DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

SCANNED

FCE Summary Report

Facility :	LEXAMAR CORPORATION	**SRN :**	N2812
Location :	100 LEXAMAR DRIVE	**District :**	Gaylord
		County :	CHARLEVOIX
City :	BOYNE CITY **State:** MI **Zip Code :** 49712	**Compliance Status :**	~~Non Compliance~~ compliance
Source Class :	MAJOR	**Staff :**	Bill Rogers
FCE Begin Date :	3/21/2018	**FCE Completion Date :**	3/21/2019
Comments :			

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
03/21/2019	Scheduled Inspection	Compliance	Compliance inspection and record review. See separate MS-Word file for inspection text.
03/20/2019	MAERS	Compliance	Paper MAERS submittal. Company also submitted MAERS electronically, earlier. The paper submittal is certified by Charlie Siska, General Manager.
02/20/2019	ROP Annual Cert	Compliance	Annual Compliance ROP No. MI-ROP-N2812-2015b Properly certified by Charlie Siska, General Manager. Includes and reports the period of noncompliance in May of 2018 which resulted in a Consent Agreement.
02/20/2019	ROP SEMI 2 CERT	Compliance	ROP No. MI-ROP-N2812-2015b Properly certified by Charlie Siska, General Manager. Claims no deviations during the second half of 2018.
02/20/2019	Excess Emissions (CEM)	Compliance	2018 4th Quarter EER. Claims compliance. Properly certified by Charlie Siska, General Manager.
11/02/2018	Excess Emissions (CEM)	Compliance	2018 3RD Quarter EER. Properly certified by Charlie Siska, Plant Manager.
08/07/2018	ROP Semi 1 Cert	Non Compliance	ROP certification including period of operation without RTO. Company had already informed AQD about this. Company lists it as "non-compliance."

Activity Date	Activity Type	Compliance Status	Comments
08/07/2018	Excess Emissions (CEM)	Non Compliance	2018 2nd Quarter EER. Properly certified. Facility reports they were in non-compliance for some of this period due to operating without their RTO.
07/13/2018	ROP Other	Non Compliance	Written Report explanation of abnormal condition and malfunction of EU-URSAMINOR and EU-BCPL. Written response to violation notice dated June 18, 2018. Detailed review will be in a Compliance Activity- Other report.
07/13/2018	Other	Non Compliance	LOV response review
06/15/2018	Rule 912	Non Compliance	Failure of RTO. Operating without RTO.
05/31/2018	Complaint Investigation	Non Compliance	Odor survey and complaint investigation
05/01/2018	ROP Other	Compliance	Monthly VOC. Certified by Charlie Siska, General Manager. The report claims all emissions are significantly below the appropriate emission limits.
04/12/2018	Odor Evaluation	Compliance	Odor Survey.

Name: William J Rogers L. **Date:** 3/29/2019 **Supervisor:**

Compliance Activity

Please type in...to start a search SRN/ID

Facility:LEXAMAR CORPORATION Address:100 LEXAMAR DRIVE, BOYNE CITY

Contact:Bill Rogers - SRN/ID:N2812 District:Gaylord

Activity Details

Record added successfully

Activity Type: Scheduled Inspection * Activity Date: 03/21/2019 * Staff: Rogers, Bill *

Activity Contact: Anderson, Daniel Position: Sr. Industrial Eng.

Compliance Status: Compliance Activity ID: N281248237

Subject of Activity: Compliance inspection and record review. See separate MS-Word file for inspection text.

Complaints

There are no resolved complaints available for this activity.

