December 12, 2016
File No. 005007

Mr. Terseer Hemben, DM, Environmental Engineer
Michigan Department of Environmental Quality
Southeast Michigan District, Air Quality Division
3058 West Grand Boulevard
Suite 2-300
Detroit, MI 48202

Regarding: Permit to Install No. 74-02A
Arted Chrome Plating, Inc.
Response to Violation Notice Dated November 16, 2016

Dear Mr. Hemben:

Arted Chrome Plating, Inc. ("Arted Chrome") is providing the following in response to your request for further information following an inspection of our facility on February 8, 2016 and a Violation Notice dated November 16, 2016 ("Violation Notice"). As indicated in the Violation Notice, Arted Chrome initially provided documentation and records in response to your February 8, 2016 inspection on February 24, 2016.

The Violation Notice listed three rule/permit condition violations, and requested that Arted Chrome correct each of the three items and respond in writing by December 14, 2016 with the following information: 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.

For ease of review, we have reproduced each of the three rule/permit condition violations in italics followed by our response to each.

Item No. 1

PROCESS DESCRIPTION	*RULE/ PERMIT CONDITION VIOLATED*	*COMMENTS*
EUCHROMETANK1, a decorative chrome electroplating tank utilizing hexavalent chrome and with a fume suppressant containing a wetting agent for emissions control.	*40 CFR 63.342(d)(3); R 336.1941(1)*	*Based on the surface tension records, the surface tension on September 17, 2014 was measured at 42.15 dynes/cm and has not been measured below 40 dynes/cm at any time after September 19, 2014 through the last record of February 8, 2016. Therefore, Arted Chrome is not in compliance with the emissions standard of 40 CFR 63.342(d)(3) or R 336. 1941 (1).*

EUCHROMETANK1 is an existing decorative chrome electroplating tank utilizing hexavalent chrome and with a fume suppressant containing a wetting agent for emissions control. Therefore, EUCHROMETANK1 is subject to the NESHAP for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks at 40 CFR 63, Subpart N (also known as MACT N). MACT N was initially promulgated on January 25, 1995 and was last amended on September 19, 2012. MACT N has been incorporated into the Air Pollution Control Rules at R 336.1941(1), also known as Rule 941(1). EUCHROMETANK1 is also permitted under PTI 74-02A, issued on March 31, 2010.

MACT N previously allowed an owner or operator of a decorative electroplating tank with a chromic acid bath to comply with 45 dynes/cm, as measured by a stalagmometer, or 33 dynes/cm, as measured by a tensiometer, as the maximum surface tension value for a tank utilizing a chemical fume suppressant containing a wetting agent. However, in the most recent revision to MACT N the allowed surface tension was lowered to not more than 40 dynes/cm at 40 CFR 63.342(d)(3) for all existing, new, or reconstructed sources. This new standard became effective for existing sources on September 19, 2014 (40 CFR 63.343(a)(1)). This standard is also incorporated into AQD Rule 941 (1). Based on the surface tension records received for EUCHROMETANK1, the surface tension on September 17, 2014 was measured at 42.15

dynes/cm and has not been measured below 40 dynes/cm at any time after September 19, 2014 through the last record of February 8, 2016. Therefore, EUCHROMETANK1 is not in compliance with the emissions standard of 40 CFR 63.342(d)(3) or Rule 941 (1).

Prior to the February 8, 2016 AQD inspection, Arted Chrome was complying with the conditions set forth in PTI No. 74-02A that specified a maximum surface tension of 45 dynes/cm. Until the time of the inspection, Arted Chrome was not aware and did not receive notification that the requirements of 40 CFR 63 Subpart N had changed and that the maximum allowable surface tension was reduced to 40 dynes/cm. Since the February 8, 2016 inspection, Arted Chrome has complied with the limit of 40 dynes/cm as a maximum surface tension (see the surface tension measurement records included herein as Attachment A).

Item No. 2

PROCESS DESCRIPTION	*RULE/ PERMIT CONDITION VIOLATED*	*COMMENTS*
EUCHROMETANK1, a decorative chrome electroplating tank utilizing hexavalent chrome and with a fume suppressant containing a wetting agent for emissions control.	*40 CFR 63.343(c)(5)(ii); R 336.1941(1); PTI 74-02A, EUCHROMETANK1, SC VI.1*	*After September 19, 2014 through the last record of February 8, 2016, Arted Chrome failed to monitor the surface tension once every four hours.*

