration)

None of the monitoring/recordkeeping lapses are considered to be on-going. As of July 31, 2015, new assignments were made for preventative maintenance staff to assure that the recordings were occurring as required by the permit conditions.

#### D. Summary of Correction Actions and Associated Dates

A number of positive steps have been implemented to cease the recordkeeping lapses. Grede has either hired and/or re-assigned additional staff that is now assigned as environmental PM staff as their main responsibility. The additional staff will assure that regardless of other assignments, holiday, vacations, sick leave, etc. that at least one staff will be available for every day to complete daily pressure drop and fan amperage readings on all required processes and also available every shift to complete at least one set of pH and flow rate measurements per shift for the Isocure and Module Isocure processes. Grede's maintenance lead on the late shift will be responsible for collecting Isocure and Module Isocure pH and flow readings on the second shift.

In addition, all environmental PM staff will now directly report to Grede's Environmental Health & Safety supervisor, Mr. Jack Bomberg. Mr. Bomberg will be directly responsible for making sure all requisite shift and daily readings are being made and that all readings are either within established operating ranges or that a deviation is noted and that the deviation is corrected as soon as possible.

Environmental PM staff has received additional environmental training to assure that they fully understand the air permit conditions related to monitoring and recordkeeping of all air pollution control devices, the acceptable operating ranges, the frequency of requirements and how to properly report any deviations and make any necessary corrections.

Grede is implementing a new MQ1 system that will electronically capture all required recordkeeping. Grede expects MQ1 will be fully functional by January 1, 2016. Grede has successfully implemented this same system at other Grede facilities. The MQ1 system will alert within 24 hours the Plant Manager, General Manager, EH&S Supervisor, Maintenance Supervisor and Maintenance Manager if requisite air pollution control device measurements haven't been made and recorded and if a deviation occurred. This new process will create some inherent reporting redundancies that will enable key Grede management leadership to identify a deviation quickly and enable resources to address an issue immediately.

## **II. Fan Amperage (6 Processes) and Differential Pressure (5 Processes) Outside of Established Ranges on July 20, 2015**

During the July 20, 2015 MDEQ inspection, six processes had fan amperages outside of established range (Cupola EU-P009, Main Plant Sand System EU-P012, Main Plant Shakeout EU-P018, Module Sand System EU-P032, Module Finishing EU-P034, Module Shakeout EU-P038). Additionally, five of these same processes had differential pressure outside of established range (Main Plant Sand System EU-P012, Main Plant Shakeout EU-P018, Module Sand System EU-P032, Module Finishing EU-P034, and Module Shakeout EU-P038).

### **A. Fan Amperages and Differential Pressures - Date of Violations**

All of the fan amperage and differential pressures outside of established range occurred on July 20, 2015.

### **B. Explanation of the Violation Causes**

Cupola – The cupola amperage was slightly out of range (actual audit reading was 204 vs. an upper amperage permit range of 200). The facility is unsure why the fan was out of range.

Main Plant Sand System – The likely explanation was that the collector had a likely plugged line that caused the pressure drop to read 0.0 inches of water gauge. The facility was uncertain why the fan amperage was below the proper range.

Main Plant Shakeout – Both the pressure drop and fan amperage were slightly out of the lower end of their respective ranges. The fan amperage gauge reads too high and will be replaced.

Module Sand System/Module Finishing/Module Shakeout Collector – The likely explanation for these two processes is that there was mud buildup on the wet collectors which caused the pressure drops to read above the permitted range. The fan amperage reading of 0 amps is likely due to reading an inactive analog meter that has been replaced by a digital meter. Grede will remove the inactive analog meter to avoid future confusion.

### **C. Duration of Violations**

24 hours. All air pollution control devices that were out-of-range for differential pressure and fan amperage were back in working range by July 21, 2015.

### **D. Summary of Correction Actions and Associated Dates**

All corrective actions took place on the first two shifts of July 20, 2015.

