

STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING DISTRICT OFFICE



C. HEIDI GRETHER DIRECTOR

December 20, 2018

Mr. Scott Wright, Environmental Manager Diamond Chrome Plating, Incorporated 604 South Michigan Avenue P.O. Box 557 Howell, Michigan 48844

SRN: A2931, Livingston County

Dear Mr. Wright:

## **VIOLATION NOTICE**

On July 31 and August 29, 2018, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted inspections of Diamond Chrome Plating, Incorporated (DCP) located at 604 South Michigan Avenue, Howell, Michigan. The purpose of these inspections was to determine DCP's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; the Air Pollution Control Rules; the conditions of DCP's air use permits; and the First Amended Consent Decree (FACD), Case No. 03-1862 CE.

	Rule/Permit	
Process Description	Condition Violated	Comments
Autosonics Model VS 6030E TCE batch vapor degreaser	40 CFR Part 63, Subpart T, Section 63.463(e)(1)(i)	2017 and 2018 recordkeeping show instances where freeboard refrigeration device (FRD) temperature limit in Subpart T was exceeded.
Autosonics Model VS 6030E TCE batch vapor degreaser	40 CFR Part 63, Subpart T, Section 63.468(h)	Semiannual exceedance reports not submitted, prior to, or after, exceedances of FRD temperature limit.
Chrome plating tanks 5, 7, and 15	40 CFR Part 63, Subpart N, Section 63.342(c)(1(iii)	Recordkeeping shows exceedances in August 2018 of Subpart N surface tension limit of 33 dynes/cm.
Chrome plating tanks 5, 7, and 15	40 CFR Part 63, Subpart N, Section 63.347(h)(2)(i)	Exceedances were not reported per area source reporting requirements of Subpart N.

East roof chrome plating ductwork	FACD, Paragraph 5.3(b)	Repairs to leaks were neither made nor documented in the Second Quarter 2018 RAIF for leaks identified on June 5 and 25, 2018.
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During the inspections and during subsequent review of required recordkeeping, staff observed the following:

DCP's Autosonics Model VS 6030E batch vapor degreaser using trichloroethylene (TCE) is subject to the federal National Emissions Standards for Halogenated Solvent Cleaning. These standards are found in 40 CFR Part 63, Subpart T.

Section 63.463(e)(1)(i) states:

(i) If a freeboard refrigeration device is used to comply with these standards, the owner or operator shall ensure that the chilled air blanket temperature (in ° F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.

During the July 31, 2018, inspection, DCP provided requested examples of recordkeeping which are required under Subpart T. Temperature readings for the freeboard refrigeration device (FRD) were entered on FRD Recordkeeping Forms, for the time period of August 14, 2017, through July 2, 2018.

It is AQD's understanding that DCP is using as a regulatory limit 30 percent of the sump temperature of the batch vapor degreaser, which was documented as being 190 ° F. This equates to 57 ° F. *Hawley's Condensed Chemical Dictionary Twelfth Edition*, used by the AQD Lansing District Office, identifies the boiling point of TCE as 86.7 ° C, or 188.06 ° F, 30 percent of which is 56.4 ° F. AQD considers this temperature to be the maximum allowed under Subpart T, for the solvent TCE.

During the review of FRD records, fourteen (14) readings were identified as being over 56.4 ° F. Of these, nine (9) were over the 57 ° F being used as the limit by DCP. The readings are listed below in chronological order:

10/9/2017: 57.6 ° F
10/16/2017: 58.4 ° F
10/23/2017: 57.5 ° F
10/30/2017: 58.2 ° F
11/7/2017: 57.6 ° F
11/13/2017: 58.4 ° F
11/20/2017: 57.3 ° F
11/27/2017: 56.9 ° F
12/4/2017: 57.6 ° F

10) 1/22/2018: 56.8 ° F 11) 2/12/2018: 56.6 ° F 12) 3/12/2018: 56.5 ° F 13) 3/26/2018: 57.2 ° F 14) 6/11/2018: 56.6 ° F

The above exceedances of the FRD temperature limit constitute a violation of Subpart T, Section 63.463(e)(1)(i).

