



Clean Air Act Compliance Inspection Report

United States Environmental Protection Agency
Region 10 – Seattle, WA

Clean Air Act Full Compliance Evaluation Inspection Report

Apex Anodizing
Portland, Oregon

Inspection Date: July 14, 2022

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Table of Contents

1. Basic Facility and Inspection Information	3
1. Facility/Process Description	4
2. Compliance History	5
3. Inspection Elements/Order	6
a. Pre-Inspection Observations.....	6
b. Entry and Opening Conference	6
4. Facility Walk-Through.....	7
5. Closing Conference.....	9
6. Post Inspection Activities.....	10

Attachments

Attachment 1.....	EPA Region 10 Digital Image Log
Attachment 2.....	EPA Records Request

1. Basic Facility and Inspection Information

Facility: Apex Anodizing
7015 NE Columbia Blvd
Portland, OR 97218

AFS/FRS Number: 110031354344

SIC: 3471 (Plating and Polishing)

NAICS: 332813 (Electroplating, plating, polishing, anodizing, and coloring)

Permit Number: GCDP 26-0273-26-01

Facility Contacts: Matt Roberts
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Date of Inspection: July 14, 2022

Inspection Start/End Times: 8:30 AM to 11:00 AM

Inspection Notice: This was an unannounced inspection.

This was a multi-media Clean Air Act (“CAA”) and Emergency Planning Community Right-to-Know Act (“EPCRA”) Section 313 compliance inspection by the Environmental Protection Agency (EPA). Inspector Walters, EPA Region 10, led the CAA inspection and Inspector Whyte led the EPCRA Section 313 inspection. EPA Region 10 coordinated with the regulatory state air agency, Oregon Department of Environmental Quality (“ODEQ”), and Inspector Go participated in the inspection. The purpose was to identify potential compliance concerns with CAA regulations, specifically the National Emissions Standards for Hazardous Air Pollutants (“NESHAP”) subpart WWWW (“6W”) (Area Source Standards for Plating and Polishing Operations) as well as its CAA permits. This report only covers the CAA inspection.

Disclaimer

This report is a summary of observations and information gathered from the facility at the time of the inspection and from a subsequent records review. The information provided does not constitute a final decision on compliance with CAA regulations or applicable permits, nor is it meant to be a comprehensive summary of all activities and processes conducted at the facility.

1. Facility/Process Description

The following facility description is based on information provided by a facility representative in the opening conference as well as a written response by the facility to the records requests.

Apex Anodizing (“Apex”) operates a plating and anodizing facility located at 7015 NE Columbia Blvd in Portland, Oregon. The facility offers plating and anodizing services to various industries. The facility’s main customer is aerospace industry and holds a certification from the National Aerospace and Defense Contractors Accreditation Program (“NADCAP”). The facility also offers painting services. Parts are first racked and staged, and then cleaned, treated, anodized, and/or plated (nickel or zinc) dependent on customers’ parts and specifications. The facility also offers chromate conversion coatings. See Table 1 below of a list of tanks, process type, HAP emitted or used, and wetting agents/fume suppressants or air pollution control devices if used.

Table 1: Subpart 6W Tanks

Tank ID #	Process Bath Name	Process Type	HAP Emitted/Used (Cd, Cr, Pb, Mn, Ni)	Wetting Agent/Fume Suppressant	Air Pollution Control Device
Z10	Nickel Plate (Watts)	Electrolytic	Ni	Yes	No
Z14	Chromate – Yellow / Cd-Zn	Electroless	Cd, Cr	No	No
Z17	Chromate – Clear / Zinc	Electroless	Cr	No	No

