

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

N281235164

FACILITY: LEXAMAR CORPORATION		SRN / ID: N2812
LOCATION: 100 LEXAMAR DRIVE, BOYNE CITY		DISTRICT: Gaylord
CITY: BOYNE CITY		COUNTY: CHARLEVOIX
CONTACT: Daniel Anderson , Sr. Industrial Eng.		ACTIVITY DATE: 06/22/2016
STAFF: Bill Rogers	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection		
RESOLVED COMPLAINTS:		

On June 22, 2016, I inspected LexaMar. Mr. Daniel Anderson, Sr. Industrial Engineer, took me around the facility and reviewed records with me.

Upon reviewing records after the inspection, I discovered a violation. LexaMar is not demonstrating compliance with MACT PPPP, 40 CFR 63.4480 and following, in the way that Subpart requires. Specifically, 40 CFR 63.4567(a) requires determining the average RTO bed temperature during the RTO's periodic stack test. Then, to show compliance, MACT PPPP and MI-ROP-N2812-2015, Table FG-PPPP, Condition III.1(a), require maintaining RTO bed temperatures above the average established during that stack test, based on a 3 hour block average. Instead, LexaMar is attempting to demonstrate compliance by showing that bed temperature is above 1400 degrees f, a limit set in older Air Use Permits. Since this was not the average bed temperature during stack testing, this is not showing compliance as required by MACT PPPP. This is a violation of MACT PPPP and of the ROP, Table FG-PPPP, Condition III.1(a).

Less importantly, MI-ROP-N2812-2015, Table FG-PPPP, Condition VI.3.1 requires reducing temperature data in the RTO to 3 hour block averages and recording the block averages. This is not being done. This violation is less significant because the data is being recorded at 15 second intervals, so the missing 3 hour block averages could be recovered if needed.

I will notify LexaMar of these problems.

#### FACILITY

LexaMar makes plastic parts for the automotive industry. I saw molding, coating / painting, and assembly of auto parts while I was on site. Their air use permits are for coating and adhesive application equipment, plus some minor items such as a mineral spirits-type parts washer.

The two main coating operations are the BPCL, Body Color Paint Line, and the Ursa Minor, so nicknamed because Ursa Minor is the constellation of the Little Dipper, and the Ursa Minor Line is a dip coating operation. Air emissions from these two lines are controlled by RTOs.

There are two RTOs, A and B. LexaMar only uses one at a time, for economy. Mr. Anderson told me that originally they used both at once, but by adjusting processes and airflows they were able to reduce the airflow such that one of the RTOs was able to handle all of it.

They keep both RTOs hot all the time, although only using one of them. They switch back and forth periodically to make sure both RTOs work properly. That way they're sure that if they had a problem with one of the RTOs, they could rely on the other until the broken one was back in operation.

**PERMIT CONDITION REVIEW:** I was not able to check every permit condition. The permit conditions I did check were:

Permit MI-ROP-N2812-2015, Table EU-BPCL:

Condition I.1 and I.2 set VOC limits of 8.6 pounds per hour and 37.6 tons per year. Example data, attached, and the most recently Quarterly Excess Emission Report indicate emissions of around 2.5 pounds per hour, at most, and 0.3 or 0.4 tons per month, maybe 3 or 4 tons per 12 month rolling time period. This complies

with the permit limit.

Condition III.1 requires an exhaust air recirculation system. Mr. Anderson pointed this out to me. It also requires the flash off areas and curing oven be routed to the RTO, and that the RTO be installed and operating properly. When I saw it, the equipment appeared to be operating in compliance with this condition.

Condition III.2 requires a center bed operating temperature of 1400 degrees f or higher. Mr. Anderson showed me temperature data on his computer, indicating that the temperature is running about 1800 degrees f. Example data, attached, shows that on 6/16 Bed B temperature was about 1797 degrees f and Bed A was about 1830 degrees f. This complies with the permit condition.

Condition III.3 requires the equipment enclosure operate at or above a differential pressure as specified in a plan. The pressure specified is 0.007 inches w.g. Example data, attached, shows differential pressures of about 0.01 inches w.g. This complies with the permit condition.

