

June 7, 2018

Mr. William Rogers
Environmental Engineer
Michigan Department of Environmental Quality
Gaylord Field Office
2100 West M-32
Gaylord, MI. 49735-9282

SUBJECT: LexaMar Corporation / MI-ROP-N2812-2015b

Dear Mr. Rogers

The purpose of this letter is to follow up on Breen Merriam's telephone conversation with Shane Nixon, the Cadillac District AQD Supervisor, on Wednesday, May 30th, 2018 with respect to the problems encountered with LexaMar Corporation's ("LexaMar") regenerative thermal oxidizer ("RTO").

As stated in our renewable operating permit MI-ROP-N2812-2015b ("ROP") LexaMar has two RTO units, Identified as RTO A and RTO B. At 3:37 AM on May 24th, while running normal production with RTO B acting as the primary control unit and RTO A acting as a warm backup, both RTOs went off-line with a malfunction. Production on the affected sources, identified as EU-URSAMINOR (Ursa) and EU-BCPL (Paintline), was immediately shut-down. Maintenance was called in to remedy the problem. By 8:36 AM on the 24th, they had identified a faulty pressure differential transmitter on RTO B as having triggered the problem. The RTO system was switched over to RTO A as the primary control unit while RTO B was disabled. The Ursa and Paintline were re-started and put into production at 8:45 AM. No production was run during the time the full RTO system was down.

Maintenance personnel subsequently looked for a spare differential pressure transmitter in our parts inventory. While they were able to locate a spare transmitter, it was discovered to be for an older RTO (no longer in service) and was unsuitable for RTO B. A suitable transmitter was found from a supplier and an order was immediately placed for the new part. Production continued as normal using RTO A as the primary control unit for the remainder of the Labor Day holiday weekend operating schedule (i.e., through Saturday, May 26th).

On Sunday, May 27th, LexaMar maintenance staff were performing routine maintenance on our water tower system, and in shutting down the tower system they also had to shut down the water cooled air compressors. Maintenance later discovered that the loss of air pressure within the pneumatic control systems shut down RTO A at 6:14 AM. This shut down was unanticipated by LexaMar as, following a drop in air pressure within the pneumatic control system, two things should have happened. First, the dedicated back-up air compressor maintained by LexaMar should have come on line to keep RTO A operating. In this instance, it was subsequently discovered that the compressor did not come on line because the preventative maintenance instructions were written in such a manner as to prevent the back-up compressor from starting operation following the loss of line air pressure. These instructions have since been corrected to assure the backup compressor will still start following the loss of line air pressure. Secondly, in the event of an RTO malfunction, there is an alarm email that is programmed to be sent out to notify key personnel of the problem. Due to RTO B already being offline and in a fault condition, the program inadvertently prevented any additional malfunction emails from being sent thinking they were redundant.

The shutdown of RTO A was first noticed when the Ursa line was due to be started at the end of the Memorial Day weekend on Monday, May 28th at 8:00 PM. Production was not started when LexaMar identified that both RTOs were now down. Maintenance was again immediately called in and they discovered that RTO bed A was "in fault" and had been for a sufficient time period to allow the bed temperature to fall below 1200 °F. Due to the bed temperature being below 1200 °F, the unit could not be re-started for primary control until the RTO bed was force cooled and then reheated in a controlled manner to full operating temperature. Maintenance personnel immediately started cooling RTO A. Ursa and Paintline production was called off for the post-holiday weekend restart. While maintenance was working on the RTO system, an evaluation was performed on the existing production part just-in-time inventory and compared to customer demands. It was determined that we could delay production on both the Ursa and Paintline until Wednesday, May 30th without causing a shutdown at our customers due to lack of production parts.

From May 28th until May 30th, maintenance struggled to cool and re-heat either RTO A or B concurrently, but a controlled reheat could not be completed. On May 29th, our maintenance personnel called for additional assistance from the manufacturer of the RTO which made available a technical support representative who arrived at the LexaMar facility on May 30th. The combined team worked through the cooling and reheating process on both RTOs. They exchanged parts from RTO A to RTO B, as needed, in an attempt to bring at least one of the units into operational mode. They were successful in getting RTO B heated and ready for production control on Friday, June 1st at 10:57 AM.

