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

N186346023

FACILITY: Lapeer Plating & Plastics, Inc.		**SRN / ID:** N1863
LOCATION: 395 DEMILLE RD., LAPEER		**DISTRICT:** Lansing
CITY: LAPEER		**COUNTY:** LAPEER
CONTACT: John Kuruda , Waste Treatment Supervisor/Env. Coordinator		**ACTIVITY DATE:** 09/12/2018
STAFF: Daniel McGeen	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

On 9/12/2018, the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of Lapeer Plating & Plastics, Inc. (LPP). The purpose was to determine compliance with its air use permit, and applicable state and federal air pollution requirements.

Facility environmental contact:

John Kuruda, Waste Treatment Supervisor/Environmental Coordinator; 810-667-4240, ext. 1161; kurudaj@lpp-inc.com

Facility Description:

Formerly Deco'Plate Manufacturing, Lapeer Plating and Plastics, Inc. (LPP) is a decorative chrome and paint shop. They produce products for the automotive industry such as hood ornaments and trim. LPP has approx. 450 employees and work 3 shifts per day, 6 days a week on the paint and chrome lines and 3 shifts per day 7 days per week for the mold line.

Emission units:

Emission unit* ID; flexible group ID, if any	Emission unit description	Control equipment	PTI No. or exemption rule; federal regulation, if applicable	Compliance status
EU-CHROMEPLATE32	Decorative chromium electroplating tank #32	Composite mesh pad (CMP) scrubber; fume suppressant	25-13;40 CFR Part 63, Subpart N; Consent Order AQD No. 27-2015	Noncompliance for dynes/cm
EU-CHROMEETCH	Pre-etch tank(#1); etch tank (#2); third tank (#3)	2-stage scrubber	25-13; Consent Order AQD No. 27-2015	Noncompliance for pressure drop gauge and duct leak
EU-COPPERTANKS	Copper strike tank (#14); five bright acid copper tanks (#15-19)	6 cyclone separation; dry scrubber	25-13	Noncompliance for scrubber fan
EU-ACTIVATORTANKS	Activator tank (#7); accelerator tank (#9); electroless copper tank (#11)	Packed bed scrubber (PBS)	25-13	Compliance
EU-NEUTRALIZERTANKS	Neutralizer tank (#5); copper-nickel strip tank (#39)	PBS	25-13	Compliance
EU-PAINTLINE2	Automotive paint process, 6 dry filter paint booths, natural gas shared bake oven	Dry filters	11-13	Compliance
EU-VCRESTLINE	V-Crest Paint Line and mold and paint line	Dry filters	11-13	Compliance
Plastic molding lines	32 plastic injection molding lines	NA	Rule 286	Compliance

* An *emission unit* is any part of a stationary source that emits or has the potential to emit an air contaminant.

Regulatory overview:

This facility has an opt-out permit, Permit to Install (PTI) No. 25-13, to limit its potential to emit for volatile organic compounds (VOCs) to keep it from becoming a major source for criteria pollutants. A *major source* has the Potential to Emit (PTE) of 100 tons per year (TPY) or more of any one of the *criteria pollutants*, that is, those for which a National Ambient Air Quality Standard exists. These include carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO2), VOCs, lead, and particulate matter smaller than 10 microns (PM-10) and particulate matter smaller than 2.5 microns (PM2.5). This facility was once a major source for VOCs, and had a Renewable Operating Permit (ROP) under the Title V program, but they reduced their VOC emissions, and obtained the opt-out PTI..

The facility's opt-out permit also limits its PTE for Hazardous Air Pollutants (HAPs), to keep it below the major source threshold of 10 TPY for any single HAP and 25 TPY for aggregate HAPs. The permit limits emissions to <9.0 TPY for any single HAP and <22.5 TPY for aggregate HAPs. It is therefore considered a minor or *area source* for HAPs.

This facility also has General PTI No. 11-13 for coating operations, for their Paint Line 2 and their V-Crest paint Line.

The facility also has 32 plastic injection molding lines, which are considered exempt from needing a PTU under Rule 286.

There is also a consent order, No. 27-2015, which was signed on 9/30/2015, for past violations identified by former AQD inspector Nathan Hude (now with the DEQ's Waste Management & Radiological Protection Division (WMRPD).

Fee status:

Because it is not a major source for criteria air pollutants, this facility is not considered Category I fee-subject. Because it is not a major source for HAPs, and because it is not subject to any federal New Source Performance Standards, it is not considered category III fee-subject. It is, however, considered category III fee-subject, because it is subject to 40 CFR Part 63, Subpart N, *National Emissions Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.*

MAERS emission unit list:

The facility reports via the Michigan Air Emissions Reporting System (MAERS) each year. MAERS reporting is a requirement for opt-out sources, so that AQD and the facility are each aware of their emissions in relation to their permitted emission limits. The list below lists dates of installation of the processes. The MAERS list approaches the processes at the plant slightly differently than the emission table from PTI No. 25-13.

1. EU-BOILER, Process heat boiler for the plating line, 02/01/1988

2. EU-BOWTIELINE, Bowtie mold and paint line. Bowties are molded, vacuum metalized, and backup painted, 01/01/2008

3. EU-CHROMEETCH, Chrome etch process for the plating line; non-electrolytic process, exempt from MACT standards, 03/01/1988

4. EU-CHROMEPLATE32, Decorative chromium electroplating tank #32, 03/01/1988

5. EU-COPPERTANKS, One copper strike tank (#14), five bright acid copper tanks (#15 through #19), 03/01/1998

6. EU-MASKWASH, Maskwash coldcleaners, includes 5 operating cleaners that use acetone and reclaim

from the solvent reclaim unit. Unit emits negligible VOCs, 01/01/2004

7. EU-NEUTRALIZERTA, One neutralizer tank (#5) and one copper-nickel strip tank (#39), 03/01/1988

8. EU-PAINTLINE#2, Automotive Paint Process, 6 dry filter booths, natural gas shared bake oven, and application equipment. Includes HVPL robot spray machines, solvent-less maskwashers, and electrostatic technology, 01/03/1993

9. EU-VCRESTLINE, V-Crest Paint Line mold and paint line. V-Crests are molded, vacuum metalized, and backup painted, 01/01/2004

10. EUACTIVATORTANKS, One activator tank (#17), one accelerator tank (#9), and one electroless copper tank (#11), 03/01/1988

11. EUSOLVENTRECLAIM, Solvent Distillation Unit, 110-gallon capacity. Unit reclaims acetone and non-quantifiable amounts of MEK and IPA from Maskwash cleaners. Negligible amounts of VOCs are emitted from this unit, 01/01/2004

Location:

This facility is located on the south side of a triangular-shaped industrial park within the City of Lapeer. To the north are industrial and commercial facilities. There is a residential subdivision to the immediate west of LPP. The nearest residences to LPP are about 90 feet west of the plant. It is my understanding that there is a creek, which runs behind the plant.

Recent complaints:

None.

Recent history:

Elevated perfluorinated compounds (PFCs), specifically perfluorooctane sulfonate (PFOS), were found in water and fish samples taken from the Flint River during recent statewide sampling conducted by the DEQ Water Resources Division (WRD). PFOS is of particular concern because it bioaccumulates in fish. A fish consumption advisory has been issued for a portion of the Flint River due to the concentrations of PFOS found. The PFOS monitoring study results received in June 2017 indicated that the Lapeer Waste Water Treatment Plant (WWTP) was a significant source of PFOS discharging to the Flint River.

An inspection on July 11, 2017, focused on LPP because it is the only known metal finisher discharging to the Lapeer WWTP and historically, metal finishers used chemicals containing PFOS to control air emissions. The results of the 7/11/17 samples were 2000 nanograms per liter (Ng/L) PFOS for the treatment plant effluent and 19,000Ng/L PFOS for the LPP sample.

