

# STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING DISTRICT OFFICE



DAN WYAN? DIRECTOR

December 20, 2012

# CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. John D. Wagner, P.E. Director of Health, Safety & Environmental Affairs Diamond Chrome Plating, Inc. 604 South Michigan Avenue P.O. Box 557 Howell, Michigan 48843

Dear Mr. Wagner:

SUBJECT: November 11, 2012, Inspection-Violation Notice

MID 005 344 973; NPDES Permit No. MI0058204;

AQD Permit No. 367-83B and 386-85A;

Ingham County Circuit Court Docket No. 03-1862-CE

On November 1, 2012, Michigan Department of Environmental Quality (DEQ) staff conducted a multi-media inspection of Diamond Chrome Plating, Inc. (DCP) located at 604 South Michigan Avenue, Howell, Livingston County (Facility), to evaluate compliance with Part 31, Water Resources Protection (Part 31), Part 55, Air Pollution Control (Part 55), Part 111, Hazardous Waste Management (Part 111), and Part 121, Liquid Industrial Wastes (Part 121) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Subtitle C of the Federal Resource Conservation and Recovery Act of 1976, as amended (RCRA); any administrative rules or regulations promulgated pursuant to these acts; and the 2006 Consent Decree, Ingham County Circuit Court Docket No. 03-1862-CE (Consent Decree).

Furthermore, the inspection was conducted at the request of the Attorney General to, among other things, help evaluate certain claims made by DCP in responding to Violation Notices issued by the DEQ's Water Resources Division (WRD) and the Office of Waste Management and Radiological Protection on August 7, 2012, and August 9, 2012, respectively.

As a result of this inspection, DEQ staff determined that DCP continues to operate in a manner which fails to eliminate sources of soil, groundwater, and surface water contamination, and fails to earn the exemptions required by Part 111 to operate without a Hazardous Waste Operating License. The following continuing violations, which are presented by program area, are cited:

## Part 111

- 1. Diamond Chrome Plating, Inc. failed to characterize wastes accumulated site wide on ducts, in catch pans, on the floor, in pits and trenches, as well as liquids observed in a stained container, and containers holding stained parts in the north outside storage area. Further, DCP failed to characterize process waste and wastewater or associated evaporates released from the Wastewater Treatment Unit (WWTU). This violates Part 111, Rule 302(1)(a) and (b)(i) and (ii), 40 CFR 262.11 (a), (b), and (c), and the Consent Decree, Section V, paragraph 5.2(a). Waste must be evaluated, either by analysis or by knowledge of the materials and processes used, to determine if the waste is hazardous or regulated as a liquid waste or used oil, and the evaluation must be documented with written records. Please provide written waste characterizations for all Facility waste streams as well as records of waste volume pumped, and dates pumped from Departments 1 and 2 plating line pits for the past three years.
- 2. Hazardous waste (chromic acid with waste codes D007 and D002) was observed in many areas including numerous points on the exterior of the air handling system on the roof of the east building above Departments 1 and 2. pooled in catch pans under the exterior ducts, on the outside of the Chrome (Cr) tank 5 interior air duct, on the floor behind Cr tank 5, and in the Cr tank 5 pit. D002 caustic hazardous waste was observed in a floor trench near the cadmium plating area. Additionally, F006 hazardous waste filter cake was observed on the floor around the hazardous waste roll-off box, and at many points on the structure supporting the filter press. Evaporites and stained liquids accumulating on the floor and pooled in trenches in the process WWTU area indicate continuing D007 and potentially D002 hazardous waste leaks from treatment units otherwise exempt from RCRA/Part 111 requirements. This violates Part 111, Rule 306(1), and 40 CFR 262.34(a). and the Consent Decree, Section V, paragraph 5.2(b). Failure to place released hazardous waste in tanks or containers voids the generator exemption from licensing and causes the site to be a storage facility operating without an operating license. This subjects the Facility to the requirements of Act 451, Part 111, Part 5 and Part 6 Rules. Failure to obtain an operating license violates Act 451, Section 11123.
- 3. Diamond Chrome Plating, Inc. failed to respond in a timely fashion to releases of D007/D002 hazardous waste from air handling ducts, and to the floor in the WWTU area, to releases of F006 hazardous waste in the truck well near the filter cake roll-off box and in the area around the roll-off box and under the filter press, and to releases of D002 caustic waste in a floor trench near the cadmium plating area. This violates Part 111, Rule 306(1)(d) and 40 CFR 265. 56(b) and (e). The type and quantity of released waste must be immediately determined, the source of the release must be addressed, and released wastes collected and placed in containers. While certain treatment units containing or treating hazardous waste may be exempt from certain parts of RCRA/Part 111 when subject to Clean Water Act point source

discharge regulation, the waste itself is not exempt when released from a WWTU, or other sources, prior to the point source discharge.

