



CHROMIUM ELECTROPLATING/ANODIZING



COMPLIANCE INSPECTION CHECKLIST

INSPECTION TYPE: ANNUAL (INS1, INS2) COMPLAINT/DISCOVERY (CI) 2
 RE-INSPECTION (FUI) ARMS COMPLAINT NO:

| | | | | | | | |
|------------------------------|--|-------------------|--------------|-----------------|--------|------------------|--------|
| AIRS ID#: | 1030306 | DATE: | 5/14/12 | TIME IN: | 2:50pm | TIME OUT: | 3:30pm |
| FACILITY NAME: | Freedom Metal Finishing Inc. | | | | | | |
| FACILITY LOCATION: | 5095 113th Avenue North Clearwater, FL, 33760 | | | | | | |
| RESPONSIBLE OFFICIAL: | Keith E. Eidschun | Phone No.: | 727-573-2464 | | | | |
| PERMIT NO. | 1030306-004-AG | EXP. DATE: | 5/28/2015 | | | | |
| CONTACT: | Keith E. Eidschun | PHONE: | 727-573-2464 | | | | |

PART I: NOTIFICATION

(check appropriate box) **Facility Compliance Status:** IN
 1. New facility notified DARM 30 days prior to startup (ARMS Data) MNC
 2. Facility failed to notify DARM to use a general permit SNC

PART II: CLASSIFICATION

PART II: CLASSIFICATION – Rule 62-213.300 FAC

Facility type(s)/applicable standard as indicated on notification form:

1. Hard Chromium Plating

a. Existing Large (0.015 mg/dscm) b. Existing Small Decorative Chrome -----
 c. New (0.015 mg/dscm) ----- d. Alternative Standard for existing facilities
 (0.03 mg/dscm) using a rolling average of
 rectifier capacity (less than 60 million A-hr/year)

2. Decorative Chromium Plating/Anodizing

a. Chromic Acid Bath 1) Emissions of ≤ 0.01 mg/dscm (4.4×10^{-6} gr/dscf) -----
 2) Surface tension of ≤ 45 dynes/cm (3.1×10^{-3} lb-f/ft) -----
 (May only be selected if a wetting agent is used.)
 b. Trivalent Chromium Bath 1) With wetting agent -----
 2) Without wetting agent ≤ 0.01 mg/dscm (4.4×10^{-6} gr/dscf) -----
 c. Chromium Anodizing 1) Emissions of ≤ 0.01 mg/dscm (4.4×10^{-6} gr/dscf) -----
 2) Surface tension of 45 dynes/cm (3.1×10^{-3} lb-f/ft) -----
 (May only be selected if a wetting agent is used.)

PART III: CONTROL TECHNOLOGY – Rule 62-213.300 FAC

(Select control device)

DEVICE IN USE?

- | | |
|--|---|
| 1. <input type="checkbox"/> Composite Mesh Pad ----- | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. <input type="checkbox"/> Fiber Bed Mist Eliminator ----- | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3. <input type="checkbox"/> Packed Bed Scrubber ----- | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 4. <input type="checkbox"/> Packed Bed Scrubber/Composite Mesh Pad ----- | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. <input type="checkbox"/> Foam Blanket Fume Suppressant ----- | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. <input checked="" type="checkbox"/> Fume Suppressant w/ Wetting Agent ----- | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

Has the facility conducted an initial performance test to establish monitoring parameters? Yes No N/A
 (Not required for sources using a wetting agent or 1-inch foam blanket thickness)

PART IV: RECORDKEEPING/REPORTING REQUIREMENTS – Rule 62-213.300(3)

Has the responsible official maintained the following records?

1. Quarterly inspection records for add-on air pollution control devices and monitoring equipment. *(applicable only to a facility using a packed bed scrubber, fiber-bed mist eliminator, or composite mesh pad)* ----- Yes No N/A
2. Operations and Maintenance Plan (OMP). *(applicable only to a facility using a packed bed scrubber, fiber-bed mist eliminator, or composite mesh pad)* ----- Yes No N/A
3. Maintenance records for the source, add-on pollution control devices, and monitoring equipment (equipment identified, date performed, description). ----- Yes No
4. Records of date of occurrence, duration, cause, and corrective action of each malfunction of process, add-on pollution control device, and monitoring equipment. Yes No
5. Results of all performance tests. ----- Yes No N/A
6. Records of monitoring data. *(not applicable to trivalent chromium baths using a wetting agent)* ----- Yes No N/A

Composite Mesh Pad

Measure the pressure drop across the CMP daily. ----- Yes No

Packed Bed Scrubber

Measure the pressure drop across the PBS and the inlet velocity daily. ----- Yes No

Fiber-Bed Mist Eliminator

Measure the pressure drop across the FBME and the upstream device daily. --- Yes No

Packed Bed Scrubber/Composite Mesh Pad

Measure the pressure drop across the CMP daily. ----- Yes No

Foam Blanket Fume Suppressant

Measure the foam blanket thickness at the appropriate interval.. ----- Yes No

Fume Suppressant w/ Wetting Agent

Measure the surface tension at the appropriate interval. ----- Yes No

7. Purchase records of wetting agent components. ----- Yes No N/A
8. Records of the date and time that fume suppressants are added to the bath. ----- Yes No N/A
9. Records of rectifier capacity, if used to determine facility size. ----- Yes No N/A
10. Records of the total process operating time. ----- Yes No
11. Records identifying specific periods of excess emissions. ----- Yes No
12. Startup, Shutdown & Malfunction Plan. ----- Yes No

PART V: ADDITIONAL SITE INFORMATION

I met with the authorized Representative Keith E. Eidschun, Mike Flannigan and Chemist John Kripinski to tour the facility.

