UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

May 30, 2007

In Reply Refer To: WTR-7

William Felts, Owner
MJB Chrome Plating
236 South Riverside Drive
Rialto, California 92376

Re: April 17, 2006 Clean Water Act Inspection

Dear Mr. Felts:

Enclosed is the May 30 report for our April 17 inspection of MJB Chrome Plating in Rialto, California. Please submit a short response to the findings in Sections 2 - 4 of this report, to EPA, the City of Rialto, and the Regional Water Quality Control Board, by **July 30, 2007**.

The main findings are summarized below:

1 MJB Chrome Plating qualifies as a "zero-discharging" existing source job-shop metal finisher since it generates but does not discharge regulated wastewaters to the sewers.

2 The Rialto permit appropriately requires periodic "zero-discharge" self-certification since compliance is achieved by not discharging to the sewers. Waste manifests should accompany the self-certifications. Rialto should conduct surveillance monitoring.

3 MJB Chrome Plating reported no off-site disposal of any wastewater in 2004-2006.

4 The potential of an inadvertent or unauthorized discharge to the sewers remains until MJB Chrome Plating (1) removes of all hard-piped drainage lines in the shop leading to the sewers, and (2) ensure all non-domestic sewer connections are permanently sealed.

I appreciate your helpfulness extended to me during this inspection. I remain available to Rialto and to you to assist in any way. Please do not hesitate to call me at (415) 972-3504 or e-mail at arthur.greg@epa.gov.

Sincerely,

Original signed by:
Greg V. Arthur

Greg V. Arthur
CWA Compliance Office

Enclosure

cc: Melissa Blount, Rialto

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION 9

CLEAN WATER ACT COMPLIANCE OFFICE

NPDES COMPLIANCE EVALUATION INSPECTION REPORT

Industrial User:	MJB Chrome Plating 236 South Riverside Drive, Rialto, California 92376 Zero Discharging Existing Source Job-Shop Metal Finisher (40 CFR 413)
Treatment Works:	City of Rialto Rialto Municipal Wastewater Treatment Plant (NPDES Permit CA0105295)
Dates of Inspection:	April 17, 2007

Inspection Participants:

US EPA:	Greg V. Arthur, Region 9, CWA Compliance Office, (415) 972-3504
RWQCB-Los Angeles:	None
City of Rialto:	Melissa Blount, Industrial Source Inspector, (909) 877-2752 Paul Harmon, Lead Collections Operator, (909) 877-2752
MJB Chrome Plating:	William Felts, Owner, (909) 875-1910

Report Prepared By: Greg V. Arthur, Environmental Engineer

May 30, 2007

1.0 Scope and Purpose

On April 17, 2007, EPA and the City of Rialto conducted a compliance evaluation inspection of MJB Chrome Plating in Rialto, California. The purpose was to ensure compliance with the Federal, State and local regulations covering the discharge of non-domestic wastewaters into the sewers under the Clean Water Act. In particular, it was to ensure:

- Classification in the proper Federal categories;
- Application of the correct Federal, State and local standards at correct sampling points;
- Consistent compliance with the standards; and
- Fulfillment of Federal self-monitoring requirements.

MJB Chrome Plating, located at 236 South Riverside Drive, would qualify as a categorical industrial user under the Clean Water Act within the Rialto sewer service area if it discharged process-related wastewaters to the sewers. The compliance of MJB Chrome Plating was assessed through this inspection as part of an on-going EPA evaluation of industrial users in EPA Region by industry sector. The inspection participants are listed on the title page. Arthur conducted the inspection on April 17, 2007.

1.1 Process Description

MJB Chrome Plating is a metal finishing job-shop that provides bright nickel, copper strike, cadmium, brass, and chromium plating and zincate coating of automotive and household parts. The operations by processing line follow below. The processing line designations "A", "B", and "C" and the tank numbering are strictly those of the EPA inspector for the purposes of this report.