Condition III.4 requires monitoring and recording equipment be installed and operating properly. Although I was not able to check it all, it appeared to be operating properly.

Condition III.5 requires VOC destruction efficiency of 95 percent or better. I was not able to check this in an on-site inspection, however the most recent stack test indicates a DRE of 96.7 to 98.5%, which would comply with the permit condition.

Condition III.6 essentially repeats Condition III.3.

Condition III.7 requires paint applicators be operating properly. From what I could see, they were operating with an even spray pattern and applying paint properly. There did not seem to be excessive overspray. This appears to comply with the permit condition.

Condition III.8 requires exhaust filters be installed and operating properly. I saw some which were installed and operating properly. Mr. Anderson and I spoke to the maintenance crew who said they change filters twice a week. This appears to comply with the permit condition.

Condition III.9 requires disposal of waste in a manner which minimizes release of VOCs to the air. Waste was in closed containers and some discarded air filters we saw were in airtight bags. This complies with the permit condition.

Condition IV.1 requires pressure drop monitors. Mr. Anderson pointed out some of the sensors for me. The pressure drop information is being recorded properly, so measuring and recording equipment works. This complies with the permit condition.

Condition IV.2 requires a retention time of 0.5 seconds in the RTO. I could not check this in an onsite inspection.

Condition IV.3 requires bed temperature sensors on the RTO beds. Data from these sensors is available, so they are present, in compliance with the permit condition.

Condition V.1 requires Method 24 testing of 10 coatings per year. Mr. Anderson showed me the data from these tests. Some example data is attached. This complies with the permit condition.

Condition V.2 requires VOC efficiency testing each 5 years. Mr. Anderson showed me the test results. The most recent test was done July 19, 2012, which is less than 5 years ago. This complies with the permit condition.

Condition VI.1 requires monthly and 12 month rolling time period VOC calculations. These are being done in compliance with permit conditions. This data is included in the quarterly reports we have received. In addition, some example data is attached.

Condition VI.3 sets a minimum RTO 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.

Condition VI.5 requires recording RTO temperature. This is being done.

Condition VI.6 requires recording pressure drop. This is being done.

Conditions VI.7 through 11 have to do with defining and responding to excursions, and couldn't be checked during an onsite inspection.

Condition VI.12 requires maintaining the monitoring system properly. As it works, it appears the company is in compliance with this condition.

Condition VI.13 refers to a Quality Improvement Plan, if needed. One has not yet been needed.

Condition VI.14 requires keeping records of coating composition. These are being kept. An example is attached.

Condition VI.15 requires keeping various information about coatings used in the BPCL, including VOC contents and amounts on a daily basis. This information is being kept. Example data is attached.

Condition VI.16 requires LexaMar to provide coating data to AQD upon request. This was done, in compliance with the permit condition.

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

Condition VIII.1 sets RTO stack dimensions as a maximum diameter of 37 inches and minimum height of 55 feet. I did not measure it, but the stack appeared to meet these requirements.

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 one in our files. We approved it September 28, 2015.

#### **EU-URSAMINOR:**

Many of the conditions for this line duplicate conditions for the BPCL. The Ursa Minor line uses the same RTO as the BPCL, therefore has the same RTO operating conditions, same stack height, and so on. Below are conditions I checked during the inspection, which are not just repeats of items already covered in discussion of the BPCL, above.

Condition I.1 and I.2 set VOC limits of 14.9 pph and 29.7 tons per 12 month rolling time period. Data in the quarterly report states VOC emissions were at most 3.6 pounds per hour and amounted to 4.5 tons in the period February 2015-January 2016. This complies with the permit conditions.

Conditions III.1 and 2 require waste material be handled to minimize fugitive emissions. Everything I saw was in closed containers, in compliance with this condition.

Condition III.3 requires a pressure drop for the enclosure of 0.007 inches w.g. or more. Example data indicates pressure drop in excess of this amount.

Condition III.4 requires EU-URSAMINOR to be ducted to the RTO. Exhaust from the line goes to the RTO, in compliance with this condition.

