



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX – PACIFIC SOUTHWEST REGION
75 Hawthorne Street
San Francisco, CA 94105-3901**

Feb 02, 2012

In Reply Refer To: WTR-7

Mr. Bob Montoya
Owner
Swift Metal Finishing
1161 Richard Avenue
Santa Clara, CA 95050

Re: August 17, 2011 Clean Water Act Inspection

Dear Mr. Montoya:

Enclosed is the February 1, 2012 report for our inspection of Swift Metal Finishing at the above address in Santa Clara, CA.

The main findings are summarized below:

1. This facility is subject to the federal categorical standard for metal finishing, 40 CFR 433, because of the following metal finishing operations it performs on site: electroplating, anodizing, chemical etching, and chemical coating.
2. A review of compliance monitoring data over the past few years showed that the facility violated the local nickel limits on three sampling dates in 2010.
3. The facility has been in consistent compliance with federal limits for the time period reviewed by EPA. The facility was in consistent compliance with local limits from May 2010 through October 2011, but in November 2011, it violated the local limit for chromium.

By March 15, 2012, please submit a short response letter to the Summary of Findings in Section 3.0 of this report. Your letter should include an individual response to each of the numbered findings in Section 3.0.

Please send your letter to the attention of Anna Yen at EPA (and include the code "WTR-7" in the address above), with copies to the City of San Jose - Environmental Services Department and to the San Francisco Bay Regional Water Quality Control Board.

We would like to thank you for your cooperation during the inspection. If you have any questions, please call Anna Yen at (415) 972-3976 or e-mail her at yen.anna@epa.gov.

Sincerely,
<Original
signed by>

Ken Greenberg
Chief, Clean Water Act Compliance Office

Enclosure

cc (enclosure by email):

Rene Eyerly, City of San Jose, Environmental Services Department
Michael Chee, Regional Water Quality Control Board, San Francisco Bay Region

**U.S. Environmental Protection Agency
Region 9
Clean Water Act Compliance Office**

Industrial User Inspection Report

Industrial User: Swift Metal Finishing
Industrial User Address: 1161 Richard Ave., Santa Clara, CA 95050

Inspection Date: August 17, 2011

EPA Region 9 Inspector: Anna Yen, Environmental Engineer
Water Division, CWA Compliance Office

City of San Jose Inspector: Liz Tyson, Environmental Inspector I

Facility Contact During Inspection: Bob Montoya, Owner

Report Date: February 1, 2012

Report prepared by Anna Yen

1.0 Scope and Purpose

The purpose of the industrial user inspection on August 17, 2011 was to determine the pretreatment standards and requirements that apply to this facility and to evaluate compliance with those standards and requirements.

This facility is an industrial user which discharges to the local publicly owned treatment works (POTW), the San Jose/Santa Clara Water Pollution Control Plant.

1.1 General and Process Description

Operations began at this facility in October 1979. Swift Metal Finishing (“Swift”) provides many types of metal finishing services for a wide variety of customers, including medical, automotive, recreational, construction, and network companies. Swift's metal finishing operations include zinc plating, nickel plating, anodizing, and chromating. Swift stated that the facility stopped performing metal finishing operations using cyanide in 1998. Swift uses such raw materials as steel, aluminum, copper, brass, and stainless steel. Swift does not own any of the products it manufactures. Therefore,

as defined in 40 CFR 433.11(c), Swift is a job shop.

Swift's metal finishing area is organized so that process lines for aluminum are on one side of the room while process lines for steel and other metals are on the other side of the room. On the aluminum side, Swift has a cleaning line consisting of etch baths and deoxidizer baths. *See Photo 1 in Attachment 1.* Then parts are processed in anodize or chem film (chromating) lines. If anodized, the parts are sealed. Parts can also be colored with dyes. Swift has a gold chem film bath that contains chromium. Swift stated that this bath conforms with the European standard (RoHS); therefore, the bath contains trivalent chromium rather than hexavalent chromium.

On the other side of the metal finishing room, Swift has a cleaning line for the steel and other metal parts. Once cleaned, parts can be processed in one of four zinc baths, a nickel bath, and chromium baths for coloring parts.

Swift hangs small parts on racks to immerse them in a tank of the process line. Rinse tanks have hang bars above them. All tanks of the process lines sit on floor grating above the secondary containment area. Swift stated that any liquid that accumulates in the secondary containment area is vacuumed out every day and sent to the onsite wastewater treatment system. During the inspection, a low level of water was observed in the containment area.