Due to the change in the surface tension standard, Arted Chrome also failed to monitor, in a satisfactory manner, the surface tension of EUCHROMETANK1 every four hours except as allowed in 40 CFR 63.343(c)(5)(ii). Pursuant to 40 CFR 63.343(c}(5)(ii)(A), surface tension readings are to begin at a frequency of once every 4 hours. Pursuant to 40 CFR 63.343(c)(5)(ii)(B) and (C), a source is allowed to decrease the frequency of the surface tension monitoring to once every 40 hours, provided compliance with the surface tension standard is continuously achieved; once an exceedance of the surface tension is recorded, the source is required to revert back to the once per 4 hour monitoring schedule. Arted Chrome operated EUCHROMETANK1 under a monitoring schedule of once every 40 hours, based upon a surface tension limit of 45 dynes/cm. When the surface tension standard was lowered from 45 dynes/cm

to 40 dynes/cm on September 19, 2014, the surface tension was required to be monitored once every 4 hours; however, the surface tension schedule remained at once every 40 hours from September 19, 2014 through the last record of February 8, 2016. Therefore, the facility is not in compliance with 40 CFR 63.343(c)(5)(ii), Rule 941(1), and SC VI.1 of PTI 74-02A.

Arted Chrome utilizes the following compliance monitoring schedule pursuant to the requirements of 40 CFR 63 Subpart N.

Upon initial startup, the surface tension is measured once every 4 hours for 40 hours until stabilized. If there are no exceedances of the maximum surface tension after 40 hours of operation, the monitoring frequency is decreased to once every 8 hours. If there are no exceedances of the maximum surface tension after 40 hours, the frequency is then decreased to once every 40 hours.

Arted Chrome completed surface tension monitoring according to the required schedule; however, as noted previously, Arted Chrome was using a maximum surface tension of 45 dynes/cm. Beginning on the afternoon of February 8, 2016, Arted Chrome has used the revised maximum surface tension value of 40 dynes/cm and measured the surface tension pursuant to the above-noted schedule of once every 4 hours for 40 hours until stabilization is achieved, after which the frequency is reduced to once every 8 hours for 40 hours, and finally to once every 40 hours (see Attachment A).

Item No. 3

PROCESS DESCRIPTION	*RULE/ PERMIT CONDITION VIOLATED*	*COMMENTS*
EUCHROMETANK1, a decorative chrome electroplating tank utilizing hexavalent chrome and with a fume suppressant containing a wetting agent for emissions control.	*40 CFR 63.346(b)(1) and (5); R 336.1941 (1); PTI 74-02A, EUCHROMETANK1, SC VI.3*	*Arted Chrome failed to maintain records necessary to document compliance with the work practice standards at 40 CFR 63.342(f) and Table 1, and to demonstrate consistency with the provisions of the operation and maintenance plan required by 40 CFR 63.342(f)(3). February 8,*

PROCESS DESCRIPTION	*RULE/ PERMIT CONDITION VIOLATED*	*COMMENTS*
		2016. Therefore, Arted Chrome is not in compliance with the emissions standard of 40 CFR 63.342(d)(3) or R 336. 1941 (1).

Finally, 40 CFR 63.346(b)(1) and (5) require records necessary to document compliance with the work practice standards at 40 CFR 63.342(f) and Table 1, and to demonstrate consistency with the provisions of the operation and maintenance plan required by 40 CFR 63.342(f)(3). Arted Chrome indicated the work practice standards and the operation and maintenance plan were followed, but written documentation has not been maintained. Therefore, the facility is not in compliance with 40 CFR 63.346(b)(1) and (5), Rule 941 (1), and SC VI .3 of PTI 7 4-02A.

The only equipment listed on Table 1 that is applicable to Arted Chrome is the Stalagmometer. Arted Chrome has maintained the Stalagmometer consistent with the manufacturer's recommendations and a malfunction of the Stalagmometer has not occurred. Arted Chrome has always utilized the required work practices and has completed inspections, maintenance, and housekeeping pursuant to the requirements of 40 CFR 63.342(f) and Table 1; however, Arted Chrome was not aware that they are required to maintain written documentation of the aforenoted items unless a malfunction had occurred. Therefore, to correct this issue, Arted Chrome developed a written inspection and maintenance checklist that is currently utilized weekly to document the operation and maintenance of the stalagmometer as well as the work practices listed in Table 2 (see Attachment B) and will maintain these written records on a going forward basis.

Arted Chrome has corrected the three items cited in the Violation Notice as noted herein and will continue to comply with the subject requirements on a going forward basis. Additionally, to prevent these violations from occurring in the future, Arted Chrome will monitor for changes to the NESHAP and Michigan's Part 55 requirements which are applicable to Arted Chrome.

Should you have any questions regarding this response, please feel free to contact the undersigned at (313) 871-3331.

Very truly yours,

ARTED CHROME PLATING, INC.