Apex Anodizing

Z18	Chromate – Clear / Zinc	Electroless	Cr	No	No
Z19	Chromate – Black	Electroless	Cr	No	No
Z20	Chromate – Yellow/Zn	Electroless	Cr	No	No
E03	ENi Mid-Phos	Electroless	Ni	No	No
E04	ENi Mid-Phos	Electroless	Ni	No	No
C08	Chromate – Tri Clear	Electroless	Cr	No	No
C10	Chromate – Drag out	Electroless	Cr	No	No
C11	Chromate – Gold	Electroless	Cr	No	No
H13	Seal – NiAcetate	Electroless	Ni	No	No
H21	Seal w/ Na ₂ Cr ₂ O ₇	Electroless	Ni, Cr	No	No
H25	Seal w/ Chromic Acid	Electroless	Cr	No	No
T25	Seal – NiAcetate	Electroless	Ni	No	No
T26	Seal – NiAcetate	Electroless	Ni	No	No

2. Compliance History

Based upon a review of the Detailed Facility Report in EPA's Enforcement and Compliance History Online ("ECHO") database, there did not appear to be any formal or informal CAA enforcement actions at the facility over the past 5 calendar years.

3. Inspection Elements/Order

a. Pre-Inspection Observations

Inspector Whyte and I went directly to the facility. We did not make any observations prior to entry.

b. Entry and Opening Conference

Inspector Whyte and I arrived onsite at 8:30 AM. We met Inspector Go, ODEQ, in the parking lot and made entry together. We entered the facility's front office and I introduced myself to the receptionist and explained that I planned to conduct an unannounced CAA and EPCRA Section 313 inspection. I was informed that Matt Roberts, President, was not onsite today. Clay Adams, Facility Manager, introduced himself to our group and led us into a conference room. Rick Rembert, Production Manager, also joined us.

I explained to Mr. Adams and Mr. Rembert that Inspector Whyte and I were at the facility to conduct a CAA and EPCRA Section 313 inspection. I further explained that ODEQ was participating in the inspection as well. I explained to Mr. Adams and Mr. Rembert the purpose of the inspection and gave an overview of the inspection process. I explained that generally CAA inspections consisted of a walkthrough and a review of records associated with air pollution emitting processes and the systems or work practices used to control emissions. I noted that Inspector Whyte would most likely take photographs and videos of facility processes, and Inspector Whyte stated that he'd avoid including any customer parts in the photographs and videos. Inspector Whyte provided an overview of the EPCRA Section 313 inspection process as well. I also explained EPA's confidential business information ("CBI") policy and presented the "General Notice Regarding Proprietary/Confidential Business Information (CBI) Submitted to or Collected by EPA in Connection with Inspections and Other Compliance Monitoring" document.

We then reviewed the scope of the inspection, talked through facility processes, and identified areas that we would like to observe during our walkthrough. They explained that the facility operates four lines as well as paint booths and drying ovens. We discussed the facility's tanks and their chemical constituents. The facility's anodizing tanks contain sulfuric acid. The facility's plating tanks contain either nickel or zinc, and the facility operates electroless and electrolytic plating tanks. The facility also has several electroless chromate conversion coating tanks. According to Mr. Adams and Mr. Rembert, the facility's etching tanks contain a caustic solution. I also asked if the facility uses any fume suppressants or wetting agents in the plating tanks and was informed that they were not used in any of the plating tanks.

The opening conference ended at 9:05 AM. However, as our group walked into the receiving/storage area, I was pulled aside and asked if I could speak to Mr. Roberts over the phone. I accepted the request and briefly spoke to Mr. Roberts. Mr. Roberts had concerns over the inspection, specifically the EPCRA Section 313 inspection and that

EPA had recently identified EPCRA Section 313 violations and collected a penalty from Apex Anodizing in 2020. I informed Mr. Roberts that I was actually the Enforcement Officer assigned to that enforcement action and that I understood his concerns over the EPCRA 313 inspection. I explained that today's visit was primarily scheduled as a CAA inspection, but Inspector Whyte was also credentialed in EPCRA Section 313 and had noticed that the facility had not reported to the TRI for RY 2020 and 2021. Mr. Roberts explained that the facility was below the reporting threshold, having reduced use of nitric acid since that enforcement action. He also stated that he had submitted a notice to TRIME-Web that the facility's use of nitric acid was below the reporting threshold. I then explained to Mr. Roberts that the regional offices do not usually have access to those types of notices and that Inspector Whyte would coordinate with our HQ office for copies. Mr. Roberts also offered to provide copies of the notices. I thanked Mr. Roberts for his explanation of the facility's TRI reporting, and that if Mr. Roberts had any additional questions or concerns to contact Inspector Whyte or myself.