In order to produce enough parts to avoid shutting down our customers' production, the Paintline was started without RTO control on Wednesday, May 30th at 8:15 AM and the Ursa line was started without RTO control on Wednesday, May 30th at 8:45 AM. Both coating operations operated in this manner until RTO B was successfully brought online as the primary control. A summary of uncontrolled emissions for both the EU-URSAMINOR (50 hours) and EU-BCPL (51 hours) is attached. The RTO was out of commission from Sunday May 27th at 6:14 AM until Friday, June 1st at 10:57 AM. During much of that time LexaMar was able to shut down production on both the Ursa and the Paintline and ship parts from our inventory until such time as we depleted our entire stock. We were forced to start the Ursa and Paintline on the morning of Wednesday, May 30th and run only the minimum production required to make shipments necessary to avoid causing a shut down our customer(s). A production shutdown at our customer(s) would impact both the customer(s)' production personnel and result in further cascading production impacts down the supply line. LexaMar is contractually obligated to supply parts to our customer on a daily basis in order to avoid this ripple effect. In order to further minimize the impact to the environment, the Ursa and Paintline exhaust blowers were shut down during breaks and lunches and run only during the production periods necessary to make a limited number of parts for critical customer shipments.

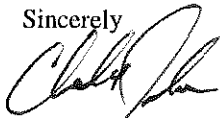
In order to avoid further occurrences of this type, LexaMar will take the following precautionary steps:

1. Stock an extra air pressure differential transmitter suitable for RTOA and RTO B onsite for quicker repairs.
2. Add the burner gas train and pressure differential transmitter to our existing Preventive Maintenance system, which will provide for periodic inspection of these critical items.
3. Correct the back-up air compressor preventive maintenance instructions such that the compressor is always online and ready.
4. Each year, during our July shut-down, we will force cool and reheat one of the RTO units to exercise the burner gas train. We will correct any deficiencies found during that process.
5. Review and update the emission controls system Preventative Maintenance - Malfunction Abatement Plan ("PM-MAP") as required based upon the proposed operational and maintenance changes.

The above listed steps will be in place on or before July 13, 2018.

Please feel free to call if you have any questions or comments. Thank you for your attention and cooperation in this matter.

Sincerely,



Charlie Siska
General Manager

Cc: Shane Nixon, AQD Supervisor, Cadillac District
Brian Greenwald, Barr Engineering

LexaMar Corporation Paint Usage For May 30, 2018

EU-BCPL (Body Color Paint line)

Production run without RTO online

Material Description	Lbs VOC/gal minus water as applied	Destruction Efficiency %	Gallons used	lbs. VOC used
CBC301191A Billet Silver	4.90	0%	3.0	14.82
CBC301220A Granite Crystal	4.27	0%	9.1	38.82
CBC636RB GM Switch Blade Silver	4.01	0%	0.5	1.97
CBC8555D GM BLACK	5.06	0%	0.8	4.17
CBC8624Y GM Summit White	4.71	0%	0.5	2.58
CBC90394C Bright White	4.71	0%	6.7	31.61
CBC95535C Brilliant Black	4.02	0%	1.5	5.97
CBCF6466T Oxford white	4.58	0%	3.3	14.89
CBCF7204C White Plat	4.34	0%	7.7	33.39
CBCF7204C White Platinum	4.34	0%	0.4	1.72
CBCF7226A Ingot Silver	5.51	0%	2.7	14.90
CBCF7236A Race Red	1.72	0%	0.8	1.36
CBCF7325A Magnetic	4.90	0%	5.4	26.68
CBCF7343A Shadow Black	4.74	0%	6.2	29.46
CBCF7356A Burgundy Velvet TC	5.03	0%	0.6	3.21
CBCM7204A White Platinum Mica	3.82	0%	3.8	14.58
CBCM7228A Molten Orange Mica	4.42	0%	1.0	4.40
CUCC1000P 1K Clearcoat	4.60	0%	41.3	189.87
GXS66601R Flush	5.11	0%	0.0	0.07
LBC196644A Ocean Blue Met	4.89	0%	3.9	18.84
LBC457BB Gasoline	4.99	0%	0.5	2.42
LBC701715A Velvet Red Pearl	5.27	0%	6.0	31.48
LBCF7365A Blue Lightening	4.46	0%	0.6	2.55
LBCF7410A Orange Fury 3C	4.74	0%	0.5	2.53
LBCF7411A Blue Metallic	5.13	0%	1.3	6.56
LBCM140XB Abalone White Mica	4.33	0%	0.8	3.34
MPP4100G Adhesion Promoter	6.38	0%	0.2	1.29
MPP4100GA Black Adhesion Promoter	6.63	0%	40.5	268.75
UDMFM6EXXFB Magnetic Low Gloss	5.14	0%	13.2	67.86
TOTAL			162.8	840.11
			Hours of Operation without RTO	11.00
			Pounds VOC / Hour	76.37
			Permitted Pounds VOC / Hour	8.60
			Pounds VOC/ Hour Exceeding Permit Level	67.77
			Total Pounds VOC Exceeding Permit Level	745.51
Note: Ran production for 11 hours without RTO				

