

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

N281238874

FACILITY: LEXAMAR CORPORATION		SRN / ID: N2812
LOCATION: 100 LEXAMAR DRIVE, BOYNE CITY		DISTRICT: Gaylord
CITY: BOYNE CITY		COUNTY: CHARLEVOIX
CONTACT:		ACTIVITY DATE: 03/09/2017
STAFF: Bill Rogers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Inspection and record review for FCE		
RESOLVED COMPLAINTS:		

On March 9, 2017, I inspected LexaMar for compliance with their Renewable Operating Permit, MI-ROP-N2812-2015. I did not find any violations of the Permit, State Air Quality Rules, or the Federal regulations covered by the Renewable Operating Permit.

Mr. Breen Merriam, Mr. Chris Gagne, and Mr. Robert Hickey showed me around. Mr. Dan Anderson was not present at the time of my inspection but explained things to me on the phone and sent me records later.

FACILITY

LexaMar makes plastic parts for the automotive industry. I saw machines for molding, coating and painting, and assembly of auto parts while I was on site. The Renewable Operating Permit (ROP) covers two main coating lines, adhesive application, clean-up solvents, and small non-production parts washers of the common "mineral spirits" type.

The two main coating operations are the Body Color Paint Line (BCPL) and the Ursa Minor, so nicknamed because it is a coating dipping operation and the constellation of Ursa Minor is also known as the Little Dipper. Their air emissions are controlled by two Regenerative Thermal Oxidizers (RTO). They use one of these at a time, keeping the other on standby to switch in if needed.

Permit MI-ROP-N2812-2015, Table EU-BPCL, Body Color Paint Line controlled by Regenerative Thermal Oxidizer:

Condition I.1 and I.2 set VOC limits of 8.6 pounds per hour and 37.6 tons per year. The most recent quarterly report shows hourly emissions of about 1.4 to 1.7 pounds per hour, and 12 month rolling totals of about 4 tons. This complies with the permit limits.

Condition III.1 requires an exhaust air recirculation system. It requires the flash off oven and curing oven be routed to the RTO and that the RTO be installed and operating properly. The ductwork and RTO are in place and appear to be unchanged from previous inspections; plant personnel told me there had been no changes. I saw ductwork I believe to be the recirculation system. The RTO was in place and appeared, from exterior appearance and from temperature readings, to be operating properly. This complies with the permit condition.

Condition III.2 requires a center bed operating temperature of 1400 degrees f or more. Example data for March 13, attached, shows temperatures running above 1700 degrees f. This complies with the permit condition.

Condition III.3 requires the equipment enclosure operates at or above a differential pressure as specified in a plan. The pressure specified is 0.007 inches w.g. Pressure on a magnehelic gauge I saw was 0.05 inches w.g. This complies with the permit condition.

Condition III.4 requires all monitoring equipment to be installed and operating properly. I was not able to check this on site. However, the necessary data is in the quarterly report as provided to us by LexaMar, which implies that the equipment to collect that data is present and operating.

Condition III.7 requires paint applicators to be operating properly. The process is automated so I could not enter the enclosure and observe it closely, but the spray applicators were operating. They were producing an even looking spray and limited overspray. This appeared to comply with the permit condition.

Condition III.8 requires exhaust filters be installed and operating properly. From outside the automated system's enclosure I could not see all filters, but I could see some. The ones I could see were installed and operating properly. The filters looked relatively new; that is, they did not appear to be caked, clogged, or damaged.

Condition III.9 requires disposal of waste in a manner which minimizes release of VOCs to the air. Waste was in closed containers. This complies with the permit condition.

Condition IV.1 requires pressure drop monitors. Plant personnel showed me computer records of the pressure drops, being recorded. I saw some of the pressure gauges during my inspection. It appears the facility is in compliance with the permit condition.

Condition IV.3 requires bed temperature sensors on the RTO beds. Plant personnel showed me computer data of the temperatures and example data, attached, includes this information. This implies that the temperature sensors are present as required.

Condition VI.1 requires monthly and 12 month rolling average VOC emission calculations. These are included in the quarterly reports LexaMar submits to us. These comply with the permit conditions.

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

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

Condition VI.12 requires maintaining the monitoring system properly. The monitoring system appears to be providing all the data the permit requires, and doing so reliably. This implies it is being maintained properly.