I rejoined the group and began our walkthrough.

4. Facility Walk-Through

We first walked through the receiving and storage area. Mr. Adams and Mr. Rembert escorted Inspector Whyte, Go and I through the entire walkthrough. They explained that their main customers include the aerospace and firearm industries. We were able to examine racked firearm parts in this area. We then walked into the plating area. The facility operates four plating/anodizing lines – the larger anodizing line is a hoist line and the other three lines are hand lines. I noted spills around the hoist line and was told that it was “just water” from rinsing parts (see photo P7140242.JPG). I also noticed blue ducting above the hoist line and was informed that the ducting routed emissions from the hoist line to atmosphere. I expressed concerns that the intakes were to the side of and below the open surfaces of the tanks and was unsure of how that would collect emissions which would float upwards. Mr. Adams and Mr. Rembert both agreed and stated that there were plans to modify the ductwork.

We walked over to the Bright Dip line (tanks T-30 through 36). The tanks located in this particular line do not use or emit any of the metal HAPs subject to NESHAP 6W. This line contains the Bright Dip tank (T-30; contains phosphoric and nitric acid) and various cleaning tanks. The tanks are located on a raised grated platform with a spill basin underneath. We observed an operator load parts into the Bright Dip tank. There are air pollution collection hoods above the Bright Dip Tank, which routes the emissions to a packed bed wet scrubber. We walked around the line and went outside to inspect the scrubber. The scrubber is equipped with a pH meter to ensure the scrubbing liquor remains caustic. I was unable to read a pH measurement – the pH monitor was blank and the magnehelic gauge was dirty and difficult to read (see photo P7140249.JPG). We also identified a diesel emergency generator (model year 2015) in the same area.

We walked back into the plating area and walked along the Hoist Anodized Nickel Seal line (tanks T01 to T29). Tanks TS-25 and TS-26 are nickel acetate sealing tanks, which use and emit a metal HAP subject to NESHAP 6W. I was unable to view these tanks

from afar and we opted not to walk along the hoist line as it was active. We walked up into the Hand Anodized Chromate and Hand Anodized Nickel and Chromate Seal lines (tanks H-01 to H-27 and tanks C-01 to C-15). These lines are located on a grated platform with a catch basin underneath. The lines also contain several tanks which use or emit a metal HAP subject to NESHAP 6W. I specifically inspected tanks C-8 (clear chromate conversion), C-11 (gold chromate conversion), H-25 (electroless chromic acid seal) and H-21 (electroless dichromate seal) and observed that these tanks had covers. However, H-21's cover was lifted on one side (due to piping/equipment in the tank) and did not fully cover the opening of the tank (see photo P7140257.jpg). I also inspected tank H-13 (nickel acetate sealing) and at that time, an operator was actively loading the tank with parts. I asked the operator where the tank cover was and they quickly were able to show us the tank cover nearby. I noted that the tanks were clearly labeled and that it was very easy to identify the tank contents. I also noted a small amount of liquid in the catch basin underneath the chromate tanks and pointed this out to Mr. Adams and Mr. Rembert. They explained that the liquid is collected and routed to the facility's water treatment system.