Section 63.468(h) of Subpart T requires a semiannual exceedance report for batch vapor solvent cleaning machines, as follows:

"(h) Each owner or operator of a batch vapor or in-line solvent cleaning machine shall submit an exceedance report to the Administrator semiannually except when the Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the owner or operator shall follow a quarterly reporting format until a request to reduce reporting frequency under paragraph (i) of this section is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. The exceedance report shall include the applicable information in paragraphs (h) (1) through (3) of this section.

"(1) Information on the actions taken to comply with §63.463 (e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.

"(2) If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.

"(3) If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report."

DCP has not been submitting semiannual exceedance reports regarding the batch vapor degreaser, which constitutes a violation of 40 CFR Part 63, Subpart T, Section 63.468(h). Pursuant to the exceedances of the FRD temperature, please submit a report identifying the reason for the exceedances, and a description of actions taken. These reports should be submitted quarterly, now that exceedances have occurred. Please note that the exceedance reports are required even in time periods when no exceedances have occurred. The absence of any exceedances should be noted, as appropriate.

Additionally, DCP's chrome plating tanks 5, 7, and 15 are subject to the federal National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks. These standards are found in 40 CFR Part 63, Subpart N. Section 63.342(c)(1)(iii) requires that for open surface hard chromium electroplating tanks, each owner or operator of an existing, new, or reconstructed affected source shall control chromium emissions discharged to the atmosphere from the affected source by:

"(iii) If a chemical fume suppressant containing a wetting agent is used, not allowing the surface tension of the electroplating or anodizing bath contained within the affected tank to exceed 40 dynes/centimeter (dynes/cm) ( $2.8 \times 10^{-3}$  pound-force per foot (lbf/ft)), as measured by a stalagmometer, or 33 dynes/cm ( $2.3 \times 10^{-3}$  lbf/ft), as measured by a tensiometer at any time during tank operation...."

Subsequent to the August 29, 2018, inspection by AQD, DCP provided requested copies of surface tension monitoring forms for August 2018, for hard chrome plating tanks 5, 7, and 15. The Chrome NESHAP – Fume Suppressant – Tensiometer Daily Process Operations Record for Tank 5 shows values above the NESHAP limit of 33 dynes/cm on August 1, 3, 6, 8, 10, 13, 15, 17, 20, 24, 27, 29, and 31. The Chrome NESHAP – Fume Suppressant – Tensiometer Daily Process Operations Record for Tank 7 shows values above the NESHAP limit on August 1, 3, 6, 8, 10, 13, 15, 17, 20, 24, 27, and 31. The Chrome NESHAP – Fume Suppressant – Tensiometer Daily Process Operations Record for Tank 7 shows values above the NESHAP – Fume Suppressant – Tensiometer Daily Process Operations Record for Tank 15 shows values above the NESHAP limit on August 1, 3, 6, 8, 10, 15, 17, 20, 22, 24, 27, and 31. The Chrome NESHAP – Fume Suppressant – Tensiometer Daily Process Operations Record for Tank 15 shows values above the NESHAP limit on August 1, 3, and 6.

The above exceedances of the 33 dynes/cm limit, as measured by a tensiometer, recorded in August 2018 for chrome plating tanks 5, 7, and 15, constitute a violation of 40 CFR Part 63, Subpart N, Section 63.342(c)(1)(iii).

Section 63.347(h)(2)(i) of Subpart N contains reporting requirements for area sources which have exceedances, as follows:

"(2) Reports of exceedances. (i) If either of the following conditions is met, semiannual reports shall be prepared and submitted to the Administrator:

"(A) The total duration of excess emissions (as indicated by the monitoring data collected by the owner or operator of the affected source in accordance with §63.343(c)) is 1 percent or greater of the total operating time for the reporting period; or

"(B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time."