- 4. Diamond Chrome Plating, Inc. accumulated D007, D002 (both acid and caustic), and F006 hazardous waste in locations not in tanks or containers (catch pan liner on the roof, exterior of ducts, plant floor, trenches, and under the filter press) and had not recorded accumulation start dates documenting hazardous waste storage for less than 90 days. Failure to ship hazardous waste off site in a timely fashion voids the generator exemption from licensing requirements and causes the site to be an illegal storage facility without an operating license. This violates Part 111, Rule 306(1), 40 CFR 262.34(a), and the Consent Decree, Section V, paragraph 5.2(b). Exemption loss subjects the Facility to the requirements of Act 451, Part 111, Part 5 and Part 6 Rules. In order to be exempt from Part 5 and Part 6 Rules, hazardous waste must be shipped off site before accumulation time exceeds 90 days. Failure to obtain an operating license violates Act 451, Section 11123.
- 5. The Facility had not adequately inspected waste storage containers on a weekly basis for leaks and defects and proper management. Specifically, hazardous waste accumulation containers were observed during the inspection with aisle space deficiencies which had not been identified by DCP inspectors. Further, gross filter cake accumulations under the filter press indicated failure to inspect this waste storage area. This violates Part 111, Rule 306(1)(a), 40 CFR 265.174, and the Consent Decree, Section V, paragraph 5.2(b). Waste storage areas must be inspected each week, and the inspections documented in a written log which is maintained on site for three years. We recommend that the inspection log contain checks for leaks and/or spills, container condition, closed containers, proper labeling, adequate containment (impervious base free of cracks), liquid level in containment sump, corrective measures, and date and signature of inspector.
- 6. Hazardous waste (chromic acid with waste codes D007 and D002) was observed at numerous points on the exterior of the air handling system on the roof of the east building above Departments 1 and 2, pooled in catch pans under the exterior ducts, on the outside of the Cr tank 5 interior air duct, on the floor behind Cr tank 5, and in the Cr tank 5 pit. Additionally, F006 hazardous waste filter cake was observed on the floor around the hazardous waste roll-off box, and at many points on the structure supporting the filter press. D002 caustic waste was observed in a floor trench near the cadmium plating area. Evaporites and stained liquids accumulating on the floor and pooled in trenches in the process WWTU area indicate continuing hazardous waste leaks from treatment units otherwise exempt from RCRA/Part 111 requirements. This violates Part 111, Rule 306(1)(f) and the Consent Decree, Section V, paragraph 5.2(c). Hazardous waste must be accumulated so that no waste or waste constituents can escape by gravity into soil, groundwater, surface water, sewers, or drains.

- 7. Hazardous waste (chromic acid with waste codes D007 and D002) was observed at numerous points on the exterior of the air handling system on the roof of the east building above Departments 1 and 2, pooled in catch pans under the exterior ducts, on the outside of the Cr tank 5 interior air duct, on the floor behind Cr tank 5, and in the Cr tank 5 pit. D002 caustic waste was released in a floor trench near the cadmium plating area. Additionally, F006 hazardous waste filter cake was observed on the floor around the hazardous waste roll-off box, and at many points on the structure supporting the filter press. Evaporites and stained liquids accumulating on the floor and pooled in trenches in the process WWTU area indicate continuing hazardous waste leaks from treatment units otherwise exempt from RCRA/Part 111 requirements. Diamond Chrome Plating, Inc. failed to operate the Facility in a manner which minimizes the possibility of release of hazardous waste. This violates Part 111, Rule 306(1)(d) and 40 CFR 265.31. Facilities must be operated to avoid releases of hazardous wastes.
- 8. Adequate aisle space was not provided in the hazardous waste accumulation area in the northeast corner of Department 3. This violates Part 111, Rule 306(1)(d), 40 CFR 265.35, and the Consent Decree, Section V, paragraph 5.2(e). Hazardous waste containers must be arranged to provide immediate access to each container for inspections and emergency response teams.

