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

A159733714

FACILITY: LANSING PLATING COMPANY		SRN / ID: A1597
LOCATION: 1303 CASE STREET, LANSING		DISTRICT: Lansing
CITY: LANSING		COUNTY: INGHAM
CONTACT: Dean Vohwinkle, President		ACTIVITY DATE: 03/15/2016
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection of facility which was last inspected by AQD in 2011.		
RESOLVED COMPLAINTS:		

On 3/15/2015, the Department of Environmental Quality (DEQ), Air (Quality Division (AQD), conducted a scheduled inspection of Lansing Plating.

Environmental contact:

Dean Vohwinkle, President/Owner; 517-485-6915; [vohwinkled@yahoo.com](mailto:vohwinkled@yahoo.com)

Facility description:

This facility is a metal parts plater.

Emission units:

Emission unit	Exhausts to inside or outside air	Year installed	Permit to Install No., or exemption rule	Subject to NSPS or NESHAP?	Compliance status
Line #1, oblique barrel, zinc plating line	Outside	1962	Grandfathered	40 CFR Part 63, Subpart WWWWWW	Idle
Line #2, still zinc plating line: non-cyanide alkaline zinc; non-electrolytic chromium tank	"in room"	1934	Grandfathered	40 CFR Part 63, Subpart WWWWWW	Compliance
Line #4, tin plating line	Inside	2002	Rule 285(r)(vii)	NA	Mothballed
Line #5, rack zinc plating line: non-cyanide alkaline zinc; non-electrolytic chromium tank	Outside	1960	Grandfathered	40 CFR Part 63, Subpart WWWWWW	Compliance
Line #6, horizontal barrel zinc plating line: non-cyanide alkaline zinc; non-electrolytic tri-chrome conversion coat	Outside	1975 (see permit app.)	300-80	40 CFR Part 63, Subpart WWWWWW	Compliance
Pickling line: 25% H2SO4 tank, wash tank	Outside	1940s	Grandfathered	NA	Compliance
Natural gas boiler	Outside	2013	Rule 282(b)(i)	Exempt from 40 CFR Part 63, Subpart JJJJJJ	Compliance
Waste water pre-treatment	Inside	Unknown	Rule 285(m)	NA	Compliance

Regulatory overview:

This facility is considered to be a minor source, rather than a major source, for criteria air pollutants. *Criteria air pollutants* are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds (VOCs), lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. A major source has the potential to emit (PTE) 100 tons per year (TPY) or more of a single criteria pollutant.

This facility is considered a minor, or area source, for Hazardous Air Pollutants (HAPs). A major HAPs

source has a PTE of 10 TPY or more of a single HAP, or 25 TPY or more of aggregate HAPs.

Much of their equipment here is either exempted from the requirement of Rule 201 to obtain a permit to install, or is grandfathered from needing a permit, due to its date of installation. Two of their processes are subject to 40 CFR Part 63, Subpart WWWW, *National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations*.

#### Fee Status:

This facility is not considered fee-subject. They are not a major source for criteria pollutants, so they are not considered Category I fee-subject. They are not a major source for HAPs, nor are they subject to a federal New Source Performance Standard, so they are not considered Category II fee-subject. Lastly, they are not subject to a federal National Emissions Standard for Hazardous Air Pollutants for which AQD has delegation of authority from the U.S. Environmental Protection Agency, and so they are not considered Category III fee-subject.

They are not required to submit an annual air emissions report to the Michigan Air Emissions Reporting System (MAERS).

#### Location:

They are located in Lansing, north of Grand River Avenue. The nearest residences appear to be slightly over 400 feet to the east. To the south are commercial businesses and a church, while to the west are railroad tracks, followed by commercial businesses, and one industry. To the north is a large industrial property.

#### Recent history:

This facility was last inspected by AQD on 2/18/2010 and 3/29/2011. It was found to be in compliance. The 3/29/2011 inspection report by AQD erroneously referred to line #1 and #5, and the pickling line as exempt, under Rule 285(r). These processes actually exhaust to the outside air, though, and so cannot be considered exempt. However they are grandfathered from the requirement to obtain a permit to install, based on the dates of their installation.

I attempted to inspect the facility unannounced on 3/9/2016, but the facility was short-staffed that day, so we arranged an inspection for 3/15.

#### Arrival:

At approximately 9:00 AM, there were no odors to the south or southwest of the plant, as I drove to the site. I arrived at 9:01 AM. Weather conditions were overcast and 50 degrees F, with wind out of the east. I did not see any visible emissions from the plant.

I met with Mr. Dean Vohwinkle, President. I provided a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, and a copy of the Boiler MACT card, per AQD procedure. The biggest physical change at the plant since 2011 has been the replacement of an exempt, natural gas-fired boiler with a new natural gas-fired unit, about 1/3 the size of its predecessor, Mr. Vohwinkle said. He informed me that they lost half of their business at the start of the year to a competitor.

Mr. Vohwinkle provided me with printed copies of their Line Process Specifications for each line in the plant. These are attached for reference.

#### Inspection:

Line #1, oblique barrel, zinc plating line; grandfathered; 40 CFR Part 63, Subpart WWWW

Line #1 was installed in 1962, and is therefore grandfathered from needing an air use permit; i.e. a permit

to install. This line was disassembled, at the time of the inspection, because they had added a new liner, but not yet reassembled it.

AQD does not have delegation of authority from EPA to implement 40 CFR Part 63, Subpart WWWWWW. However, we discussed the requirements of WWWWWW, and we reviewed the work practices required. Mr. Vohwinkle indicated that they were already doing all of these at the plant, because these were common sense practices.

