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BEFORE THE HEARING BOARD OF THE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

In the Matter of

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT,

Petitioner,

vs.

QUAKER CITY PLATING COMPANY & SILVERSMITH LTD

[Facility ID No. 52525]

Respondent.

CASE NO. 5348-2

DECLARATION OF ADAN VELASCO IN SUPPORT OF PETITION FOR A STIPULATED ORDER FOR ABATEMENT

District Rules 202 and 1469

Date: April 22, 2025
Time: 9:30 a.m.
Place: Hearing Board
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

DECLARATION OF ADAN VELASCO

1. I, Adan Velasco, declare:

2. I am a Senior Air Quality Engineer for the Engineering and Permitting division for the South Coast Air Quality Management District ("District"). Unless otherwise stated expressly below, I make this declaration based on personal knowledge and, if called as a witness in this action, could and would testify competently to the matters discussed herein.

3. I received a Bachelor of Science Degree in Mechanical Engineering from the University of California, Riverside.

4. I have been employed at the District since March of 2015.

5. Respondent Quaker City Plating Company & Silversmith LTD ("Respondent") operates a decorative electroplating facility ("Facility") located at 11729 East Washington Blvd. in Whittier.

6. As relevant to this case (Case No. 5348-2), I am familiar with Tank HTL-POP-1, a Tier III Hexavalent Chromium tank, and Tank HTL-39, a Trivalent Chrome tank, both under A/N 614351 at Respondent's Facility. A true and correct copy of A/N 614351 is attached hereto as **Exhibit A,** and has also been attached to the Petition in this matter.

7. Also, as relevant to this case, I am familiar with the air pollution control system associated with the two aforementioned tanks under A/N 613916 at Respondent's Facility. A true and correct copy of A/N 613916 is attached hereto as **Exhibit B,** and has also been attached to the Petition in this matter**.**

8. I am familiar with District Rule 202-Temporary Permit to Operate, and Rule 1469-Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, adopted in October 1998.

9. Respondent's Tanks HTL-POP-1 and HTL-39 as well as the associated air pollution control system are subject to Rules 202 and 1469.

10. District Rule 1469(h)(4)(A)(iv) requires subject owners or operators of Tier III hexavalent chromium tanks (excluding chromium electroplating and chromic acid anodizing tanks) to collect and vent hexavalent chromium emissions to an add-on air pollution control device or alternative compliance method to meet a hexavalent chromium emission limit of 0.004 mg/hr-ft2 or applicable

emission limit. The emissions limits must be demonstrated through a source test pursuant to subdivision (k).

11. Respondent's Tank HTL-POP-1 is subject to 1469(h)(4)(A)(iv). Respondent must operate Tank HTL-POP-1 to collect and vent hexavalent chromium emissions to an add-on air pollution control device or alternative compliance method to meet hexavalent chromium emission limits of 0.004 mg/hr-ft2 or applicable limit. This emission limit must be demonstrated through an approved source test.

12. District Rule 1469(h)(3) requires subject owners or operators of decorative chromium electroplating tanks using a trivalent chromium bath to control chromium emissions by one or more methods, including an add-on air pollution control device that meets ≤ 0.01 milligrams of total chromium per dry standard cubic meter of air (mg/dscm). The emissions limits must be demonstrated through a source test pursuant to subdivision (k). Another method of compliance is to use a chemical fume suppressant containing a wetting agent that is not a PFOS (perfluorooctanesulfonic acid)-based fume suppressant.

13. Respondent's Tank HTL-39 is subject to Rule 1469(h)(3). Currently, Tank HTL-39 is permitted to vent to an add-on air pollution control device. Therefore, Respondent must demonstrate that HTL-39 meets ≤ 0.01 mg/dscm through an approved source test. This emission limit is also reflected in Condition 22 of A/N 614351.

14. District Rule 1469(k)(6) requires that each add-on air pollution control device meets the design criteria and ventilation velocities specified in *A Manual of Recommended Practice for Design*. Specifically, the manual specifies the slot velocity to be a minimum of 2,000 feet per minute (fpm). Respondent's air pollution control system is subject to Rule 1469(k)(6).

15. District Rule 202(a) states that "the permit to construct shall serve as a temporary permit for operation…until the permit to operate is granted or denied. The equipment…shall not be operated contrary to the conditions specified in the permit to construct." District Rule 202(b) states that "[t]he permit to construct granted to modify equipment… shall serve as a temporary permit for operation of the equipment…until a new permit to operate is granted or denied. The altered equipment…shall not be operated contrary to the conditions specified in the permit to construct."

16. Tank HTL-POP-1 and Tank HTL-39 (A/N 614351) are operating under a temporary permit to operate pursuant to District Rule 202(b).

17. There are several conditions that specify operation requirements for Tanks HTL-POP-1 and HTL-39, including the following:

a. Condition 16 specifies that Tank HTL-POP-1 shall not be operated unless the tank is vented to air pollution control equipment that is in full use and has been issued a valid South Coast AQMD permit consisting of a three-stage mist eliminator and ULPA filters.

b. Condition 22 specifies that the total chromium emissions from Tank HTL-39 shall not exceed 0.01 mg/dscm.

18. Respondent's air pollution control system (A/N 613916) is operating under a temporary permit to operate pursuant to District Rule 202(a).

19. There are several conditions that specify source testing and/or operational requirements for the air pollution control system, including the following:

a. Condition 23 specifies that the exhaust flow rate shall be a minimum of 5,000 cubic feet per minute (cfm) that must be continuously measured and recorded by a flow measuring device.

b. Condition 25 specifies the source testing requirements to measure the total chromium and hexavalent chromium emissions at the outlet of the air pollution control equipment. Condition 25 requires the source test to be run while Tanks HTL-POP-1 and HTL-39 are in operation at maximum load, and specifies certain data from the tanks that must be monitored and recorded during the source test. Condition 32 specifies the source testing requirements to measure the total chromium and hexavalent chromium emissions at the outlet of the air pollution control equipment. Condition 32 requires the source test to be run while Tanks HTL-POP-1 and HTL-39 are in operation at maximum load, and specifies certain data from the tanks that must be monitored and recorded during the source test.

20. Upon information and belief, Respondent conducted a source test on Tanks HTL-POP-1 and HTL-39, as well as the air pollution control system in late September 2020.

21. District Source Test Engineering evaluation, dated November 22, 2024, concluded that the source test results were deemed unacceptable and compliance indeterminate. The emissions limits could not be demonstrated as the capture velocities did not meet the minimum slot velocity requirement under Rule 1469(k)(6). True and correct copies of the source test evaluations are attached hereto as **Exhibit C,** and have also been attached to the Petition in this matter.

22. Additionally, in March 2025, after determining that compliance for its prior source test was deemed indeterminate by the District, Quaker reviewed its air pollution control system and discovered that its filters were HEPA-certified, but not ULPA-certified, as required by the permit. The District was promptly informed, and, upon information and belief, Quaker ceased operation of Tank HTL-POP-1 by covering it with a metal tank cover, reducing the temperature to <120°F, and locking the temperature controller.