Please note that 40 CFR 264(1)(g)(6) does not apply to hazardous waste accumulation or disposal in catch pans, pits, on ducts, on the floor, in trenches, or on the filter cake press structure. This provision excludes certain treatment units from licensing requirements but does not provide relief from the requirements of Part 111, Rule 306(1)(b), 40 CFR 262.34(a), and certain elements of 40 CFR Part 265 incorporated in the generator rules by reference which all address the need for accumulation of waste in tanks and containers to obtain an exemption from licensing requirements. The catch pans, duct walls, floor, trenches, pits, and the filter cake press structure are not wastewater treatment units or ancillary devices when waste is not being actively conveyed to a treatment unit, or when waste is not effectively contained.

Again, please note that the wastewater exclusion found at 40 CFR 261.4(a)(2) provides relief only for wastewater discharges that are subject to regulation under the Clean Water Act, Section 402. This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters being collected, stored, or treated before discharge. In practical terms, this appears to remove the F006 listing from treated liquids discharged under the NPDES permit or industrial pretreatment permit. The exclusion does not provide relief from RCRA/Part 111 regulation when hazardous wastes are released at locations other than the permitted point source discharges to the Howell storm and sanitary sewers.

#### Part 31: Violations

1. Alternate power source. An alternate power source is required under Part II.D.4. of NPDES Permit No. MI0058204. A used generator was on site on November 1, 2012, but had not been installed. Diamond Chrome Plating,

Inc. is required to provide an alternate power source, as stated in Mr. Richard Kuhl's letter dated November 29, 2012, and we have requested that the generator be installed and operational no later than December 21, 2012. At DCP's request, this date has been extended to early February 2013 subject to DCP immediately providing a detailed schedule for installation that includes a specific date that the generator will be operational. Our request for a written plan for exercising and maintaining the generator should also be addressed in the schedule being proposed by DCP. Please be aware that any effluent limit violations associated with DCP's failure to install backup power are the responsibility of DCP.

2. Storm Water Pollution Prevention Plan (SWPPP). Part I.A.4 of your NPDES permit requires that DCP develop and implement a SWPPP. The SWPPP submitted on October 15, 2012, is inadequate, as discussed in Mr. Kuhl's letter dated November 29, 2012. Mr. Kuhl requested that a revised SWPPP that addresses the comments in his letter be submitted by December 21, 2012. This date was extended to January 4, 2013, at DCP's request. Please also review the following paragraphs in this item and ensure that your revised SWPPP addresses these violations.

During the inspection, it was observed that the SWPPP was not being implemented as required. Observed uncontrolled exposures to storm water included leaking air pollution control equipment on the roof, hazardous waste on the floor and walkways around the roll-off box and in the truck well, and used equipment and racks (many stained, some filled with liquid) in the north yard and alley. As discussed in Mr. Kuhl's November 29, 2012, letter these exposures are violations of Part I.A.4. of your NPDES permit and paragraphs 5.4(a) and (b) of the Consent Decree. A more specific description of these violations is detailed below.

- a. Hazardous Waste Roll-off Box. Some filter cake from the hazardous waste roll-off box was present on the floor around the box. Mr. Poplawski said he thought that the floor around the roll-off box would have been cleaned after the last box pickup three weeks prior to the inspection. Significant amounts of filter cake were piled on the cat walk and around and below the filter press. Hazardous waste filter cake on the cat walk around the filter press and roll-off bin could be tracked outside, where it will be exposed to storm water. Filter cake in front of the roll-off box could be washed into the on-site storm drains. This area is required to be cleaned on a daily basis to minimize the amounts of pollutants entering the on-site storm sewer system.
- b. Truck Well. The truck well area was inspected. Although improved over previous visits, some hazardous waste filter cake and light blue stains were still present in the truck well. Such significant materials in the truck well could be exposed to storm water during the next rain event. This area is required be cleaned daily to prevent exposure of significant materials to storm water.

