



Industrial User Facility Inspection Report

U.S. EPA, Region 8

Name of industry and location:

S&S Anodizing
9690 Dallas Street, Units D - G
Henderson, CO 80640

Control Authority / NPDES Permit No.

South Adams County Water and Sanitation District
NPDES Permit No. CO-0026662

IU – NPDES ID

COPIU001I

Date of visit:

January 28, 2025

Approximate Time of visit:

1050 – 1155

Name(s) / Affiliation / email of inspector(s):U.S. EPA:

Al Garcia, garcia.al@epa.gov
Monica Crosby, crosby.monica@epa.gov

South Adams County Water and Sanitation District:

- Gary Bassett, gbassett@sacwsd.org
- Carrissa Cumine, ccumine@sacwsd.org

General Facility Information:Representatives at Inspection:

- Billy Sharp – Co-owner, bill@sandsanodizing.com
- Ron Skeen – Co-owner, ron@sandsanodizing.com

Type of Business Operations:

- Job Shop – Etching, anodizing, chromating, passivation metal finisher per customer specifications.

Facility Information:

- 13 total employees: 10 production, 4 office
- five days/week, (Monday through Friday).
- 10-hour shift, typically 6am through 4pm

Inspection Description:

Al Garcia and Monica Crosby from the U.S. Environmental Protection Agency (EPA) and Gary Bassett and Carrissa Cumine from the South Adams County Water and Sanitation District (District) conducted a significant industrial user (SIU) inspection of the S&S Anodizing facility (facility) located at 9690 Dallas Street, Units D - G, Henderson, CO 80640. The SIU inspection was conducted as part of the EPA Pretreatment Audit of the District's Publicly Owned Treatment Works (POTW) and EPA-approved Pretreatment Program. The inspection of the facility provides current conditions of the facility's unit operations and consisted of an evaluation of the waste streams generated from the unit operations, management of these waste streams, including the potential for spills and slug discharges. The facility discharges to the sewer collection system leading to the District's POTW.

Upon arriving at the facility on January 28, 2024 at approximately 10:50 a.m., Al Garcia and Monica Crosby of the EPA presented credentials to the facility representatives and explained the purpose of the inspection. During the opening interview, the facility representatives provided an overview of the operations and processes at the facility, waste streams generated, and the management/discharge of these waste streams. The opening interview was followed by a facility tour to visually inspect the unit operations. The EPA conducted a closing conference to discuss potential findings and recommendations identified during the inspection.

Process Description:

The facility located at 9690 Dallas Street, Units D – G, Henderson, CO 80640 is a job shop that provides etching, anodizing, chromating, and passivation metal finishing processes on parts supplied by and per customer specifications. The facility has ten production and four office employees and operates one 10-hour shift from Monday through Friday. The Google Maps view of the facility is shown in Figure 1.