23. On or around March 18, 2025, the District received two permit applications for Respondent's Facility. One (A/N 658987) is for a permit to operate (no permit to construct) modification to the existing tank line, and the second (A/N 658986) is for a permit to operate (no permit to construct) modification for the associated air pollution control system. The primary purpose of both applications is to remove the venting requirement from HTL-39 in preparation for the upcoming source test.

24. Additionally, the tank line application includes updates to dimensions, temperatures, and chemical details, while the air pollution control equipment application is expected to include updates to ventilation rates and slot sizes. Both applications were submitted for expedited review but have not yet been deemed complete. District staff has been working with Respondent to gather all necessary information.

25. On or around March 24, 2025, the District received a source test protocol for measuring hexavalent chromium emissions from Tank HTL-POP-1. An expedited evaluation request form was submitted on or around March 26, 2025. After receiving feedback from the Engineering and Permitting division, Respondent submitted an updated source test protocol on or around April 10, 2025. The revised protocol is now under review.

I declare under penalty of perjury under the laws of the State of California that the foregoing

is true and correct.

Executed this 16th day of April 2025, at Diamond Bar, California.

Adan Velasco

Adan Velasco

EXHIBIT A

South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178

PERMIT TO CONSTRUCT

Granted as of January 23, 2020
ID 52525

LEGAL OWNER
OR OPERATOR: QUAKER CITY PLATING & SILVERSMITH LTD.
11729 E. WASHINGTON BLVD.
WHITTIER, CA 90606

Equipment Location: 11729 E. WASHINGTON BLVD., WHITTIER, CA 90606

Equipment Description:

Modification to the Hoist Nickel and Trivalent Chromium with POP Plating Line Operating Under Permit to Construct, Application No. 569643 Consisting of:

1. Tank HTL-POP-1, Etching, Chromic Acid, Sulfuric Acid, 1'-7" W. x 10'-6" L. x 5'-8" H., Heated, with Fume Suppressant (Tier III).
2. Tank HTL-POP-2, Drag Out, Chromic Acid and Water, 1'-7' W. x 10'-6" L. x 5'-8" H., Heated (Tier I).
3. Tank HTL-POP-5, Activator, Chromic Acid, Sulfuric Acid, Palladium, 1'-7" W. x 10'-6" L. x 5'-8" H., Heated, Air Sparged (Tier I).
4. Tank HTL-POP-8, Accelerator, Sodium Hypophosphite, Dimethylamine Borane, 1'-7" W. x 10'-6" L. x 5'-8" H., Heated.
5. Tank HTL-POP-9, Electroless Nickel Plating, Nickel, Sodium Hypophosphite, and Ammonium Hydroxide, 1'-7" W. x 10'-6" L. x 5'-8" H., Heated.
6. Tank HTL-11, Alkaline Cleaner, Sodium Hydroxide, Disodium Metasilicate, 1'-7" W. x 10'-6" L. x 5'-8" H., Heated.
7. Tank HTL-13, Pre-Soak Alkaline Cleaner, Sodium Tetraborate, Tetrasodium Pyrophosphate, 1'-7" W. x 10'-6" L. x 5'-8" H., Heated.
8. Tank HTL-14, Direct Electrocleaner, Sodium Hydroxide, Disodium Metasilicate, 1'-10" W. x 10'-6" L. x 5'-8" H., Heated, with a Maximum 3,000 Ampere Rectifier.
9. Tank HTL-16, Sulfuric Acid Dip, 1'-7" W. x 10'-6" L. x 5'-8" H., Air Sparged.
10. Tank HTL-17, Caustic Etch, Sodium Hydroxide, 1'-7" W. x 10'-6" L. x 5'-8" H., Heated.
11. Tank HTL-20, Zincate, Sodium Hydroxide, Nickel Sulfate, Sodium Cyanide, Zinc Metal, 1'-9" W. x 10'-6" L. x 5'-8" H., Air Sparged.
12. Tank HTL-22, Non-Chromated Deoxidizer, Sulfuric Acid, Nitric Acid, 2'-1" W. x 10'-6" L. x 5'-8" H., Air Sparged.
13. Tank HTL-24, Immersion Copper, Copper Sulfate, Sulfuric Acid, 1'-8" W. x 10'-6" L. x 5'-8" H., Air Sparged.

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PERMIT TO CONSTRUCT

14. Tank HTL-25, Bright Acid Copper, Copper Sulfate, Sulfuric Acid, 4'-6" W. x 10'-6" L. x 5'-8" H., Air Sparged, with a Maximum 5,000 Ampere Rectifier.

15. Tank HTL-28, Bright Acid Copper, Copper Sulfate, Sulfuric Acid, 2'-4" W. x 10'-6" L. x 5'-8" H., Air Sparged, with a Maximum 2,000 Ampere Rectifier.

16. Tank HTL-29, Nickel Plating Semi Bright, Nickel Sulfate, Nickel Chloride, Boric Acid, 2'-6" W. x 10'-6" L. x 5'-8" H., Heated, Air Sparged, with a Maximum 5,000 Ampere Rectifier (in Common with Tank No.30).

17. Tank HTL-30, Nickel Plating Semi Bright, Nickel Sulfate, Nickel Chloride, Boric Acid, 3'-1" W. x 10'-6" L. x 5'-8" H., Heated, Air Sparged, with a Maximum 5,000 Ampere Rectifier (in Common with Tank No. 29).

18. Tank HTL-31, Nickel Plating Satin, Nickel Sulfate, Nickel Chloride, Boric Acid, 5'-1" W. x 10'-6" L. x 5'-8" H., Heated, Air Sparged, with a Maximum 5,000 Ampere Rectifier (in Common with Tank No. HTL-32).

19. Tank HTL-32, Bright Nickel Plating, Nickel Sulfate, Nickel Chloride, Boric Acid, 2'-8" W. x 10'-6" L. x 5'-8" H., Heated, Air Sparged, with a Maximum 5,000 Ampere Rectifier (Common with Tank No. HTL-31).

20. Tank HTL-33, Bright Nickel Plating, Nickel Sulfate, Nickel Chloride, Boric Acid, 7'-11" W. x 10'-6" L. x 5'-8" H., Heated, Air Sparged, with a Maximum 8,000 Ampere Rectifier.

21. Tank HTL-36, Reverse Electro-Cleaner, Sodium Hydroxide, Disodium Trioxosilicate, Tetrasodium Pyrophosphate, 2'-6" W. x 10'-6" L. x 5'-8" H., Heated, with a Maximum 5,000 Ampere Rectifier.

22. Tank HTL-39, Trivalent Chrome (Envirochrome), Boric Acid, Chromic Sulfate, Wetting Agent Chemical Fume Suppressant, 2'-7" W. x 10'-6" L. x 5'-8" H., Heated, with a Maximum 8,000 Ampere Rectifier, Air Sparged, Vented to an Air Pollution Control Device.