LexaMar Corporation Coating Usage For May 30, 2018

EU-URSAMINOR (Ursa)

Production run without RTO online

Material Description	Lbs VOC/gal minus water as applied	Destruction Efficiency %	Gallons used	lbs. VOC used
Diacetone Alcohol	7.8	0%	12.6	99.17
Glycol Ether PM	7.7	0%	13.8	106.27
Normal Butyl Alcohol	6.8	0%	6.1	41.37
Isopropyl Alcohol	6.6	0%	27.0	177.06
SHP 470 Primer	7.0	0%	18.3	128.65
AS 4700 Topcoat	5.9	0%	12.0	70.17
TOTAL			89.9	622.70
				Hours of Operation without RTO
				15.25
				Pounds VOC / Hour
				40.83
				Permitted Pounds VOC / Hour
				14.90
				Pounds VOC/ Hour Exceeding Permit Level
				25.93
				Total Pounds VOC Exceeding Permit Level
				395.48
Note: Ran production for 15 hours 15 minutes without RTO				

LexaMar Corporation Coating Usage For May 31, 2018

EU-URSAMINOR (Ursa)

Production run without RTO online

Material Description	Lbs VOC/gal minus water as applied	Destruction Efficiency %	Gallons used	lbs. VOC used
Diacetone Alcohol	7.8	0%	8.4	66.25
Glycol Ether PM	7.7	0%	29.4	225.95
Normal Butyl Alcohol	6.8	0%	2.9	19.39
Isopropyl Alcohol	6.6	0%	35.8	234.62
SHP 470 Primer	7.0	0%	35.2	248.01
AS 4700 Topcoat	5.9	0%	33.8	197.66
TOTAL			145.5	991.87
				Hours of Operation without RTO
				21.35
				Pounds VOC / Hour
				46.46
				Permitted Pounds VOC / Hour
				14.90
				Pounds VOC/ Hour Exceeding Permit Level
				31.56
				Total Pounds VOC Exceeding Permit Level
				673.75
Note: Ran production for 21 hours 21 minutes without RTO				

LexaMar Corporation Coating Usage For June 1, 2018 EU-URSAMINOR (Ursa)

Production run without RTO online				
Material Description	Lbs VOC/gal minus water as applied	Destruction Efficiency %	Gallons used	lbs. VOC used
Diacetone Alcohol	7.8	0%	5.3	41.63
Glycol Ether PM	7.7	0%	13.0	99.75
Normal Butyl Alcohol	6.8	0%	1.9	12.80
Isopropyl Alcohol	6.6	0%	27.5	180.71
SHP 470 Primer	7.0	0%	25.7	180.94
AS 4700 Topcoat	5.9	0%	18.3	106.92
TOTAL			91.7	622.74
			Hours of Operation without RTO	11.00
			Pounds VOC / Hour	56.61
			Permitted Pounds VOC / Hour	14.90
			Pounds VOC/ Hour Exceeding Permit Level	41.71
			Total Pounds VOC Exceeding Permit Level	458.84
Note: Ran production for 10 hours 57 minutes without RTO				

LexaMar Corporation Paint Usage For May 31, 2018

EU-BCPL (Body Color Paint line)