On 8/30/2017, AQD's Nathan Hude and a multi-media team of DEQ inspectors from the Water Resources Division (WRD) and Remediation and Redevelopment Division (RRD), as well as the City of Lapeer Industrial Surveillance Section met with LPP staff and conducted another inspection. The goal of this inspection was to determine where the PFOS contamination is coming from. An LPP effluent sample showed 12,000ng/L, and a sample from LPP etch tank #3 showed 200,000 ng/L.

LPP has since implemented a number of changes to address these issues. It is my understanding that LPP cleaned and/or rinsed out their pre-etch and etch tanks 3 times, and had the wash /rinse water removed from the facility in glass-lined tanker trucks. It is also my understanding that LPP replaced the effluent pipe that carries effluent away from the plant, and that they installed two stages of carbon filtration at the plant with the goal of reducing PFOS exiting the plant. I was advised during the inspection that their effluent is down to 12 Ng/L. Please refer to DEQ Water Resources Division (WRD) files, for further information.

Fume suppressant or surfactant use:

Please see attached Draft 40 CFR 63 Subpart N Inspection Checklist. I have filled this out, based on information in MACES and MAERS, and based on my current understanding of the site history. I provided a copy of this checklist to the environmental contact, Mr. John Kuruda of LLP, during this inspection, and requested his input in completing it. He called me on 9/27/2018, to discuss.

As of 2018, it was my understanding that the only surfactant or fume suppressant currently in use in LPP's etch tanks and chrome plating tank is ANKOR® LF19, which is PFOS-free, and is manufactured by MacDermid Enthone. However, on 9/27/2018, while discussing fume suppressant use with Mr. John Kuruda of LPP, I was advised that as of March 2018, they ceased using ANKOR LF19, and replaced it with the fume suppressant Fumetrol 21. They may decide to switch back to ANKOR LF19, I was advised, because of high levels of foam they are said to be encountering with Fumetrol 21. It is my understanding that they are contacting the manufacturer to discuss this concern.

In 2008, as indicated in the 1/5/2008 Operations, Maintenance & Malfunction Abatement Plan of what was then known as Deco' Plate Manufacturing; the surfactants or fume suppressants used at that time were:

- ANKOR WETTING AGENT F, manufactured by Enthone, and
- Clepo Chrome Mist Control, manufactured by MacDermid Incorporated.

It is unknown to AQD at present if ANKOR WETTING AGENT TYPE F or Clepo Chrome Mist Control contained PFOS, as the Material Safety Data Sheets (SDS), known at that time as Material Safety Data Sheets (MSDS), do not say.

Violations and Concerns Identified During AQD's 7/11/2017 Inspection by Nathan Hude:

1. Concern- EU-CHROMEPLATE32 was tested in 2009 for Cr+6, the limit is total chrome. Retesting for total chrome will be requested as the 2009 stack test is not an accurate representation of total chrome emissions. This test will establish a new emission factor for reporting requirement use in MAERS, any required monthly calculations, and under FG-FACILITY for HAPs. AQD will follow up with company.

2. Concern- EU-CHROMEETCH, SCI.1, SCI.2, SCVI.2.b, SCVI2.c.; conditions are for emission limits and recordkeeping of emissions which are determined by GC13 stack testing. Testing has not been conducted on these units and the use of AP-42 is being used for calculating emissions. Based on the comparison of using AP-42 and the emission factors provided from a 2009 stack test on another facility unit, the emissions using AP-42 are significantly lower. Thus stack testing for this emission unit will be requested. This test will establish a new emission factor for reporting requirement use in MAERS, any required monthly calculations, and under FG-FACILITY for HAPs. AQD will follow up with the company.

3. Violation- EU-CHROMEETCH, SCVI.3. requires specific timed checks for tank surface tension exceedances. On 4/19/2017 at 3:54pm the ETCH1 tank had a reading of 37 dynes/cm and a recheck on 4/20/2017 at 1:02am which indicated a reading of 31 dynes/cm but the check should've been completed approx. 5 hours earlier. A violation was not issued for this, but assurance from Mr. John Kuruda of LPP was provided that the lab responsible for testing now understands the requirements of the permit special conditions. Follow-up will be conducted.

4. Concern- FG-NONCHROMEPROCESS, SCI2, SCI3, and SCIII.1; are conditions for emission limits for this process which are operated under the "System 3 Pre-plate Wet Scrubber". Numerous differential pressure readings have been at the lower action level for this device. Records indicate actions are being taken but the actions are poorly documented as to the date conducted and the result of the action. A request for better documentation to include the date action was taken and the result of the action has been made for a easier determination for compliance.

5. Violation- FG-FACILITY, SCI.1, SCI.2, SCVI.1, SCVI2.d, and SCVI2.e, requires recordkeeping and tracking of individual and aggregate HAPs. The most recent HAPS database was updated by Barr Engineering for HAPs associated with the paint line under FG-COATING of PTI 11-13 yet does not include HAPs associated with the chrome plating line. LPP is currently working with Barr again to

include all HAPs within the facility as intended. Due to the continued efforts on these conditions, a violation will not be written. Follow-up will be conducted.

Safety attire required:

Safety glasses with side shields, and steel-toed boots. A flashlight may be helpful, as advised by previous AQD inspectors to visit this facility.

Odor evaluation:

I checked for odors offsite, prior to arrival. Weather conditions at 9:57 AM were mostly sunny and humid, and 65 degrees F, and there appeared to be no wind. As I approached fhe plant from the northwest, on DeMille Road, I noticed a barely detectable odor which was so faint I had difficulty assigning a character to it. I later detected this odor inside the plant, where it appeared to me to be associated with plating or other metal treatment tanks. I drove around the triangular-shaped industrial park, and again approached LPP from the northwest, I could not verify the presence of an odor.

Arrival:

I arrived onsite at 10:02 AM. I could not see any visible emissions from the plant exhaust stacks or the roofline in general. Winds were now out of the east at 0-5 miles per hour. I noticed a barely detectable odor which I later detected inside the plant. This odor may be associated with plating or other metal treatment tanks.

This was an unannounced, scheduled inspection. Scheduled means that it was identified at the start of the Fiscal Year (FY) 2018 as a facility which should be inspected by AQD this FY. This was my first inspection of this facility, as it has previously been assigned to other AQD inspectors.

I entered the facility lobby, and provided my identification/credentials, per AQD procedure. I explained the reason for my visit, and was soon met by Mr. John Kuruda, Environmental Coordinator. He accompanied me through the plant, and we discussed and reviewed facility recordkeeping, afterwards.

They are still in the auto trim business, I was informed, and every product they make is for the automotive industry. Business has been down a little bit this year, I was informed.

Inspection:

Compliance check with the special conditions of PTI No. 25-13

EU-CHROMEPLATE32; PTI No. 25-13:

SC I.1. Emission Limit, Total Chrome, 0.007 mg/dscm

INSPECTION RESULT #1: Ongoing Compliance Status report required by 40 CFR Part 63, Subpart N, submitted 7/17/2018, received timely, for period 1/1/2018 through 6/30/2018. EU-CHROMEPLATE32 hours of operation reported as 3,136 hours. EU-CHROMEPLATE32 pressure drop range reported as 2.4-2.7 inches, water column. EUCHROMEPLATE32 surface tension readings were at or all below regulatory limit of 33 dynes/cm, except for one reading of 34 dynes/cm on 3/14/2018. The company's report expressed the perceived regulatory limit of <35 dynes/cm, which is an outdated limit, please see note below. From the data in the report, it appears that a recheck of the 3:14 AM reading of 34 dynes/cm was not conducted until 3:56 PM. A recheck of surface tension is required once every 4 hours, following an exceedance, by the NESHAP. A Violation Notice (VN) will be sent to LPP for exceeding the dynes/cm limit.

