

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

A293136641

FACILITY: DIAMOND CHROME PLATING INC		SRN / ID: A2931
LOCATION: 604 S MICHIGAN, HOWELL		DISTRICT: Lansing
CITY: HOWELL		COUNTY: LIVINGSTON
CONTACT: John Wagner, Director - Health, Safety & Environmental Affairs		ACTIVITY DATE: 09/19/2016
STAFF: Daniel McGeen	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

On 9/19/2016, the DEQ, AQD conducted an unannounced, scheduled inspection of Diamond Chrome Plating (DCP).

PTI, rule, or requirement	Emission unit description	Control device	Scrubber location	Operating status
PTI No. 367-83B; 40 CFR Part 63 Subparts A & N; First Amended Consent Decree (FACD)	Open surface chrome plating tank nos. 9, 11, and 12 (10 and 13 have been removed), aka Dept. 2	Scrubber system #3; a Ceilcote vertical composite mesh pad (CMP) scrubber; *Tank 8 now exhausts to scrubber #3	South scrubber on east roof	Noncompliance, re: FACD Para. 5.3(b) for blank entry in daily Roof Area Inspection Form
PTI No. 367-83B; 40 CFR Part 63 Subparts A & N; FACD	Open surface chrome plating tank nos. 1-4, 6, and 8*, aka Dept. 1 *Tank 8 now exhausts to scrubber #3	Scrubber system #4; a Ceilcote vertical composite mesh pad (CMP) scrubber	North scrubber on east roof	Compliance
PTI No. 386-85A; 40 CFR Part 63 Subparts A and N; FACD	Open surface chrome plating tank nos. 5, 7, 15, 17; west side of plant, aka Dept. 3	Scrubber system #5; a Ceilcote vertical wet scrubber with kimre mesh pad, fume suppressant	SW portion of bldg., inside plant, exhausts outdoors	Noncompliance, re.: FACD Para. 10.2, for not notifying DEQ of 6/3/2016 fire
PTI No. 386-85A; 40 CFR Part 63 Subparts A and N; FACD	Not in use; open surface chrome plating tanks 19-21	Not in use; scrubber #6, a Ceilcote packed bed/CMP scrubber with kimre mesh pad	NW of building, on outside ground	Has not been used in recent years
40 CFR Part 63 Subpart T	Batch vapor degreaser, uses TCE	Freeboard refrigeration, dwell, reduced draft		Compliance
PTI No. 489-91; 40 CFR Part 61 Subpart E	Sludge dryer	Cyclone collector		Removed, PTI to be voided
PTI No. 672-88	Chrome redox tank	MAPCO mist eliminator	West plant	Did not observe
PTI No. 673-88; 40 CFR Part 63, Subpart WWWWWW	Metal cleaning and electroless nickel plating operation	Scrubber	South of plant, on ground	Compliance
PTI No. 675-88A; 40 CFR Part 63, Subpart WWWWWW	Cadmium plating line (two tanks)	Wet scrubber	Inside plant, some ductwork on plant exterior	Compliance
PTI No. 676-88	Two alkaline chrome strip tanks	In-line mesh pad in stack, exhausts to outside air		Compliance
Rule 285(r)	Two alkaline strip tanks which exhaust indoors			Did not observe
PTI No. 677-88	Cooling tower			Compliance
Rule 285(r)	Pickling tanks			Not observed
Rule 285(r)	Phosphate wash tanks			Not observed
Rule 285(l)(vi)(B)	Small sandblasters	Exhaust to wet scrubber	SW portion of bldg.	Compliance
Rule 282	6 electric ovens			Compliance
Rule 285(g); 40 CFR Part 60 Subpart JJJJ, and 40 CFR Part 63 Subpart ZZZZ	Emergency generator; natural gas-fired; 150 kW			Not operating

Environmental contacts:

John D. Wagner, PE, REM, CSP, Director of Health, Safety & Environmental Affairs; 517-546-0150; env@diamondchromeplating.com

Tom Poplawski; Laboratory Manager; 517-546-0150; labdcp@ameritech.net

Facility description:

DCP is a hard chromium electroplater, which also conducts cadmium and nickel plating. They are a job shop, and plate aircraft landing gear, commercial hydraulics, industrial dies, and miscellaneous parts.

Regulatory overview:

The 2006 multi-media Joint Consent Decree (JCD) for this facility has been replaced, as of 8/5/2015, by a First Amended Consent Decree (FACD). The purpose of the JCD was to address not only air issues, but also contamination of soil, storm water, and ground water. The FACD is an updated document, reflecting changes in circumstances and regulations, since the JCD was written.

In addition, DCP has several air use permits, and state and federal air regulations apply to various emission units. The chrome plating processes are subject to 40 CFR Part 63 Subpart A, *General Provisions*, and Subpart N, the *National Emissions Standards for Hazardous Air Pollutants for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks* (Chrome NESHAP). DCP considers their facility to be a *large hard chromium electroplating facility*, under the NESHAP, and they plate in open surface chrome tanks. They also have a large batch vapor degreaser, which is subject to 40 CFR Part 63 Subpart T, the *National Emissions Standards for Halogenated Solvent Cleaning*. Additionally, 40 CFR Part 63 Subpart WWWW, the NESHAP for *Area Source Standards for Plating and Polishing Operations* applies to their nickel plating and cadmium plating processes, but AQD does not have delegated authority from the Environmental Protection Agency to regulate this Area Source MACT. They have a small emergency generator onsite, which is exempt from the requirement of Rule 201 to obtain a permit to install (PTI). The generator is subject to 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*. In addition, it is subject to 40 CFR Part 63, Subpart ZZZZ, the *National Emissions Standards for Stationary Reciprocating Internal Combustion Engines*, also known as the RICE MACT. AQD did not initially, but now has delegation of authority for this Area Source MACT standard.

Fee status:

Because it is subject to a MACT standard (the chromium NESHAP), DCP is classified as a Category III fee source, and pays \$250.00 annually to the AQD. The facility reports each year to the Michigan Air Emission Reporting System, though the company expressed interest, in May 2014, in being removed from MAERS. AQD's Emissions Reporting & Assessment (ERA) Unit has indicated that statewide, about 2/3 of chrome platers report to MAERS, and the decision is typically left to the AQD district offices. Facilities with past compliance issues are usually required to report to MAERS.