23. Tank HTL-41, Rack Strip, Sulfuric Acid, Hydrogen Peroxide, 1'-8" W. x 10'-6" L. x 5'-8" H.

24. Tank HTL-44, Alkaline Cleaner, Potassium Hydroxide, Sodium Hydroxide, 2'-0" W. x 2'-0" L. x 2'-0" H., Heated.

25. Tank HTL-46, Rust Away (Phosphoric Acid), 2'-0" W. x 2'-0" L. x 2'-0" H.

26. Tank HTL-49, Nickel Strip, B-929, 1'-10" W. x 2'-10" L. x 3'-4" H., Heated.

Associated Loading, Unloading, Drag-out, Drying and Rinse Tanks.

By the Removal of:

1. The Air Sparging in Tanks HTL-POP-5 and HTL-32.

2. Tank HTL-24, Immersion Copper, Copper Sulfate, Sulfuric Acid, 1'-8" W. x 10'-6" L. x 5'-8" H., Air parged.

3. Tank HTL-29's common rectifier with HTL-30

4. Tank HTL-30's common rectifier with HTL-29

5. Tank HTL-31's common rectifier with HTL-32

6. Tank HTL-32's common rectifier with HTL-31

7. The venting of Tank HTL-39 to the Air Pollution Control, Scrubber

8. Tank HTL-44, Alkaline Cleaner, Potassium Hydroxide, Sodium Hydroxide, 2'-0" W. x 2'-0" L. x 2'-0" H., Heated.

9. Tank HTL-46, Rust Away (Phosphoric Acid), 2'-0" W. x 2'-0" L. x 2'-0" H.

10. Tank HTL-49, Nickel Strip, B-929, 1'-10" W. x 2'-10" L. x 3'-4" H., Heated.

The change of:

1. Tank HTL-20 tank width from 1'-9" W. to 1'-7" W.

2. Tank HTL-30's operation from Semi Bright to Bright Nickel Plating, the tank width from 3'-1" W. to 5'-1" W.

3. Tank HTL-31's tank width from 5'-1" W. to 3'-1" W.

4. Tank HTL-32's operation from Bright Nickel Plating to Pearl Bright Nickel Plating

And the Addition of:

1. The ventilation of HTL-POP-1 to an Air Pollution Control Device consisting of one inline mist eliminator, a three stage mist eliminator and an ULPA filter bank.

2. A cover on HTL-39 and the ventilation of HTL-39 to an Air Pollution Control Device consisting of one inline mist eliminator, a three stage mist eliminator and an ULPA filter bank.

3. Tank HTL-24, Acid Dip, Sulfuric Acid, 1'-8" W. x 10'-6" L. x 5'-8" H., Air Sparged.

4. Tank HTL-29's common rectifier with HTL-31

5. Tank HTL-30's common rectifier with HTL-32

6. Tank HTL-31's common rectifier with HTL-29

7. Tank HTL-32's common rectifier with HTL-30

8. Tank HTL-41, Heated

9. Tank HTL-49, Nickel Strip, B-929, 1'-6" W. x 1'-6" L. x 4'-0" H., Heated.

Conditions:

1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit was issued unless otherwise noted below.

2. This equipment shall be properly maintained and kept in good operating conditions at all times.

3. All Tanks shall be clearly identified and labeled with the appropriate tank number as designated in the equipment description. The identification and/or labeling of each tank shall be directly affixed to each tank and be easily readable.

4. All tanks in this line shall only contain the chemicals and compounds specifically identified in the equipment description of this permit.

5. Materials used in this equipment shall not contain any toxic contaminants identified in Rule 1401, Table 1 "Toxic Air Contaminants", as amended September 10, 2010, or earlier, except those chemicals and compounds specifically identified in the equipment description of this permit.

6. Air sparging, rectification, and/or heating shall not be conducted except in tanks where these operations are specifically identified in the equipment description. Removal of such equipment shall not constitute a modification for permitting purposes.

7. Tank Nos. HTL-14, HTL-25, HTL-28, HTL-29, HTL-30, HTL-31, HTL-32, HTL-33, HTL-36 and HTL-39 shall be equipped with continuous recording, non-resettable ampere-hour meters that operate on the electrical power lines connected to each tank. A separate meter shall be hard-wired for each rectifier.

8. The owner/operator shall inspect and maintain the ampere-hour meter(s) according to the manufacturer's recommendations.

9. An identification tag or label shall be affixed to all rectifiers in a permanent and conspicuous position. The identification marker shall be maintained in legible condition and contain the following information:

   A. Rectifier identification number.

   B. Maximum rectifier amperage

   C. Identification number(s) of tank(s) operated by the rectifier.

10. The owner/operator shall maintain inspection and maintenance records for the ampere-hour meters and monitoring equipment to document compliance with the inspection and maintenance requirements of this permit. The record shall identify:

    A. The device inspected.

    B. The date and time of inspection,

    C. The working condition of the device during the inspection,

    D. Any maintenance activities performed on the ampere-hour meters, and any actions taken to correct deficiencies found during the inspection.

11. Temperature gauges shall be installed and maintained on each heated tank identified in condition No. 12. The scale on the gauges shall not exceed three times the temperature limits specified.

12. The open process tanks in this line shall be operated at or below the parameter limits in the following table. For purposes of this condition, concentration means any anhydrous concentration (not including water or water of hydration).

Tank Nos.	Chemical	Maximum Chemical Concentration Percent By Weight (Wt%)	Maximum Annual Ampere-Hours (Calendar Year)	Maximum Operating Temperature In Degrees Fahrenheit
HTL-POP-1	Chromic Acid	45.0	N/A	165
	Sulfuric Acid	35.0		
HTL-POP-2	Chromic Acid	2.0	N/A	100
HTL-POP-5	Chromic Acid	2.5	N/A	120
	Sulfuric Acid	2.5		
HTL-POP-9	Total Nickel	1.0	N/A	105
HTL-11	Sodium Hydroxide	7.0	N/A	160
HTL-14	Sodium Hydroxide	10.0	10,000,000 Combined with HTL-36	140
HTL-16	Sulfuric Acid	32.0	N/A	Ambient
HTL-17	Sodium Hydroxide	7.0	N/A	115
HTL-20	Sodium Hydroxide	15.0	N/A	Ambient
HTL-22	Sulfuric Acid	7.0	N/A	Ambient
	Nitric Acid	5.0		
HTL-24	Sulfuric Acid	32	N/A	Ambient
HTL-25	Copper Sulfate	24.0	10,000,000 Cumulative with HTL-28	Ambient
	Sulfuric Acid	12.0		

HTL-28	Copper Sulfate	24.0	10,000,000 Cumulative with HTL-25	Ambient
	Sulfuric Acid	12.0		
HTL-29	Total Nickel	16.0	12,000,000 Combined with HTL-31	145
HTL-30	Total Nickel	17.0	12,000,000 Combined with HTL-32	145
HTL-31	Total Nickel	20.0	12,000,000 Combined with HTL-29	145
HTL-32	Total Nickel	20.0	12,000,000 Combined with HTL-30	130
HTL-33	Total Nickel	17.0	10,000,000	145
HTL-36	Sodium Hydroxide	12.0	10,000,000 Combined with HTL-14	170
HTL-39	Trivalent Chromium	1.5	10,000,000	130
HTL-41	Sulfuric Acid	20.0	N/A	110
	Hydrogen Peroxide	8.0		
	Nickel	0.5		
HTL-49	Nickel	5.0	N/A	140

13. A log concerning the operation of this equipment shall be kept on file for a minimum of five years. The past two years' records shall be kept on site and shall be made available upon request of South Coast AQMD personnel. This log shall contain the following information:

A. The records required by the conditions in this permit.

B. At least once per month, the total of ampere-hours applied to each tank with annual ampere-hour limits specified in condition No. 12 and the cumulative total of ampere-hours applied to each tank to date for the current calendar year.