Create / Edit Report

Save Add Delete Help

Summary

Activity Date	Activity Type	Staff	Reports
03/21/2019	Scheduled Inspection	Bill Rogers	
07/13/2018	Other	Bill Rogers	CA_N281245167
05/31/2018	Complaint Investigation	Bill Rogers	CA_N281244526
04/12/2018	Odor Evaluation	Kurt Childs	CA_N281244111
04/19/2017	Stack Test Observation	Bill Rogers	CA_N281239444
03/09/2017	Scheduled Inspection	Bill Rogers	CA_N281238874
06/22/2016	Scheduled Inspection	Bill Rogers	CA_N281235164
09/23/2015	Scheduled Inspection	Becky Radulski	CA_N281231364
03/30/2015	Self Initiated Inspection	Becky Radulski	
09/01/2014	Other	Becky Radulski	CA_N281227019
02/14/2014	Other	Becky Radulski	CA_N281224305

William J. Rogers L. 3/24/2019 SN

Inspection report N2812; Lexamar

CA_N281245167

On Thursday, March 21, 2019, I inspected LexaMar in Boyne City. Mr. Daniel Anderson, Senior Industrial Engineer, showed me around the facility. I inspected to determine compliance with their Renewable Operating Permit, MI-ROP-N2812-2015, and with Air Quality Rules.

I requested records to show compliance, but Mr. Anderson reminded me that all the records required in the permit are in the quarterly reports LexaMar sends us. Therefore, I reviewed the quarterly report to complete this part of the full inspection.

I did not find any violations during my inspection.

Facility

LexaMar makes injection molded plastic parts for the auto industry. They mold parts, assemble them in some cases, and coat them as needed. Their air use permits are for coating and adhesive application equipment, plus some minor items such as parts washers used for general maintenance.

The two main coating operations are the Body Color Paint Line (BPCL) and the Ursa Minor Line. The BPCL is a conveyorized spray coating line. The Ursa Minor is a coating dip line. (Ursa Minor is "The Little Dipper," and this is a dipping line, hence the nickname.)

Volatile Organic Compound emissions from the BPCL and Ursa Minor are controlled by a Regenerative Thermal Oxidizer (RTO). This burns paint fumes to prevent their emission to the ambient air.

MI-ROP-N2812-2015 Permit Condition and Record Review:

Table EU-BPCL: Body Color Paint Line. Automated coating line, spray coating of plastic parts.

Conditions I.1 and I.2 set VOC limits of 8.6 pounds per hour and 37.6 tons per year. The quarterly Excess Emissions Report submitted in January 2019 shows a 12 month rolling time period emission rate of 4.2 tons. This complies with the tons per year limit.

In general the BPCL complied with its 8.6 pounds per hour limit. In recent months it has emitted between 2 and 4 pounds per hour, which complies. In May and June of 2018 it emitted 72.8 and 70.3 pounds per hour on the worst days, respectively. This was due to operating without the Regenerative Thermal Oxidizer, in violation of the permit. AQD conducted escalated enforcement over this. The violation was settled via a Consent Agreement.

Condition III.1 requires an exhaust air recirculation system. This is installed and appears to be operating properly. Mr. Anderson pointed it out to me during my inspection.

Condition III.1 also requires the flash off areas and curing oven to be routed to the RTO, and for the RTO to be installed and operating properly. Ducts to vent the flash off and curing oven are in

place. The RTO is installed and appeared to be operating properly, based on temperature readings at the time of my inspection.

Condition III.2 requires a center bed operating temperature of 1400 degrees f or higher. This does not exactly apply any more, since the Federal Maximum Achievable Control Technology standard for plastic parts coating, Subpart PPPP, requires them instead to operate above the minimum temperature the RTO had during a successful stack test. This turns out to have been 1747 degrees f. The temperatures at the time of my inspection were 1778 degrees f for Bed A, 1762 for Bed B. Both of these are above the 1747 degrees which would be required by MACT PPPP and, incidentally, the 1400 degrees f required by Condition III.2.

Mr. Anderson explained that right now Bed A is in use and Bed B is in standby; they tend to keep it near operating temperature because it takes a long time to get back up there, if they let it cool down.