Mark Borawski, General Manager
Arted Chrome Plating, Inc.

cc: Integrated Environmental, Inc.
File

ATTACHMENT A

ARTED CHROME
SURFACE TENSION

S.T. = (40/no. drops)*87.6

DATE	NUMBER OF DROPS	SURFACE TENSION	WETTER ADDITION	TIME
2/8/16	88	39.81		12pm
2/8/16	88	39.81	200mL	2pm
2/9/16	90	38.93		6AM
2/9/16	90	38.93		10AM
2/9/16	89	39.37	200mL	2pm
2/10/16	91	38.51		6AM
2/10/16	90	38.93		10AM
2/10/16	90	38.93		2pm
2/11/16	90	38.93		6AM
2/11/16	89	39.37	200mL	10AM
2/11/16	91	38.51		2pm
2/12/16	91	38 51		6AM
2/12/16	90	39.37		10AM
2/12/16	90	39.37		2pm
		39.37		
2/14/16	89	~~38.51~~	200mL	10AM
2/15/16	91	38.51		
2/16/16	88	39.81	300mL	10AM
2/17/16	90	38.93		10AM
2/18/16	90	38.93		

EVERY 4 HOURS FOR 1 WEEK

ONCE A WEEK FOR 1 WEEK

ARTED CHROME

SURFACE TENSION

S.T. = (40/no. drops)*87.6

DATE	NUMBER OF DROPS	SURFACE TENSION	WETTER ADDITION	TIME
2/16/16	88	39.81	200ML	7AM
2/23/16	89	39.37	—	7A
3/2/16	89	39.37	200ML	7A
3/8/16	88	39.81	200ML	7A
3/15/16	89	39.37	—	8A
3/23/16	89	39.37	200ML	7A
3/30/16	90	38.93	200ML	9A
4/6/16	91	38.51	200ML	10A
4/11/16	92	38.09	—	7A
4/20/16	92	38.09	—	7A
4/27/16	91	38.51	200ML	7A
5/3/16	92	38.09	—	7A
5/10/16	91	38.51	—	7A
5/17/16	91	38.51	—	7A
5/23/16	90	38.98	300ML	8A
5/30/16	92	38.09	—	9A
6/6/16	91	38.51	—	7A
6/13/16	91	38.51	—	7A
6/20/16	91	38.51	—	8A
6/27/16	90	38.93	200ML	9AM
7/4/16	CLOSED			
7/12/16	90	38.95	200ML	7A
7/18/16	92	38.09	200ML	8A
7/25/16	93	37.68	—	8A
8/2/16	92	38.09	—	8A
8/9/16	92	38.09	—	7A
8/16/16	91	38.51	—	7A
8/23/16	90	39.93	300ML	10A
8/30/16	92	38.09	—	7A
9/7/16	92	38.09	200ML	7A
9/12/16	91	38.51	—	7A

ARTED CHROME
SURFACE TENSION

S.T. = (40/no. drops)*87.6

DATE	NUMBER OF DROPS	SURFACE TENSION	WETTER ADDITION	TIME
9/19/16	91	38.51	—	7A
9/26/16	90	39.93	300 mL	7A
10/3/16	CLOSED			
10/11/16	CLOSED			
10/17/16	91	38.51		8A
10/25/16	90	39.93		9A
11/1/16	90	39.93	200 mL	7A
11/8/16	92	38.09		7A
11/14/16	91	38.51		8A
11/21/16	90	38.93		7AM

ATTACHMENT B

USE OF STALAGMOMETER

The stalagmometer must be properly cleaned before being used the first time and after a period of storage. **CAUTION:** Since Nitric Acid fumes are evolved during the cleaning process, the procedure should be done in a fume hood using proper personal protection.

Properly clean the stalagmometer using the following procedure:

1. Set up stalagmometer in stand in a fume hood.
2. Place a clean 150 ml beaker underneath the stalagmometer then fill with reagent grade concentrated nitric acid. Immerse bottom tip (approx. 1/2") of stalagmometer into the beaker.
3. Squeeze rubber bulb and pinch at the arrow up (↑) position to collapse. Place bulb end securely on top end of stalagmometer. Carefully draw the nitric acid by pinching the arrow up (↑) position until the level is above the top etched line. (See figure 1)
4. Allow nitric acid to remain in stalagmometer for 5 minutes and then carefully remove the bulb allowing the acid to completely drain.

   NOTE: The nitric acid can be stored in a tightly stoppered amber glass bottle and be reused several times.