- c. North Paved Area. The paved area north of the building exhibited exposed racks, pipes, bins, tools, stained wood product, stained sphere, and miscellaneous items exposed to storm water. A small, open dumpster with yellowish stains was partially filled with liquid. An open barrel filled with clear liquid and plastic parts was present. These exposures to storm water may release concentrations of pollutants in excess of treatment capability and are required to be eliminated or covered as required by the SWPPP. No open containers should be present where storm water may mix with residual pollutants.
- d. Alley. The alley area north of the plant was only partially accessible. Observed items included empty totes, racks, barrels, containers, extra materials, unused equipment, tubing, hoses, and various rusting metal containers that were exposed to storm water. Storm water from this area drains to the truck well and/or truck well sump. Orange and black staining was present on the pavement. These items are required to be eliminated or covered in accordance with your SWPPP. The torn tarp covering the opening of a storage bin must be repaired or replaced so that materials inside it are not exposed to storm water.
- e. Roof. The east and south roofs were inspected, including its surface and the ductwork for the air pollution control equipment. The following detail our observations.
  - Numerous leaks of chromic acid (a significant material) were observed on the ductwork associated with air pollution controls. It did not appear that leaks on the underside of the ducts are being cleaned and repaired.
  - ii. At least one duct (near the scrubbers) had no catch trays under a large leak. This leak had been repaired at one point and was leaking again without being cleaned and repaired. The roof surface underneath this leak showed degradation.
  - iii. Some catch trays appeared to be inadequate, with staining visible on the roof and metal supports underneath the ductwork.
  - iv. Several ducts were lined with a black vinyl-like liner. At least one liner draped down toward the roof, potentially channeling collected wastes to the roof surface and subsequently the storm drains.
  - v. Some stains on the undersides and sides of the ducts appeared in a splash pattern, indicating that chromic acid has leaked into catch trays and then been splashed to the underside of the duct during a storm event. These stains had not been cleaned to prevent being discharged to the roof during a storm event.

- vi. Although some catch trays were stained, indicating that they have captured some leakage, it is not clear that these releases will be returned to the plating tanks inside. During a heavy rainstorm with wind, this captured chromic acid could be released to the roof.
- vii. Stains were evident on the metal supports for the ducts, especially near low collection points.
- viii. Orange and yellow stains were evident on the roof underneath and around ductwork and along drainage areas, likely indicating release of chromic acid to the roof.
- ix. Dark orange/black leaks were present on two vertical ducts, which also exhibited less dark leaks. These leaks had not been repaired, or the duct cleaned of chromic acid.
- x. Several vertical ducts had what DCP representatives described as "collars" with the reported intent of collecting leaks. A hole in the duct near the base of the collar was meant to deliver the leaked material back into the duct. It is not clear that these collars will prevent releases during a storm event. It is likely that these collars may not work at all in a rain event with any wind. Some of the collars were full of clear liquid, demonstrating failure of drains into the ducts. Others exhibited orange staining and may serve as a source of chromic acid during a storm event. Further, we note that some leaks were not located above the collar, occurring in a segment of the duct that curved over the roof as it became horizontal.

Any air pollution control equipment leak is a potentially significant source of hexavalent chromium and other contaminants to the environment. Within paragraphs 5.4(a) and (b) of the Consent Decree (Metals Pollutant Minimization Plan (PMP) and SWPPP) and its NPDES permit, DCP agreed to daily inspections followed by prompt cleaning and repairs. We observed during the inspection that DCP is continuing to fail to implement its approved Metals PMP and SWPPP.

If DCP is to prevent chromic acid from being exposed to storm water, leaks should be cleaned and repaired on the same day as they are observed. Staining and/or accumulated chromic acid on the roof itself or equipment should be cleaned and the wastewater disposed of properly. Please conduct these activities and amend your SWPPP to include these provisions. Any collected wastes should be disposed of properly and not be allowed to discharge to the roof.

# Part 31: Issues

- 3. Alternate power source. A backup generator was on site (but not installed or operational) to operate the pumps for contaminated storm water storage and/or treatment during a power outage. Mr. Chin said the generator would supply enough power to run all of the pretreatment pumps for the storm water storage and treatment system. Mr. Chin said the generator should be installed within the next two months.
- 4. Street repaving. The street repaving, including new curbing, was completed the week before the inspection by the city. It is too soon to know how the new street will affect storm water discharge volumes. Previous to the repaving, Mr. Poplawski said 0.1 inch of rain would result in up to 2,800 gallons of runoff in wet weather and 2,200 gallons in dry weather.
- 5. The north railroad catch basin contained tubing that Mr. Poplawski noted was for ferrous sulfate addition. Mr. Poplawski was not certain whether ferrous sulfate was continuing to be discharged from that location. The DEQ WRD Permits Section has communicated with you regarding this issue and has clarified that ferrous sulfate is only authorized to be added to treated storm water runoff (during discharge) at monitoring point 001A. Mr. John D. Wagner stated in the November 26, 2012, e-mail correspondence that ferrous sulfate addition at the north railroad manhole has been discontinued. Please do not use the north railroad manhole for ferrous sulfate addition unless specifically authorized by the DEQ.