Note: The current version of 40 CFR Part 63, Subpart N, on the e-CFR website, specifies a surface tension limit of 33 dynes/cm for open surface hard chromium electroplating tanks, under section 63.342 (c)(1)(iii). The limit was previously 35 dynes/cm, but was changed to 33 on 9/19/2014, the implementation

date set by the revised chrome NESHAP as published in the Federal Register on 9/19/2012.

The EQP 5789 form on the DEQ, AQD website has not been updated. It is still the 3/05 version, which lists the pre-9/19/2014 limit of 35 dynes/cm as the surface tension maximum limit for facilities which use a tensiometer, instead of the current limit of 33 dynes/cm. AQD is now looking into updating this form on our website.

This device was stack tested in 2009 for Cr+6.

SC II. MATERIAL LIMITS- NA

SC III.1. Within 30 calendar days of the date of permit approval, the permittee shall submit to the AQD District Supervisor, an approvable operation and maintenance plan. The plan shall contain all information required by 40 CFR 63.342(f)(3)(i), which includes the following: (R 336.1910, 40 CFR Part 63 Subparts A & N)

a) Operation and maintenance criteria for EU-CHROMEPLATE32 add-on control device(s), and for the process and control device(s) monitoring equipment as well as a standardized checklist to document the operation and maintenance of the equipment;

b) The work practice standards for the add-on control device(s) and monitoring equipment;

c) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and

d) A systematic procedure for identifying process equipment, add-on control device(s) and monitoring equipment malfunctions and for implementing corrective actions to address such malfunctions.

INSPECTION RESULT: #2 Compliance- an updated and currently relevant MAP was received 6/15/17 which covers "Systems 1 thru 5- Chrome Mist Eliminator, Wet Scrubbers, Etch Dual Stage, and Cyclone Separators".

SC III.2. The permittee shall not operate EU-CHROMEPLATE32 unless the chemical fume suppressant containing a wetting agent is applied in quantities and at a frequency to ensure the surface tension of the tank does not exceed, at any time during operation, 40 dynes/cm (2.8x10-3 pound-force per foot)) as measured by a stalagmometer or does not exceed 33 dynes/cm (2.3x10-3 pound-force per foot) as measured by a tensiometer. (R 336.1225, R 336.1910, 40 CFR Part 63.342(c)(d))

INSPECTION RESULT #3: Ongoing Compliance Status report required by 40 CFR Part 63, Subpart N, submitted 7/17/2018, received timely, for period 1/1/2018 through 6/30/2018. EU-CHROMEPLATE32 hours of operation reported as 3,136 hours. EU-CHROMEPLATE32 pressure drop range reported as 2.4-2.7 inches, water column. EUCHROMEPLATE32 surface tension readings were at or all below regulatory limit of 33 dynes/cm, except for one reading of 34 dynes/cm on 3/14/2018. The company's report expressed the perceived regulatory limit of <35 dynes/cm, which is an outdated limit, please see note below. From the data in the report, it appears that a recheck of the 3:14 AM reading of 34 dynes/cm was not conducted until 3:56 PM. A recheck of surface tension is required once every 4 hours, following an exceedance, by the NESHAP. A Violation Notice (VN) will be sent to LPP for exceeding the dynes/cm limit.

Note: The current version of 40 CFR Part 63, Subpart N, on the e-CFR website, specifies a surface tension limit of 33 dynes/cm for open surface hard chromium electroplating tanks, under section 63.342 (c)(1)(iii). The limit was previously 35 dynes/cm, but was changed to 33 on 9/19/2014, the implementation date set by the revised chrome NESHAP as published in the Federal Register on 9/19/2012.

The EQP 5789 form on the DEQ, AQD website has not been updated. It is still the 3/05 version, which lists the pre-9/19/2014 limit of 35 dynes/cm as the surface tension maximum limit for facilities which use a tensiometer, instead of the current limit of 33 dynes/cm. AQD is now looking into updating this

form on our website.

SC IV.1. The permittee shall not operate EU-CHROMEPLATE32 unless the composite mesh pad system with mist eliminator is installed, maintained, and operated in a satisfactory manner. (R 336.1225, 40 CFR Part 63 Subparts A & N)

INSPECTION RESULT #4: Compliance- 40 CFR Part 63, Subpart N report received 7/23/2018 indicating the scrubber was operational all 3,136 hours of operation with DP ranging from2.4-2.7 "WC, and no excess emissions. A physical check of the scrubber found it to be operational.

Today, the chrome mist eliminator was operating at 1.35 to 1.4", water column (WC).

The preplate wet scrubber was operating at 1.7 inches, WC.

The nitric wet scrubber was operating at 2.1 inches, WC.

SC IV.2. The permittee shall equip and maintain the composite mesh pad system with mist eliminator with a differential pressure monitoring device. (R 336.1225, R 336.1910, 40 CFR 63.343(c))

INSPECTION RESULT #5: Compliance- 40 CFR Part 63, Subpart N report received 7/23/2018 indicating the scrubber was operational all 3,136 hours of operation with DP ranging from2.4-2.7 "WC, and no excess emissions. A physical check of the scrubber found it to be operational.

SC V. TESTING- NA

INSPECTION RESULT #6: Although not required, weekly emissions for this unit are being tracked.

Stack testing was conducted for this unit in 2009. The testing was conducted for hexavalent chrome (Cr+6) rather than total chrome and it appears they are using an incorrect emission factor in their database. The database appears to use an airflow of 363.1 m^3/min and the 2009 stack test found the flow to be 163m^3/min. Upon further review, it appears that the MAERS emission factors are also incorrect resulting an underreporting of emissions, yet emissions resulting in well below major sources thresholds.

Due to the analysis for only partial of total chrome and the past inconsistency of the maintenance program, stack testing will be requested to determine compliance with this limit and establish a new emission factor.

SC VI.1. The permittee shall monitor the surface tension of the EU-CHROMEPLATE32 once every four (4) hours of tank operation for the first 40 hours of tank operation. If there are no exceedances during the first 40 hours of tank operation, then surface tension measurements may be conducted once every eight (8) hours of tank operation for the next 40 hours of tank operation. If there are no exceedances during the 40 hours of tank operation when surface tension measurements are being conducted every eight (8) hours, then surface tension measurements may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every four hours must be resumed and the subsequent decrease in frequency shall follow the schedule as laid out above. The minimum frequency of monitoring allowed is once every 40 hours of tank operation. An example of monitoring frequency is available at 40 CFR 63.343(c)(5)(ii)(C). The surface tension shall be monitored with a stalagmometer or tensiometer as specified in Method 306B of 40 CFR Subpart N. (R 336.1910, 40 CFR Part 63.343(c)(5))

INSPECTION RESULT: #7 Ongoing Compliance Status report required by 40 CFR Part 63, Subpart N, submitted 7/17/2018, received timely on 7/23/2018, for period 1/1/2018 through 6/30/2018. EU-CHROMEPLATE32 hours of operation reported as 3,136 hours. EU-CHROMEPLATE32 pressure drop range reported as 2.4-2.7 inches, water column. EU-CHROMEPLATE32 surface tension readings were at or all below regulatory limit of 33 dynes/cm, except for one reading of 34 dynes/cm on 3/14/2018. The company's report expressed the perceived regulatory limit of <35 dynes/cm, which is an outdated limit,

please see note below. From the data in the report, it appears that a recheck of the 3:14 AM reading of 34 dynes/cm was not conducted until 3:56 PM. A recheck of surface tension is required once every 4 hours, following an exceedance, by the NESHAP. AA Violation Notice (VN) will be sent to LPP for exceeding the dynes/cm limit.

Note: The current version of 40 CFR Part 63, Subpart N, on the e-CFR website, specifies a surface tension limit of 33 dynes/cm for open surface hard chromium electroplating tanks, under section 63.342 (c)(1)(iii). The limit was previously 35 dynes/cm, but was changed to 33 on 9/19/2014, the implementation date set by the revised chrome NESHAP as published in the Federal Register on 9/19/2012.