5. Fill a clean 150 ml beaker with distilled or deionized water. Using the rubber bulb per the instructions in Step #3, rinse and drain stalagmometer with deionized or distilled water until the inside is "water break" free.
6. Fill a clean 150 ml beaker with alcohol. Again using the rubber bulb per Step #3, rinse and drain the stalagmometer twice with alcohol and allow the stalagmometer to dry completely.
7. Take a sample of the solution to be tested and adjust the solution to room temperature. Measure the specific gravity and record the reading.
8. Fill a clean 150 ml beaker with solution to be tested. Immerse bottom end of stalagmometer into the beaker. Fill the stalagmometer per instructions in Step #3, making sure that the solution level is above the top etched line. (See figure 1)
9. Raise the stalagmometer so that the bottom end is completely out of solution. Remove bulb and immediately place a finger on the top end of the stalagmometer. Carefully use the finger to bring the solution level down to the top etched line. Do not release finger at this time.
10. "Wipe" the excess solution on the lower tip by touching it against the side of the beaker.
11. Release fingertip to allow solution to drain and count the number of drops until the level reaches the bottom etched line. (See figure 1)

ARTED CHROME PLATING, INC.

HOUSEKEEPING, OPERATION, AND MAINTENANCE PRACTICES

WEEKLY INSPECTION FORM

DATE COMPLETED: _____

COMPLETED BY: _____

STALAGMOMETER	INSTRUMENT IS CLEANED, OPERATED, AND PROPERLY STORED AFTER EACH USE PER MANUFACTURER REQUIREMENTS.	YES	NO	NOT APPLICABLE	MALFUNCTION AND/OR REQUIRED MAINTENANCE (IF ANY)
GENERAL HOUSEKEEPING AND WORK PRACTICES	ALL SUBSTANCES USED IN CHROMIUM ELECTROPLATING OR ANODIZING TANKS ARE KEPT IN CLOSED CONTAINERS AND STORED WITHIN ENCLOSED BUILDING.	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)
GENERAL HOUSEKEEPING AND WORK PRACTICES	ALL SUBSTANCES USED IN CHROMIUM ELECTROPLATING OR ANODIZING TANKS ARE TRANSPORTED FROM THE STORAGE AREA IN CLOSED CONTAINERS.	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)
GENERAL HOUSEKEEPING AND WORK PRACTICES	WHENEVER PARTS ARE REMOVED FROM A TANK ANY SOLUTION THAT DRIPS OR DRAINS FROM PARTS IS EITHER COLLECTED IN A DRIP PAN OR CONTAINMENT AND RETURNED TO THE TANK OR COLLECTED AND TREATED IN ON-SITE WASTEWATER TREATMENT.	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)
GENERAL HOUSEKEEPING AND WORK PRACTICES	SPLASH GUARDS ARE INSTALLED FOR ANY SPRAYING OPERATIONS AND ANY OVERSPRAY IS COLLECTED AND RETURNED TO THE TANK.	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)

GENERAL HOUSEKEEPING AND WORK PRACTICES	ALL SPILLS (IF ANY) ARE CLEANED UP WITHIN 1 HOUR OF THE SPILL.	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)
GENERAL HOUSEKEEPING AND WORK PRACTICES	ALL SURFACES WITHIN THE ENCLOSED STORAGE AREA, OPEN FLOOR AREA, WALKWAYS AROUND HEXAVALENT CHROMIUM AND ASSOCIATED TANKS ARE CLEANED AT LEAST ONCE PER WEEK USING ONE OF THE FOLLOWING: HEPA VACUUMING; HAND-WIPING WITH A DAMP CLOTH; WET MOPPING; HOSE DOWN OR RINSE WITH POTABLE WATER THAT IS COLLECTED IN A WASTEWATER COLLECTION SYSTEM; OR APPLICATION OF A NON-TOXIC CHEMICAL DUST SUPPRESSANT.	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)
GENERAL HOUSEKEEPING AND WORK PRACTICES	FOR ALL BUFFING, GRINDING, OR POLISHING OPERATIONS THAT ARE LOCATED IN THE SAME ROOM AS CHROMIUM ELECTROPLATING OR ANODIZING OPERATIONS, THE OPERATION IS SEPARATED FROM THE ELECTROPLATING OR ANODIZING BY INSTALLATION OF A PHYSICAL BARRIER (E.G., PLASTIC STRIP CURTAINS).	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)
GENERAL HOUSEKEEPING AND WORK PRACTICES	ALL CHROMIUM OR CHROMIUM-CONTAINING WASTES GENERATED FROM HOUSEKEEPING ACTIVITIES ARE STORED, DISPOSED, RECOVERED, OR RECYCLED USING PRACTICES THAT DO NOT LEAD TO FUGITIVE DUST AND IN ACCORDANCE WITH HAZARDOUS WASTE REQUIREMENTS.	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)

MAINTENANCE RECORDS	IS MAINTENANCE REQUIRED FOR CHROMIUM ELECTROPLATING OR ANODIZING TANKS, ASSOCIATED EQUIPMENT, OR STALAGMOMETER?	YES	NO	NOT APPLICABLE	REQUIRED MAINTENANCE OR CHANGES (IF ANY)