Production run without RTO online

Material Description	Lbs VOC/gal minus water as applied	Destruction Efficiency %	Gallons used	lbs. VOC used
CBC130XB Pull Me Over	4.84	0%	0.2	1.12
CBC301191A Billet Silver	4.90	0%	8.5	41.52
CBC301220A Granite Crystal	4.27	0%	8.7	37.30
CBC409YB GM Sacr'e Blue	4.98	0%	0.2	1.01
CBC8555D GM BLACK	5.06	0%	1.4	7.18
CBC8624Y GM Summit White	4.71	0%	1.8	8.36
CBC90394C Bright White	4.71	0%	16.6	77.98
CBC95535C Brilliant Black	4.02	0%	1.5	6.12
CBCF6466T Oxford white	4.58	0%	4.2	19.15
CBCF7188A Kona Blue Met	4.78	0%	0.5	2.52
CBCF7204C White Plat	4.34	0%	10.0	43.31
CBCF7204C White Platinum	4.34	0%	0.7	3.04
CBCF7226A Ingot Silver	5.51	0%	4.9	26.97
CBCF7236A Race Red	1.72	0%	0.5	0.80
CBCF7283A RUBY RED	5.66	0%	0.5	2.61
CBCF7325A Magnetic	4.90	0%	4.6	22.69
CBCF7343A Shadow Black	4.74	0%	6.5	30.69
CBCF7356A Burgundy Velvet TC	5.03	0%	0.1	0.60
CBCM7204A White Platinum Mica	3.82	0%	3.5	13.54
CBCM7278AZ Green Envy 3 Mica	4.46	0%	1.0	4.25
CUCC1000P 1K Clearcoat	4.60	0%	47.0	216.20
GXS66601R Flush	5.11	0%	0.1	0.37
LBC434BB Glory Red Tint	5.27	0%	0.9	4.49
LBC457BB Gasoline	4.99	0%	0.2	0.99
LBC701715A Velvet Red Pearl	5.27	0%	3.1	16.58
LBCF7362A White Gold	4.72	0%	0.6	2.76
LBCF7365A Blue Lightening	4.46	0%	0.2	1.11
LBCF7414AZ Agate Black	5.40	0%	0.3	1.60
LBCF7423A Velocity Blue	4.91	0%	0.3	1.62
LBCM140XB Abalone White Mica	4.33	0%	1.0	4.32
MPP4100G Adhesion Promoter	6.38	0%	0.6	4.08
MPP4100G Service Primer	6.38	0%	0.1	0.80
MPP4100GA Black Adhesion Promoter	6.63	0%	45.6	302.40
UDM9ATEXXG Foundry Gray/MonoCoat	5.43	0%	1.6	8.91
UDMFM6EXXFB Magnetic Low Gloss	5.14	0%	18.5	94.91
	TOTAL		196.1	1011.91
		Hours of Operation without RTO		13.00
		Pounds VOC / Hour		77.84
		Permitted Pounds VOC / Hour		8.60
		Pounds VOC/ Hour Exceeding Permit Level		69.24
		Total Pounds VOC Exceeding Permit Level		900.11
Note: Ran production for 13 hours without RTO				

LexaMar Corporation Paint Usage For June 1, 2018

EU-BCPL (Body Color Paint line)

Production run without RTO online

Material Description	Lbs VOC/gal Minus Water as Applied	Destruction Efficiency %	Gallons Used	Lbs. VOC Used
CBC130XB Pull Me Over	4.84	0%	0.5	2.23
CBC301191A Billet Silver	4.90	0%	5.7	27.92
CBC301220A Granite Crystal	4.27	0%	8.9	37.82
CBC409YB GM Sacre Blue	4.98	0%	0.3	1.67
CBC636RB GM Switch Blade Silver	4.01	0%	0.5	1.88
CBC8555D GM BLACK	5.06	0%	0.1	0.53
CBCF6466T Oxford white	5.05	0%	0.5	2.62
CBCF7204C White Plat	4.34	0%	1.1	4.96
CBCF7204C White Platinum	4.34	0%	0.5	2.06
CBCF7226A Ingot Silver	5.51	0%	3.0	16.48
CBCF7283A RUBY RED	5.66	0%	1.7	9.62
CBCF7307A Platinum Dune 3C	4.37	0%	1.7	7.60
CBCF7325A Magnetic	4.90	0%	0.4	1.81
CBCF7343A Shadow Black	4.74	0%	4.5	21.14
CBCF7356A Burgundy Velvet TC	5.03	0%	0.1	0.52
CBCM7204A White Platinum Mica	3.82	0%	0.7	2.65
CUCC1000P 1K Clearcoat	4.60	0%	22.3	102.59
DSO8161 Dark Blue Solid	4.79	0%	0.1	0.50
LBC457BB Gasoline	4.99	0%	0.3	1.61
LBCF7405A Cinnamon Glaze	4.87	0%	0.5	2.61
LBCF7411A Blue Metallic	5.13	0%	1.8	9.23
LBCM140XB Abalone White Mica	4.33	0%	0.4	1.93
MPP4100G Adhesion Promoter	6.38	0%	0.7	4.72
MPP4100G Service Primer	6.38	0%	0.2	1.05
MPP4100GA Black Adhesion Promoter	6.63	0%	21.6	143.39
UDMFM6EXXFB Magnetic Low Gloss	5.14	0%	7.9	40.58
		TOTAL	86.1	449.74
			Hours of Operation without RTO	5.75
			Pounds VOC / Hour	78.22
			Permitted Pounds VOC / Hour	8.60
			Pounds VOC / Hour Exceeding Permit Level	69.62
			Total Pounds of VOC Exceeding Permit Level	400.29
Note: Ran production for 5 hours 45 minutes without RTO				