Condition VI.14 requires keeping information about coating composition. The company has this information and supplies it with the quarterly reports. This complies with the permit conditions.

Condition VI.15 requires keeping various coating information including VOC content and amounts used per day. The company is keeping this information. It is included in the quarterly reports. This complies with the permit condition.

Section VIII requires annual and semi-annual certifications. It also requires quarterly reports. LexaMar has submitted these in compliance with permit conditions.

Condition VIII.1 sets RTO stack dimensions as a maximum diameter of 37 inches and a minimum height of 55 feet. The stacks of both RTOs appear to meet these requirements.

Condition IX.1 requires a pressure differential monitoring plan. Condition IX.2 requires a malfunction abatement plan. LexaMar provided both of these. AQD approved them September 28, 2015.

EU-URSAMINOR: Dip coating operation controlled by RTO

Many of the conditions for the Ursa Minor Line duplicate conditions for the BPCL. In particular, the Ursa Minor is controlled by the same RTOs as the BPCL. I will not discuss those Ursa Minor conditions which duplicate BPCL ones discussed above. These include operating conditions for the RTO, pressure drops, monitoring of temperatures and pressures, control and monitoring equipment being installed and operating properly, and ducting the equipment to the RTO. The Ursa Minor was in compliance with all conditions pertaining to these issues.

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 most recent quarterly report emissions were running about 1.5 to 3.0 pounds per hour, with a maximum of about 3.5 pounds per hour. Totals were about 4 tons per 12 months. This complies with the permit conditions.

Condition III.9 specifies introducing make up air between the double doors in the Ursa Minor line. This system and the associated inlet filters (which are not required by permit, but protect the quality of the coating job) were in place and operating properly.

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

Condition VI.15 requires recording gallons of coating used, VOC content of the coating, and VOC emissions. This information is included in the quarterly reports. The supplied information satisfies the permit condition.

EU-SOLV, miscellaneous 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. According to the most recent quarterly report the highest emission rate was 2.9 pounds per hour and total emissions were 7.9 tons per 12 months. This complies with the permit limits.

Condition VI.1 requires recording monthly and 12 month emissions. This is being done. The information is included in the quarterly report.

FG-PPPP, Flexible Group for equipment subject to the MACT, 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. The quarterly report claims 0.01 pounds HAP per pound solids for the BPCL and 0.02 pounds HAP per pound solids for the Ursa Minor, based on a 12 month rolling time period. This complies with the permit condition.

Condition III.1 requires temperature of the RTO not fall below the combustion temperature limit as established during a stack test. Mr. Anderson explained that the temperature during the test was about 1750 degrees, and LexaMar operates higher than this, in compliance with MACT PPPP. A three hour temperature average report, attached, documents this is being done properly.

Condition III.1 also requires a total enclosure and a pressure drop into the enclosure of at least 0.007 inches w.g. As discussed under EU-BPCL, this is being done. Monitoring equipment to prove it is being done is installed and operating properly.

FG-COLDCLEANERS

The only cold cleaner I saw appeared to be a standard mineral oil type, as common in maintenance shops for miscellaneous parts cleaning. This would comply with Condition II.2, which prohibits halogenated solvents; this type of cleaner does not use them.

Condition IV.1 requires any small cold cleaner be exhausted only to the general in plant environment. Condition IV.3 requires a cover which should be kept closed when the cold cleaner is not in use. The cold cleaner I saw complied with these conditions.

COMMENTS

Facility maintenance appears to be very good.

Handling of any coating used in large quantities is by pipe. For less-used coatings, they use closed containers on wheels. Either of these methods would minimize loss of solvents to the ambient air, in compliance with permit conditions.

During last year's inspection I said LexaMar was basing compliance on keeping RTO temperatures above 1400 degrees f, as required in their old Permit to Install, and not basing it on keeping temperatures above those established during a stack test. I was wrong. LexaMar is keeping temperatures above those established during the stack test, and was doing so last year.

Their data recording system has been changed to explicitly calculate 3 hour block average temperatures. A report documenting this is attached. This settles any compliance concerns I had based on last year's inspection.

NAME William J Rogers, Jr.

DATE 3/16/17

SUPERVISOR SN