Location:

The facility is located on the south side of the City of Howell. It was established in 1954. Immediately north of the plant are a DCP parking lot, and some residences. To the immediate east are additional residences. To the west is a community park, and a residential area. To the south is the CSX railroad line, with industrial and commercial facilities to the south and southeast.

Stack testing:

On 9/10 and 9/11/2014, DCP stack tested scrubbers #3 and 4 (the south and north scrubbers, respectively, on the east roof). Total chromium emissions from each scrubber, were 0.001 mg/dscm,

less than 10% of the limit under the NESHAP. DCP is now considering itself a large rather than small hard chromium electroplating facility with open tanks, subject to NESHAP limit of 0.011 mg/dscm, whereas they have previously considered themselves to be a small hard chromium electroplating facility with open tanks, subject to a post 9/19/2014 NESHAP limit of 0.015 mg/dscm. In addition, chromic acid emissions complied with the permitted limit in PTI 367-83B.

Recent history:

In October 2015, DCP replaced a substantial section of 54 inch wide, sectioned polyvinyl chloride (PVC) ductwork leading to scrubber No. 4 with narrower, extruded ductwork, to reduce the number of joints, which can be leak prone. This narrower ductwork is 24 inches in diameter, and there are twin parallel ducts, instead of the single larger duct. It was manufactured and installed by Midwest Air Products Company, Inc., the manufacturer of scrubbers Nos. 3 and 4, and the 54 inch diameter ductwork. It was installed under the Rule 285(a) exemption.

On 3/10/2016, AQD observed photographs of the use of tape on the cadmium scrubber ductwork, which had been taken on 2/17/2016 by Ms. Rebecca Taylor of the DEQ's Remediation & Redevelopment Division (RRD). Tape was seen to be peeling off of the ductwork in places, exposing seams where duct sections were connected. This was cited as a violation of Rule 910, which requires that an air pollution control device shall be installed, maintained, and operated in satisfactory manner, and as a violation of PTI No. 675-88A, Special Condition No. 16, which requires that the wet scrubber be installed and operated properly. DCP took corrective actions on 3/11 and 12, and performed plastic welding to permanently seal these seams. DCP provided photos of the welding to AQD.

On 6/20/2016, AQD was made aware of a small fire which took place on 6/3/2016, inside the plant. A Howell Area Fire Authority report from 6/3 indicated that light smoke was seen from an exhaust stack, and that smoke was possibly seen escaping from the roof. It has subsequently been determined by the DEQ that this was a release, which was not reported to the Remediation and Redevelopment Project Coordinator as required by Paragraph 10.2 of the FACD. A Violation Notice was sent on 9/7/2016. The company submitted a response on 9/20/2016, which addressed the air concerns. Please see page 10 of this report.

Arrival:

This was an unannounced inspection. Before arrival, I drove around the block on which DCP is located. Driving south on South Michigan Avenue, immediately east of the plant, I noticed a barely detectable odor by the railroad crossing, which I could not identify. Wind was out of the east southeast, so a source other than DCP may have been responsible.

At 9:47 AM, I drove north on South Walnut Street, over the railroad crossing just west of DCP. I noticed a short plume of faint visible emissions from the conical nickel scrubber exhaust stack. It appeared to be an attached plume, which vanished about several feet above the exhaust outlet. I was looking towards the sun however, so the plume was backlit. This is not an acceptable angle for viewing opacity under the EPA Method 9 procedures for visible emission observation. Later during the inspection, the scrubber was viewed from a proper viewing angle; please see the section of this report for the electroless nickel plating process.

At 9:47 AM, I arrived in the parking lot just north of the plant. There were no visible emissions from scrubbers #3 and 4 (PTI No. 367-83B), nor the cooling tower (PTI No. 677-88). There were no visible emissions from the roofline of the west plant. Weather conditions were sunny, moderately humid, and 68 degrees F, with winds briefly calm, then out of the east southeast at 0-5 miles per hour (mph). I noticed a barely detectable odor, which smelled to me like a water-based adhesive, as I approached the plant. I was subsequently unable to detect this odor within the plant itself, however. The odor outside was not sufficient to cause a violation of Rule 901(b), which prohibits unreasonable interference with the comfortable enjoyment of life and property.

I provided my identification/credentials, per AQD procedures, and signed in. I met with Mr. John Wagner, PE, REM, CSP, Director - Health, Safety & Environmental Affairs, and Ms. Wendi Michael, PE,

CHMM, Civil Engineer, of BB&E, the consulting firm employed by DCP. Mr. Wagner has previously received a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*, per AQD procedures. He indicated he did not need a copy of the boiler NESHAP brochure today, as they are aware of where their boiler falls under the boiler Area Source NESHAP. I was informed that it is exempted because of its small size.

I explained that I had seen a short plume of visible emissions from the nickel scrubber exhaust outlet, prior to my arrival, but the emissions had been backlit by the sun. We agreed that we would observe the nickel scrubber before going on the roof or through the plant. The observation of the nickel scrubber is discussed later in this report, under the section devoted to this scrubber, but it chronologically took place before inspection of the other processes listed below.

Inspection:

Chrome plating departments 1 and 2; PTI No. 367-83B:

Under the NESHAP, there are two options which regulated facilities may choose from, for compliance. These are the use of surfactants, or the use of a control device. DCP is using surfactants as the option for the west half of the plant, with scrubber #5 removing fumes from the workplace environment, while using control devices (scrubber #3 and 4) as the option for the east half of the plant.

It is my understanding that no surfactants are being utilized in the east plant. The east half of the plant is where aviation parts are plated. DCP's aviation customers are very exacting in their standards for the quality of the part finish, AQD has been informed, and so DCP does not want to use surfactant in the east plant, as it could cause bubbles or pitting in the chrome finish. The FACD does not require the use of surfactants, unless the DEQ identifies on 3 separate dates within any 3 year period that releases from ductwork were not identified, documented, or repaired as required under FACD paragraph 5.3(b). Then, under 5.3(c), DCP would be required to submit evidence that it has done one of a number of optional corrective actions.