The EQP 5789 form on the DEQ, AQD website has not been updated. It is still the 3/05 version, which lists the pre-9/19/2014 limit of 35 dynes/cm as the surface tension maximum limit for facilities which use a tensiometer, instead of the current limit of 33 dynes/cm. AQD is now looking into updating this form on our website.

SC VI.2. The permittee shall perform inspections of the composite mesh pad (CMP) system as follows: (R 336.1910, 40 CFR Part 63.342(f) and 63.343(c)(1))

a) Determine pressure drop across the CMP system on a daily basis. If the pressure drop across the control varies by more than ±2 inch of water gauge, from the pressure drop determined during compliance testing or as specified by the manufacturer, the permittee shall document the variation, and review the operation and maintenance procedures. The permittee shall document any corrective action.

INSPECTION RESULT #8: Compliance- the range has been documented in the current and past MAP's for a range of 1.0-3.0. Daily checks are documented and copies included of the recordings are included in the 40CFR63 Subpart N semi-annual report.

b) Visually inspect the CMP system, on a quarterly basis, to ensure there is proper drainage, no chromic acid build up on the pads, and no evidence of chemical attack on the structural integrity of the control device.

INSPECTION RESULT #9: Compliance- Records observed onsite for EU-CHROMEPLATE32 indicate that quarterly checks are being conducted and being recorded using the "Quarterly Inspection Checklist for the CMP Scrubber" which is page 47 of the MAP. Dates recorded at the site were 9/13/2017 12/15/2017, 3/10/2018, 6/5/2018. Another quarterly check will be due this month (September, 2018).

c) Visually inspect the back portion of the mesh pad closest to the fan, on a quarterly basis, to ensure there is no breakthrough of chromic acid mist.

INSPECTION RESULT #10: Compliance- Records observed onsite for EU-CHROMEPLATE32 indicate that quarterly checks are being conducted and being recorded using the "Quarterly Inspection Checklist for the CMP Scrubber" which is page 47 of the MAP. Dates recorded at the site were 9/13/2017 12/15/2017, 3/10/2018, 6/5/2018. Another quarterly check will be due this month (September, 2018).

d) Visually inspect ductwork from tanks to the CMP system, on a quarterly basis, to ensure there are no leaks.

INSPECTION RESULT: #11 Compliance- Records observed onsite for EU-CHROMEPLATE32 indicate that quarterly checks are being conducted and being recorded using the "Quarterly Inspection Checklist for the CMP Scrubber" which is page 47 of the MAP. Dates recorded at the site were 9/13/2017 12/15/2017, 3/10/2018, 6/5/2018. Another quarterly check will be due this month (September, 2018).

e) Perform wash-down of composite mesh pads in accordance with manufacturer's recommendations.

INSPECTION RESULT #12: Compliance- Records observed onsite indicate that wash-downs are being conducted and being recorded using the "Composite Mesh Pad Wash Down Check Sheet" which is page 44 of the MAP. It is my understanding that these are being done on a weekly basis. On 9/27/2018, AQD

e-mailed Mr. Kuruda, to ask for a recent example of the Wash Down Check Sheet.

SC VI.3. The permittee shall maintain records of inspections required to comply with applicable work practice standards of 40 CFR 63.342(f). Each inspection record shall identify the device inspected, the date, approximate time of inspection, and a brief description of the working condition of the device during the inspection. The permittee shall also record any actions taken to correct the deficiencies found during the inspection. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1910, 40 CFR Part 63 Subparts A & N)

INSPECTION RESULT #13: Compliance- Records observed onsite for EU_CHROMEPLATE32 indicate that quarterly checks are being conducted and being recorded using the "Quarterly Inspection Checklist for the CMP Scrubber" which is page 47 of the MAP. Dates recorded at the site were 9/13/2017 12/15/2017, 3/10/2018, 6/5/2018. Another quarterly check will be due this month (September, 2018).

SC VI.4. The permittee shall keep records of the surface tension of EU-CHROMEPLATE32, the amount of chemical fume suppressant added to EU-CHROMEPLATE32 and the date and time of each addition. The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR Part 63 Subparts A & N)

INSPECTION RESULT #14*: Ongoing Compliance Status report required by 40 CFR Part 63, Subpart N, submitted 7/17/2018, received timely, for period 1/1/2018 through 6/30/2018. surface tension readings were at or all below regulatory limit of 33 dynes/cm, except for one reading of 34 dynes/cm on 3/14/2018. The company's report expressed the perceived regulatory limit of <35 dynes/cm, which is an outdated limit, please see note below. From the data in the report, it appears that a recheck of the 3:14 AM reading of 34 dynes/cm was not conducted until 3:56 PM. A recheck of surface tension is required once every 4 hours, following an exceedance, by the NESHAP. AA Violation Notice (VN) will be sent to LPP for exceeding the dynes/cm limit.*

Note: The current version of 40 CFR Part 63, Subpart N, on the e-CFR website, specifies a surface tension limit of 33 dynes/cm for open surface hard chromium electroplating tanks, under section 63.342 (c)(1)(iii). The limit was previously 35 dynes/cm, but was changed to 33 on 9/19/2014, the implementation date set by the revised chrome NESHAP as published in the Federal Register on 9/19/2012.

The EQP 5789 form on the DEQ, AQD website has not been updated. It is still the 3/05 version, which lists the pre-9/19/2014 limit of 35 dynes/cm as the surface tension maximum limit for facilities which use a tensiometer, instead of the current limit of 33 dynes/cm. AQD is now looking into updating this form on our website.

The data log for the decorative chrome plating process which is sent to AQD with each semi-annual On-Going compliance status report indicates the addition in milliliters (ml) of the fume suppressant, ANKOR LF19, complying with the requirement to track surfactant volume added and dates added.

SC VII.1. Permittee shall submit the ongoing compliance status report on an annual basis to the Department in accordance with 40 CFR Part 63.347(h). (40 CFR Part 63 Subparts A & N)

INSPECTION RESULT: #15 Compliance- the most recent 40 CFR Part 63, Subpart N report was received 7/23/2018. The report is discussed elsewhere in this report.

SC VIII.1. Stack maximum diameter 32 inches and minimum height above ground 50 feet.

INSPECTION RESULT #16: the stack appears from ground level, with the unaided eye, as if it meets these dimensions.

SC IX. OTHER REQUIREMENTS- NA

EU-CHROMEETCH; PTI No. 25-13

Description: One pre-etch tank (#1) and one etch tank (#2)

Pollution Control Equipment: Packed bed scrubber and composite mesh pad

SC I.1. Emission Limit, Hexavalent Chromium 11.5 micrograms per cubic meter

INSPECTION RESULT #17: Compliance- daily records produced identify the scrubber for this device as "System 05" and indicate compliance for "Chromic Acid" rather than Hexavalent Chrome.

No Stack Testing providing an adequate emission factor can be found for this device.

MAERS attachments indicate the emission factor is a result of "the Title V compliance verification during 2010". This test was conducted in October 2009 but the report wasn't received by the LDO until June 7, 2010. During this test EU-CHROMEETCH was not tested. Only EU-CHROMETANK32 for Cr+6 (should've been Total Chrome), EU-COPPERTANKS for H2SO4, EU-ACTIVATORTANKS for HCl, EU-ACTIVATORTANKS for formaldehyde, and EU-NEUTRALIZERTANKS for HCl were tested.

Results are determined by GC13, stack testing.

An email was sent to John on 7/28/17 requesting the calculations used for determining emissions with a requested response by 8/2/17. The response indicated that AP-42 section 12 equation 4 was being used. Stack testing will be requested to determine compliance with this limit and establish a new emission factor.

SCI.2. Emission Limit, Sulfuric Acid 6.05 milligrams per cubic meter

INSPECTION RESULT #18: Undetermined Compliance- records produced identify the scrubber for this device as "System 05" and indicate compliance.