C. The concentration in percent by weight of total nickel in Tank Nos. HTL-POP-9, HTL-29, HTL-30, HTL-31, HTL-32, HTL-33, HTL-41 and HTL-49 shall be determined each month by quantitative chemical analysis.

D. The concentration in percent by weight of total chromium and hexavalent chromium in Tank Nos. HTL-POP-1, HTL-POP-2, and HTL-POP-5 shall be determined each month by quantitative chemical analysis.

E. The concentration in percent by weight of total chromium and hexavalent chromium in Tank No. HTL-39 shall be determined each month by quantitative chemical analysis.

F. At least once a month, the concentration, in percent by weight, of each chemical in each tank as determined by laboratory analyses or from the estimated operating losses and replenishment during process operation. The concentration of each chemical in each tank shall also be recorded in this log each time the tank solution is replaced

G. Safety Data Sheets (SDS) for all materials charged to each process tank at this facility.

14. This equipment shall be operated in compliance with all applicable South Coast AQMD Rules, including but not limited to Rules 1426 and 1469.

15. Tank HTL-POP-1 shall not be operated unless the tank is vented to air pollution control equipment that is in full use and has been issued a valid South Coast AQMD permit consisting of a three stage mist eliminator and ULPA filters.

16. Tank HTL-39 shall not be operated unless the tank is vented to air pollution control equipment that is in full use and has been issued a valid South Coast AQMD permit consisting of a three stage mist eliminator and ULPA filters.

17. Tank HTL-39 shall be covered at all times except when loading/unloading parts or maintenance activities. It shall be equipped with an actuator that allows the tank to be open for no more than four minutes at a time. The tank cover/rectifier shall be interlocked such that the rectifier will not operate unless the tank cover is closed.

18. Tank HTL-39 shall be covered at all times except for a total period not to exceed two hours per day for loading/unloading parts. The operator shall record and maintain records demonstrating compliance with this condition.

19. The operator shall maintain records of any exceedances of the emission limit and/or parameter limits contained in this permit, the records shall include the date of occurrence, the duration, causes (if known), and where possible, the magnitude of any excess emissions.

20. The operator shall complete, by February 1 of each year, an Annual Ongoing Compliance Status Report for the preceding calendar year. The report shall contain the information identified in Appendix 3 of Rule 1469. The report shall be made available to South Coast AQMD personnel upon request.

21. The operator shall maintain all documentation supporting the notifications and reports required by Rule 1469.

22. The total chromium emissions from Tank HTL-39 shall not exceed 0.01 mg/dscm.

23. Hexavalent chromium emissions shall not exceed 0.2 mg/hr.

24. The operator shall maintain records of the fume suppressant additions including the date, time, approximate volume and product identification of fume suppressant that are added to Tank HTL-39.

25. The total hydrogen peroxide (H2O2) usage in Tank HTL-41 shall not exceed 200 lbs per month. The owner/operator shall maintain the records for the hydrogen peroxide usage to document compliance with this requirement.

26. The pH of the solution in Tank No. HTL-POP-9 shall not exceed 9.2. The pH shall be measured and recorded whenever chemicals are introduced or the solution is replaced.

27. The operator shall maintain records for Tank HTL-39 of the bath components purchased with the wetting agent clearly identified as a bath constituent contained in one of the components.

28. Tanks HTL-POP-1 and HTL-39 shall be operated with a minimum freeboard of 6 inches.

29. The owner/operator shall report breakdowns as required by South Coast AQMD Rule 430. Records shall be maintained of the occurrence, duration, and causes (if known) and action taken on each breakdown.

30. The operator shall conduct smoke test on Tank HTL-POP-1, pursuant to the following requirements:
    a. The smoke test shall be conducted upon initial start-up of this equipment to demonstrate compliance with the capture efficiency of the ventilation system. The test shall be documented by photograph or video at each point of the matrix.
    b. The smoke test shall be conducted in accordance with the procedures specified in Appendix 8 of Rule 1469.
    c. A smoke test shall be conducted on all tanks vented to the APC system to demonstrate that no fugitive emissions will occur during operation.
    d. A smoke test shall be conducted once every six months.

31. The operator shall conduct smoke test, pursuant to the following requirements:
    a. The smoke test shall be conducted upon initial start-up of HTL-POP-1 and HTL-39. The smoke test shall be performed while the cover on HTL-39 is open and closed to determine compliance with the capture efficiency of the ventilation system. The test shall be documented by photograph or video at each point of the matrix.

b. The smoke test shall be conducted in accordance with the procedures specified in Appendix 8 of Rule 1469.

32. The operator of this equipment shall conduct a triplicate source test pursuant to the following requirements to measure the total chromium and hexavalent chromium emissions at the outlet of the air pollution control equipment.

a. The source test shall be conducted no later than 60 calendar days after the modification of this equipment is complete unless otherwise approved in writing by the South Coast AQMD.

b. The source test shall be conducted by an independent, qualified testing laboratory and conducted in accordance with acceptable South Coast AQMD procedures and test methods outlined in applicable South Coast AQMD rules and regulations. The test shall be monitored by a South Coast AQMD representative.

c. A minimum of three test runs shall be performed while Tank HTL-POP-1 and HTL-39 are in operation at maximum load (current and parts processed). Total chromium and hexavalent chromium emissions measured shall be reported in units of pounds per hour and milligrams per hour.

d. A smoke test shall be conducted prior to the actual source test to demonstrate that no fugitive emissions will occur during operation.

e. The following data shall be monitored and recorded during the source test.

i. The concentration of total chromium and hexavalent chromium in Tanks HTL-POP-1 and HTL-39 in percent by weight, during each test run.

ii. Usage of wetting agents or equivalent (specify type) and concentration.

iii. The quantity of water and chromium compounds added to the tanks during the test.

iv. The totalizing current readings, in amperes, at the start and end of each test run for Tank HTL-39.

v. The pressure drops across Stage 1, Stage 2, Stage 3 of the Three Stage Composite Mesh Pad, and the ULPA filters. The pressure drop data shall be recorded at intervals of time not less than once every hour during each test run.

vi. The type and quantity of parts processed in each Tank during the test(s).

vii. Operating temperature of Tanks HTL-POP-1 and HTL-39 during the test(s).

viii. The flow rates, slot velocities and intake velocity during the test(s).

ix. Surface tension of Tank HTL-39 during the test(s).

x. Total length of time the cover on Tank HTL-39 is open during each test run.