We walked out onto the plant's east roof. Scrubbers #3 and 4 had no visible emissions. The scrubbers showed no indications of any chromic acid leaks. At 11:30 AM, scrubber #3 pressure drop was 2.3 inches water column (w.c.), and scrubber #4 pressure drop was 2.5 inches, w.c.

All of the ductwork on the roof appeared clean, and free of leaks or "weeps." Please see attached photos 1-9. I looked on the underside of the rooftop ductwork, and I could not find signs of any wet or dried leaks. I also looked in the catch trays underneath the ducts, and could not find any puddles of chromic acid. I observed a small puddle of water in one tray, which was clear. Mr. Wagner pointed out that there had been substantial rain recently (on 9/17). The catch trays have hoses which would route collected liquids into the plant and into the pits underneath the chrome plating tanks. Side shields or wind baffles along the ducts and catch trays were intended to offer shelter from wind and/or rain, to prevent re-entrainment of any collected chromic acid liquids that might be in the catch trays. I could not see any chromic acid stains visible on the asphalt-covered roof.

On an elbow-shaped section of gray painted ductwork, which connects to the white PVC ductwork for scrubber #3, I observed blue tape showing through peeling gray paint. It is my understanding that the gray vertical duct, V9, serves chrome tank 9, and comes up through the roof. V9 is joined to a gray horizontal section of ductwork, SH28, which in turn connects to the white 54 inch duct section SH15. The blue tape is on section SH28. Please see photos 6 and 7.

Mr. Wagner explained that this is not uncommon. He informed me the blue tape is vinyl, and is chemically resistant. He indicated that it is used for various purposes throughout the plant, including masking of parts about to be chrome plated. He informed me that it is probably used in other locations on the roof, and it does not leak. He drew my attention to vertical duct V9 (labeled as exit point 41 for the roof diagram), where blue vinyl tape had been applied, and then painted over, please see photos 8 and 9. He added that it is a fairly quick method for making repairs, whereas plastic welding is a more complex process, and it is not as quick a method for repairs.

Rule 910 requires that an air-cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the administrative rules and existing law. There did not appear to be a violation of Rule 910 here, as the ductwork with the vinyl tape appeared to be free of chromic acid leaks and/or stains. Additionally, the tape was not peeling, and no ductwork seams were exposed.

Mr. Wagner explained that DCP had hoped to replace the 54 inch diameter white PVC plastic ductwork leading up to scrubber #3 with twin, extruded 24 inch diameter ductwork this year, like they did in October 2015 for the 54 inch diameter ductwork leading up to scrubber #4. He informed me that unexpected expenses in other environmental areas have put that project on hold, for now. This new 24 inch ductwork from October was free of leaks. Please see photo 10.

On the inside of the east plant, I observed the interior ductwork for chrome plating tanks. The interior ductwork for chrome tanks in the east plant is almost completely painted brown, though a distinctly lighter shade than chromic acid, so any leaks or weeps would be visible.

Chrome tank no. 1 was plating. There were no fugitive air emissions visible from the ductwork. The appearance of the ductwork matched that in 2015.

Chrome tank no.2 was plating. There were no fugitive air emissions visible from the ductwork. The appearance of the ductwork resembled that in 2015, though the ductwork may have been cleaned.

Chrome tank no. 3: Tank 3 was plating, at the time of the inspection. There were no fugitive air emissions visible from the ductwork. The appearance of the ductwork was identical to 2015.

Chrome tank no. 4 was plating. There were no fugitive air emissions visible from the ductwork. The ductwork appeared clean.

Chrome tank no. 6 was plating. This is a titanium tank, which is more resistant to corrosion from chromic acid than ordinary steel. Gray PVC ductwork was installed in either 2013 or 2014, where the exhaust is ducted through the roof. The older PVC ductwork, for this tank is painted brown. There were no fugitive air emissions visible from the ductwork. The ductwork appeared free of weeps.

Chrome tank no. 8 was plating. There were no fugitive air emissions visible from the ductwork. The brown painted ductwork was clean, consistent with its appearance in 2015.

Chrome tank no. 9 was plating. There were no fugitive air emissions visible from the ductwork. The ductwork was entirely consistent in appearance with its 2015 appearance.

Chrome plating tank no. 11 was plating. It is a long, narrow tank in the southeast corner of the east plant. It is a titanium steel tank. There were no fugitive air emissions visible from the ductwork. The brown painted ductwork was clean. A gray section of unpainted ductwork connected to the brown ductwork had some dried stains on it. Mr. Wagner did not believe that the stains were from new or active weeps. He indicated that even when PVC plastic is cleaned, chromic acid can leave some residual stains.

Chrome tank no. 12: Tank 12 was not plating, at this time. There were no fugitive air emissions visible from the ductwork. This tank had been used in the past as a trial tank for surfactants, but none of the tanks in the east half of the plant are using surfactants now. The ductwork looked to be clean.

Recordkeeping for east plant roof (which covers Depts. 1 and 2):

I discussed with Mr. Wagner and Mr. Tom Poplawski, Lab Manager, the 2nd Quarter 2016 Ductwork Inspection Record, e-mailed to AQD on 8/19/2016. The Roof Area Inspection form, which is filled out daily, listed an entry for 5/23 at 11 AM, for which not every field was filled out. A "small weep" was listed as having been found, but no duct designation/ID was listed, and no cleaning or repair was listed afterwards. The new form, the "Roof Inspection Repair Summary" listed repairs for the quarter but had

no entry for 5/23 or 5/24. It is my understanding that cleaning is required the same day by the SWPPP, which is a Water Resources Division document, and repair is required the same day or the next day by the FACD, Paragraph 5.3(b).

Mr. Poplawski reviewed the records I had brought, and indicated he would follow up on this. Later in the inspection, he indicated that had spoken with DCP's Mr. Ed Ryan, who had made the 5/23 entry. Mr. Poplawski indicated that the location was the seam or joint of SH6 and SH7, and the area had been cleaned, and the joint had been repaired/sealed. He provided me with an updated copy of that page of the Roof Area Inspection form (attached for reference). AQD will send a Violation Notice for the FACD, Paragraph 5.3, but will acknowledge in the letter that the missing data has been received, so no further response to the VN is necessary.