No Stack Testing providing an adequate emission factor can be found for this device.

MAERS attachments indicate the emission factor is a result of "the Title V compliance verification during 2010". This test was conducted in October 2009 but the report wasn't received by the LDO until June 7, 2010. During this test EU-CHROMEETCH was not tested. Only EU-CHROMETANK32 for Cr+6 (should've been Total Chrome), EU-COPPERTANKS for H2SO4, EU-ACTIVATORTANKS for HCl, EU-ACTIVATORTANKS for formaldehyde, and EU-NEUTRALIZERTANKS for HCl were tested.

Results are determined by GC13, stack testing.

An email was sent to John on 7/28/17 requesting the calculations used for determining emissions with a requested response by 8/2/17. The response indicated that AP-42 section 12 equation 4 was being used. Stack testing will be requested to determine compliance with this limit and establish a new emission factor.

SC II. MATERIAL LIMITS- NA

SC III.1. Within 30 calendar days of the date of permit approval, the permittee shall submit to the AQD District Supervisor, an approvable operation and maintenance plan. The plan shall contain all the following: (R 336.1910)

a) Operation and maintenance criteria for EU-CHROMEETCH, add-on control device(s), and for the process and control device(s) monitoring equipment as well as a standardized checklist to document the operation and maintenance of the equipment;

b) The work practice standards for the add-on control device(s) and monitoring equipment;

c) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and

d) A systematic procedure for identifying process equipment, add-on control device(s) and monitoring equipment malfunctions and for implementing corrective actions to address such malfunctions.

INSPECTION RESULT #19: Compliance- an updated and currently relevant MAP was received 6/15/17 which covers "Systems 1 thru 5- Chrome Mist Eliminator, Wet Scrubbers, Etch Dual Stage, and Cyclone Separators".

SC III.2. The permittee shall not operate EU-CHROMEETCH unless the packed bed and composite mesh pad are installed, maintained, and operated in a satisfactory manner. (R 336.1225)

INSPECTION RESULT #20: Noncompliance. A physical check of the scrubber found the stage 2 pressure drop gauge to be initially not operating. The scrubber itself was running. Mr. Kuruda called a plant employee to investigate this. Several minutes later, the pressure drop gauge was working again. Reading for stage 2 pressure drop, once the gauge was working again, was 0.85", acceptable range 0.30-1.5 "WC. Stage 1 reading was 0.6", below the acceptable range 1.0-3.0 "WC. The combined reading for both stages was 1.45 "WC; the combined reading has an acceptable range of 1.7-3.3 "WC. A leak was found on the lower corner of ductwork leading from EU-CHROMEETCH to the scrubber. Greenish sediment indicates the presence of trivalent chromium. A Violation Notice (VN) will be sent for the temporarily inoperable pressure drop gauge for stage 2 of the scrubber, and for the stage 1 reading of 0.6", below the specified range.

SC III.3. The permittee shall not operate EU-CHROMEETCH unless the chemical fume suppressant containing a wetting agent is applied in quantities and at a frequency to ensure the surface tension of the tank does not exceed, at any time during operation, 35 dynes/cm (2.8x10-3 pound-force per foot)) as measured by a stalagmometer or does not exceed 32 dynes/cm (2.3x10-3 pound-force per foot) as measured by a tensiometer. (R 336.1225, R 336.1910)

INSPECTION RESULT #21: Pending. On 9/27/2018, AQD e-mailed Mr. Kuruda, to request a copy of records of surface tension and fume suppressant addition for EUCHROMEETCH for the period of 1/1/2018 through 6/30/2018.

SC IV.1. The permittee shall equip and maintain the composite mesh pad and packed bed scrubber systems with a differential pressure monitoring device. (R 336.1910)

INSPECTION RESULT: #22 Noncompliance. The pressure drop gauge for Stage 2 of the scrubber was not operational for several minutes. An employee was contacted, and several minutes later, it was working again. A VN will be sent for the period of non-operation.

SC V. TESTING- NA

SC VI.1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1224, R 336.1225)

SC VI.2. The permittee shall keep the following information on a weekly basis for EU-CHROMEETCH:

a) Determine and record the bath density in each tank

INSPECTION RESULT #23: **Pending. On 9/27/2018, AQD e-mailed Mr. Kuruda to request copies of the bath density recordkeeping for each tank from 1/1/2018 through 6/30/2018.**

b) Sulfuric acid emission calculations in milligrams per cubic meter

INSPECTION RESULT #24: Undetermined Compliance- daily records produced identify the scrubber for this device as "System 05".

No Stack Testing providing an adequate emission factor can be found for this device.

Emission factors for AP-42 section 12.20 are not being used.

MAERS attachments indicate the emission factor is a result of "the Title V compliance verification during 2010". This test was conducted in October 2009 but the report wasn't received by the LDO until June 7, 2010. During this test EU-CHROMEETCH was not tested. Only EU-CHROMETANK32 for Cr+6 (should've been Total Chrome), EU-COPPERTANKS for H2SO4, EU-ACTIVATORTANKS for HCl, EU-ACTIVATORTANKS for formaldehyde, and EU-NEUTRALIZERTANKS for HCl were tested.

Results are determined by GC13, stack testing.

c) Hexavalent chromium emission calculations in milligrams per cubic meter

INSPECTION RESULT: #25 Undetermined Compliance- daily records produced identify the scrubber for this device as "System 05" and indicate compliance for "Chromic Acid" rather than Hexavalent Chrome.

No Stack Testing providing an adequate emission factor can be found for this device.

Emission factors for AP-42 section 12.20 are not being used.

MAERS attachments indicate the emission factor is a result of "the Title V compliance verification during 2010". This test was conducted in October 2009 but the report wasn't received by the LDO until June 7, 2010. During this test EU-CHROMEETCH was not tested. Only EU-CHROMETANK32 for Cr+6 (should've been Total Chrome), EU-COPPERTANKS for H2SO4, EU-ACTIVATORTANKS for HCl, EU-ACTIVATORTANKS for formaldehyde, and EU-NEUTRALIZERTANKS for HCl were tested.

Results are determined by GC13, stack testing.

SC VI.3. The permittee shall monitor the surface tension of the EU-CHROMEETCH once every four (4) hours of tank operation for the first 40 hours of tank operation. If there are no exceedances during the first 40 hours of tank operation, then surface tension measurements may be conducted once every eight (8) hours of tank operation for the next 40 hours of tank operation. If there are no exceedances during the 40 hours of tank operation when surface tension measurements are being conducted every eight (8) hours, then surface tension measurements may be conducted once every 40 hours of tank operation on an ongoing basis, until an exceedance occurs. Once an exceedance occurs as indicated through surface tension monitoring, the original monitoring schedule of once every four hours must be resumed and the subsequent decrease in frequency shall follow the schedule as laid out above. The minimum frequency of monitoring allowed is once every 40 hours of tank operation. (R 336. 1224, R 336.1225, R336.1910)

INSPECTION RESULT #26: Pending. On 9/27/2018, AQD e-mailed Mr. Kuruda, to request a copy of records of surface tension and fume suppressant addition for EUCHROMEETCH for the period of 1/1/2018 through 6/30/2018.

SC VI.4. The permittee shall perform inspections of the composite mesh pad (CMP) and the packed bed scrubber systems as follows: (R 336.1224, R336.1225, R 336.1910)

a) Determine pressure drop across both systems on a daily basis. If the pressure drop across the control varies by more than ±2 inch of water gauge, from the pressure drop determined during compliance testing or as specified by the manufacturer, the permittee shall document the variation, and review the operation and maintenance procedures. The permittee shall document any corrective action.

INSPECTION RESULT #27: Noncompliance. The pressure drop gauge for stage 2 of the scrubber was inoperable when we first observed it. An employee of LPP was called, and several minutes later the

gauge was working again, so pressure drop could be determined. However, the pressure drop gauge for Stage 1 read 0.6 inches, below the specified range of 1.0-3.0" WC.

b) Visually inspect the CMP system, on a quarterly basis, to ensure there is proper drainage, no chromic acid build up on the pads, and no evidence of chemical attack on the structural integrity of the control device.