We then walked through the Zinc (tanks Z-01 to Z-21) and EN/Passivate lines (tanks E-01 to E-14 lines). These plating lines were also on a raised grated platform over a catch basin. I specifically inspected Z-14, Z-15, Z-17, Z-18, Z-19, Z-20, E3, E4 and E5 since these tanks use or emit a metal HAP subject to NESHAP 6W. I noted that tanks Z-18 and Z-20, chromate conversion tanks, had covers with cut-outs for piping/equipment that was not in the tank, and therefore did not fully cover the opening of the tank (see photos P7140262.jpg and P7140263.jpg). Tanks Z-17 and Z-14, also chromate conversion tanks, had covers that were lifted at a corner of the tank and did not fully cover the opening of the tank (see photos P7140264.jpg and P7140265.jpg). Tank Z-10 is an electrolytic nickel-plating tank that contained parts at that time and did not have a cover (see photo P7140266.jpg). I asked the operator where the cover was, and they were able to quickly point to the cover behind us. I was also told that it was physically impossible to place the cover on the tank while it had racks in it. As Inspector Whyte, Go and I walked through this plating area, we all experienced an almond-like odor and asked Mr. Adams and Mr. Rembert if any tanks contained cyanide. They stated that they did not¹. I then inspected tanks E-4 and E-5, which are electroless nickel-plating tanks. Tank E-4 was actively operating and was loaded with parts. I observed that tank E-4 was uncovered, but Mr. Adams and Mr. Rembert quickly pointed out the cover nearby (see photo P7140267.jpg). I also observed visible emissions from tank E-4. Tank E-5 had a cover with a cut-out for piping/equipment that was not in the tank, and therefore did not fully cover the opening of the tank (see photo P7140268.jpg). There were also air pollution collection hoods above tanks E-4 and E-5. According to Mr. Adams and Mr. Rembert, the hoods route emissions to atmosphere.

We left the plating line and walked towards the packed scrubber. The facility has a pH controller on the inside of the building (opposite of the packed scrubber through the wall)

¹ I also asked Mr. Roberts, President of Apex Anodizing, if the facility uses cyanide in its plating operations. Mr. Roberts responded on July 26, 2022 via e-mail that the facility is a cyanide-free operation.

that appeared to be connected to a pump for the scrubber liquor. Mr. Adams and Mr. Rembert stated that this was the pH monitor that the facility uses to demonstrate compliance with its CAA permit. I read a pH measurement of 7.9 at that time (see photo P7140269.jpg). We then walked to the storage area to inspect the facility's wastewater treatment system. The facility only processes nickel and zinc-containing wastewater, and chromium-containing wastes are toled and sent off-site. The facility treats the wastewater through a series of presses and clarifiers. The sludge from the wastewater treatment tanks is dried in order to remove moisture and the dried sludge is sent offsite for disposal.

We were then escorted to the paint booth. The paint booth was not in use at that time and I requested if it could be turned on. An operator was called over and turned the booth on. I noted that the magnehelic gauge's needle was not moving at all. Inspector Whyte and I went inside of the booth and examined the wall filters. The filters were caked with paint residue (see photos P7140280.jpg, P7140281.jpg, and P7140282.jpg). I tore out a small piece of paper from my inspection notebook and held it against various areas of the wall filters. There were some spots with enough suction to hold the paper and in others there wasn't any suction at all. Inspector Whyte and I exited the booth and I shared my findings and requested filter change-out records as well as SDS's for paints. Mr. Adams and Mr. Rembert informed Inspector Whyte and I that the facility has had some difficulty recently in replacing the filters due to a supply shortage and that they had filters currently on back-order. We then walked over to the drying ovens. The facility also operates two drying ovens, which are used to dry anodized, plated or painted parts. Mr. Adams and Mr. Rembert explained that chromate parts, however, are only allowed to be dried in the specific drying oven that is vented to the atmosphere via a stack. The other drying oven vents into the building. We were able to observe the "chromate" drying oven in operation. We were informed that both drying ovens are natural gas ovens.

We concluded our walkthrough at 10:40 AM.

5. Closing Conference

We were escorted to the conference room to discuss the inspection. I led the closing conference and shared my observations related to the CAA. Inspector Whyte shared his observations related to TRI. This report only covers observations related to the CAA. I summarized the parts of the facility observed and my potential compliance concerns. I explained that the inspection, however, would not be complete until I reviewed my notes, applicable regulations and permits, and all records submitted by the facility. The following were identified as potential compliance concerns during the closing conference:

1. I had observed spills on the facility floor (not in a catch basin) on the side of the Anodizing Hoist Line. I explained that the NESHAP 6W requires that subject facilities to minimize spills and overflow of tanks, as practicable. Mr. Adams and Mr. Rembert stated that the facility regularly clean any spills at the end of the day.
2. I shared my observation that when the paint booth was turned on, its magnehelic gauge did not move at all. I also shared my observation that the wall filters were caked in paint residue and did not have air suction in some

spots. I recommended that the facility replace the wall filters as soon as possible and repair the magnehelic gauge, and also requested copies of SDSs for paints in order to determine if they contained metal HAPs subject to the NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations (subpart HHHHHH or “6H”).

