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

N186324068

FACILITY: Lapeer Plating & Plastics, Inc.		**SRN / ID:** N1863
LOCATION: 395 DEMILLE RD., LAPEER		**DISTRICT:** Lansing
CITY: LAPEER		**COUNTY:** LAPEER
CONTACT: Sam Daniel , Environmental Engineer		**ACTIVITY DATE:** 12/18/2013
STAFF: Brian Culham	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Inspect. Meet new environmental contact. Determine compliance.		
RESOLVED COMPLAINTS:		

Sam Daniel - Mfg. Engineer Environmental – daniels@lpp-inc.com

On July 30, 2010, the AQD received notification that the company name and ownership, had changed from Deco'Plate Manufacturing to Lapeer Plating and Plastics, Inc. (LPP). The Potential to Emit (PTE) for VOC at Deco'Plate Manufacturing was originally greater than the "Major Source" threshold of 100 ton as defined by Title V of the Clean Air Act. For that reason, a Renewable Operating Permit (ROP) was obtained by Deco Plate and held by LPP. The ROP included HAP limits which establish the facility as a "Minor Source" of HAP emissions. The ROP expired on September 25, 2013.

Changes in operations between Deco' Plate and LPP resulted in a lower VOC potential. The facility reported actual plant wide VOC emissions of 2.7 tons to MAERS in 2013 for the operational year 2012. In 2012 and 2013 permits to install were sought by LPP to better describe operations and to establish limits proving that the source was a "Minor Source" for all regulated pollutants.

A permit application was submitted September 28, 2012 to re-permit the coating line. A facility wide VOC limit below 100 tpy was requested as part of the application. The assigned permit engineer suggested that LPP obtain a general coating line permit and the application was voided. A general permit application was submitted and on February 11, 2013, a general permit PTI 11-13 was issued covering the paint coating operations. That permit contained a facility wide VOC restriction of 30 tpy.

On April 25, 2013 a second permit, PTI 25-13, was issued for re-permitting the chrome plating operations. That permit contained facility wide VOC restrictions of 9 tpy of a single HAP, and 22.5 tpy of combined HAP. LPP is currently considered an "Area Source" of HAP and therefore may not be subject to certain MACT NESHAP requirements of 40 CFR Part 63. Specifically, those MACT requirements included Subpart PPPP, Plastic Parts and Products Surface Coating and Subpart MMMM, Miscellaneous Metal Parts and Products Surface Coating.

After obtaining the new permits, LPP requested that the ROP be voided. On December 2, 2013 the AQD approved the void of the ROP and the Source Wide Permit to Install MI-PTI-N1863-2008a.

Chrome plating or anodizing tanks used for hard chromium electroplating, decorative chromium electroplating, or chromium anodizing are subject to MACT Subpart N regardless of Major Source or Area Source status. Lapeer Plating and Plastics is subject to 40 CFR Part 63 Subpart N, National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks because Tank #32 is used for decorative chromium electroplating. An ROP is not required for a source subject to this MACT unless the source is otherwise obligated to obtain a permit under 40 CFR part 70 or 71.

Lapeer Plating and Plastics, Inc. is not presently a PSD subject source.

Because Lapeer Plating and Plastics has taken facility wide restrictions to opt-out of the Renewable Permit Program they are still required to report emissions to MAERs. Because the plating line is subject to MACT Subpart N, LPP will be required to pay a Category III fee.

Lapeer Plating and Plastics, Inc. is located on the east side of Lapeer. A mobile home park is immediately to its west. An industrial park wraps around the plant to the east and north. Farther east at about ½ mile is the high school. At ½ mile west is the commercial district. The area to the north and east of the plant has generated

numerous odor complaints usually identifying coating solvents. At present LPP has not been identified by any complainants as the alleged source of the odors.

Processes at LPP traditionally consisted of thermo-plastic injection molding machines, a decorative chrome plating process for plating plastic automotive emblems, one chain on edge multi-booth plastic parts coating line with a bake oven, some single hand spray booths, a solvent distillation unit.

This was a schedule inspection and will result in a Full Compliance Evaluation (FCE). The purpose of the inspection was to meet Sam Daniel for the first time. Sam Daniel is the new environmental contact. He has been in this capacity for about two months and has almost no prior experience in environmental. This was his first compliance evaluation.

I arrived at 9:30 as scheduled.

No.	Emission Unit or Flexible Group	Description	Permit Number or Exemption	Comp. Status
1	EUCHROMETANK32	Chrome Electroplating (1) tank	PTI 25-13	C
2	EUCHROMEETCH	Pre-etch (1) and Etch (1) tank	PTI 25-13	C
3	FGNONCHROMEPROCESS	Copper Strike (1), Bright Acid Copper (5), Activator(1), Accelerator (1), Electroless Copper (1), Neutralizer (1), and Copper/Nickel Strike (1) Tanks	PTI 25-13	C
4	FGCOATING	Chain on edge multi-booth plastic parts coating line and three individual spray booths.	PTI 11-13	C
5	FGCOLDCLEANERS	Vessels used to hold cleaners.	Rule 285(u)	C
6	PLASTIC INJECTION MOLDING MACHINES	Plastic injection molding machines, storage silos, and pneumatic resin delivery system.	Rule 286(b)	C

1. EUCHROMETANK32 and General Plating

MACT Subpart N allows smaller facilities a compliance option of either surface tension management, or installation of a control device such as Composite Mesh Pads (CMP). Permit 25-13 requires both. LPP utilizes both options simultaneously.