33. The operator of this equipment shall conduct a source test, pursuant to the following requirements to measure the total chromium and hexavalent chromium emissions at the outlet of Tank HTL-39 while the tank cover is open.

a. The source test shall be conducted no later than 90 calendar days after the initial start-up of this equipment unless otherwise approved in writing by the South Coast AQMD.

b. The source test shall be conducted by an independent, qualified testing laboratory and conducted in accordance with acceptable South Coast AQMD procedures and test methods outlined in applicable South Coast AQMD rules and regulations. The test shall be monitored by a South Coast AQMD representative.

c. The test shall be performed while Tank HTL-39 is in operation at maximum operating temperature and air sparging with the cover in open position. Total chromium and hexavalent chromium emissions measured shall be reported in units of pounds per hour, milligrams per dry standard cubic feet, and milligrams per ampere-hour.

d. A temporary enclosure shall be used to determine the total chromium and hexavalent chromium emissions while Tank HTL-39 cover is in open position.

e. The tank rectifier shall not be in use during the test.

f. The operator shall measure and report the amount of air in CFM used to air sparge the tank during the test.

g. The operator shall measure and report the operating temperature of the tank solution during the test.

h. The surface tension of Tank HTL-39 during the test.

i. Usage of wetting agent and concentration during the test.

j. The quantity of water and chromium compounds added during the test.

k. The flowrate and the slot velocity of all the slots during the test.

l. The concentration of total chromium and hexavalent chromium in percent by weight during the test.

m. A smoke test shall be conducted prior to the actual source test to demonstrate that no fugitive emissions will occur during operation.

34. The source test report shall include all of the information required in Appendix 1 of Rule 1469 and the items listed in condition 31(e) above.

35. The source test report ahall include exhaust flowrate expressed in Dry Standard Cubic Feet per Minute (DSCFM) and Dry Actual Cubic Feet per Minute (DACFM), percent moisture and oxygen concentration.

36. The source test report shall include, at a minimum, the results of the smoke test, total chromium and hexavalent chromium emissions, wetting agent, stack temperature, moisture content, flow rates, the operating parameters outlined in the permit conditions, and all items listed in the South Coast AQMD Source Test Checklist Forms ST-1 and ST-2

37. The operator shall notify the South Coast AQMD at least 14 calendar days prior to the source test, or within a time period agreed upon by the South Cost AQMD.

38. The operator shall conduct a smoke test on all tanks vented by this equipment upon initial start-up of this equipment and at least once every six months of a previously conducted smoke test to demonstrate compliance with the capture efficiency of the ventilation system. The test shall be documented by photograph or video at each point of the matrix.

39. Two copies of the source test report shall be submitted to the South Coast AQMD no later than 60 calendar days after the final source test date. A copy of the source test report shall be kept on file and shall be made to available to South Coast personnel upon request.

40. Emissions data collected for tank HTL-39 shall be used to determine the Maximum Individual Cancer Risk (MICR). In operation, the MICR shall not exceed one in a million.

PERMIT TO CONSTRUCT

Approval or denial of this application for Permit to Operate the above equipment will be made after an inspection to determine if the equipment has been constructed in accordance with the approved plans and specifications and if the equipment can be operated in compliance with all applicable Rules and Regulations of the South Coast Air Quality Management District (South Coast AQMD).

Please notify RENE E. LOOF at (909) 396-2544 when construction of the equipment is complete.

This Permit to Construct is based on plans, specifications, and data submitted as it pertains to the release of air contaminants and control measures to reduce air contaminants. No approval or opinion concerning safety and other factors in design, construction or operation of equipment is expressed or implied.

This Permit to Construct shall serve as a temporary Permit to Operate provided the Executive Officer is given prior notice of such intent to operate.

This Permit to Construct will become invalid if the Permit to Operate is denied or if the application is cancelled. This PERMIT TO CONSTRUCT SHALL EXPIRE ONE YEAR FROM THE DATE OF ISSUANCE unless an extension is granted by the Executive Officer.

By Amir Dejbakhsh

RL03/RL03

AMIR DEJBAKHSH
Deputy Executive Officer

FILE COPY

EXHIBIT B

South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178

PERMIT TO CONSTRUCT

Legal Owner or Operator:

QUAKER CITY PLATING & SILVERSMITH LTD.
11729 E. WASHINGTON BLVD.
WHITTIER, CA 90606

Granted as of January 23, 2020
ID 52525

Equipment Location: 11729 E. WASHINGTON BLVD., WHITTIER, CA 90606

Equipment Description:

Air Pollution Control System Consisting of:

1. One Inline, Single Stage, MW-1, Polypropylene Mist Eliminator,
2. Three Stage Mesh Pad Mist Eliminator Consisting of,
   a. 1st Stage, MW-1 Removable Mesh Pad, 43" W. x 43" L. x 4" D., with Two Spray Headers, Six Wash Down Spray Nozzles,
   b. 2nd Stage, MW-2 Removable Mesh Pad, 43" W. x 43" L. x 4" D., with Two Spray Headers, Six Wash Down Spray Nozzles,
   c. 3rd Stage, MW-3 Removable Mesh Pad, 43" W. x 43" L. x 4" D., with Two Spray Headers, Six Wash Down Spray Nozzles.
3. ULPA Filter Bank, Four Total, Each 24" x 24" x 11.5", with a Minimum 1,250 CFM Capacity.
4. Exhaust System consisting of:
   a. 10-HP Exhaust Fan, 5000 CFM Total Flowrate, Venting Tanks HTL-POP-1 and HTL-39 of the Hoist Nickel and Trivalent with POP Plating Line,
   b. Slot Hoods for Tank HTL-POP-1,
   c. Slot Hoods with Cover for Tank HTL-39.

Conditions:

1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
2. This equipment shall be properly maintained and kept in good operating condition at all times.
3. This equipment shall be in full use whenever Tank HTL-POP-1 and/or Tank HTL-39 are in operation.
4. Gauges shall be installed and maintained to indicate, in inches of water, the static pressure differential across each stage of the three stage mist eliminator and ULPA filter media. In operation, the pressure differential across each stage shall not exceed 2.0 inches of water. The pressure differential across the ULPA shall not exceed 2.5

inches of water. The operator shall maintain a daily record of the pressure differential across the filter system. The pressure differential limits above are subject to change based on initial start-up of the equipment and results from the source test.

5. The pressure differential limits above are subject to change based on the initial start-up of the equipment and results from the source test.

6. The gauges shall be located so that they can be easily viewed and are in clear sight of the operator and maintenance personnel.

7. The ULPA filters used in this equipment shall be individually DOP tested (or equivalent) with 0.12 micron particulates and certified to have a minimum efficiency of not less than 99.9999%.

8. The ULPA filters used in this equipment shall have a minimum exhaust capacity of 1,250 cubic feet per minute.

9. The following data shall be monitored and recorded during the smoke test:
   a. The pressure drop across the each Mesh Pad Mist eliminator and the ULPA filters.
   b. The operating temperature of Tank HTL-POP-1and HTL-39.
   c. The flow rate and slot velocity for all the slots.

10. The operator shall conduct a smoke test once every six months on HTL-POP-1 and HTL-39 after the equipment installation is completed. The test will be used to indicate the ventilation system's ability to capture the emissions from these tanks. The test shall meet the same criteria as the initial test conducted after the tanks were installed.