The August 2018 surface tension records for chrome plating tanks 5, 7, and 15 are considered to be associated with excess emissions, as monitoring data for surface tension collected by the owner or operator of the affected source exceeded the

regulatory threshold. Unless it can be demonstrated that the duration of excess emissions is less than 1 percent of the total time for the reporting period, such exceedances should be reported to AQD. Non-submittal of an exceedance report for the August 2018 surface tension readings is considered a violation of Section 63.347(h)(2)(i).

Please be aware that Section 63.347(h)(2)(ii) of Subpart N requires:

"(ii) Once an owner or operator of an affected source reports an exceedance as defined in paragraph (h)(2)(i) of this section, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency under paragraph (h)(3) of this section is approved."

Lastly, following the August 29, 2018, inspection, AQD staff reviewed the Second Quarter 2018 Roof Area Inspection Forms (RAIF), which were submitted to AQD. The forms noted that on June 5 and 25, 2018, leaks on the east roof chrome plating ductwork were identified and cleaned, but they did not identify repairs. For the June 5 leak, on duct V2, an entry for the following day stated that no leaks were found and added "No further action needed." For the June 25 leak, on duct V4, a note indicates that on June 26, no leak was found. No repair was identified as having been made.

Paragraph 5.3(b) of the FACD states, in part:

"(b) On and after the Effective Date, Defendant shall inspect all ductwork and control equipment at the Property each day the Facility is in production to identify any release of an air contaminant to the environment that fails to be appropriately conveyed to the control equipment for control and removal. All releases must be repaired within forty-eight (48) hours of being identified. Defendant shall conduct and maintain at the Property a written record that identifies the person(s) conducting the required inspection, any release(s) identified during the inspection, the ductwork segment for each release identified, and the date any release is repaired."

On May 14, 2018, AQD sent DCP a Violation Notice (VN) identifying, in part, instances in the Third Quarter 2017 and First Quarter 2018 RAIF where leaks were identified on the chrome plating ductwork on the east plant roof, but a description of repairs to the leaks was not provided. DCP's June 4, 2018, response to the VN provided an explanation of how chromic acid liquid in a leak may dry, and the dried material may seal the leak, without being repaired. DCP indicated that if a leak is cleaned and there is no further release of liquid, that leak has essentially self-sealed.

As noted in the VN and Enforcement Notice (EN) from the Water Resources Division (WRD) dated September 4, 2018, this practice is not what was agreed upon in the FACD. Paragraph 5.3(b) of the FACD requires leaks to be repaired within 48 hours of discovery. The VN and EN further state that DCP shall repair any current leaks and ensure that the chosen method of repair does not weaken the ducts.

Be advised that the AQD is reviewing the number and location of DCP ductwork leaks referenced above as well as in prior DEQ correspondence of May and September 2018, relative to application of the FACD terms, including paragraphs 5.3(c) and 16.2.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by January 22, 2019. The written response should include: the dates the violations occurred; an explanation of the causes and duration of the violations; whether the violations are ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violations and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

Please submit the written response to the DEQ, AQD, Lansing District Office, at P.O. Box 30242, Lansing, Michigan 48909; and submit a copy to Ms. Jenine Camilleri, Enforcement Unit Supervisor, at the DEQ, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

If DCP believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violations cited above and for the cooperation that was extended to me during my inspections of DCP. If you have any questions regarding the violations or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,

Daniel A. McGeen Environmental Quality Analyst Air Quality Division 517-284-6638

cc: Mr. Brian Negele, Department of Attorney General Ms. Mary Ann Dolehanty, DEQ Dr. Eduardo Olaguer, DEQ Mr. Christopher Ethridge, DEQ Ms. Jenine Camilleri, DEQ Mr. Brad Myott, DEQ Ms. Carla Davidson, DEQ Mr. Bryan Grochowski, DEQ Ms. Rebecca Taylor, DEQ