

HMI Hardwoods LLC

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N0786, RV#2
20190820

August 20, 2018

Mr. Mike Kovalchick
Senior Environmental Engineer
DEQ, AQD Jackson District,
301 East Louis B Glick Highway
Jackson, Michigan 49201

RECEIVED
MDEQ - JACKSON

AUG 27 2018

AIR QUALITY DIVISION

Subject: SRN: N0786, Lenawee County- Response to 8/1/18 Letter of Violation

Dear Mr. Kovalchick:

Thank you for your assistance and communications as HMI Hardwoods, LLC takes steps to ensure compliance with Air Quality Division regulations. We have initiated actions necessary to correct the cited violations, and we are pleased to provide this response to your letter of August 1, 2018. We take this matter very seriously, and are committed coming into compliance as soon as possible.

In the Table that follows, please see responses to the requested information of your August 1st letter. For ease of review, we have placed the issues from your 8/1/18 letter in the rows, followed by descriptions of the issues in the first two columns and responses to your required information on:

- the dates the violations occurred;
- an explanation of the causes and duration 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 violation and
- the dates by which these actions will take place; and
- what steps are being taken to prevent a reoccurrence.

In addition, we have contacted H&H Monitoring of Manchester, MI to perform the stack test for verification of CO emission rates from the wood fired boiler and submit a complete test plan for review and approval to the AQD Technical Programs Unit and District Office as required in your letter. H&H Monitoring is familiar with these testing procedures and is preparing a proposal to conduct this work including preparation of the test plan for approval.

We have also had our boiler consultant and engineer, James Opaczewski of Turbo Dynamics, who is familiar with our system perform a thorough inspection of the boiler and its operation, and provide recommendations for improvement. His recommendations would reduce CO emissions by equipment and operational controls, and is the basis for the required Energy Assessment.

We have also retained a consultant to assist with addressing all the topics in your letter including the Boiler MACT regulatory program (40 CFR Part 63, Subpart JJJJJJ).

Please see the following Table that shows the progress and plans for compliance.

Process Description and Rule/Permit Condition Violated:	Comments from 8/1/18 MDEQ letter	The dates the violation occurred;	An explanation of the causes and duration of the violation;	Whether the violation is ongoing	Summary of actions that have taken place and are proposed to be taken to correct the violation	Dates by which these actions will take place	What steps are being taken to prevent a recurrence:
<p>28 MM BTU/hour wood fired boiler controlled by multi-clone collector.</p> <p>PTI 460-85, Condition # 16 and Rule 210.</p>	<p>Wood fired boiler carbon monoxide (CO) monitor readings suggests emissions exceed PTI emission limitations of 13.1 pounds per hour and 57.5 tons per year. In fact, annual CO emissions are calculated to be in excess of 100 tons triggering Major source requirements</p>	<p>We know the CO monitor readings are variable, and were certainly showing high values during the site inspection on 7/10/18 that were above limits. We feel the CO limits will be met by the proposed actions and plan for compliance explained in this Table. Typical operation of the wood fired boiler has a mixture of green and dry sawdust and chips for fuel from 2 different storage silos. On April 23rd, we experienced a fire in our dry silo which damaged the silo unloader. We were not able to use dry fuel in the boiler for approximately 12 weeks. Our boiler operators had to learn to run without dry fuel. This also put more demand on the secondary trailer system we use for the dust. This also contributed to the conditions observe at that area.</p>	<p>The cause of the high CO reading is likely the fuel mix ratio and boiler air mixture during burning. This includes green and dry sawdust and chips for fuel. Also described in the Turbo Dynamics letter (8/1/2018) are the effects of the underfire and overfire air maintenance and adjustments. The duration of the violation is difficult to determine since we have a required yearly internal inspection of the boiler typically in October. We use this time for major planned maintenance and repairs. Turbo Dynamics would have assisted in these repairs and tuning of the boiler operation at this time.</p> <p>We are also carefully and methodically going through the O2/CO gas analyzer for proper operation. Recent calibration indicated the need to change the O2 and CO sensors along with a 2-stage filter. These parts are on order and will be installed as soon as they arrive at HMI. Hopefully, this will get the monitor operating properly. Eventually we will be able to compare our monitor readings to the stack test reading.</p>	<p>Recent recordings of CO indicate varied values from 0.2 to 1000 PPM. This variability has led us to do more research on the possible causes and not just except the readings. The previous column explained the parts we currently have on order to repair the gas analyzer.</p>	<p>We have repaired the chart recorder and it appears to be operating properly. The span the chart records the CO needs to be adjusted to use more of the chart for better viewing and analysis. We have had our boiler consultant (Turbo Dynamics of Toledo, OH) inspect the boiler and provide recommended upgrades to the boiler and operations to reduce CO. Most of the recommendations will be implemented during the October boiler outage/inspection. One critical recommendation will take more time with engineering and planning. We are scheduling the CO stack test with H&H Monitoring. We are evaluating the CO emissions of the wood-fired boiler and comparing to Major source thresholds. We have retained a consulting firm Hands & Associates, Inc to assist.</p>	<p>Our boiler consultant, Turbo Dynamics has already provided to us a report for recommended upgrades (as I emailed a copy of the report to you on 8/2/18). The O2/ CO monitor and recording devices are being reviewed for proper operation. Operators are engaged in the boiler operation including fuel mix/air ratios to prevent high CO values. We have also retained a consultant on 8/15 to assist with calculating CO emissions in tons/yr.</p>	<p>Boiler upgrades, documented emissions tracking procedures, CO meter maintenance, and operator training to be put in place. We will have Turbo Dynamics write a boiler fuel and air operating document.</p>