INSPECTION RESULT #28: Compliance- Records reviewed onsite indicate that quarterly checks are being conducted and being recorded using the "Quarterly Inspection Checklist for the CMP Scrubber" which is page 47 of the MAP. Dates of 9/13/2017, 12/15/2017, 3/10/2018, and 6/5/2018 were recorded. Another quarterly check is due this month (September, 2018). On 9/27/2018, I requested a copy of the most recent quarterly checks, for AQD's files.

c) Visually inspect the back portion of the mesh pad closest to the fan, on a quarterly basis, to ensure there is no breakthrough of chromic acid mist.

INSPECTION RESULT #29: Compliance- Records reviewed onsite indicate that quarterly checks are being conducted and being recorded using the "Quarterly Inspection Checklist for the CMP Scrubber" which is page 47 of the MAP. Dates of 9/13/2017, 12/15/2017, 3/10/2018, and 6/5/2018 were recorded. Another quarterly check is due this month (September, 2018). On 9/27/2018, I requested a copy of the most recent quarterly checks, for AQD's files.

d) Visually inspect ductwork from tanks to the CMP system, on a quarterly basis, to ensure there are no leaks.

INSPECTION RESULT #30: Compliance- Records reviewed onsite indicate that quarterly checks are being conducted and being recorded using the "Quarterly Inspection Checklist for the CMP Scrubber" which is page 47 of the MAP. Dates of 9/13/2017, 12/15/2017, 3/10/2018, and 6/5/2018 were recorded. Another quarterly heck is due this month (September, 2018).

e) Perform wash-down of composite mesh pads in accordance with manufacturer's recommendations.

INSPECTION RESULT: #31 Compliance- Records reviewed onsite indicate that weekly wash-downs are being conducted and being recorded using the "Composite Mesh Pad Wash Down Check Sheet" which is page 44 of the MAP. On 9/27/2018, AQD e-mailed Mr. Kuruda to request a representative example of their records.

SC VI.5. The permittee shall keep records of the surface tension of EU-CHROMEETCH, the amount of chemical fume suppressant added to EU-CHROMEETCH and the date and time of each addition. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1224, R 336.1225, R 336.1910)

INSPECTION RESULT #32: Pending - AQD sent an e-mail to Mr. Kuruda on 9/27/2018 requesting copies of the monitoring results for surface tension and fume suppressant addition for EU-CHROMEETCH, for 1/1/2018 – 6/30/2018.

SC VII. REPORTING- NA

SC VIII.1. Stack maximum diameter 26 inches and minimum height above ground 25 feet.

INSPECTION RESULT #33: Not evaluated.

SC IX. OTHER REQUIREMENTS- NA

FG-NONCHROMEPROCESS; PTI No. 25-13

By the permit, EU-COPPERTANKS have six (6) cyclone separators and a dry scrubber system; EU-ACTIVATORTANKS have a packed bed scrubber and EU-NEUTRALIZERTANKS have a packed bed scrubber.

SC I.1. Emission Limit, EU-COPPERTANKS, Sulfuric Acid, 4.65 milligrams per cubic meter

INSPECTION RESULT #34: Undetermined. GC13 (stack testing) and SCVI.1.a) (control device monitoring) are used for determining compliance of this limit.

Note: The amp meter for the dry scrubber system did not appear to be running. Also, the scrubber was found to be not operating, due to the exhaust fan motor not running. Mr. Kuruda contacted an LPP employee to start repairs. It was determined that the fan motor would need to be replaced. A VN will be sent for the scrubber not being maintained and/or operated properly. Mr. Kuruda e-mailed to me later this day a copy of the work order for the repairs and a copy of the invoice for the new fan motor, please see attached.

SCI.2. Emission Limit, EU-ACTIVATORTANKS and EU-NEUTRALIZERTANKS, Hydrochloric Acid, 4.65 milligrams per cubic meter

INSPECTION RESULT #35: Undetermined. Stack testing would be required to check compliance with the HCl emissions limit. AQD is not pursuing stack testing for these tanks at this time.

SC I.3. Emission Limit, EU-ACTIVATORTANKS, Formaldehyde, 1.02 milligrams per cubic meter

INSPECTION RESULT #36: Undetermined. Stack testing would be required to check compliance with the formaldehyde emissions limit. AQD is not pursuing stack testing or these tanks at this time.

SC II. MATERIAL LIMITS- NA

SC III.1. The permittee shall not operate the emission units covered by FG-NONCHROMEPROCESS unless the corresponding control device is installed, maintained, and operated in a satisfactory manner. (R 336.1225)

EU-ACTIVATORTANKS , System 3 Preplate wet scrubber "Stage #2 D.P." compliance range 1.0-3.0.

INSPECTION RESULT #37: Compliance. The differential pressure reading for the preplate wet scrubber, the PBS scrubber system for EUACTIVATORTANKS, was identified at 1.7" WC, during the inspection. This was within the acceptable range. requested an example of pressure drop readings for the Preplate PBS scrubber system, by e-mail on 9/27/2018.

EU-COPPERTANKS, System 2 Acid Copper Cyclone 6 Separator compliance range 17-20 amps.

INSPECTION RESULT #38: Noncompliance: An amp reading could not be taken, because the meter for amp readings was not operating at this time. A VN will be sent.

Additionally, no air was moving through the scrubber for EUCOPPERTANKS, because the exhaust fan was not operating. LPP began investigating the cause of the failure of the fan motor. It was determined that there was a problem with a bearing, and that the fan motor would need to be replaced. Later this day, Mr. Kuruda e-mailed me a copy of the work order for the motor replacement and a copy of the invoice for the motor itself. A VN will be sent for the scrubber for EUCOPPERTANKS not operating.

EU-NEUTRALIZERTANKS: System 4 Nitric wet Scrubber, compliance range 1.0-.30" WC.

INSPECTION RESULT #39: Compliance- Magnehelic gauge reading of 2.1" WC for the nitric acid scrubber, with the acceptable range.

SC III.2. The permittee shall not operate FG-NONCHROMEPROCESS unless a malfunction abatement plan (MAP) as described in Rule 911(2), for each control device associated with FG-NONCHROMEPROCESS, has been submitted within 60 days of permit issuance, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1225)

INSPECTION RESULT #40: Result: Compliance. During today's inspection, the nitric wet scrubber was operating at 2.1 inches, WC. The specified range is 1.0 to 3.0" WC. An updated and current MAP was received by AQD on 6/15/2017 which covers "Systems 1 through 5 - Chrome Mist Eliminator, Wet Scrubbers, Etch Dual Stage, and Cyclone Separators." It requires weekly monitoring and recording for all FG0NONCHROMEPROCESS devices.

SC IV. DESIGN/EQUIPMENT PARAMETERS- NA

SC V. TESTING- NA

1. The permittee shall keep the following information on a weekly basis for EU-COPPERTANKS:

a) Monitor and record fan electric current for each cyclone

b) Monitor and record pressure drop across the packed bed scrubber

The permittee shall keep the records on file at the facility in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. (R 336.1224, R 336.1225)

INSPECTION RESULT #41: Pending. On 9/27/2018, AQD e-mailed Mr. Kuruda, to request an example of the recordkeeping for EUCOPPERTANKS, for fan electric current for each cyclone and for pressure drop across the PBS scrubber.

SC VII. REPORTING- NA

SC VIII.1. SVCHREXHSYS2, Stack maximum diameter 42 inches and minimum height above ground 25 feet.

INSPECTION RESULT #42: Not evaluated, 2009 stack test.

SC VIII.2. SVCHREXHSYS4, Stack maximum diameter 30 inches and minimum height above ground 25

feet.