Similar to the recordkeeping issues discussed above, a number of positive steps have been implemented to more quickly identify and address equipment that is operating outside of range. Grede has either hired and/or re-assigned additional staff that is now assigned as environmental PM staff as their main responsibility. The additional staff will assure that regardless of other assignments, holiday, vacations, sick leave, etc. that at least one staff will be available for every day to address equipment that is out of range. First, the out of range reading will be recorded as a deviation. Next the deviation will be

addressed until the equipment is back in operating range. A second reading will be taken after the equipment is back in range. Both the out-of-range and within ranges will be recorded.

In addition, all environmental PM staff will now directly report to Grede's Environmental Health & Safety supervisor, Mr. Jack Bomberg. Mr. Bomberg will be directly responsible for making sure all requisite shift and daily readings are being made and that all readings are either within established operating ranges or that a deviation is noted and that the deviation is corrected as soon as possible.

Environmental PM staff has received additional environmental training to assure that they fully understand the air permit conditions related to monitoring and recordkeeping of all air pollution control devices, the acceptable operating ranges, the frequency of requirements and how to properly report any deviations and make any necessary corrections.

By January 1, 2016, Grede is planning to implement a new MQ1 system that will electronically capture all required recordkeeping. The MQ1 system will alert within 24 hours the Plant Manager, General Manager, EH&S Supervisor, Maintenance Supervisor and Maintenance Manager if requisite air pollution control device measurements haven't been made and recorded and if a deviation occurred. This new process will create some inherent reporting redundancies that will enable key Grede management leadership to identify a deviation quickly and enable resources to address an issue immediately.

### **III. Visible emissions on July 20, 2015 related to the cupola baghouse**

#### **A. Date of Violation**

Visible emissions occurred on July 20, 2015.

#### **B. Explanation of Violation Cause**

A leaking damper gasket was the cause of the visible emissions on the cupola baghouse.

#### **C. Duration of Violation**

It is estimated that the visible emissions occurred for less than 8 hours and was repaired during the first shift on the same day.

#### **D. Summary of Correction Actions and Associated Dates**

The gasket was replaced on July 20, 2015 and the damper was no longer leaking and there were no on-going visible emissions. To avoid this situation in the future, Grede personnel responsible for daily emptying of the cupola baghouse will visually inspect baghouse for any visible leakage, including the dampers.

**IV. Untimely fugitive opacity testing on two occasions.**

**A. Dates of Violation**

October 16, 2014 – The October 2014 opacity tests should have been completed no later than October 15, 2014. The actual opacity tests were completed on October 29, 2014, approximately 2 weeks late.

April 16, 2015 – The April 2015 opacity tests should have been completed no later than April 15, 2014. The actual opacity tests were completed on August 6, 2015, approximately four months late.

**B. Explanation of Violation Causes**

Miscommunications between Grede and the opacity testing firm.

**C. Duration of Violations**

The October 2014 opacity test was 14 days late. The April 2015 opacity test was four months late.

**D. Summary of Correction Actions and Associated Dates**

Grede, the opacity testing firm (Badger Labs) and Grede's consultant, GEI Consultants, Inc. held a conference call to discuss the permit conditions and the need for more timely opacity measurements in the future.

Future opacity tests will be scheduled upon completion of the most recent opacity test report. Therefore, all future opacity tests will be scheduled approximately 6 months in advance. The opacity testing has been added to the facilities Environmental Calendar and as a Preventative Maintenance task. The most recent opacity testing was completed on October 8, 2015. There were no recorded opacity measurements. The next scheduled opacity test is scheduled for the first week of April 2016.

**Closing**


We trust that the above responses have adequately addressed the issues and requests in the NOV. If Grede can be of further assistance, please contact Jack Bomberg of Grede, LLC – Iron Mountain (906-779-0258, [jbomberg@grede.com](mailto:jbomberg@grede.com)).

Respectfully,

Grede, LLC – Iron Mountain

 10-14-15

Mr. John Bomberg  
Environmental, Health & Safety Supervisor

 10-14-15

Mr. Charles Kalupa  
General Manager

Cc: Peter Mark; Director of Corporate Safety, Health & Environmental