Clean and Polish Line "A" - (*Tanks A1-A5*).
alkaline soap cleaning, hydrochloric-acid derust, paint stripping

Chrome Plating Line "B" - (*Tanks B6-B12, B14-B16, B18-B21, B25-B29*).
alkaline soap cleaning, alkaline electrocleaning, hydrochloric-acid activation, nitric-acid desmut, zincate coating, bright nickel plating, cyanide-copper strike, chrome plating descale

Miscellaneous Line "C" - (*Tanks C13, C17, C30-C32*)
sulfuric-acid die cast strip, nitric-acid aluminum strip, zincate coating, cyanide-cadmium plating, cyanide-brass plating

MJB Chrome Plating does not own the parts it finishes. Operations began in 1972. According to the owner, changes since the 1980's have involved the decommissioning of some lines.

1.2 Facility SIC Code

MJB Chrome Plating is assigned the SIC code for plating, polishing, anodizing, and coloring (SIC 3471) and metals coating (SIC 3479).

1.3 Facility Wastewater Sources

There were no observed process-related wastewater discharges from MJB Chrome Plating to the Rialto sewers, although there appeared to be numerous built-in ways for process-related wastewaters to enter the sewers. The owner asserted that most solution baths are regenerated on-site strictly through additions and that all rinses are reused for solution bath make-up. The owner identified only five waste stream losses of any kind from the shop, four associated with alkaline cleaning, and a fifth from the filtering of a nickel plating bath. This means the owner at the same time is asserting that all other steps, those involving acids, cyanide-based plating, chrome plating, zincate coating, and stripping, never sustain losses and thus, in order to stay viable, never decline in quality through contamination or the build-up of salts. In the zero discharge certifications required by the Rialto permit, MJB Chrome Plating reported no generation and disposal of liquid wastes, sludges, or hazardous wastes in 2004-2005-2006.

Spent Solutions – The imparted contamination from the processing of parts and the progressive drop in solution strength results in the generation of spent solutions. The generation rate depends on plating bath usage, effectiveness of bath contamination control, and the amount of drag-out lost into the rinses. According to MJB Chrome Plating nearly all solution tanks are regenerated strictly through additions. The list of spent solutions follows below.

Baths Not Generating Spents		Baths Generating Spents
A3 - HCl-acid derust A4 - paint strip B10 - HCl-acid activation B12 - HNO_3-acid desmut C13 - zincate coating B16 - copper strike plate B17 - H_2SO_4-acid strip B18 - decommissioned Ni	B19 - bright Ni-plate B20 - decommissioned Ni B21 - decommissioned Ni B26 - chrome plating B30 - HNO_3-acid strip B31 - CN-cadmium plate B32 - CN-brass plate	A1 - alkaline soap B6 - alkaline soap ① B7 - alkaline soap ① B8 - alkaline electroclean ① B14 - bright Ni-plate ② ② only filter spents to haz ① only tank sludges to haz
Solutions Regenerated by Additions Only		Hauled Off-site as Haz

Rinses - MJB Chrome Plating employs a limited series of first-stage drag-out rinses and overtank spray rinses, each of which, according to MJB Chrome Plating, return the drag-out to solution tanks as make-up. There are no overflow rinses. The list of rinses follows below.

Rinses Not Discharged		Rinses Discharged
A2 - 1° drag-out for A1 B9 - 1° drag-out for B8 B15 - 1° drag-out for B14 B26 - 1° overtank spray	B27 - 2° drag-out for B26 B28 - 2° drag-out for B26 B29 - water seal	None
Reclaimed as Make-up		Discharged to the Sewers

Residuals - MJB Chrome Plating employs overtank spray and drag-out rinses, DI water as make-up, and one acid activation step to neutralize the surface chemistry of the previous step, all practices that extend the useful life of the metal finishing solutions. According to the

owner, MJB Chrome Plating has hauled off-site for disposal as hazardous the generated tank bottom sludges from the alkaline cleaning steps and spent filters from the lone filtration cartridge through which circulates contents of the principal nickel plating tank. DI columns are serviced off-site by the vendor. No other residuals are expected to be generated on-site because MJB Chrome Plating provides no chemical treatment or preconditioning of any spent solutions, spent static rinses, or overflow rinses.