INSPECTION RESULT #43- not evaluated.

SC IX. OTHER REQUIREMENTS- NA

FG-FACILITY

SC I.1. Emission Limit, Individual HAP, less than 9.0 tpy

INSPECTION RESULT #44: Pending: On 9/27/2018, I e-mailed Mr. Kuruda to request a copy of recent HAPs recordkeeping, showing a 12-month rolling time period value. In years past, the HAPS recordkeeping included HAPs from the paint lines covered by PTI No. 11-13, but not HAPs related to the chrome plating line. It is my understanding that Barr Engineering, the consultant for LPP, worked with them to expand their HAPs recordkeeping, to meet permit requirements. AQD will review HAPs recordkeeping, upon receipt.

SC I.2. Emission Limit, Aggregate HAP, less than 22.5 tpy

INSPECTION RESULT #45: Pending: On 9/27/2018, I e-mailed Mr. Kuruda to request a copy of recent HAPs recordkeeping, showing a 12-month rolling time period value. In years past, the HAPS recordkeeping included HAPs from the paint lines covered by PTI No. 11-13, but not HAPs related to the chrome plating line. It is my understanding that Barr Engineering, the consultant for LPP, worked with them to expand their HAPs recordkeeping, to meet permit requirements. AQD will review HAPs recordkeeping, upon receipt.

SC II. MATERIAL LIMITS- NA

SC III. PROCESS/OPERATIONAL RESTRICTIONS- NA

SC IV. DESIGN/EQUIPMENT PARAMETERS- NA

SC V.1. The permittee shall determine the HAP content of any material as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. (R336.1205(3))

INSPECTION RESULT #46: not evaluated.

SC VI.1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(3))

INSPECTION RESULT #47: Pending: On 9/27/2018, I e-mailed Mr. Kuruda to request a copy of recent HAPs recordkeeping, showing a 12-month rolling time period value. In years past, the HAPS recordkeeping included HAPs from the paint lines covered by PTI No. 11-13, but not HAPs related to the chrome plating line. It is my understanding that Barr Engineering, the consultant for LPP, worked with them to expand their HAPs recordkeeping, to meet permit requirements. AQD will review HAPs recordkeeping, upon receipt.

SCVI.2. The permittee shall keep the following information on a calendar month basis for FGFACILITY:

a) Gallons or pounds of each HAP containing material used.

INSPECTION RESULT #48: not evaluated.

b) Where applicable, gallons or pounds of each HAP containing material reclaimed.

INSPECTION RESULT #49: not evaluated.

c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.

INSPECTION RESULT #50: not evaluated.

d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.

INSPECTION RESULT #51: Pending: On 9/27/2018, I e-mailed Mr. Kuruda to request a copy of recent HAPs recordkeeping, showing a 12-month rolling time period value. In years past, the HAPS recordkeeping included HAPs from the paint lines covered by PTI No. 11-13, but not HAPs related to the chrome plating line. It is my understanding that Barr Engineering, the consultant for LPP, worked with them to expand their HAPs recordkeeping, to meet permit requirements. AQD will review HAPs recordkeeping, upon receipt.

e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months.

INSPECTION RESULT #52: Pending: On 9/27/2018, I e-mailed Mr. Kuruda to request a copy of recent HAPs recordkeeping, showing a 12-month rolling time period value. In years past, the HAPS recordkeeping included HAPs from the paint lines covered by PTI No. 11-13, but not HAPs related to the chrome plating line. It is my understanding that Barr Engineering, the consultant for LPP, worked with them to expand their HAPs recordkeeping, to meet permit requirements. AQD will review HAPs recordkeeping, upon receipt.

SC VII. REPORTING- NA

SC VIII. STACK/VENT RESTRICTIONS- NA

SC IX. OTHER REQUIREMENTS- NA

<u>40 CFR Part 63, Subpart N- National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks</u>

The following conditions were evaluated for conditions of this NESHAP that are not covered in PTI 25-13.

63.340(c) Process tanks associated with a chromium electroplating or chromium anodizing process, but in which neither chromium electroplating nor chromium anodizing is taking place, are not subject to the provisions of this subpart. Examples of such tanks include, but are not limited to, rinse tanks, etching tanks, and cleaning tanks. Likewise, tanks that contain a chromium solution, but in which no electrolytic process occurs, are not subject to this subpart. An example of such a tank is a chrome conversion coating tank where no electrical current is applied.

Thus FG-NONCHROMEPROCESS is not subject to this regulation.

63.342(d)(4) After September 21, 2015, the owner or operator of an affected decorative chromium electroplating tank or an affected chromium anodizing tank shall not add PFOS-based fume suppressants to any affected decorative chromium electroplating tank or chromium anodizing tank.

LPP provided the MSDS / SDS and a Technical Information Document for the suppressant used which states the substance does not contain PFOS; this suppressant is Enthone Ankor LF19.

FG-INJECTIONMOLD

LPP also operates 32 plastic mold injection presses which are internally vented. These proceses were operating during the inspection. They appear to qualify for the exemption criteria of Rule 286(2)(b). This exempts from the requirement of Michigan Air Pollution Control Rule 201 to obtain an air permit the following:

(b) Plastic injection, compression, and transfer molding equipment and associated plastic resin handling, storage, and drying equipment.

Although there was a light plastic odor inside the plastic injection molding area of the plant, I could not detect any odors of plastic outside the plant, before or after the inspection.

Compliance check with special conditions of General PTI No. 11-13, for coating operations:

FG-COATING; PTI No. 11-13

SC I.1. VOC limit, 2000lbs/month

INSPECTION RESULT #53: Compliance- the required quarterly VOC emissions report was most recently received on 7/20/2018. Emissions for April-June are as follows: April 0.056 tons; May 0.040 tons; June 0.002 tons.

SC I.2. VOC limit, 10 tons/year

INSPECTION RESULT #54: Compliance- the required quarterly VOC emissions report was most recently received on 7/20/2018. 12-month rolling emissions as of June 2018 were 0.701 tons.

SC II. Material Limits- NA

SC III.1. The permittee shall capture all purge/clean-up solvents and waste coatings from all coating applicators used in FG-COATING. The permittee shall store these materials in closed containers and shall dispose of them in an acceptable manner in compliance with all applicable state rules and federal regulations. (R 336.1702(d))

INSPECTION RESULT: #55 not evaluated

SC IV.1. The permittee shall equip and maintain FG-COATING with high volume-low pressure (HVLP) spray applicators or comparable technology with equivalent transfer efficiency (e.g., electrostatic spray,

dip, flow coat, roller, dip-spin). For HVLP applicators, the permittee shall keep test caps available for pressure testing. (R 336.1702(d))

INSPECTION RESULT #56: AQD's N. Hude confirmed with Mr. Kuruda in 2017 that test caps were on hand and available. I did not confirm it this inspection, but will check compliance on this during the next inspection.

SC IV.2. The permittee shall not operate any spray application unless particulate control (dry filters or a water curtain) is installed, maintained and operated in a satisfactory manner. (R 336.1331)

INSPECTION RESULT #57: Compliance- While walking the paint line, I found that all the booths had filters installed. The filters looked to be either brand new, or almost new, at this time. The maintenance and operation of the filters complied with the permit condition.

SC IV.3. A thermal oxidizer or catalytic oxidizer may be installed, maintained and operated in a satisfactory manner to meet the requirements of this general permit. If a thermal oxidizer or catalytic oxidizer is used for FG-COATING, satisfactory operation requires an overall minimum of 76 percent reduction of VOC emissions to the atmosphere. (R 336.1224, R 336.1702(d))

INSPECTION RESULT #58: NA. The facility chose not to pursue the option of installing a thermal oxidizer.

SC IV.4. For a coating line using a thermal oxidizer: The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the thermal oxidizer to monitor and record the temperature on a continuous basis, during operation of FG-COATING. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. (R 336.1201a(1))

INSPECTION RESULT #59:NA.. The facility chose not to pursue the option of installing a thermal oxidizer. Limits are met by volume and record keeping checks.