I observed daily scrubber monitoring data forms, where pressure drop had been entered. Scrubber #3 had values of 2.4 inches, w.c. in September, and 2.3 through 2.5 inches, w.c. in July and August. Scrubber #4 ranged from 2.4 to 2.5 inches, w.c. from July through the present date in September.

Subsequent to the inspection, I e-mailed Mr. Wagner on 9/22, to request examples of the following records, for review:

- An example of a completed DEQ Monitoring Data Record, form EQP 5709, utilized for daily monitoring of pressure drop, for each active chrome plating scrubber, #3, 4, and 5.
- An example of a completed DEQ Composite Mesh-Pad Systems or Combination Packed-Bed Scrubber /Composite Mesh-Pad Systems Operation and Maintenance Record, form EQP 5708, for each active chrome plating scrubber, #3, 4, and 5.
- An example of the monthly recordkeeping for surface tension for a surfactant-using tank in the west plant, on a DEQ Chrome NESHAP –Fume Suppressant – Tensiometer Daily process Operations Record, form EQP 5789.

AQD will review the requested records, some of which have been received on 9/23/2016. This will be a separate Partial Compliance Evaluation activity from this inspection activity report, so as not to delay completion of this report past the deadline date of 10/1/2016.

Chrome plating department 3; PTI No. 386-85A:

The chrome NESHAP prohibits the use of PFOS-containing surfactants after 9/21/2015. DCP reportedly ceased using surfactants with PFOS in the west plant during the course of 2015. It is my understanding that DCP is now using a PFOS-free surfactant, Mist Suppressant PF NF, in the west plant.

The west side of the plant is served by scrubber #5, which is located indoors, and exhausts outdoors. Scrubber pressure drop was 3.5-3.6 inches, w.c., at 11:23 AM, within the set point range of 2-4 inches, w.c. There were no visible emissions from the exhaust outlet for scrubber #5, I later saw, from outside the plant.

Tank no. 5 was plating, at this time. There were no fugitive air emissions visible from the ductwork. The vertical ductwork for this tank appeared to be clean.

Tank 7 was plating. There were no fugitive air emissions visible from the ductwork. The vertical ductwork appeared clean, so has been cleaned or repainted since the 2015 inspection.

Tank no. 15 was plating. It is a titanium tank. The vertical ductwork, painted brown, appeared to be clean, with no signs of leaks. Overhead, a large, unpainted metal horizontal section of ductwork showed dried chromic acid stains. This appeared consistent with 2015, so these did not appear to represent new weeps. There were no fugitive air emissions visible from the ductwork.

Tank no. 17 was plating. There were no fugitive air emissions visible from the ductwork. The new vertical and horizontal ductwork, which was installed following the 6/3/2016 fire, appeared clean. The vertical ductwork is at the north end of this tank, and joins with the vertical ductwork for tank 15. These are fed into a new horizontal overhead duct, which connects to scrubber #5, next to the connection point

for the original ductwork. The original ductwork is still active, and serves tanks 5 and 7.

it is my understanding that there is a shared containment pit for all four of the tanks in this department.

Chrome plating tanks 19-21 and scrubber system 6; PTI No. 386-85A:

The PBS/CMP scrubber system 6 is not in use, nor were the chrome plating tanks (numbers 19-21) associated with it.

Batch vapor degreaser; Rule 285(r), and 40 CFR Part 63 Subpart T:

On 3/16/2015, DCP e-mailed to AQD a 3/9/2015 PTE demonstration prepared by Derenzo and Associates, Inc. (DAI) for the halogenated batch solvent vapor degreaser, which uses trichloroethylene (TCE). This was done to respond to AQD's request for an updated PTE demonstration. AQD had observed that yearly TCE emissions, as reported to MAERS and the Toxic Release Inventory (TRI), frequently exceeded the estimated TCE emissions in the original 1998 PTE demonstration for the current batch vapor degreaser. The new demonstration showed that estimated maximum potential emissions for TCE would still be below the 10 TPY major source threshold for a single HAP.

The 3/9/2015 PTE demonstration for the batch vapor degreaser calculated PTE for TCE as 7.9 TPY. This was based upon the various control equipment and control techniques being utilized by DCP. The company has been advised that these controls and techniques must be applied properly, in order to claim emission reduction credit, in the PTE demonstration. In 2015, AQD asked DCP to consider switching to an environmentally greener cleaning solution. DCP has indicated that they have a customer who will only accept TCE as the cleaning solution used for their parts, and that to discontinue the use of TCE here at the plant would result in the loss of this major customer.

I was informed that emissions/use of TCE is down noticeably so far this year, compared with 2015. The 2015 emissions/usage were 6.57 tons, according to their annual Halogenated Solvent Cleaner NESHAP annual report, and MAERS. The 2016 usage will be reported in their next annual degreaser report (due in January 2017) and in their next annual MAERS report (due in March 2017).

Mr. Tom Poplawski, Lab Manager, provided copies of the recordkeeping they do, pursuant to 40 CFR Part 63, Subpart T, *National Emissions Standards for Halogenated Solvent Cleaning*. These are attached for reference. They monitor and record the freeboard refrigeration device (FRD) temperature, hoist speed, reduced draft wind speed, and dwell time, and record checks of the rolling door which covers the degreaser, when it is not cleaning parts.