In a previous inspection I cited LexaMar for a very minor violation. They were recording RTO temperatures as required, but MACT PPPP requires three hour block average temperatures and LexaMar was not doing that automatically. The violation was minor because if they had the 10 minute readings the 3 hour ones were simple to obtain. In any case LexaMar modified their data recording system to include 3 hour block averages as required. The temperatures I cited in this inspection report were the 3 hour averages. The 3 hour averages are based on one reading each 10 minutes. They also record the 10 minute readings.

Condition III.3 requires the equipment operate at or above a differential pressure as specified in the operating plan. The operating plan specifies 0.007 inches w.g. According to the computer data report, differential pressure in two zones of the BPCL was 0.014 and 0.015 inches w.g. This complies with the permit requirement.

Condition III.4 requires monitoring and recording equipment to be installed and operating properly. All the required equipment appeared to be installed and operating properly.

Condition III.5 requires VOC destruction efficiency of 95 percent or better. The most recent stack test gave a DRE of 96.7 to 98.5%, which complies with the permit condition.

Condition III.6 essentially repeats Condition III.3.

Condition III.7 requires paint applicators be operating properly. I did not go into the "clean area" of the paint spray operation, but some areas were visible through windows. The paint applicators appeared to be operating properly.

Condition III.8 requires exhaust filters to be installed and operating properly. Those areas of the spray line I could see had exhaust filters in place, and in good condition.

Condition III.9 requires disposal of waste in a way that minimizes introduction of VOCs to the air. Everything I saw was well contained, in compliance with this condition.

Condition IV.1 requires pressure drop monitors. I saw the data these produce. During the inspection Mr. Anderson pointed out several of the sensors to me.

Condition IV.2 requires a retention time of 0.5 seconds in the RTO. This is a design feature of the RTO; I was not able to check it during an inspection. If the RTO was designed to accomplish this retention time, it should still be complying with the condition.

Condition IV.3 requires bed temperature sensors in the RTO beds. These were sending data to the recording system at the time of my inspection, suggesting that they are in place. As they are at extremely high temperatures in an enclosed space, I was not able to actually see the sensors.

Condition V.1 requires Method 24 testing of 10 coatings per year. Mr. Anderson showed me some example data from these tests during my inspection.

Condition V.2 requires VOC efficiency testing each 5 years. The most recent stack test was April 18-20, 2017. This is less than 5 years ago, in compliance with the permit condition.

Condition VI.1 requires monthly and 12 month rolling time period VOC calculations. These are included in the quarterly report and comply with the permit condition.

Condition VI.3 sets a minimum bed temperature of 1400 degrees f. The RTO beds are hotter than this. This complies with the permit condition.

Condition VI.4 sets a minimum pressure drop of 0.007 inches w.g. for the enclosure. Pressure drop is higher than this. This complies with the permit condition.

Conditions VI.7 through 11 refer to defining and responding to excursions. There were no excursions during my inspection so I did not see these conditions in action. During May and June 2018 the company failed to respond to excessive emissions as required by their permit. This is part of the compliance case which ended in a Consent Agreement between LexaMar and AQD.

Condition VI.12 requires maintaining the monitoring system properly. It appeared to be operating properly, and monitor downtime reports do not show a problem. Therefore it appears maintenance has been adequate.

Condition VI.13 refers to a Quality Improvement Plan, if needed. There are none in operation.

Condition VI.14 requires keeping records of coating composition. I forgot to ask for any of these, but they were supplied to AQD in previous inspections. The quarterly report contains much of this information.

Condition VI.15 requires keeping information about coatings used in the BCPL, including VOC contents and amounts used each day. This is included in the quarterly reports and complies with the permit condition.

Condition VI.16 requires LexaMar to provide coating data to AQD upon request. I forgot to ask for any during this inspection, but LexaMar has provided it to us on request in the past.

Section VIII requires annual certifications, semi-annual certifications, and quarterly emission reports. We have received all of these.