Stack testing at LPP was completed on October 7, 2009 by BTEC. The hex chrome concentration tested in the exhaust was 0.000224 mg/dscm. The "new" MACT limit is 0.007 mg/dscm.

A tensiometer is used to manage the surface tension of the plating baths. I examined the tensiometer and identified a certification sticker for May 15, 2013. Records of bath surface tension are being maintained. It is my understanding that the present required testing period is at least every 40 hours of operation. It appears that several tests of various baths are completed daily.

The MACT Subpart N requires an "Ongoing Compliance Status Report". It is being submitted every 6 months. The report was last received July 24, 2013. The report identified compliance. Chrome Tank 32 operated 2348 hours w/ <35 dynes/cm. Another report was received on January 13, 2014. The report identified compliance. Chrome Tank 32 operated 3413 hours w/CMP pressure drop between 1.2 and 2.8 inches w.c.

Maintenance staff was unavailable during the inspection. They maintain a record of operational values for the control devices. Following the inspection S. Daniels submitted an example of the record created by staff for data collected on November 7, 2013. Data Values are below:

Control Device Operational Data – November 7, 2013					
Control Device	Process	Acceptable range			Recorded Value
		Units	Low	High	
Mist Eliminator	EG-CHROMETANK32	ΔP	1.0	3.0	1.9

Cyclone	EG-COPPERTANKS	amps	17	20	20
Wet Scrubber	EG-ACTIVATORTANKS	ΔP	1.0	3.0	2.5
Wet Scrubber	EG-NEUTRALIZERTANKS	ΔP	1.0	3.0	1.5
Dual Stage #1	EG-CHROMEETCH	ΔP	1.0	3.0	2.0
Dual Stage #2		ΔP	0.3	1.5	1.0
Combined		ΔP	1.7	3.3	2.5

An Operation and Maintenance plan for all plating processes was developed and submitted as part of the ROP and is still in effect. Review and the possible update of this document has been suggested to S. Daniels when he has become more familiar with environmental operations.

All stacks associated with the plating processes appeared to be of the appropriate height and dimension.

2. EUCHROMEETCH

The two chrome etch tanks are controlled by the two stage packed bed dry scrubber (see data above).

Stack testing for Hexavalent Chromium and Sulfuric Acid are not required by permit. Compliance is determined by calculation. LPP uses a spreadsheet to determine emissions as was approve by the ROP. The required inputs are being collected and the record is being maintained. Data for November 4, 2013 was submitted to me (see attached). Emissions are well below the limit. Etch #2 reported Sulfuric Acid emissions at 0.009 mg/m3, the limit is 6.05. Similar records are being maintained for other steps in the plating process as well.

3. FGNONCHROMEPROCESS

This flexible group includes 6 copper tanks each controlled by a cyclonic separator; the electroless copper tank, activator tank, and accelerator tank, all controlled by one packed bed scrubber; and a neutralizer and a strip tank controlled by the other packed bed scrubber.

The stack test summary submitted for October 7, 2009 showed the following compliance values for these processes.

October 7, 2009 Stack test Results – Activator Tanks			
Pollutant	Unit	Reported Value	Permit Limit
Sulfuric Acid	mg/m^3@70°c @39.92" Hg	0.39	4.65
Hydrochloric Acid	mg/m^3@70°c @39.92" Hg	0.39	4.65
Formaldehyde	mg/m^3@70°c @39.92" Hg	0.92	1.02
October 7, 2009 Stack test Results – Neutralizer Tanks			
Hydrochloric Acid	mg/m^3@70°c @39.92" Hg	0.34	4.65

Emissions are well below the limit. Data for November 4, 2013 reported Formaldehyde at 0.002 mg/m3, the limit is 1.02.

4. FGCOATING

A chain on edge multi-booth plastic parts coating line was installed in the 1990's. The original plastic fascia production that was painted on this line terminated as part of the ownership change. The removal of the fascia production diminished the scope of coating applications at the facility. A general coating permit was issued as part of the ROP void to better describe coating operations.

During the inspection painting was occurring on the chain line. Mat type overspray filters were in place in the booths.

Paint records originate in the paint kitchen. I examined the daily data sheet. Coatings arrive in 5 gallon buckets.

Coating records were being submitted quarterly and satisfied the ROP requirement for format. These quarterly submittals are no longer required by the general permit however LPP continues to use the same record keeping format.

A record of November paint use indicated 0.2 tons of VOC emitted from the main line.

All purge and clean up solvents are collected for recycle. Lapeer Plating and Plastics operates a solvent distillation unit exempted by Rule 285(u). Solvent records declare the solvent as non-VOC.

Only two booths are being operated outside of the chain on edge, the V-Crest and the Bow Tie lines. Paint use records are being maintained for both booths. Mat type overspray filters were in place in the booths that were in operation.

5. FGCOLDCLEANERS

It is my understanding that cleanup is done with a VOC free cleaning solution. I did not identify any cold cleaners using a VOC solvent. LPP also operates a solvent distillation unit exempted by Rule 285(u).

6. PLASTIC INJECTION MOLDING MACHINES

The plastic injection molding machines, storage silos, and pneumatic resin delivery system are exempt from permitting by Rule 286(b).

I left at 11:30. I did not experience any odors or identify any opacity on leaving the plant.
No violations were identified as a result of this inspection.

NAME _____ DATE 1/22/2014 SUPERVISOR _____