



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
GAYLORD FIELD OFFICE



DAN WYANT  
DIRECTOR

November 12, 2015

Mr. Paul Rogers  
Lafarge Midwest Inc.  
1435 Ford Avenue  
Alpena, Michigan 49707

SRN: B1477, Alpena County

Dear Mr. Rogers:

### VIOLATION NOTICE

The Department of Environmental Quality (DEQ), Air Quality Division (AQD), received three emission test reports from Lafarge Midwest Inc. located at 1435 Ford Avenue, Alpena Michigan. The three reports included emission test results from the following:

Report 1- received September 21, 2015.

- Kilns 19, 20, 21, 22, 23 Relative Accuracy Test Audit (RATA)
  - The RATA was completed between July 15-19, 2015.

Report 2- received October 28, 2015

- Clinker Coolers 19, 20, 21 particulate matter (PM) testing.
  - The test dates included July 21, 2015 and September 3, 2015.
- Clinker Coolers 22, 23 PM testing.
  - Test dates included July 19, 2015 and August 12, 2015.
- Raw Mills 14 and 15 Total Hydrocarbons (THC) continuous emission monitor (CEM) performance test.
  - Testing was in July 2015.

Report 3- received October 28, 2015

- Raw Mills 14 and 15 PM testing.
  - Test dates included July 19-20, 2015.
- Kilns 19, 20, 21 PM testing.
  - Test dates include July 15-17, 2015.
- Kilns 22 and 23 PM testing.
  - Test date July 14, 2015.
- Kilns 19, 20, 21 HCl testing.
  - Test dates July 17-18, 2015

- Kilns 22 and 23 HCl testing.
  - Test dates August 13, 2015

The test reports were reviewed for 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 administrative rules; the conditions of Renewable Operating Permit (ROP) number MI-ROP-B1477-2012; and permit to install 106-08A.

During the review of the test results, the following violations were noted:

Process Description	Rule/Permit Condition Violated	Comments
RATA:  FG KG5 FG KG6	MI-ROP-B1477-2012 FG KG5 Reporting Special Condition (SC) VII. 4  FG KG6 Reporting SC VII. 4	A complete report of the test results shall be submitted to the AQD within 60 days following the last date of the test.
September 3, 2015 PM emission testing:  EU CLINK COOL 19 EU CLINK COOL 20 EU CLINK COOL 21  Re-test of "92 and 93"	MI-ROP-B1477-2012 FG CLINK COOL Reporting SC VII. 4	No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing.  A complete report of the test results shall be submitted to the AQD within 60 days following the last date of the test.
July 19, 2015 and August 12, 2015 PM emission testing:  EU CLINK COOL 22, and EU CLINK COOL 23	MI-ROP-B1477-2012 FG CLINK COOL Reporting SC VII. 4	A complete report of the test results shall be submitted to the AQD within 60 days following the last date of the test.
July 2015 THC CEM performance test:  Raw Mills 14 and 15	MI-ROP-B1477-2012 FG RAW MILL SYS Reporting SC VII. 4	A complete report of the test results shall be submitted to the AQD within 60 days following the last date of the test.
July 14-20, 2015 PM emission testing on all	MI-ROP-B1477-2012 FG KG5	A complete report of the test results shall be

<p>kilns, and Raw Mills 14 and 15:</p> <p>July 17-18, 2015 and August 13, 2015 HCl emission testing on all kilns:</p> <p>FG KG5 FG KG6 FG RAW MILL SYS</p>	<p>Reporting SC VII. 4</p> <p>FG KG6</p> <p>Reporting SC VII. 4</p> <p>FG RAW MILL SYS</p> <p>Reporting SC VII. 4</p>	<p>submitted to the AQD within 60 days following the last date of the test.</p>
<p>July 18, 2015, and August 13, 2015 HCl and chlorine gas emission testing</p> <p>Kiln 21 FG KG6</p>	<p>PTI 106-08A</p> <p>FG KG5</p> <p>Testing SC V.5</p> <p>FGKG6</p> <p>Testing SC V.3</p>	<p>The permittee shall test the HCl and chlorine gas emissions from the kilns while burning plastics and shingles.</p>
<p>General Condition Certification &amp; Reporting</p>	<p>MI-ROP-B1477-2012</p> <p>General Condition 18</p>	<p>Any document required to be submitted to the AQD as a term or condition of the ROP shall contain an original report certification signed by a responsible official.</p>

Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. Lafarge did not submit test results within 60 days of the last test date of the above listed RATA, PM, and HCl testing and THC CEM performance test.