1.4 Facility Process Wastewater Handling

MJB Chrome Plating is operated to not discharge process-related waste-waters to the sewers and as a result does not provide any wastewater treatment. However, MJB Chrome Plating may retain the physically configuration to discharge process-related wastewaters to the sewer because the hard-piping from the tanks to the sewers is disabled but effectively in place.

Composition - The process wastewaters listed in section 1.3 above would be expected to contain cadmium, copper, chromium, lead, nickel, zinc, and acidity, as well as oil & grease, salts, surfactants, and other pollutants in the surface grime cleaned off of parts.

Delivery - MJB Chrome Plating employs, as the only acknowledged method of delivery, a portable pump and hose dedicated to the return of nickel drag-out rinse to the solution tank. The portable pump and hose could also be used to deliver other wastewaters to other destinations, for example, spents to barrels for off-site disposal. However, of more consequence is the existence of hard-piped drainage lines from the tanks possibly to the sewers. The drainage lines, left in-place from when the shop discharged to the sewer, appeared to be functionally operational with just four in-tank temporary inlet plugs blocking the tank overflows to the drainage lines (*Tanks A2, B9, B11, and C32*). The drainage lines extended throughout the shop and were observed to include open standpipe vents. One standpipe vent was observed to have two siphon hoses inserted. No floor drains were found. ***See*** the photos in Section 1.6 below. ***Also*** see Section 3.2 of this report.

1.5 POTW Legal Authorities

The City of Rialto - Rialto operates a wastewater treatment plant, which discharges to the Santa Ana River, and an approved pretreatment program, as required by the State of California in the Los Angeles RWQCB's Waste Discharge Requirements, No. R8-2007-0006, reissued to Rialto in 2007 and serving as NPDES Permit No. CA0105295. Rialto has established a sewer use ordinance that applies to all industrial users within its city limits. Under this authority, Rialto issued zero discharge industrial user permit No.2004-02 authorizing discharge of only domestic wastewaters from MJB Chrome Plating to the sewers.

1.6 Sampling Record

There are no compliance samples since MJB Chrome Plating is not authorized to discharge under the Rialto industrial user permit No. 2004-02.

1.7 Photo Documentation

Four of five photographs taken during this inspection are depicted on the next page and saved as *mjbchrome-1.jpg, mjbchrome-2.jpg, mjbchrome-3.jpg* and *mjbchrome-5.jpg*. The fourth picture depicts another inlet plug in Tank B32.

Photo: Hard-piping from Rinse Tank A2 to sewer
Taken By: Greg V. Arthur
Date: 04/17/07

Photo: Inlet plug close-up in Rinse Tank A2
Taken By: Greg V. Arthur
Date: 04/17/07

Photo: Hard-piping from Rinse Tank B32 to sewer
Taken By: Greg V. Arthur
Date: 04/17/07

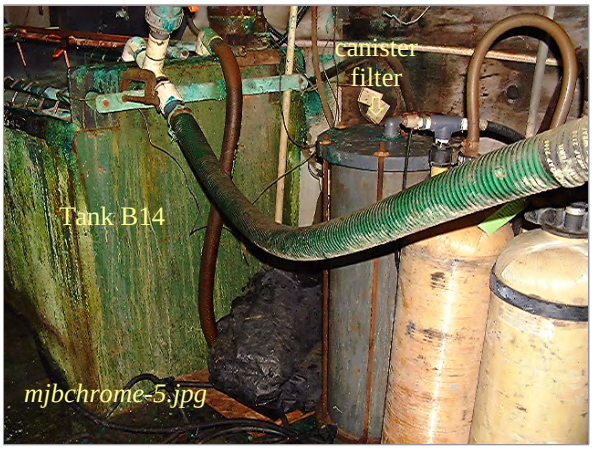

Photo: Nickel Tank B14 and outside filter
Taken By: Greg V. Arthur
Date: 04/17/07

2.0 Sewer Discharge Standards and Limits

Federal categorical pretreatment standards (where they exist), national prohibitions, State groundwater, and the local limits (where they exist) must be applied to the sewered discharges from industrial users. (40 CFR 403.5 and 403.6).