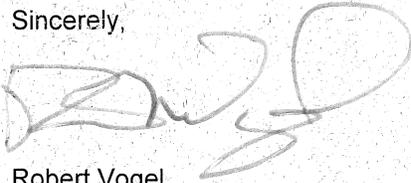
Process Description and Rule/Permit Condition Violated:	Comments from 8/1/18 MDEQ letter	The dates the violation occurred;	An explanation of the causes and duration of the violation;	Whether the violation is ongoing	Summary of actions that have taken place and are proposed to be taken to correct the violation	Dates by which these actions will take place	What steps are being taken to prevent a reoccurrence:
<p>Wood fuel handling system</p> <p>PTI 460-85, Condition # 15 and Rule 370</p>	<p>Improper handling of collected air contaminants resulting in opacity and accumulation of contaminants on the ground.</p>	<p>This has been a difficult area to keep tightly controlled such that no saw dust accumulates in some outside areas of the dust transfer to trucks. As described above, we experienced a fire in our dry sawdust silo on April 23rd which put the silo out of commission for about 12 weeks while repairs were completed. This put more demand on this area.</p>	<p>The cause of some sawdust accumulation is from the transfer to the trucks is not "air tight," and some sawdust can escape from small openings in the truck, gasket areas of the transfer pipe and other areas. This, along with the heavy usage while the dry silo was under repair, is the major cause. We have implemented short term procedures and are designing long term solutions to address the issue.</p>	<p>During the transfer of sawdust to trucks some sawdust may accumulate on the ground. We implemented regular cleaning of this area and will continue to do so.</p>	<p>We are reviewing and improving our handling of sawdust during the transfer to trucks. Focusing on opacity and proper handling of accumulated materials/debris. We are designing 2 new components to the transfer system that should solve the issue by containing fugitive dust within a covered shelter which also will serve as a wind break. This will also assist in keeping the area clean.</p> <p>We have also met with the trucking company that loads and hauls the dust away. Their opinion was important on this issue. It is also important to have them onboard with the corrective actions to be taken. A baghouse log form has been developed and put in use to record the photohelic gauge readings on both baghouses. The log form will have upper and lower control limits of the gauge readings including a statement about a blown bag for quick reference.</p>	<p>In process now – We are designing the new shed like containment area that will solve this issue and hopefully have it in place before winter arrives. In the meantime, sweeping and collection will occur.</p>	<p>Documented operator procedures/training along with the upgrade of the transfer system will prevent a reoccurrence. The procedure will have improved housekeeping standards with regular weekly cleaning.</p>

Process Description and Rule/Permit Condition Violated:	Comments from 8/1/18 MDEQ letter	The dates the violation occurred;	An explanation of the causes and duration of the violation;	Whether the violation is ongoing	Summary of actions that have taken place and are proposed to be taken to correct the violation	Dates by which these actions will take place	What steps are being taken to prevent a reoccurrence:
<p>28 MM BTU/hour wood fired boiler controlled by multi-clone collector.</p> <p>PTI 460-85, Condition #28</p>	<p>Wood fired boiler is started up using wood and diesel fuel instead of permit required natural gas.</p>	<p>This occurred during boiler start up for the past several years. This is done on average 5 to 7 times per year. In a perfect scenario, it would be once per quarter for cleaning and maintenance. Typical operation of the boiler is to only take it down for necessary repairs which are critical to the boiler operation.</p>	<p>The cause is the operators found it quicker and easier to start the fire inside the boiler. Which became their preference. Recent questioning of the operators indicated they were told the natural gas start-up needed repair. Currently, none of the operators know how to use it. This is being changed through maintenance and training.</p>	<p>Not ongoing. We will switch the starting of the boiler fire to natural gas. Purvis and Foster (Boiler Company) has been contacted to review the maintenance and safe operation of the natural gas start up before we implement this procedure. Purvis and Foster will be asked to do operator training and to write an operating procedure for future reference.</p>	<p>Initiating procedures for the Wood fired boiler to startup using natural gas. Purvis and Foster will be on site the week of 8/20/18 to perform the functions previously described.</p>	<p>In process now with completion the week of 8/20/18 without any maintenance issues.</p>	<p>Documented operator procedures/training. Including regular maintenance.</p>
<p>Boiler</p> <p>BOILER MACT regulatory program (40 CFR Part 63, Subpart JJJJJJ</p>	<p>Requirement for an Energy Assessment and for boiler tune-ups required to be conducted on a biennial basis.</p>	<p>We have regular yearly inspections/maintenance and therefore meet this requirement of the program – however, we have not sent in the notification.</p>	<p>We were not aware of this regulation, but have retained a consultant to bring us into compliance</p>	<p>We have the basis for the Energy Assessment and have been doing the tune ups.</p>	<p>Contacted our boiler service vendor to perform Assessment and tune-ups and have retained a consultant to bring us into compliance</p>	<p>In process – should be complete by 10/1/18</p>	<p>Schedule regular maintenance with boiler service vendor.</p>

Also, as you requested, we will provide 30 days of continuous opacity monitor chart readings within 60 days of the date of your 8/1/18 letter. The chart recorder has been repaired and is operating properly. The manager and boiler operators have been instructed about the opacity readings with the 20% opacity limitation in the PTI. Each operator has been given a copy of permit number PTI 460-85 and instructed to stay in compliance with all permit conditions.

Please let us know if you have any questions or require further information, we will keep you updated of our progress.

Sincerely,



Robert Vogel,
President
HMI Hardwoods, LLC



Ronald Steele
Facilities Manager
HMI Hardwoods, LLC

cc: Ms. Jenine Camilleri,
Enforcement Unit Supervisor
DEQ,AQD
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