11. This equipment shall be operated in compliance with all applicable requirements of Rules 1155 and 1469.

12. All records required by this permit shall be kept for five years. The last two years of records shall be retained at the facility and shall be made available to South Coast AQMD personnel upon request.

13. A flow meter shall be installed indicating in gallon per minute the flow rate of clean water used to wash down each stage of the three stage mesh pad mist eliminator system.

14. The operator shall maintain inspection and maintenance records for the Three Stage Mist Eliminator, the ULPA filters, and the monitoring equipment according to the manufacturer's recommendations to document compliance with the inspection and maintenance requirements of this permit. The records shall identify:
   a. The device inspected.
   b. The date and time of inspection.
   c. The working condition of the device during the inspection.
   d. Any maintenance activities performed on the Three Stage Mist Eliminator, ULPA filters, or the parameter monitoring system.
   e. Any actions taken to correct deficiencies found during the inspection.

15. The operator shall comply with the inspection and maintenance requirements listed below:
    a. Quarterly inspection of the equipment to ensure there is proper drainage, no unusual chromic acid buildup on the Three Stage Mist Eliminator, and no evidence of chemical attack that affects the structural integrity of this equipment.
    b. Quarterly visual inspection of the ULPA filters to ensure there is no breakthrough of chromic acid mists.
    c. Quarterly visual inspection of the ductwork from hexavalent chromium containing tanks to ensure there are no leaks.
    d. Repair any leaks detected before any further operation of the equipment.
    e. Perform wash down of the Three Stage Mist eliminator in accordance with the conditions of this permit.
    f. Replace the ULPA filter when necessary.

16. The operator shall wash down the first two stages of the Mesh Pad Mist Eliminator at a minimum of 20 seconds every six hours. A minimum of 20.0 gallons per minute shall be supplied to the wash down nozzles.

17. The operator shall wash down the in-line mist eliminator at a minimum of 20 seconds every six hours. A minimum of 5.3 gallons per minute shall be supplied to the wash down nozzles.

18. The operator shall prepare an Operation and Maintenance (O&M) Plan pursuant to Rule 1469. The O&M plan shall incorporate the inspection and maintenance requirements identified in this permit and shall include the following elements:
    a. A standardized checklist to document the operation and maintenance of Tank HTL-POP-1 and HTL-39, the air pollution control system, and the process and control system monitoring equipment.
    b. Procedures to be followed for tanks HTL-POP-1 and HTL-39, to ensure that the equipment is properly maintained.

19. The operator shall keep the written O&M plan on record, and after it is developed, be made available for inspection upon request by South Coast AQMD personnel. Any changes made to the plan shall be documented in an addendum to the plan and signed by the operator or appropriate designee.

20. The operator shall maintain records of any exceedances of the emission limit and/or parameter limits contained in this permit, the records shall include the date of occurrence, the duration, causes (if known), and where possible, the magnitude of any excess emissions.

21. The operator shall complete, by February 1 of each year, an Annual Ongoing Compliance Status Report for the preceding calendar year. The report shall contain the information identified in Appendix 3 of Rule 1469. The report shall be made available to South Coast AQMD personnel upon request.

22. The operator shall maintain all documentation supporting the notifications and reports required by Rule 1469.

23. The exhaust flow rate of this system shall be a minimum of 5,000 CFM. The operator shall install and maintain a flow measuring device to continuously measure the exhaust flowrate in cubic feet per minute. If a pressure sensor device is used in place of a flow indicator, a conversion chart shall be made to indicate the flow rate in CFM corresponding to the pressure reading. The flow rate shall be continuously measured and recorded.

24. The operator shall report breakdowns, as required by Rule 430, and shall maintain records of the occurrence, duration, causes (if known), and action taken on each breakdown.

25. The operator of this equipment shall conduct a triplicate source test pursuant to the following requirements to measure the total chromium and hexavalent chromium emissions at the outlet of the air pollution control equipment.
    a. The source test shall be conducted no later than 60 calendar days after the modification of this equipment is complete unless otherwise approved in writing by the South Coast AQMD.
    b. The source test shall be conducted by an independent, qualified testing laboratory and conducted in accordance with acceptable South Coast AQMD procedures and test methods outlined in applicable South Coast AQMD rules and regulations. The test shall be monitored by a South Coast AQMD representative.
    c. A minimum of three test runs shall be performed while Tank HTL-POP-1 and HTL-39 are in operation at maximum load (current and parts processed). Total chromium and hexavalent chromium emissions measured shall be reported in units of pounds per hour and milligrams per hour.
    d. A smoke test shall be conducted prior to the actual source test to demonstrate that no fugitive emissions will occur during operation.
    e. The following data shall be monitored and recorded during the source test.
        i. The concentration of total chromium and hexavalent chromium in Tanks HTL-POP-1 and HTL-39 in percent by weight, during each test run.
        ii. Usage of wetting agents or equivalent (specify type) and concentration.
        iii. The quantity of water and chromium compounds added to the tanks during the test.
        iv. The totalizing current readings, in amperes, at the start and end of each test run for Tank HTL-39.
        v. The pressure drops across Stage 1, Stage 2, Stage 3 of the Three Stage Composite Mesh Pad, and the ULPA filters. The pressure drop data shall be recorded at intervals of time not less than once every hour during each test run.
        vi. The type and quantity of parts processed in each Tank during the test(s).
        vii. Operating temperature of Tanks HTL-POP-1 and HTL-39 during the test(s).
        viii. The flow rates, slot velocities and intake velocity during the test(s).
        ix. Surface tension of Tank HTL-39 during the test(s).
        x. Total length of time the cover on Tank HTL-39 is open during each test run.

26. The source test report shall include all of the information required in Appendix I of Rule 1469 and the items listed in condition 25(e) above.

27. The source test report shall include exhaust flowrate expressed in Dry Standard Cubic Feet per Minute (DSCFM) and Dry Actual Cubic Feet per Minute (DACFM), percent moisture and oxygen concentration.

28. The source test report shall include, at a minimum, the results of the smoke test, total chromium and hexavalent chromium emissions, stack temperature, moisture content, flow rates, the operating parameters outlined in the permit conditions, and all items listed in the South Coast AQMD Source Test Checklist Forms ST-1 and ST-2

29. The operator shall notify the South Coast AQMD at least 14 calendar days prior to the source test, or within a time period agreed upon by the South Cost AQMD.

30. The operator shall conduct a smoke test on all tanks vented by this equipment upon initial start-up of this equipment and at least once every six months of a previously conducted smoke test to demonstrate compliance with the capture efficiency of the ventilation system. The test shall be documented by photograph or video at each point of the matrix.

31. Two copies of the source test report shall be submitted to the South Coast AQMD no later than 60 calendar days after the final source test date. A copy of the source test report shall be kept on file and shall be made to available to South Coast personnel upon request.

32. Emissions data collected for tank HTL-39 shall be used to determine the Maximum Individual Cancer Risk (MICR). In operation, the MICR shall not exceed one in a million.