Summary

No Federal categorical pretreatment standards, national prohibitions, or local limits apply because there are no process-related wastewater discharges to the sewers. However, MJB Chrome Plating does generate wastewaters that would be regulated under the Federal job-shop electroplating standards if they were discharged. The application of Federal standards, national prohibitions, and local limits was determined through visual inspection.

Requirements

- None.

Recommendations

- The Rialto permit should also list the Federal standards that would apply if process-related wastewaters were discharged to the sewers.

- Rialto should periodically conduct unannounced surveillance monitoring in the city sewer laterals upstream and downstream of the MJB Chrome Plating sewer connection(s).

2.1 Classification by Federal Point Source Category

MJB Chrome Plating would qualify as an existing source job-shop metal finisher subject to the Federal standards in 40 CFR 413 if its process-related wastewaters were discharged to the sewers. MJB Chrome Plating would not qualify as a new source subject to the Federal standards in 40 CFR 433 because it began operations in its current configuration in 1972 before the August 31, 1982 promulgation date of the metal finishing rule for new sources. In addition, any discharge would not qualify under any other Federal rule in 40 CFR 407-471.

2.2 Local Limits and National Prohibitions

Local limits and national prohibitions would apply to any discharge of the process-related wastewaters generated on-site. Local limits and national prohibitions are meant to express the limitations on non-domestic discharges necessary to protect the sewers, treatment plants, treatment plant sludges, and their receiving waters from adverse impacts. Generally, technically-based numerical local limits supplant national prohibitions. In this case with MJB Chrome Plating, the Rialto permit has applied a "zero discharge" requirement as the expression of its local limits

2.3 Federal Categorical Pretreatment Standards
Existing Source Job-Shop Electroplating - 40 CFR 413

40 CFR 413	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CNt	CNa	TTO	TM
daily-maximum (mg/l)	**1.2**	7.0	4.5	**0.6**	4.1	-	4.2	1.9	**5.0**	2.13*	10.5
four-day average (mg/l)	**0.7**	4.0	2.7	**0.4**	2.6	-	2.6	1.0	**2.7**	-	6.8
stat conversion to mo-avgs	**0.5**	2.5	1.8	**0.3**	1.8	-	1.8	0.55	**1.5**	-	5.0
bold - the only standards that apply if the discharge is <10,000 gpd / * TTO **4.57** mg/l											

Applicability - The Federal job-shop electroplating standards apply to job-shop metal finishers that do not own more than 50% of the parts processed and were in operation in their present configuration before the August 31, 1982 proposal date of the Federal metal finishing rule. The job-shop electroplating standards in 40 CFR 413.14(b)(f), 413.54(b)(f), 413.64(b)(f) would apply to any dischargers under 10,000 gallons per day apply to any process wastewater discharges from MJB Chrome Plating to the sewers.

2.4 Compliance Sampling

There are no identified process wastewater discharges to the sewers. As a result, there are no sampling points for the non-domestic wastewaters.

2.5 Pollutants of Concern

There are no pollutants of concern as long as MJB Chrome Plating does not discharge any process-related wastewaters. However, the existing drainage lines throughout the shop pose an apparent risk of discharge to the sewers. As a result, the pollutants of concern could comprise those regulated by the Federal existing source job-shop metal finishing standards (*cadmium, cyanide, lead*), national prohibitions (*pH*), and certain local limits for which there is a potential to exceed the local limits (*nickel, copper, chromium, zinc, chlorides, sulfate, total dissolve solids*).