- FRD temperature was measured weekly on the example form I was given. It ranged from 51.2 to 54.2 degrees F. I was informed that the maximum allowed is 30% of the sump temperature, which they have found to be 190 degrees F. Therefore, the maximum temperature allowed is 57 degrees F.
- Today's FRD temperature was 52.6 degrees F, I was verbally informed.
- Hoist speed ranged from 6.26 to 6.79 feet per minute in weekly measurements from 6/13 to 9/19/2016, below the allowed 11 feet per minute, according to the recordkeeping.
- It is my understanding that wind speeds must be under 50 feet per minute, under the NESHAP. They were reported in the range of 1-20 feet per minute, on a weekly basis from 8/1 through 9/19/2016.
- The minimum allowable dwell time is 85.6 seconds, I was informed. It ranged from 91-96 seconds, from 4/25 to 8/8/2016, as measured weekly on the form. There is a pause in the motion of the hoist, when parts are allowed to drip in the degreaser, prior to removal. It is my understanding that this pause is the dwell time. The 85.6 seconds is the average measurement of 3 "test" runs done on 2/17/998, on how long it took parts to stop dripping in the vapor zone.
- The rolling cover weekly recordkeeping, during September 2016, indicates the cover was opening and closing properly, completely covering the opening, and free of cracks, holes, and other defects.

This degreaser exhausts into the general, in-plant environment, rather than directly outside. The parts basket has a built-in cover or lid, which fits over the entire degreaser, when parts are being cleaned, to prevent emissions. There is a drip pan, installed under the parts basket, in the event of drippage. There is a rolling door which covers the top of the degreaser. A curtain is behind the degreaser, to block wind

from blowing over the degreaser.

I could not find any instances of noncompliance with the batch vapor degreaser, under the NESHAP. I could not see any leaks on the unit, but there was a very faint odor of TCE as I stood a few inches from the south side of the unit. I inquired about this, and was advised that this was a fugitive emission. It was my impression that it is not necessarily unusual to notice a faint TCE smell.

There were no TCE odors around the solvent still. Reclaimed solvent is put back into the degreaser, while the collected oil is sent offsite as still bottoms. There was oil visible in a secondary containment area beneath the unit. This containment area has 1.5 times the volume of the distiller unit itself. The light around the solvent still is somewhat dim, and it was hard to get a good look at the oil. Mr. Poplawski touched the oil with a finger, to show me that it was oil, rather than a solvent. I could not identify any solvent scent from the oil.

Sludge dryer and cyclone collector, PTI No. 489-91; 40 CFR Part 61, Subpart E:

During a previous inspection, I was informed that the sludge dryer and cyclone were removed some years ago. Mr. Wagner and I agreed that the PTI can now be voided, as any new sludge dryer would have to obtain a new PTI, regardless of the 1991-vintage permit.

Chrome redox tank, PTI No. 672-88:

The chrome redox tank converts hexavalent chromium in process wastewater to less toxic trivalent chromium. We discussed this process during last year's inspection. There is an existing permit for the process, which Mr. Wagner had not been immediately aware of, last year. This is a process which he suspected could now be considered exempt, as the vintage PTI (1988) predates many permit exemptions. He initially believed the MAPCO mist eliminator, originally installed for odor control, had been removed.

We discussed the Rule 285(m) exemption today, for process wastewater tanks. This could potentially be utilized as long as there is no odor control equipment associated with the process.

Subsequent to the inspection, Mr. Wagner determined that the MAPCO Mist Eliminator is still operating, to control odors from the chrome redox tank. Because there is an odor control device associated with the equipment, it does not meet the criteria for the Rule 285(m) exemption, and will not be voided. AQD will observe this scrubber, during the next visit to DCP.

Metal cleaning and electroless nickel plating operation with scrubber, PTI No. 673-88:

The nickel plating operation was in use, at the time of the inspection. The nickel scrubber is physically located outside of the plant, on the south side, and has a conical exhaust outlet. At ground level, with the sun at our backs, per EPA procedures for reading opacity, I could not see any visible emissions, at 10:55 AM. We walked past the scrubber, and stood to the west of the unit, looking east. There were no visible emissions at this time, even when backlit by the sun.

The fan housing for the nickel scrubber and the housing for the fan belt appear to have been repainted, since faint greenish stains were observed on 6/8/2016. Mr. Wagner indicated that the stains, believed to be nickel, were historical in origin. There were no visible signs of any recent releases.

40 CFR Part 63 Subpart WWWW, the NESHAP for *Area Source Standards for Plating and Polishing Operations* applies to their nickel plating processes, but AQD does not have delegated authority from the Environmental Protection Agency to regulate this Area Source MACT.

Cadmium plating line (two tanks) with wet scrubber, PTI No. 675-88:

The cadmium scrubber is located inside the plant. Some of the ductwork extends outside of the plant, for a short, horizontal run. The scrubber exhaust point is a horizontal outlet, on the south wall of

the plant, and is numbered 53, in regard to the DCP rooftop diagram and the DCP key for numbered exhaust points.

The exterior ductwork looked to be in good condition, and free of any leaks or stains. Plastic welding was done from 3/10-11/2016, on seams which had previously been sealed with blue vinyl tape. The scrubber has a spray head, and a recirculating pump. The unit was running, and there were no visible emissions from the exhaust outlet, #53, at 11:00 AM. Weather conditions were sunny and 80-85 degrees F, with winds out of east southeast, at 5-10 miles per hour. .

There are two mushroom shaped vents atop the east roof which once served the cad bench. These are numbered 37 and 38, in the DCP rooftop diagram and numbered key. They are no longer in use, because the cadmium bench has a control unit which now exhausts into the in-plant atmosphere.

Inside the plant, we did not approach the cadmium plating tanks themselves, as additional personal protective gear (respirators) would be needed. We looked at the scrubber itself, and I saw that horizontal and vertical ductwork exiting the scrubber had been repainted since one of my most recent visits. I had asked at the time that this ductwork be cleaned or repainted, because it was not possible for me to tell if whitish deposits on the ductwork were historical, or recently deposited. Now that the ductwork had been painted with dark gray paint, it could be seen that the horizontal ductwork was free of any new deposits. On the vertical ductwork which had been repainted, there were two short, tiny streaks of whitish material. There did not appear to be any current leak, however.

40 CFR Part 63 Subpart WWWW, the NESHAP for *Area Source Standards for Plating and Polishing Operations* applies to their cadmium plating processes, but AQD does not have delegated authority from the Environmental Protection Agency to regulate this Area Source MACT.

Two alkaline chrome strip tanks; PTI 676-88:

While up on the roof, no visible emissions could be seen from any stack. Their exhaust passes through an in-line mesh pad, before being released to the atmosphere.