PERMIT TO CONSTRUCT

Approval or denial of the application for Permit to Operate the above equipment will be made after an inspection to determine if the equipment has been constructed in accordance with the approved plans and specifications and if the equipment can be operated in compliance with all applicable Rules and Regulations of the South Coast Air Quality Management District (South Coast AQMD).

Please notify RENE E. LOOF at (909) 396-2544 when construction of the equipment is complete.

This Permit to Construct is based on plans, specifications, and data submitted as it pertains to the release of air contaminants and control measures to reduce air contaminants. No approval or opinion concerning safety and other factors in design, construction or operation of equipment is expressed or implied.

This Permit to Construct shall serve as a temporary Permit to Operate provided the Executive Officer is given prior notice of such intent to operate.

This Permit to Construct will become invalid if the Permit to Operate is denied or if the application is cancelled. The PERMIT TO CONSTRUCT SHALL EXPIRE ONE YEAR FROM THE DATE OF ISSUANCE unless an extension is granted by the Executive Officer.

RL03/RL03

By Amir Dejbakhsh

AMIR DEJBAKHSH
Deputy Executive Officer

FILE COPY

EXHIBIT C

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

M E M O R A N D U M

DATE: November 22, 2024

TO: David Lui

FROM: Dipankar Sarkar D.S.

SUBJECT: Evaluation of Source Test Report:
(Requested by Armando Coronado, 4/26/2024)

IDENTIFICATION: **(Application No. 613916, 614351)** **(Facility ID No. 52525)**
COMPANY: **Quaker City Plating & Silversmith LTD**
EQUIPMENT: **Air Pollution Control Device Venting Tank HTL-39**

REFERENCE: R 24066 (STE Source Test File)

Source Test Engineering has completed the evaluation of the subject source test report for testing at **11729 E. Washington Blvd, Whittier, CA 90606** and has concluded that it is:

UNACCEPTABLE (COMPLIANCE INDETERMINATE)

Compliance with applicable Rules and/or Permit Conditions has not been acceptably demonstrated. The accuracy of some or all of the reported gaseous emissions and flows cannot be confidently confirmed, and they should not be used for compliance purposes or emission calculations. Refer to the attached evaluation for a complete discussion concerning reasons for rejection and remediation.

The attached evaluation has not been forwarded to the facility or the source testing firm. It is the responsibility of the requestor to review the attached evaluation and forward it to the parties involved, if you concur with our findings. If there are any questions, please contact Colin Eckerle at Ext 2476.

DS:CE

Attachment

PR 24066 Evaluation.doc : REV 11/22/2024

cc: Armando Coronado
Colin Eckerle

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MONITORING & ANALYSIS DIVISION * SOURCE TEST ENGINEERING BRANCH

SOURCE TEST REPORT EVALUATION

S/T ID: **PR 24066**

AQMD ID: *FACILITY ID NO.* **52525** *A/N:* **613916, 614351**
COMPANY: **Quaker City Plating & Silversmith LTD**
EQUIPMENT: **Air Pollution Control Device Venting Tank HTL-39**
TEST LOCATION: **11729 E. Washington Blvd, Whittier, CA 90606**

REQUESTED BY: **Armando Coronado (Memo Dated 4/26/2024)**
TYPE OF TEST: **Performance/Compliance Report**
DOCUMENT DATE: **January 7, 2021**

REASON FOR TEST: *(TESTING SUBJECT TO THE FOLLOWING RULE, PERMIT, OR SPECIFIED **CO**NDITIONS):*
- Cr6+: 0.0015 mg/amp-hr (Rule 1469)

REQUESTED EVAL: **Hexavalent Chromium, Total Chromium**
TEST FIRM: **Almega Environmental & Technical Services**

STE EVALUATOR: **Colin Eckerle** *EXT:* **2476** *REVIEW DATE:* **11/22/2024**

OVERVIEW OF EVALUATION:

OVERALL CONFIDENCE IN REPORTED TEST RESULTS:	☐ **ACCEPTABLE**	☐ **CONDITIONALLY ACCEPTABLE**	☒ **UNACCEPTABLE (COMPLIANCE INDETERMINATE)** ☐ **NOT REVIEWED**
RESTRICTIONS FOR USE OF REPORTED RESULTS:	• Since complete capture was not demonstrated, **Hexavalent Chromium, Total Chromium** reported results should not be used for any purpose.		
COMPLIANCE DETERMINATION:	• Compliance with the **Hexavalent Chromium** emissions limit is considered indeterminate. • Compliance was <u>not</u> succesfully demonstrated with the minimum hood induced capture velocities specified in *Industrial Ventilation, A Manual of Recommended Practice for Design* and Rule 1469(k)(6).		

(REFER TO NEXT SECTION FOR COMPLETE DISCUSSION OF THESE DEFICIENCIES)

S O U R C E T E S T R E P O R T E V A L U A T I O N

This source test has been reviewed by the Source Test Engineering Branch staff. The following specifically explain the restrictions concerning the treatment of the reported source test information:

- ☐ Completeness of Application/Protocol/Report
- ☒ Representativeness of Data & Process
- ☒ Rule/Permit Fulfillment
- ☐ Sampling & Analytical Methods
- ☐ Quality Assurance
- ☐ Calculations

REPRESENTATIVENESS OF DATA & PROCESS

1) Tanks HTL-39 (electrolytic) and HTL-POP-1 (non-electrolytic), both permitted to vent to the APC, were tested individually, since they have separate emission limits. This evaluation (S/T ID R24066) covers the source test for Tank HTL-39. The source test report for HTL-POP-1 was evaluated separately under S/T ID R24066A.

2) According to Section (k)(6) of Rule 1469, capture efficiency must be verified by demonstrating that each add-on air pollution control device complies with the design criteria and ventilation velocities outlined in *A Manual of Recommended Practice for Design* by the American Conference of Governmental Industrial Hygienists. However, the collection slot velocities, measured between 500 and 800 fpm, were significantly lower than the required 2000 fpm. As a result, complete capture was not demonstrated. Modifications to the equipment are recommended to increase the slot velocities of the emissions collection system.

3) Section (k)(7) of Rule 1469 requires a smoke test to be conducted for each add-on air pollution control device. The source test report states that smoke test videos were submitted on a USB drive along with the report. However, STE did not receive these videos. Additionally, Alliance, the source testing company, was unable to provide copies of the videos when requested. As a result, STE could not verify the smoke test results.

4) There was a significant discrepancy in the plating load across the three test runs: Run 1 recorded 688 amp-hrs/hr, while Run 2 and Run 3 were significantly lower at 180 and 193 amp-hrs/hr, respectively. The reason for this variation is unclear. Due to this discrepancy, it is unclear whether Runs 2 and 3 were conducted at the maximum plating load.