Lafarge did not submit a test protocol or notify the AQD of the September 3, 2015 PM re-test of Clinker Coolers 19, 20, 21. The AQD was not given the opportunity to observe the emission testing pursuant the ROP. The AQD is not obligated to accept the results of this testing for compliance purposes.

Enclosed is page 2-1 from all of the kilns' HCl test results. The results include fuel used during HCl testing. The HCl results show testing while burning plastics and/or shingles in kilns 21, 22, and 23 did not occur. The approved test plan included burning plastic and shingles during HCl testing.

Lafarge did not include an original EQP 5736 Renewable Operating Permit Report Certification form signed by a responsible official with any of the test results.


Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by December 3, 2015 (which coincides with 21

calendar days from the date of this letter). The written response should include: an explanation of the causes of the violations; whether the violations are ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violations and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

If Lafarge Midwest Inc. believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violations cited above. If you have any questions regarding the violations or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,



Gloria Torello  
Environmental Quality Analyst  
Air Quality Division  
989-705-3410

Enclosure

cc: Ms. Janis Ransom, DEQ

cc/via e-mail: Mr. Travis Weide, Lafarge Midwest Inc.  
Ms. Lynn Fiedler, DEQ  
Ms. Teresa Seidel, DEQ  
Mr. Thomas Hess, DEQ  
Ms. Karen Kajiya-Mills, DEQ  
Mr. Kurt Childs, DEQ  
Mr. Rob Dickman, DEQ

## 2.0 HCL AND PARTICULATE MATTER RESULTS

Testing for HCl and PM was conducted by AECOM during the time period of July 14-August 13, 2015. The objective was to sample HCl concentrations by utilizing EPA Method 26A and PM concentrations by EPA Method 5.

Tables 2-1 and 2-7 summarizes the test results and operating conditions of the each source tested.

Table 2-1. Summary of Kiln HCl Test Results

Source	O <sub>2</sub> (%)	HCl Concentration		Cl Concentration		HCl Equivalent Emission (ppmvd, dry) @ 7% O <sub>2</sub>	HCl Equivalent Permit Limit (ppmvd @ 7% O <sub>2</sub> )	HCl Equivalent Emission Rate (lb/hr)	HCP Equivalent Emission Permit Limit (lb/hr)
		ppmvd	ppmvd @ 7% O <sub>2</sub>	ppmvd	ppmvd @ 7% O <sub>2</sub>				
K19	7.4	13.72	14.13	0.02	0.02	14.15	65	5.76	36
K20	8.8	1.10	1.27	0.01	0.01	1.29	65	0.56	36
K21	8.9	8.96	10.38	0.02	0.02	10.42	65	4.26	36
WGS	7.9	1.335	1.46	0.02	0.02	1.50	170 <sup>a</sup>	2.28	162 <sup>a</sup>

<sup>a</sup> HCl + 2 x (Cl) = HCl Equivalents

Table 2-2. Summary of Kiln and WGS Operating Conditions During HCl Testing

Kiln	Date	Fuel Used	Burning Zone Temperature (°C)	Raw Material Feed Rate (metric tons/hr)	Kiln Dust Recycle Rate (metric tons/hr)
K19	7/17/15	coal/coke/plastics/shingles	1431	74.64	5.04
K20	7/18/15	coal/coke/plastics/shingles	1304	66.85	5.98
K21	7/18/15	coal/coke/plastics	1369	65.28	9.11
WGS - K22 <sup>a</sup>	8/13/15	coal/coke/shingles	1426	120.3	6.87
WGS - K23 <sup>a</sup>	8/13/15	coal/coke/plastics/shingles	1368	120.6	7.05

<sup>a</sup> Wet Gas Scrubber is based on an average of Kiln 22 and Kiln 23 operating conditions.

Table 2-3. Summary of Fuel Usage and Production Data During HCl Testing

Kiln	Date	Fuel Used	Clinker Produced (metric Tons) <sup>b</sup>	Plastics Feed (mt/h)	Coal/Coke Feed (mt/h)
K19	7/17/15	coal/coke/plastics/shingles	519	1.91E-04	6.44
K20	7/18/15	coal/coke/plastics/shingles	375	2.81E-04	7.54
K21	7/18/15	coal/coke/plastics	403	2.81E-04	7.07
WGS - K22	8/13/15	coal/coke/shingles	788	-- <sup>a</sup>	9.74
WGS - K23	8/13/15	coal/coke/plastics	776	-- <sup>a</sup>	11.11

<sup>a</sup> Data system indicated plastic feed activated during testing

<sup>b</sup> Supporting data in Appendix D