Strip tanks which exhaust indoors; Rule 285(r):

I did not observe these tanks today. They exhaust into the general, in-plant environment, rather than to the outside air.

Cooling tower, PTI No. 677-88:

There were no visible emissions from the cooling tower, during the course of the inspection.

Pickling tanks; Rule 285(r):

The pickling tanks, which exhaust into the interior plant environment, were not observed during this inspection.

Phosphate wash tanks; Rule 285(r):

The phosphate wash tanks, which exhaust into the interior plant environment, were not observed during this inspection.

Sandblasting; Rule 285(l)(vi)(B):

No sand blasting was taking place in the small sand blast booths, which are located near scrubber #5.

6 electric ovens; Rule 282(a):

These are used to heat parts, to remove hydrogen, as that could cause hydrogen embrittlement. .

Emergency generator; Rule 285(g), 40 CFR Part 60, Subpart JJJJ, and 40 CFR Part 63, Subpart ZZZZ:

The natural gas-fired generator is emergency backup for the storm water pumps onsite. The generator was not running, at this moment. I reviewed recordkeeping of hours of operation on a spreadsheet. Mr. Wagner explained that the generator is "exercised" or operated, weekly, for purposes of operational readiness. I was informed that the only hours of operation, so far this year, have been for "exercising," with no actual emergency use.

Mr. Wagner showed me their recordkeeping requirements for the generator, under 40 CFR Part 60, Subpart JJJJ, Section 60.4243. Total hours operated over the past 3 years are 36, I was informed, well under 100 hours, which is the maximum limit for a single year. Mr. Wagner subtracted the meter hour reading from 1/1/2016 from the most recent meter hour reading, to get meter hours of operation for 2016, which were 16.3, year to date.

Conclusion:

There were two minor instances of noncompliance, at the time of the inspection:

A 5/23/2016 entry in the Roof Area Inspection Form did not initially identify the location of a "small weep," nor the follow up action taken (cleaning and repair) and date thereof. A VN will be sent for Paragraph 5.3 of the FACD, and will acknowledge that the missing data was supplied to AQD during today's inspection, so no further response is necessary.

A violation was identified in a 9/7/2016 VN letter, on lack of notification to the DEQ RRD Project Coordinator regarding a 6/3/2016 fire inside the plant. This was not yet resolved as of the 9/19 inspection, but the following day, 9/20, AQD received a response letter for DCP prepared by Mr. Todd Fracassi, of Pepper Hamilton LLP, which resolved the violation, from an AQD perspective.

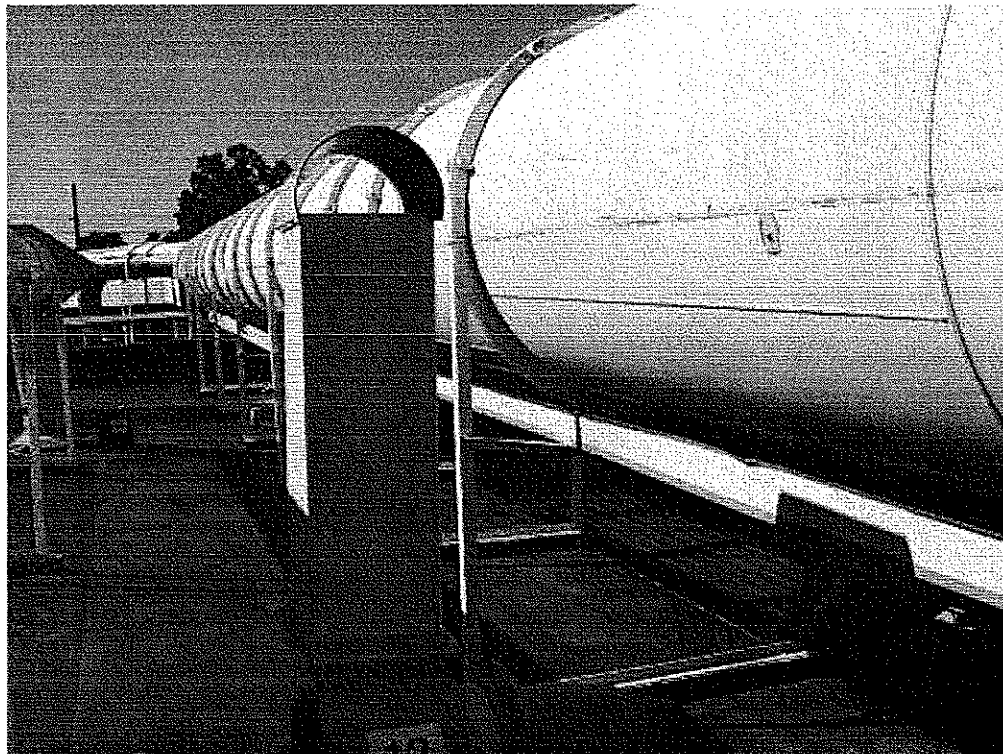


Image 1(Photo 1) : Scrubber #3 54" ductwork, looking south.