3. I shared that while I had observed covers on tanks, there were several covers with cut-outs for missing piping/equipment and therefore the covers did not cover the entire open surface of the tank. I recommended that the facility use the correct covers on tanks and ensure that the covers cover the entire open surface.
4. I noted that tanks Z-10 (electrolytic nickel) and E-4 (electroless nickel) were both operational and did not have tank covers on². Mr. Adams and Mr. Rembert explained that they could not physically use the covers if those tanks were loaded with parts, due to the racks which rest on top of the tank. They stated that the facility uses a wetting agent/fume suppressant in tank Z10, but not do use a wetting agent/fume suppressant in tank E4. Additionally, while there is an air pollution collection hood above tank E4, the emissions are not controlled via an air pollution control device and are vented to atmosphere.

Inspector Whyte, Go and I departed the facility at approximately 11:00 AM.

6. Post Inspection Activities

The facility provided a response to my follow-up information and document request on July 26 and October 4, 2022. The list of requested records is Attachment 2 to this report. Following below is a summary of the records that I reviewed, with my response for each record (see Table 1).

Table 3: Records Review

Permit Condition	Requirement	Records
4.1(a)(iv)	Wetting Agents/Fume Suppressants (NESHAP 6W Recordkeeping Requirements [40 CFR 63.11508(d)(3)(ii)(B)])	Records of additions of fume suppressants/wetting agents added to subpart 6W process tanks from July 15, 2021 to July 15, 2022. Include times and quantity of fume suppressants/wetting agents added.

² I was later informed by Mr. Roberts, via phone, on October 3, 2022, that tank Z-10 was not in use and had not been in use for several years. According to Mr. Roberts, the facility keeps tank Z-10 on the plating line in case that specific tank is needed again for a certain customer.

Response: At this inspection, I had observed tank Z-10 uncovered and filled with liquid (see photo P7140266.jpg). I was informed by staff and facility documentation indicated that a wetting agent/fume suppressant is added to tank Z-10, and I requested records of wetting agent/fume suppressant additions. The facility was unable to provide the requested records, per Mr. Roberts, who I spoke with on October 3, 2022 via phone, was not in use and had not been in use for several years. According to Mr. Roberts, the facility keeps tank Z-10 on the plating line in case that specific tank is needed again for a certain customer.

N/A	NESHAP 6H Applicability (40 CFR 63.11170)	SDSs for painting/coating operations from January 1, 2019 to July 15, 2022.
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Response: The facility provided purchase records and SDS's for coating operations. The National Emission Standards for Hazardous Air Pollutants (NESHAP) for Paint Stripping and Miscellaneous Surface Coating Operations (subpart HHHHHH, "6H") applies to miscellaneous surface coating operations, located at area sources, that involve the spray application of coatings that contain compounds of chromium, lead, manganese, nickel, or cadmium. This facility operates a paint booth and performs surface coating operations. I reviewed SDS's in order to determine if the facility applied coatings which contained compounds of chromium, lead, manganese, nickel, or cadmium. The following coatings used by the facility contained compounds of chromium:

- 10P8-10; Fluid Resistant Epoxy Primer (last purchased in January 2022)
- MIL-PRF-23377K Type I, Class C2 Chromated Epoxy Polyamide Primer, Yellow (last purchased in June 2021)
- Industrial Wash Primer Green (last purchased October 2021)
- 513X419 Base Component (last purchased November 2021)
- 34088 Olive Drab VOHAP Free Zenthane MIL-DLT-53039E, Type IX (last purchased September 2021)
- MIL-DTL-53039E Type IV Polymeric Moisture Cure Topcoat 1K Aliphatic Polyurethane 1.0 VOC Blister Resistant CARC Green 383, 34094 Q2177 (last purchased in March 2021)