RULE/PERMIT FULFILLMENT

1) Testing must be conducted pursuant to the following Rule/Permit Conditions:
   - Cr^{6+}: 0.0015 mg/amp-hr (Rule 1469)

SOURCE TEST REPORT EVALUATION

REMEDIATION

- Compliance was not successfully demonstrated for **Cr^{6+}** reported emissions and a re-test will be necessary. It is recommended that the equipment be modified to increase the flow rate of the collection system to meet the minimum slot velocity requirement of *Industrial Ventilation A Manual of Recommended Practice for Design*. Once the equipment has been modified, it is recommended that this device be re-tested to address the concerns raised in this evaluation.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

M E M O R A N D U M

DATE: November 22, 2024

TO: David Lui

FROM: Dipankar Sarkar D.S.

SUBJECT: Evaluation of Source Test Report:
(Requested by Armando Coronado, 4/26/2024)

IDENTIFICATION: **(Application No. 613916, 614351)** **(Facility ID No. 52525)**
COMPANY: **Quaker City Plating & Silversmith LTD**
EQUIPMENT: **Air Pollution Control Device Venting Tank HTL-POP-1**

REFERENCE: R 24066A (STE Source Test File)

Source Test Engineering has completed the evaluation of the subject source test report for testing at **11729 E. Washington Blvd, Whittier, CA 90606** and has concluded that it is:

UNACCEPTABLE (COMPLIANCE INDETERMINATE)

Compliance with applicable Rules and/or Permit Conditions has not been acceptably demonstrated. The accuracy of some or all of the reported gaseous emissions and flows cannot be confidently confirmed, and they should not be used for compliance purposes or emission calculations. Refer to the attached evaluation for a complete discussion concerning reasons for rejection and remediation.

The attached evaluation has not been forwarded to the facility or the source testing firm. It is the responsibility of the requestor to review the attached evaluation and forward it to the parties involved, if you concur with our findings. If there are any questions, please contact Colin Eckerle at Ext 2476.

DS:CE

Attachment

PR 24066A Evaluation.doc : REV 11/22/2024

cc: Armando Coronado
Colin Eckerle

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MONITORING & ANALYSIS DIVISION * SOURCE TEST ENGINEERING BRANCH

SOURCE TEST REPORT EVALUATION

S/T ID: **PR 24066A**

AQMD ID: *FACILITY ID NO.* **52525** *A/N:* **613916, 614351**
COMPANY: **Quaker City Plating & Silversmith LTD**
EQUIPMENT: **Air Pollution Control Device Venting Tank HTL-POP-1**
TEST LOCATION: **11729 E. Washington Blvd, Whittier, CA 90606**

REQUESTED BY: **Armando Coronado (Memo Dated 4/26/2024)**
TYPE OF TEST: **Performance/Compliance Report**
DOCUMENT DATE: **January 4, 2021**

REASON FOR TEST: *(TESTING SUBJECT TO THE FOLLOWING RULE, PERMIT, OR SPECIFIED **CO**NDITIONS):*
- Cr6+: 0.004 mg/hr-ft^2 (Rule 1469)

REQUESTED EVAL: **Hexavalent Chromium, Total Chromium**
TEST FIRM: **Almega Environmental & Technical Services**

STE EVALUATOR: **Colin Eckerle** *EXT:* **2476** *REVIEW DATE:* **11/22/2024**

OVERVIEW OF EVALUATION:

OVERALL CONFIDENCE IN REPORTED TEST RESULTS:	☐ **ACCEPTABLE**	☐ **CONDITIONALLY ACCEPTABLE**	☒ **UNACCEPTABLE (COMPLIANCE INDETERMINATE)** ☐ **NOT REVIEWED**
RESTRICTIONS FOR USE OF REPORTED RESULTS:	• Since complete capture was not demonstrated, **Hexavalent Chromium, Total Chromium** reported results should not be used for any purpose.		
COMPLIANCE DETERMINATION:	• Compliance with the **Hexavalent Chromium** emissions limit is considered indeterminate. • Compliance was <u>not</u> succesfully demonstrated with the minimum hood induced capture velocities specified in *Industrial Ventilation, A Manual of Recommended Practice for Design* and Rule 1469(k)(6).		

(REFER TO NEXT SECTION FOR COMPLETE DISCUSSION OF THESE DEFICIENCIES)

S O U R C E T E S T R E P O R T E V A L U A T I O N

This source test has been reviewed by the Source Test Engineering Branch staff. The following specifically explain the restrictions concerning the treatment of the reported source test information:

- ☐ Completeness of Application/Protocol/Report
- ☒ Representativeness of Data & Process
- ☒ Rule/Permit Fulfillment
- ☐ Sampling & Analytical Methods
- ☐ Quality Assurance
- ☐ Calculations

REPRESENTATIVENESS OF DATA & PROCESS

1) Tanks HTL-39 (electrolytic) and HTL-POP-1 (non-electrolytic), each permitted to vent to the APC, were tested separately due to their distinct emission limits. This evaluation (S/T ID R24066A) covers the source test for HTL-POP-1. The source test report for HTL-39 was evaluated separately under S/T ID R24066.

2) According to Section (k)(6) of Rule 1469, capture efficiency must be verified by demonstrating that each add-on air pollution control device complies with the design criteria and ventilation velocities outlined in *A Manual of Recommended Practice for Design* by the American Conference of Governmental Industrial Hygienists. However, the collection slot velocities, measured between 600 and 1100 fpm, were significantly lower than the required 2000 fpm. As a result, complete capture was not demonstrated. Modifications to the equipment are recommended to increase the slot velocities of the emissions collection system.

3) Section (k)(7) of Rule 1469 requires a smoke test to be conducted for each add-on air pollution control device. The source test report states that smoke test videos were submitted on a USB drive along with the report. However, STE did not receive these videos. Additionally, Alliance, the source testing company, was unable to provide copies of the videos when requested. As a result, STE could not verify the smoke test results.

RULE/PERMIT FULFILLMENT

1) Testing must be conducted pursuant to the following Rule/Permit Conditions:
   - Cr^{6+}: 0.004 mg/hr-ft^2 (Rule 1469)

SOURCE TEST REPORT EVALUATION

2) There are two Cr^{6+} limits for non-electrolytic tanks in Rule 1469. According to section (h)(4)(A) a 0.20 mg/hr limit applies if the maximum exhaust flow rate is 5,000 cfm or less. If the maximum exhaust flow rate is greater than 5,000 cfm, a limit of 0.004 mg/hr-ft^2 applies. The tank is permitted for a maximum exhaust flow rate of 5,000 cfm. However, the flow rate measured during the test was greater than 5,000 cfm. It was determined in consultation with the permit engineer that the 0.004 mg/hr-ft^2 limit should apply in this case.

3) The reported Cr^{6+} mass emission factors (0.00424 mg/hr-ft^2) were greater than the 0.004 mg/hr-ft^2 limit. However, the reported values were within the 10% "margin of error" that STE applies to most compliance limits when evaluating emissions for compliance determination. Therefore, compliance with the emission limit is considered indeterminate, and a re-test is required.

REMEDIATION

- Compliance was not successfully demonstrated for **Cr^{6+}** reported emissions and a re-test will be necessary. It is recommended that the equipment be modified to increase the flow rate of the collection system to meet the minimum slot velocity requirement of *Industrial Ventilation A Manual of Recommended Practice for Design*. Once the equipment has been modified, it is recommended that this device be re-tested to address the concerns raised in this evaluation.