Condition III.8 requires automatic measuring of materials used in the line. Mr. Anderson showed me the pipes and the material use data for this system. This complies with the permit condition.

Condition III.9 specifies introducing make up air between the double doors in the Ursa Minor line. Mr. Anderson told me how this is done and showed me the inlet air filters where the air comes in. (Although not necessary for air pollution control, inlet air is filtered too. This protects the quality of the coatings on the parts.)

Condition V.1 requires Method 24 coating tests for any coating in regular use in EU-URSAMINOR. Mr. Anderson told me this is being done. Some example data is attached.

Condition VI.2 requires monthly and 12 month emission data. This is present in the data provided to us in the quarterly reports, in compliance with this permit condition.

Condition VI.14 requires composition data for all coatings. This is being kept. Mr. Anderson showed me examples of the data they have for the coatings.

Condition VI.15 requires recording gallons of coating used, VOC content, and VOC emissions. This is being done. The data is included in the quarterly reports LexaMar sends us.

#### 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 time period. Data in the quarterly report claims the highest emissions were 2.4 pounds per hour and, in the 12 months February 2015 to January 2016, emissions totaled 4.5 tons. This complies with the permit conditions.

Condition VI.1 requires recording monthly and 12 month VOC emissions. As demonstrated by the data mentioned above, this is being done in compliance with the permit condition.

Condition VI.2 requires composition data about the solvents. This is being kept. Mr. Anderson showed me records LexaMar has on the clean up solvents they use, identifying them by composition and giving the amount used and the amount returned to storage as waste.

#### 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. Quarterly report data claims 0.02 pounds organic HAP per pound of coating solids for EU-URSAMINOR and 0.01 for BPCL, on a 12 month rolling time period average. This complies with the permit condition.

Section II sets HAP limits for the "compliant materials option" allowed by the MACT. These are not applicable, since the BPCL and Ursa Minor are routed to a RTO, and therefore are subject to the add-on controls option's conditions instead.

Condition III.1 requires temperature of the RTO not fall below the combustion temperature limit established according to 40 CFR 63.4567(a). The combustion temperature limit is the average temperature of the RTO beds during the RTO's compliance test. LexaMar is not demonstrating compliance in this manner, in violation of MACT PPPP and probably in violation of Table FG-PPPP, Condition III.1.

Condition III.1 also requires the total enclosure for the coating lines have air flow into the lines, rather than out, and have a pressure drop of at least 0.007 inches w.g. As discussed under EU-BPCL and EU-URSAMINOR this is being done and the data recorded demonstrates so.

#### FG-COLDCLEANERS

Condition II.1 limits halogenated solvents. Mr. Anderson told me that the one parts cleaner in the maintenance shop uses mineral oil which is not a halogenated solvent. This complies with the permit condition.

Condition IV.1 requires the cold cleaner either be small (air vapor interface less than 10 square feet) or emissions released to the general in plant environment only. The cold cleaner appeared about two by three feet and had no outside exhaust, so it meets both requirements.

Condition IV.3 requires a cover, which is to be kept closed when the parts washer is not in use. The cold cleaner had a cover and it was closed when I saw it.

#### COMMENTS

Facility maintenance appears to be very good.

If LexaMar uses much of any coating, they pipe it from the mixing kitchens directly to the coating lines. Mr. Anderson showed me a closed container on wheels which is used to deliver smaller amounts of coating as needed, where the amounts used are too small to allow piping it to be practical. Either of these methods would convey the coating with minimal emissions to the ambient air, in compliance with various permit conditions.

I told Mr. Anderson that I thought MACT PPPP required reducing ROP temperatures to 3 hour block averages, but at the time of my inspection I didn't remember that MACT compliance temperatures are commonly based on temperatures of control devices as measured during compliance tests. In the case of the RTO at LexaMar, MACT PPPP does require setting the acceptable ROP temperature that way. I will inform Lexamar of this problem.

NAME William J Regier 2.

DATE 6/24/2016 SUPERVISOR \_\_\_\_\_