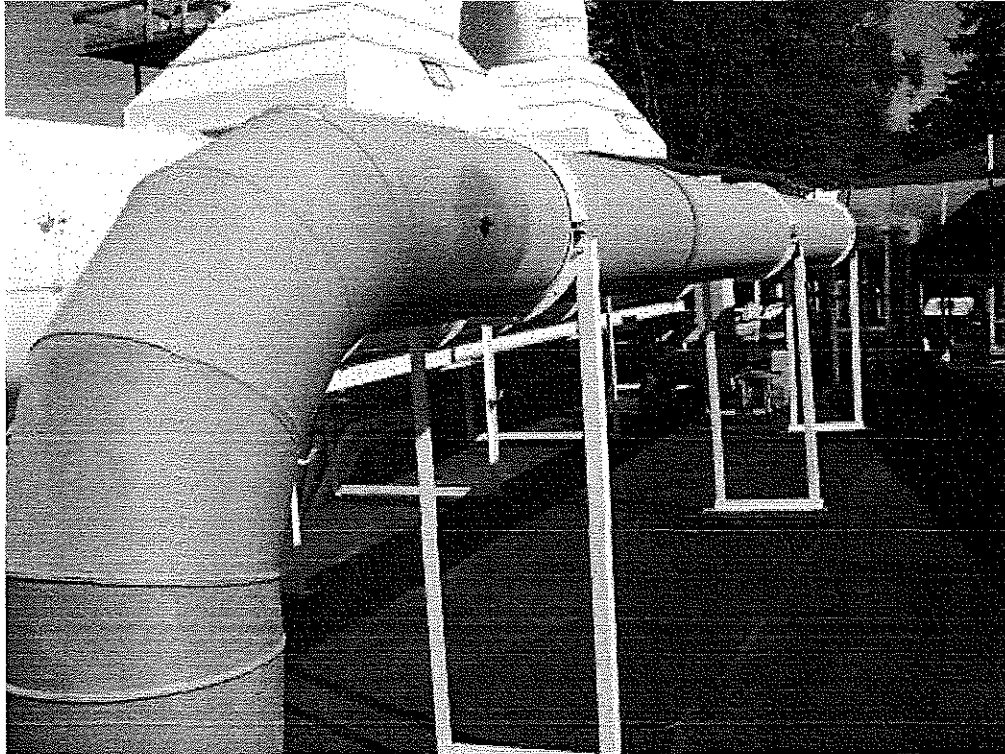


Image 2(Photo 2) : Looking north, towards scrubbers #3 and 4.



Image 3(Photo 3) : Scrubber #3 ductwork, looking SE.

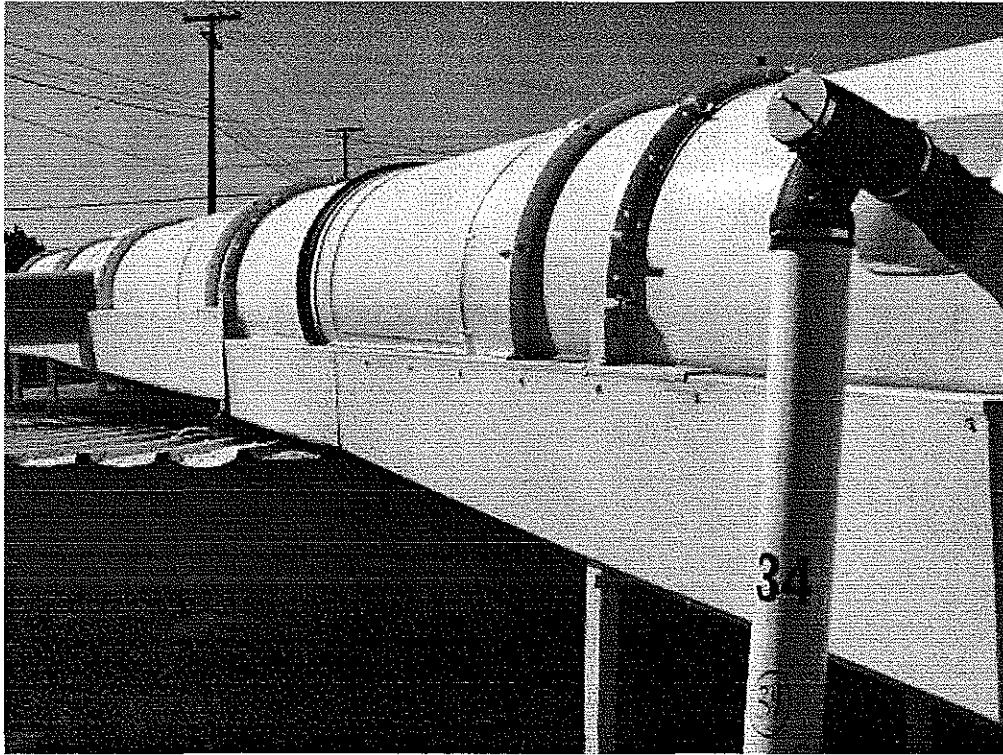


Image 4(Photo 4) : Scrubber #3 ductwork, looking southeast.





Image 5(Photo 5) : Scrubber #3 ductwork seen from west side, at south roof.

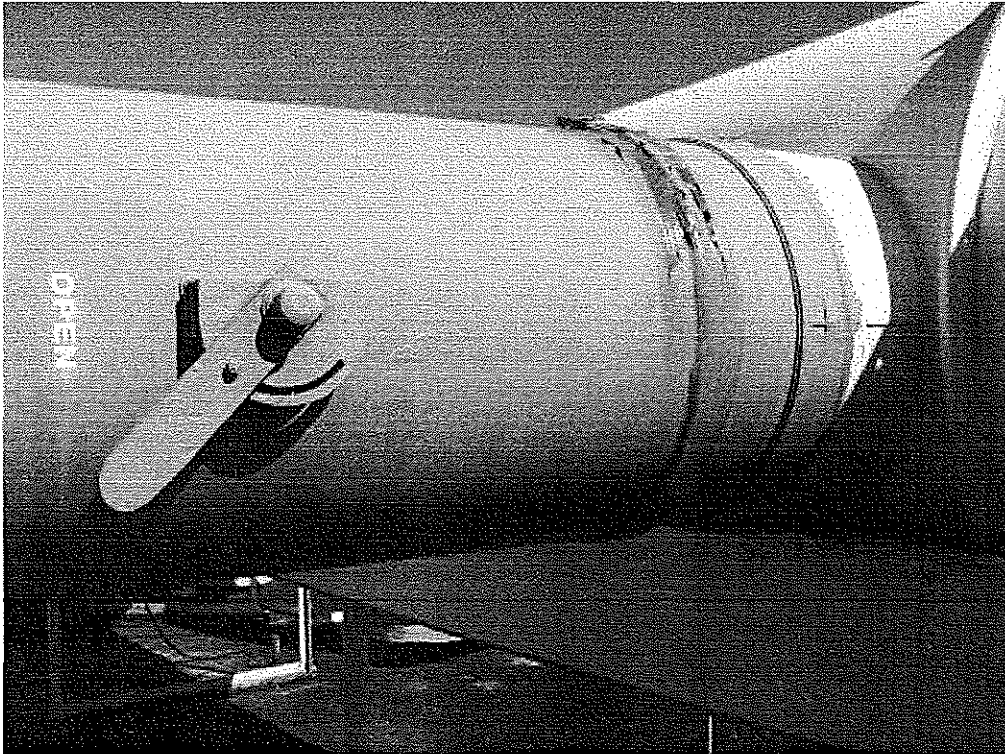


Image 6(Photo 6) : Blue vinyl tape on SH28, which connects to SH15.