Mr. Eidschun stated they are not using the decorative chrome tank. He stated the Decorative Chromium tank has not been used for over a year since 11/10/10 has been shutdown. They will be sending contents to hazardous wastes disposal. The records for the tanks showed the operation time to be 1.5 hour since January 2011. There have been no changes in plating processes. They continue to use the Benchbrite 1800 for suppressant.

The chromium Anodizing tank is used more frequently, but was not in operation at this time. No parts being processed. I observed the Chromium anodizing and Decorative chrome tanks and they were not in use at this time. (See photos) The facility is required to maintain tanks below 45 Dynes/cm (3.1×10^{-3} lb-f/ft). I reviewed records and this was in compliance with the rule requirement. Mr. Kripinski gave copy of their records for the surface tension checks. (See attached copies) The records were observed at the work stations as are kept by the operators for hours in use and information is transfer into the labs computer. The records were reviewed from January 3, 2011 – April 2012, the highest Dynes for the tank was 44.6 /cm (3.1×10^{-3} lb-f/ft) February 2012.

The highest reading for the Chromium Anodizing tank was 44.2 Dynes/cm (3.1×10^{-3} lb-f/ft) in Oct13, 2010. The highest reading for the Decorative Chrome tank was 42.8 Dynes/cm (3.1×10^{-3} lb-f/ft) in April 2011. They added Benchbrite CR 1800 in Feb and lowered the surface tension to 43.7/cm (3.1×10^{-3} lb-f/ft). 40 CFR Part 63, 63.342 c(5)(ii) (B) compliance provisions - states if no exceedance during monitoring the surface tension test should be performed once every 40 hours or 2400 minutes. The facility performs their monitoring of tanks every 1500 – 1700 minutes to prevent exceedance of surface tension and to stay within the rule under 2400 minutes. The records reviewed showed no exceedance from June 2011 – May 2012. The records were reviewed the highest time the tanks were in use prior to testing was ??? minutes, which is below the limitation and in compliance with the rule. The facility had no exceedance at this time as records show was below the limitation and in compliance with the rule. The Last surface test was performed on 6/17/2011.

The facility operation last year added 3 spray booths for paint coating, and 1 powder coating booth and oven. I reviewed the material usage records for the paints and solvents. This facility is monitoring the paint usage and maintaining records to determine if the painting volume will require the air operations permit be changed, and if the RACT applies.

The facility records showed that the paint and solvent usage was 3303.8 gallons for the 12 month Period of January 3, 2011 – December 5, 30th 2011. The VOC contents ranges were 2.5 – 7.3 lbs per gallon for paint, and 6.6 -36.8 lbs per gallon for solvents. The total VOC emissions were 2565.2 lbs or 1.28 ton. The parts work they are spraying is for aerospace and commercial, metal substrates. The facility at this time is above the RACT limitation of 750 gallons usage per year and above one ton of VOC emissions.

This facility may be subject to 40 CFR 63 Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources and 40 CFR 63 Subpart WWWWWW – National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations. Subpart HHHHHH is applicable to facility's surface coating operations, while Subpart WWWWWW is applicable to the chromate conversion process tank that is part of the chemical film process line. As of the effective date of this permit, these two Subparts have not been adopted by Florida Department of Environmental Protection.

Inspector=s Name (Please Print)

Shea Jackson

Date of Inspection

Inspector=s Signature

Approximate Date of Next Inspection

Freedom Metal Finishing Inc.

5095 113th Avenue North, Clearwater



Project Id: 80781 **Permit No:** 1030306-004-AG **Arms Number:** 0306
Inspector: Shea Jackson **Inspection Date / Time:** 5/14/2012 / _____
Source (EU): Existing Decorative Chromium Electroplating & Anodizing Facility with Two Tanks. Fume Suppressant with a Wetting Agent is Used as a Control in Both Tanks
Description: [This is the tank area for the facility processes]

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Source (EU): Existing Decorative Chromium Electroplating & Anodizing Facility with Two Tanks. Fume Suppressant with a Wetting Agent is Used as a Control in Both Tanks
Description: [This is the chromic anodize tank which is used for short times sporadically during the week. . No parts were being dipped at this time.]

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Source (EU): Existing Decorative Chromium Electroplating & Anodizing Facility with Two Tanks. Fume Suppressant with a Wetting Agent is Used as a Control in Both Tanks
Description: [This is the decorative tank which has not been used for over a year. No parts were being dipped at this time.]

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Source (EU): Existing Decorative Chromium Electroplating & Anodizing Facility with Two Tanks. Fume Suppressant with a Wetting Agent is Used as a Control in Both Tanks

Description: [The facility installed spray booths last year for spraying parts. Paint usage and VOC records are being maintained.]