Condition VIII.1 sets RTO stack dimensions as a maximum diameter of 37 inches and a minimum height of 55 feet. The stack appears to meet these requirements. Mr. Anderson told me it has not been altered since installation.

Condition IX.1 requires a pressure differential monitoring plan. We have one in our files. We approved it September 28, 2015.

Condition IX.2 requires a Malfunction Abatement Plan. We have a revised plan we approved September 12, 2018.

Table EU-URSAMINOR

Most of the conditions for this line are similar to conditions for the BPCL. The Ursa Minor line uses the same RTO as the BCPL, and has the same requirements for operating the RTO, RTO design, RTO stack height, and so on. These conditions were discussed in the BCPL section of this report, above.

The following conditions were specific to EU-URSAMINOR:

Condition I.1 and I.2 set VOC limits of 14.9 pph and 29.7 tons per 12 month rolling time period. According to the quarterly report, the Ursa Minor had excess emissions during the same violation period as the BCPL; it was included in the same enforcement case and consent agreement as the BCPL. At other times it is emitting from 3 to 6 pounds VOC per hour, with a 12 month running total of 9.8 tons. These normal operating rates comply with the permit limit.

Conditions III.1 and 2 require waste material to be handled to minimize fugitive emissions. Waste materials were in closed containers. This complies with the permit condtion.

Condition III.3 requires a pressure drop for the enclosure of 0.007 inches w.g. or more. At the time of my inspection pressure drop in the Ursa Minor was 0.03 and 0.02 inches w.g. in two zones. This complies with the permit condition.

Condition III.4 requires the Ursa Minor be ducted to the RTO. The exhaust ducts are in place, so it appears the facility is in compliance with this condition.

Condition III.8 requires automatic measuring of materials used in this line. Mr. Anderson showed me the pipes and described the pumping systems and material use data. They appear to comply with this condition.

Condition III.9 specifies introducing make up air between the double doors in the Ursa Minor line. The equipment to do this is still in place, in compliance with this permit condition.

Condition VI.2 requires monthly and 12 month emission data. This is present in the quarterly reports, and complies with the permit condition.

Condition VI.4 requires recording gallons of coating used, VOC content, and VOC emissions. This is included in the quarterly reports and complies with the permit condition.

EU-SOLV, cleaning solvents

Condition I.1 and I.2 set VOC limits of 7.8 pounds per hour and 20 tons per 12 month rolling time period. The quarterly report shows emission rates of 0.7 to 1.3 pounds per hour, and 4.1 tons per 12 month rolling time period. This complies with the permit condition.

Condition VI.1 requires recording monthly and 12 month emission data. This is being done.

FG-PPPP, flexible group for MACT-subject equipment, 40 CFR 63 Subpart PPPP

Condition I.1 sets a limit of 0.16 pounds of organic HAP per pound of coating solids, based on a 12 month rolling time period. This figure is 0.01 pounds HAP for BCPL and 0.06 pounds HAP for Ursa Minor, according to the quarterly report. This complies with the permit condition.

Section II sets HAP limits for operating under the "Compliant Materials Option," but LexaMar does not use this option. (They use emission controls instead.) Therefore these conditions are not applicable.

Condition III.1 requires temperature of the RTO not fall below the combustion temperature established during the RTO's compliance test. As discussed under the conditions for EU-BCPL, above, the RTO is operating in compliance with this permit condition.

Condition III.1 also requires total enclosure for the coating lines and requires air to flow into the enclosure. It requires a pressure drop of at least 0.007 inches w.g. As discussed under EU-BCPL and EU-URSAMINOR, this is being done and the required data is being recorded.

COMMENTS:

Facility maintenance appears to be very good.

Mr. Anderson told me the company had Bed B of the RTO rebuilt last summer. They replaced all the heat medium inside. The heat medium is layers of gravel of different sizes. Mr. Anderson

showed me pictures of the inside of the RTO. The inside of the RTO shell looked to be in good condition in the pictures.