Image 7(Photo 7) : Blue vinyl tape on SH28, showing through gray paint.



Image 8(Photo 8) : Vinyl tape painted gray, on duct V9.

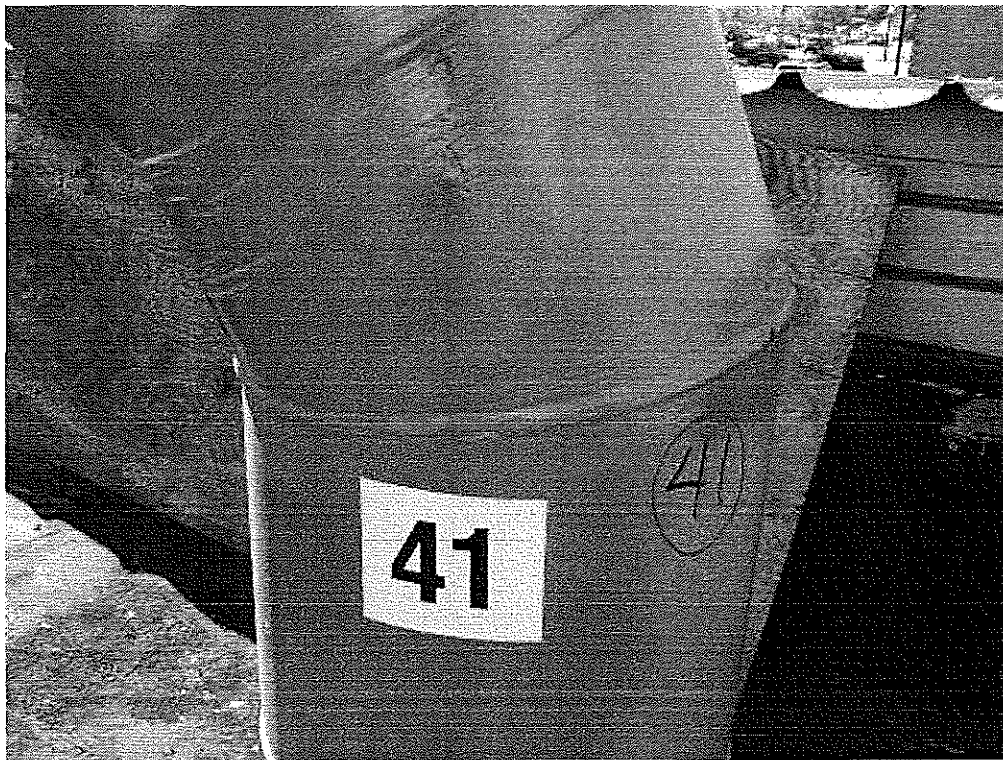


Image 9(Photo 9) : Vertical duct V9 is labeled as exit point 41, for DCP rooftop diagram.

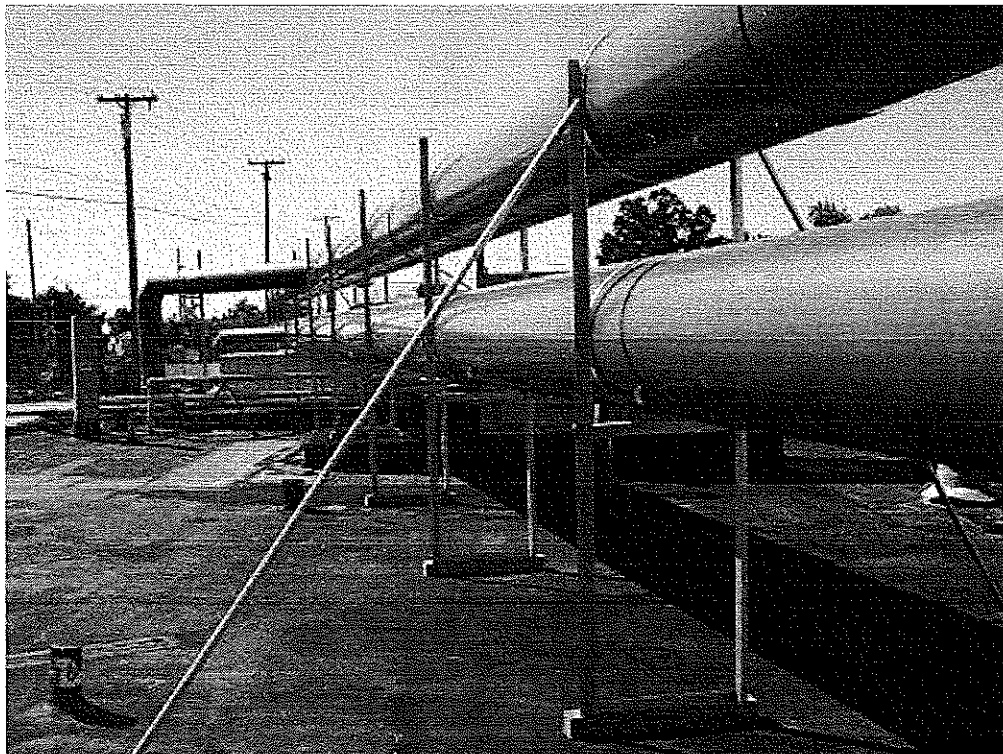

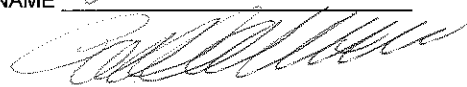


Image 10(Photo 10) : Twin 24" extruded ducts for scrubber #4.

NAME 


DATE 9/30/2016 SUPERVISOR 