Rinse Procedures

All rinse tanks use city water. In general, parts are first rinsed off in a static rinse tank and sometimes spray rinsed over the static rinse tank. The static rinse is followed by immersion in a continuously flowing rinse tank. In the nickel plating process line, the rinse water from the static rinse tank is used as makeup water for the nickel bath. Swift also has one spray rinse booth. Water from the flowing rinse tanks and the spray rinse booth all flow to the onsite wastewater treatment system. *See Photos 2 and 3 in Attachment 1.*

Replacement of Tank Contents

Swift stated that the contents of the process tanks generally do not need to be emptied and replaced; Swift simply adds to the tanks when necessary. The exceptions are anodize tanks, zinc plating tanks, the electrocleaner tank, and aluminum etch baths.

Chemical analyses of tank contents are performed on anodize tanks and zinc plating tanks. Swift analyzes the anodize tanks once a month. Swift periodically takes some of the solution out and replenishes with fresh solution. The spent solution is hauled away for offsite disposal. Swift has the zinc tanks analyzed once a month by an outside vendor.

For handling of sludge buildup in the electrocleaner tank, approximately once a year, Swift decants the effluent off by pumping out. The remaining sludge in the tank is barreled up and hauled offsite for appropriate disposal. The effluent is placed back in the tank, and the tank is replenished as necessary. A similar procedure is followed for the

aluminum etch baths.

The contents of the chromium tanks and dye tanks have never been replaced. Swift stated that it does not replace the water in static rinse tanks; it just adds to the tanks.

Onsite Wastewater Treatment System

See Section 1.3

1.2 Facility Wastewater Sources

Swift generates the following wastewaters:

- Rinse waters from continuously flowing rinse tanks of metal finishing processes
- Rinse waters from spray rinse booth
- Any dragout/spillage collected in secondary containment area
- Drainage from safety shower (if used)
- Air compressor condensate
- Spent metal finishing baths

The above listed wastewaters, except for the last two items, are all sent to an onsite wastewater treatment system. The air compressor condensate is sent to an oil-water separator before being collected in a 5-gallon container and simply poured down a drain leading to the sanitary sewer. See Section 1.1 for a description of how spent metal finishing baths are handled.

Once treated in the onsite wastewater treatment system, the effluent flows to a sample box and then into the local sanitary sewer system.

EPA makes positive note of Swift's measures to make efficient use of water. Flow restrictors in the water piping keep the flow down to approximately 0.5 gallons per minute. In addition, the facility does use some static rinse tanks, as well as spray rinsing over these tanks. Hang bars are utilized over rinse tanks, and the spray rinse booth is also equipped with a hang bar. In general, tanks in a process line are situated adjacent to each other, with most process lines equipped with drip guards between tanks. Swift also has the baths of anodize and zinc plating tanks analyzed on a monthly basis. Swift mentioned one plating line in which rinse water is reused as makeup water for the process tank. EPA encourages Swift to continue to use water efficiently and look into ways to eliminate the use of continuously flowing rinse tanks. If a continuously flowing rinse is needed for the quality of the product, other alternatives exist, such as a foot pedal or a valve to turn the water on only when processing a part.

1.3 Facility Process Wastewater Treatment System

Swift's wastewater treatment system is located outside in a covered area. The treatment system is surrounded by a curb to provide secondary containment.

The rinse waters from the process area are hard-piped to a concrete sump outside in the wastewater treatment system area. The wastewater is pumped to the reaction tank in which most of the wastewater treatment takes place. The reaction tank is divided into multiple chambers. In the first chamber, Swift adds a sulfide-based product for chromium reduction. In the next chamber, the pH is automatically adjusted by adding caustic soda. The pH setpoint is between 8 and 9. During the inspection, the pH meter read 8.95. Another chamber of the tank has a sloped bottom and serves as a clarifier. A flocculant is added. The effluent flows from the clarifier to a bin outside the reaction tank. The bottoms from the clarifier are sent to a sludge holding tank within the reaction tank. *See Photos 4-7 in Attachment 1.*

From the bin, the effluent is pumped through a sand filter and onward to the sample box. An automatic sampler is connected to the sample box. The final pH meter connected to the sample box showed a reading of 7.97 during the inspection. From the sample box, the effluent pipe leads back into the building and down through the floor, where the effluent flows into the local sanitary sewer system. *See Photos 8-11 in Attachment 1.*

The solids in the sludge holding tank are sent to the filter press, and the filter cake is hauled away for offsite disposal. *See Photo 12 in Attachment 1.* The decant liquid from the sludge holding tank is sent back to the concrete sump upstream of the reaction tank of the wastewater treatment system. The filtrate from the filter press is sent back to the reaction tank.