**The requirements applicable under Section 63.11507(g) of WWWWWW are:**

(g) If you own or operate an affected new or existing plating and polishing process unit that contains, applies, or emits one or more of the plating and polishing metal HAP, you must implement the applicable management practices in paragraphs (g)(1) through (12) of this section, as practicable.

(1) Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.

(2) Maximize the draining of bath solution back into the tank, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.

(3) Optimize the design of barrels, racks, and parts to minimize dragout of bath solution (such as by using slotted barrels and tilted racks, or by designing parts with flow-through holes to allow the tank solution to drip back into the tank), as practicable.

(4) Use tank covers, if already owned and available at the facility, whenever practicable.

(5) Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).

(6) Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.

(7) Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable.

(8) Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.

(9) Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.

(10) Minimize spills and overflow of tanks, as practicable.

(11) Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.

(12) Perform regular inspections to identify leaks and other opportunities for pollution prevention.

**Line #2, still zinc plating line; grandfathered, 40 CFR Part 63, Subpart WWWWWW.**

Line #2 was installed in 1934, and so is considered grandfathered from the requirement to obtain a permit to install. It uses non-cyanide alkaline zinc, and is a non-electrolytic chromium tank. There has not been any cyanide used at the site in 25 years, Mr. Vohwinkle informed me. The process initially exhausts "in room," I was advised.

For Line #2, Mr. Vohwinkle indicated that they were already doing all of the work practice requirements under 40 CFR Part 63, Subpart WWWWWW, because these were common sense practices.

**The requirements applicable under Section 63.11507(g) of WWWWWW are:**

(g) If you own or operate an affected new or existing plating and polishing process unit that contains, applies, or emits one or more of the plating and polishing metal HAP, you must implement the applicable management practices in paragraphs (g)(1) through (12) of this section, as practicable.

(1) Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.

(2) Maximize the draining of bath solution back into the tank, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.

(3) Optimize the design of barrels, racks, and parts to minimize dragout of bath solution (such as by using slotted

barrels and tilted racks, or by designing parts with flow-through holes to allow the tank solution to drip back into the tank), as practicable.

(4) Use tank covers, if already owned and available at the facility, whenever practicable.

(5) Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).

(6) Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.

(7) Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable.

(8) Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.

(9) Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.

(10) Minimize spills and overflow of tanks, as practicable.

(11) Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.

(12) Perform regular inspections to identify leaks and other opportunities for pollution prevention.

**There is no Line #3.**

**Line #4; tin plating line; Rule 285(r)(iv):**

**Line #4 was installed in 2002. It is considered exempt from needing a permit to install under Rule 285(r)(vii), because it exhausts to the in-plant environment, rather than the outside air. I was informed that the line was mothballed, because this job went to a competitor. I verified that it was idle (not running) at this time.**

**Line #5, rack zinc plating line; grandfathered; 40 CFR Part 63, Subpart WWWWWW:**

**Line #5 was installed in 1960, and therefore is considered grandfathered from needing a permit to install. It exhausts to the outside air. There were no visible emissions from the plant's main exhaust stack or the roofline.**

**It is my understanding that parts go through a cleaner, a rinse bath, an electrocleaner with detergent, a rinse, an acid bath, and another rinse, prior to plating. I was advised that parts are plated for 10-30 minutes, and then enter rinse tanks, a nitric acid bath, and then a color bath.**

**Line #6, horizontal barrel zinc plating line; Permit to Install No. 300-80; 40 CFR Part 63, Subpart WWWWWW.**

**Line #6 was installed in 1975, exhausts to the outside air, and is permitted. It uses non-cyanide alkaline zinc, and has a non-electrolytic tri-chrome conversion coat process. It is my understanding that the parts enter the barrel, which rotates, and the barrel is negatively charged, while the liquid is positively charged. There were no visible emissions from the plant's main exhaust stack or the roofline.**

**Pickling line; grandfathered:**

**The pickling line was installed in the 1940s, and is therefore considered grandfathered from needing a permit to install. There were no visible emissions coming from the pickling line.**

**Natural gas boiler; Rule 282(b)(i) :**

**A natural gas-fired boiler 1/3 the size of the previous one was installed in 2013. As a natural gas-fired area source boiler, it should be exempt from 40 CFR Part 63, Subpart JJJJJJ. Rule 282(b)(i) exempts fuel burning equipment from the requirement to obtain a permit to install, if they fire sweet natural gas and have a rated heat input capacity of less than 50 million Btu/hour.**

The boiler name plate read:

Hartford Steam Boiler I & I Co.

L.E.S. Inc.

Model HF3 - 50 Serial 11F-6244

Btu firing rate - gas = 2,010,000 Btu/hr

Although an oil-firing rate was also listed, Mr. Vohwinkle assured me that this boiler, as installed here, has no oil-firing capacity. The boiler as described appears exempt from needing a PTI under the Rule 282(b)(i) exemption, because it burns sweet natural gas and its rated heat input capacity is far below 50 million Btu/hr.


Waste water pre-treatment process; Rule 285(m):

All the rinse water used onsite goes through their wastewater treatment process, and is non-detect for cadmium, lead, and nickel, I was informed. The filter press was rebuilt yesterday, I was advised. I did not see any visible emissions from this process.

I left the site at 11:24 AM. I could not detect any visible emissions from the plant. No odors were detected offsite, on Case Street, to the east, on Grand River Avenue, to the south, nor on Larch Street, to the west. Weather conditions were overcast, humid, and 55 degrees F, and winds were calm.

Conclusion:

I did not identify any instances of noncompliance, nor any areas of concern.

NAME  DATE 9/23/2016 SUPERVISOR 