SC IV.5. For a coating line using a catalytic oxidizer: The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device to continuously monitor the inlet and outlet temperatures of the catalytic oxidizer catalyst bed during operation of FG-COATING. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. (R 336.1201a(1))

INSPECTION RESULT #60: NA. The facility chose not to pursue the option of installing a thermal oxidizer. Limits are met by volume and record keeping checks.

SC V.1. Within 60 days of notification by the AQD, verification of VOC emissions and VOC content (in pounds per gallon) of any coating, reducer or purge/clean-up solvent, as applied or as received, using federal Reference Test Method 25A, Method 24 or other EPA approved reference method, may be required for continued operation. Verification of the emission rates includes the submittal of a complete report of the test results to the AQD with 60 days following the last date of the test. Upon prior written approval by the AQD District Supervisor, VOC content may alternatively be determined from manufacturer's formulation data. If the Method 25A or Method 24 should differ from the formulation values, the permittee shall use the Method 25A or Method 24 results to determine compliance. (R 336.2001, R 336.2003, R 336.2004, R 336.1702(d))

INSPECTION RESULT #61: Not requested.

SC VI.1. For a coating line using a thermal oxidizer: The permittee shall monitor the temperature in the combustion chamber of the thermal oxidizer and record the temperature on a continuous basis, during operation of FG-COATING. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. (R 336.1201a(1))

INSPECTION RESULT#62: NA. The facility chose not to pursue the option of installing a thermal oxidizer.

SC VI.2. For a coating line using a catalytic oxidizer: The permittee shall continuously monitor the inlet and outlet temperatures of the catalytic oxidizer catalyst bed during operation of FG-COATING. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. (R 336.1201a(1))

INSPECTION RESULT #63: NA. The facility chose not to pursue the option of installing a catalytic oxidizer.

SC VI.3. The permittee shall keep the following information on a monthly basis for FG-COATING:

a) Purchase orders and invoices for all coatings, reducers, and purge/clean-up solvents.

VOC content, in pounds per gallon, of each coating, reducer and purge/clean-up solvent used.

INSPECTION RESULT #64: Not evaluated.

c) Gallons of each coating, reducer and purge/clean-up solvent used and reclaimed.

INSPECTION RESULT #65: Not evaluated.

d) VOC mass emission calculations determining the monthly emission rate for each coating line, in tons per calendar month, using the method specified in Appendix B.

INSPECTION RESULT #66: Compliance- the required quarterly VOC emissions report was most recently received on 7/20/2018. Emissions for April-June are as follows: April Bowtie Line 41.7lbs, Line 2 106.7 lbs; May Bowtie Line 48.8lbs, Line 280.2lbs; June Bowtie Line _49.5 lbs, Line 2 82.3 lbs.

e) VOC mass emission calculations determining the annual emission rate for each coating line, in tons per 12-month rolling time period as determined at the end of each calendar month, using the method specified in Appendix B.

INSPECTION RESULT: #67: Compliance- the required quarterly VOC emissions report was most recently received on 7/20/2018. Emissions for April-June are as follows: April Bowtie Line 41.7lbs, Line 2 106.7 lbs; May Bowtie Line 48.8lbs, Line 280.2lbs; June Bowtie Line _49.5 lbs, Line 2 82.3 lbs.

The permit shall keep all records in the format specified in Appendix B. The permittee shall keep all records and make them available to the Department upon request. (R 336.1201a(1), R 336.1225, R 336.1702(d))

SC VI.4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records and make them available to the Department upon request. (R 336.1224, R 336.1225, R 336.1702(d))

INSPECTION RESULT #68: Not evaluated

SC VI.5. For a coating line using a thermal or catalytic oxidizer: The permittee shall keep records of the date, duration and description of any malfunction of the control equipment, any maintenance performed, any replacement of catalyst and any testing results. (R 336.1201a(1))

INSPECTION RESULT #69: NA. The facility chose not to pursue the option of installing either a thermal or catalytic oxidizer.

SC VI.6. For a coating line using a thermal oxidizer: The permittee shall keep, in a satisfactory manner, operating temperature records for the thermal oxidizer as required by SC VI.1. If the measured operating temperature of the thermal oxidizer falls below 1400°F during operation of FG-COATING, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three hour period which includes one or more temperature readings below 1400°F. The permittee shall keep all records and make them available to the Department upon request. (R 336.1201a(1))

INSPECTION RESULT #70: NA. The facility chose not to pursue the option of installing a thermal oxidizer.

SC VI.7. For a coating line using a catalytic oxidizer: The permittee shall keep, in a satisfactory manner, operating temperature records for the catalytic oxidizer as required by SC VI.2. If the measured operating temperature of the catalytic oxidizer falls below 600°F during operation of FG-COATING, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three hour period which includes one or more temperature readings below 600°F. The permittee shall keep all records and make them available to the Department upon request. (R 336.1201a(1))

INSPECTION RESULT #71: NA. The facility chose not to pursue the option of installing a catalytic oxidizer.

SC VII. REPORTING- NA

SC VIII.1. The exhaust gases from FG-COATING shall be discharged unobstructed vertically upwards to the ambient air at exit points not less than one and one half times the building height (from ground level to point of discharge). (R 336.1225)

INSPECTION RESULT #72: Not evaluated.

SC IX.1. The permittee shall not replace or modify any portion of FG-COATING, including control equipment or coatings, nor install additional coating lines (or any portion of, including control equipment or coatings) unless all of the following conditions are met: (R 336.1201)

a) The permittee shall update the general permit by submitting a new Process Information form (EQP5759) to the Permit Section and District Supervisor, identifying the existing and new equipment a minimum of 10 days before the replacement, modification or installation of new equipment.

b) The permittee shall continue to meet all general permit to install applicability criteria after the replacement, modification or installation of new equipment is complete.

c) The permittee shall keep records of the date and description of the replacement or modification, installation of new equipment, or any coating change. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

INSPECTION RESULT #73: Not evaluated.

FG-SOURCE

SC I.1. VOC limit, 30 tons/year

INSPECTION RESULT #74: Compliance- the required quarterly VOC emissions report was received on 7/19/17. Emissions for June2016-June2017 equated to1.70 tons.

SC II. MATERIAL LIMITS- NA

SC III. PROCESS/OPERATIONAL RESTRICTIONS- NA

SC IV. DESIGN/EQUIPMENT PARAMETERS- NA

SC V. TESTING- NA

SC VI.1. The permittee shall keep VOC mass emission calculations, on a monthly basis for FG-SOURCE determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month, for all coating lines and associated purge and clean-up operation at the source. The permittee shall keep all records in the format specified in Appendix B and make them available to the Department upon request. (R 336.1201a(1), R 336.1225, R 336.1702(d))

INSPECTION RESULT #75: Compliance- the required quarterly VOC emissions report was most recently received on 7/20/2018. 12-month rolling emissions for June 2018 were 0.701 tons.

SC VII. REPORTING- NA

SC VIII. STACK/VENT RESTRICTIONS- NA

SC IX. OTHER REQUIREMENTS- NA

Conclusion:

A VN will be sent for the following violations, which are also violations of consent order No. 27-2015:

- Copper scrubber exhaust fan not working during inspection, and no air was moving through copper scrubber. Motor needed to be replaced, company projected it would be running again in 3-4 hours.
- Pressure drop gauge temporarily not working on Stage 2 of chrome etch scrubber. Also I saw a wet leak on lower corner of a duct leading to chrome etch scrubber. Greenish liquid or sediment is indicative of trivalent chromium.
- The most recent compliance status report showed that on 3/14/2018, Tank 32 dynes cm was 34 dynes/cm, above the limit of 33 dynes/cm.

NAME _____ DATE 9/27/2018 SUPERVISOR _____