1.4 Wastewater Discharge

Wastewater from this facility discharges to the San Jose/Santa Clara Water Pollution Control Plant. As lead agency of a regional joint powers authority, the City of San Jose (“the City”) operates the wastewater treatment plant, which is subject to requirements under an NPDES permit (No. CA-0037842) issued by the San Francisco Bay Regional Water Quality Control Board.

2.0 Compliance with Federal Categorical Standards

This facility is subject to the federal categorical standard for metal finishing, 40 CFR 433. Therefore, it is a categorical industrial user (CIU). The metal finishing operations of electroplating, anodizing, chemical etching, and chemical coating performed at this facility trigger applicability of this categorical standard.

The City has permitted this facility as a new source, listing the “Pretreatment standards for new sources” in 40 CFR 433.17 as the applicable federal limits. An industrial user is subject to the federal categorical standard for metal finishing if it performs any of the following six core operations listed in 40 CFR 433: electroplating, electroless plating, chemical coating, chemical milling/etching, anodizing, and printed circuit board manufacturing.

For the review period of August 17, 2008 through August 17, 2011, EPA found that the facility has shown consistent compliance with federal limits.

2.1 Compliance with Other Federal Pretreatment Requirements

This facility is a categorical industrial user (CIU) and, therefore, is also a significant industrial user (SIU) because it is subject to a federal categorical standard. Like any industrial user, it must comply with pretreatment requirements in 40 CFR 403, including, but not limited to, national prohibitions in 40 CFR 403.5 and reporting requirements in 40 CFR 403.12. Note that some requirements in 40 CFR 403 are applicable specifically to SIUs and some even more specifically to CIUs.

2.2 Compliance with Local Limits and Actions by the City

The facility's most recent pretreatment permit issued by the City of San Jose is Permit No. SJ-035B. The facility's sample point, as indicated by description in the permit, is located "in the southwest corner of the treatment area, at the rear of the facility, after all treatment, and immediately prior to final discharge to the sanitary sewer." The facility's sample point is also indicated on a diagram in the permit. The facility's permit requires Swift to sample semiannually.

For the period reviewed by EPA of August 17, 2008 through August 17, 2011, Swift violated local nickel limits on a total of 3 sampling dates, in March, April, and May of 2010. These samples were all City-obtained samples. According to PG Environmental's draft report on its Pretreatment Compliance Inspection of the City's pretreatment program, conducted in January 2011, Swift modified its rinse process and adjusted pH set points on its pretreatment system. With these changes, Swift returned to compliance with local limits. Based on recent follow-up communication with the City, however, EPA learned that the Swift has again violated a local limit. In November 2011, the City discovered a violation of the local limit for chromium.

The City issued a verbal warning, a warning notice, and a notice of violation for the nickel violations in 2010. The City issued a verbal warning for the recent chromium violation.

3.0 Summary of Findings

1. This facility is subject to the federal categorical standard for metal finishing, 40 CFR 433, because of the following metal finishing operations it performs on site: electroplating, anodizing, chemical etching, and chemical coating.
2. This facility is an SIU and a CIU. The facility is subject to applicable pretreatment requirements in 40 CFR 403.
3. A review of compliance monitoring data over the past few years showed that the facility violated the local nickel limits on three sampling dates in 2010.
4. Swift has been in consistent compliance with federal limits for the time period

reviewed by EPA. Swift was in consistent compliance with local limits from May 2010 through October 2011, but in November 2011, it violated the local limit for chromium.

Attachment 1: Photos



Photo 1

Cleaning line in metal finishing room
Taken by Anna Yen on August 17, 2011



Photo 2

Discharge end of continuously flowing rinse tank
Taken by Anna Yen on August 17, 2011



Photo 3

Spray booth

Taken by Anna Yen on August 17, 2011



Photo 4

Concrete pit immediately upstream of
wastewater treatment system

Taken by Anna Yen on August 17, 2011



Photo 5

Reaction tank and
the metering pumps for chemical addition
Taken by Anna Yen on August 17, 2011



Photo 6

Discharge side of reaction tank –
from the clarifier
Taken by Anna Yen on August 17, 2011



Photo 7
Clarified effluent bin
Taken by Anna Yen on August 17, 2011



Photo 8
Sand filter
Taken by Anna Yen on August 17, 2011



Photo 9
Sample box
Taken by Anna Yen on August 17, 2011



Photo 10

Discharge line from sample box
- through building wall

Taken by Anna Yen on August 17, 2011



Photo 11

Discharge line from sample box
- inside of building, in metal finishing room

Taken by Anna Yen on August 17, 2011



Photo 12

Filter press

Taken by Anna Yen on August 17, 2011