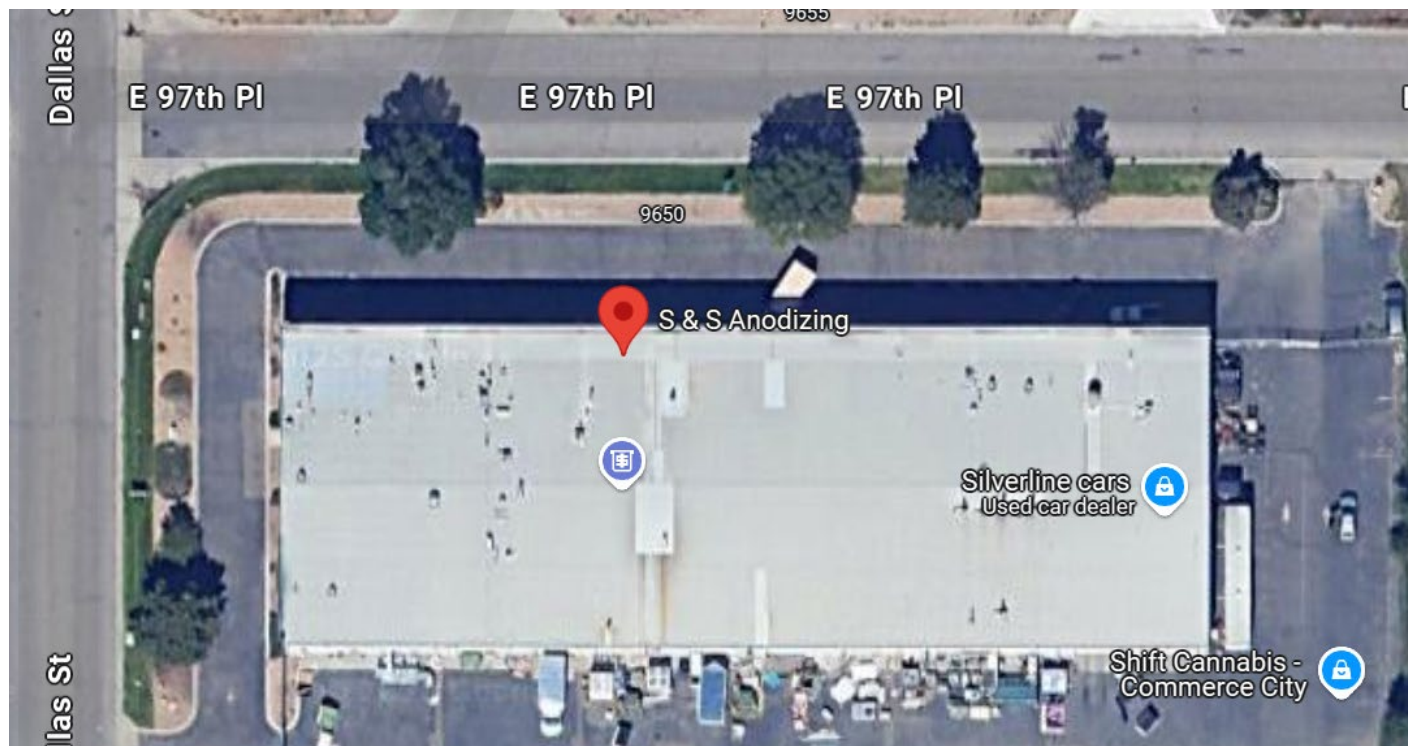


Figure 1 – S & S Anodizing -Google Maps View

Chemical and Raw Materials Storage –

According to the facility representatives, the customer-supplied parts are staged in the process area. Raw materials are received by the facility and are stored on the process floor next to the metal finishing lines. The facility uses the following chemicals:

- Alkaline cleaner – one 55-gallon barrel
- 50% Sodium Hydroxide – one 55-gallon barrel
- Sulfuric Acid – one 55-gallon barrel
- Nitric Acid – one 55-gallon barrel
- Organic powder dyes
- Chromates – yellow (20 lbs) and clear (5-gallon container)
- Nickel Seal – 50 lbs

The chemical barrels and bags stored next to the process line, located in the middle of the process floor, are transferred to the process chemical tanks using stick pumps for liquids in barrels, moving powder to the tanks, or by heating dye in a pot of water next to the tank to dissolve prior to the tank add. Based on the observations during the facility tour, there appears to be residue from various chemicals on the process floor and the walkway grating near the metal finishing process tanks.

Cleaning/Deoxidizing –

The customer-supplied parts are racked and arranged according to the work being performed on the part, per customer specifications. First, the parts are cleaned in the 1,150-gallon alkaline cleaner tank. The parts are held above that tank for a specified period of time to allow the solution to drain back into the tank from the part and to minimize drag-out. The parts are then spray rinsed into a 1,150-gallon dead rinse tank. The chemical and rinse tanks are constructed in the middle of the process floors in containment and above the conveyance trench used to collect wastewater from the tanks. The facility has constructed a grating walkway about six feet above grade to allow the workers to access the tanks and process parts.

According to the facility representatives, the alkaline cleaner tank is not discharged when spent but instead is partially rebuilt, based on operator evaluation of the water break of solution draining from the part. This occurs periodically from an estimated six weeks to four months. When rebuilt, water from the dead spray rinse tank is used as makeup water with fresh chemistry pumped from the chemical supply barrel, which is located next to the alkaline cleaner tank. The cleaned parts are then sent to the following process tanks (note: previously mentioned alkaline cleaner and dead rinse tank included in process line descriptions):

- Alkaline Cleaner tank (1,150-gallon)
- Dead Rinse tank (1,150-gallon)
- Caustic Etch tank (1,150-gallon)– the etched parts are spray rinsed above the tank to reduce dragout and then thoroughly spray rinsed in the Deoxidizer rinse tank.
- Deoxidizer tank (1,150-gallon) – neutralizes the chemistry on the part. Tank is not discharged and rebuilt replenished with Deoxidizer rinse makeup water and supply chemicals.
- Deoxidizer rinse dead rinse tank (1,150-gallon)

The parts may either go to the anodizing or to the chromating tanks:

Anodizing –

- Anodize Spray Rinse tank (1,150-gallon) – parts are either sent to the hard anodize or soft anodize rinse tanks.
- Hard Anodize 214 tank (1,150-gallon) – additions of supply chemicals about every one to two weeks due to drag-out from parts
- Soft Anodize 217 tank (1,150-gallon) – additions of supply chemicals about every one to two weeks due to drag-out from parts
- Parts from the Soft and Hard Anodize tanks are spray rinsed in the Anodize Rinse tank.
- Hot Water Rinse tank (1,150-gallon)- parts are dipped into this tank and spray rinsed over the tank
- 2% Nitric Acid Predip tank (1,150-gallon) – additions of supply chemicals about every one to two weeks due to drag-out from parts
- The parts are then sent to any of the dye tanks for coloring. The dye tanks consist of a large black dye tank (1,300-gallon) and eight smaller tanks.
- Two dye rinse tanks
- Nickel Seal tank (1,500-gallon) – the Nickel Seal tank is pumped to the conveyance trench located next to the process line.

Chromating –

According to facility representatives, the chromate process line is used on about 5% of the work performed. The parts are either put into one of the following chromate tanks:

- Yellow Chromate tank (1,500-gallon) – parts are spray rinsed over tanks, changed out twice/year
- Clear Chromate tank (1,150-gallon) – parts are spray rinsed over tanks, changed out twice/year

Wastewater Management –

The wastewater generated from the rinse tanks, either overflowed or pumped, is collected in the conveyance trench. The spent chemical tanks, except for the chromate tanks, are not discharged when spent; they are partially rebuilt by using makeup water from rinse tanks and supply chemicals. The wastewater in the large conveyance trench encompassing the process lines is collected and pumped to the containment trench (approximately 8 feet x 15 feet by 8 inches depth) located between the process lines and the evaporator system. The wastewater in the containment trench is pumped to the 1,500-gallon evaporator holding tank.

The facility uses two evaporators to maintain zero discharge of the wastewaters generated from the process lines. The evaporators and the 1,500-gallon holding tank are in a large secondary spill containment basin that is separated into two smaller containment basins, one to contain spills from the holding tank and the other to contain spills from the evaporators. According to facility representatives, the wastewater in the holding tank is gravity-fed to the 400-gallon evaporator tank and then to the evaporators that run continuously 24/7 at a temperature of 100 to 120°F. The combined evaporation rate for both evaporators is 40 to 50 gpd.

Based on observations during the inspection, there is a significant volume of wastewater in the secondary spill containment around the evaporators and the holding tank. Based on the EPA's review of S&S Anodizing's Pretreatment records and information gathered during the inspection, the waste treatment secondary containment basin is not intended to be used for conveyance of wastewater or to be used to store wastewater. In addition, the facility had an illicit discharge of wastewater from this secondary containment basin on August 18, 2024.

EPA Classification of the Industrial User

Based on observations and information received during the inspection, the facility is categorized as a facility subject to the Metal Finishing Categorical Pretreatment Standards for New Sources found at 40 C.F.R. § 433.17. The etching, anodizing, chromating, and passivation operations are core Metal Finishing operations. [ref: 40 C.F.R. § 433.10(a)].

Summary of Findings

S & S Anodizing
NPDES ID# COPIU001I
January 28, 2025

Pretreatment Inspection Findings	Follow up Action Items
1. During the facility inspection, the EPA observed a significant volume of wastewater in the waste treatment secondary containment basin. Based on the EPA's review of S&S Anodizing's Pretreatment records and information gathered during the inspection, the waste treatment secondary containment basin is not intended to be used for conveyance of wastewater or to be used to store wastewater. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vi) require the facility to control slug discharges defined as any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch Discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, local limits or Permit conditions. Although the facility is a zero discharger, it has developed a spill plan that was submitted to the District on June 20, 2024. The spill plan states that spills will be contained, vacuumed and cleaned. Liquid spills will go to the evaporator.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vi) S&S Anodizing Spill Plan <u>Corrective Action Item</u> Ensure the spills in the waste treatment secondary containment basin are addressed per the spill plan developed and submitted to the District on June 20, 2024.

Report Review and Signature		
Drafter Name	Address/Phone Number	Date
Al Garcia	U.S. EPA Region 8 1595 Wynkoop Street 8WD-CWW Denver, Colorado 80202 303-312-6382	02/05/25
Reviewer Name	Address/Phone Number	Date
Monica Crosby	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NP Denver, Colorado 80202 410-305-3029	02/11/25

Supervisor Signature/Name	Address/Phone Number	Date
	U.S. EPA Region 8 1595 Wynkoop Street 8WD-CWW Denver, Colorado 80202	2/13/2025
Michael Boeglin	303-312-6250	