#### December 10, 2012, WRD Site Visit

At DCP's request, Mr. William Creal and WRD staff visited the DCP site to observe and discuss operations, storm water management, storm water treatment units, and NPDES related issues. Although some progress has been made, significant, ongoing sources of pollution to surface water still must be addressed in order for DCP to come into compliance with its NPDES permit and Part 31. These issues will require day-to-day diligence on the part of DCP in order to be resolved.

### Part 55

Staff of the DEQ observed numerous leaks of chromic acid on ductwork at the center of the east roof. This ductwork is associated with scrubber system numbers 3 and 4. Some of the stains associated with the leaks were relatively heavy. It did not appear that these leaks are being repaired. These leaks indicate that the scrubber control system numbers 3 and 4 are not operating properly. This violates DCP Permit to Install (PTI) No. 367-83B, special condition 18; Air Quality Division (AQD) Rule 910 and paragraphs 5.3 (a), (c), and (e) of the Consent Decree.

The air pollution control ductwork and scrubber system leaks identified above demonstrate continued noncompliance with paragraph 5.3(e) of the Consent Decree. The AQD continues to await DCP's response to Mr. Kuhl's November 29, 2012, correspondence relative to a compliance demonstration with paragraph 5.3(f).

Staff of the DEQ observed numerous leaks of chromic acid on the ductwork within the building associated with scrubber system number 5. Similarly, it did not appear that these leaks are being repaired. These leaks indicate that the scrubber control system is not operating properly. This violates DCP PTI No. 386-85A, special condition 15, AQD Rule 910 and paragraphs 5.3(b), (c) and (e) of the Consent Decree.

Additionally, DEQ and DCP staff could not confirm the presence of a pressure drop indicator on scrubber system number 5. This violates the Consent Decree, paragraph 5.3 (e), for failure to comply with the Consent Decree Standard Operating Procedure (SOP), which requires daily readings (and recordings) from a Magnahelic gauge mounted on the scrubber.

Please submit the pressure reading and exceedance reports, Michigan DEQ Standard Monitoring Data Record Form EQP 5709, for scrubber system numbers 3 and 4, from October through November 2012.

Please submit the pressure reading and exceedance reports, Michigan DEQ Standard Monitoring Data Record Form EQP 5709, for scrubber system number 5, from January through November 2012.

Please submit the routine maintenance reports, Michigan DEQ Standard Composite Mesh Pad System or Combination PBS/Composite Mesh Pad System Operation and Maintenance Record Form EQP 5708, for scrubber system numbers 3, 4, and 5, from January through November 2012.

Please describe the current system shut down procedures and how they comply with Section VII of the SOP.

Also, please submit a summary of the actions that were taken or are proposed to be taken to correct the operation and maintenance of the scrubber (air handling) systems and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

Please provide a detailed description of the methods and materials that DCP employs to repair ductwork and scrubber system leaks. Please include specific fabrication, materials, and coating information, and identify application and repair techniques for different types of repairs.

Diamond Chrome Plating, Inc. shall take immediate action to achieve and maintain compliance with Part 111, Part 55, Part 31, and the terms and conditions of NPDES Permit No. MI0058204, and Consent Decree No. 03-1862-CE. Diamond Chrome Plating, Inc. must respond to this letter by January 14, 2013, providing documentation to this office regarding those actions taken or planned to be taken to correct the violations listed above.

Compliance with the terms of this Notice does not relieve DCP of any liability, past or present, from failure to meet the conditions specified in NPDES Permit No. MI0058204 and Consent Decree No. 03-1862-CE, or failure to comply with Part 31, Part 55, or Part 111, of Act 451.

This Violation Notice does not preclude nor limit the DEQ's ability to initiate any other enforcement action, under state or federal law, as deemed appropriate.

The violations may be further discussed during the January 2013 meeting proposed in Mr. Kuhl's November 29, 2012, letter, page 2, paragraph 2. In the interest of moving forward towards resolution of issues raised above and in Mr. Kuhl's letter, we invite DCP to meet with the DEQ in Constitution Hall at 10 a.m. on January 18, 2013.

If you have general questions regarding the inspection, please contact me at the number indicated below. If you have program specific questions, feel free to contact the program staff who conducted the inspection directly.

Sincerely,

Ben Hall, District Coordinator

Lansing District Office

517-335-6228

cc: Mr. Richard Kuhl, Michigan Department of Attorney General

Ms. Nicole Zacharda, DEQ

Ms. Carla Davidson, DEQ

Ms. Rebecca Taylor, DEQ

Mr. William Yocum, DEQ

Mr. Malcom Mead-O'Brien, DEQ

Mr. Daniel McGeen, DEQ

Mr. Gary Tuma, DEQ