3.0 Compliance with Federal Standards, National Prohibitions, and Local Limits

Industrial users must comply with the Federal categorical pretreatment standards that apply to their process wastewater discharges. 40 CFR 403.6(b).

Categorical industrial users must comply with the prohibition against dilution of the Federally-regulated waste streams as a substitute for treatment. 40 CFR 403.6(d).

Industrial users must comply with the provision restricting the bypass of treatment necessary to comply with any pretreatment standard or requirement. 40 CFR 403.17(d).

All non-domestic wastewater discharges to the sewers must comply with local limits and the national prohibitions. 40 CFR 403.5(a,b,d).

Summary

MJB Chrome Plating can only achieve compliance with the Federal standards for existing source job-shop metal finishers, the national prohibitions, and local limits by not discharging its process-related wastewaters to the sewers. MJB Chrome Plating asserts and Rialto has confirmed that "zero-discharge" compliance is achieved through the collection and off-site hauling of a small set of generated wastewaters. However, two factors bring this conclusion into question. First, MJB Chrome Plating reported no off-hauling of any wastewaters for the past three years in 2004, 2005, and 2006, and the owner asserted that only a few alkaline and nickel filter wastes are ever off-hauled. Second, the drainage lines, left in-place from when it discharged to the sewer, appeared to be functionally operational throughout the shop, if so, making it physically possible for an inadvertent or unauthorized discharge of process-related wastewaters to the sewers.

Requirements

- MJB Chrome Plating must remove all drainage lines left in-place from when the shop discharged to the sewer, and permanently seal all non-domestic sewer connections.

Recommendations

- MJB Chrome Plating should eliminate the possession on-site of any long hoses used in the transfer of solutions and spents throughout the facility.

- Rialto should verify (1) the removal of all drainage lines within the shop, (2) the permanent sealing of all non-domestic sewer connections, and (3) the existence of no long transfer hoses.

3.1 National Objectives

The general pretreatment regulations were promulgated in order to fulfill the national objectives to prevent the introduction of pollutants that:

(1) cause operational interference with sewage treatment or sludge disposal,
(2) pass-through sewage treatment into the receiving waters or sludge,
(3) are in any way incompatible with the sewerage works, or
(4) do not improve the opportunities to recycle municipal wastewaters and sludge.

This inspection did not include an evaluation of whether achievement of the national objectives in 40 CFR 403.2 have been demonstrated by the Rialto wastewater treatment plant through consistent compliance with their sludge and discharge limits.

3.2 Compliance with Standards and Limits

Compliance Status - MJB Chrome Plating can only comply with the applicable Federal standards and local limits strictly through the proper handling of all spents, residuals, and spent drag-out rinses by the shop operators. Consistent compliance depends on the successful and consistent delivery of all spent solutions, spent drag-out rinses, and residuals to barrels for hauling off-site as hazardous. Any inadvertent or unauthorized discharge of process-related wastewaters of any quality to the drainage lines left in-place throughout the shop to the sewers or to any other non-domestic sewer connection would violate the local limits as expressed by the Rialto permit for MJB Chrome Plating as a narrative prohibition against discharge. Any inadvertent or unauthorized discharge likely would also violate the numerical Federal standards and local limits since MJB Chrome Plating does not treat any wastewaters on-site for the removal of metals, the destruction of cyanide, or the pH adjustment of acidic and alkaline conditions.

Discharge and Disposal - Whether MJB Chrome Plating actually attains and can maintain "zero-discharging" compliance is up to question. First, the records do not document any losses of solution spents or residuals that are necessary to explain the continued successful operation of a "zero-discharging" shop. The zero discharge certifications, submitted by MJB Chrome Plating as required under the Rialto permit, listed the generation and disposal of no liquid wastes, sludges, or hazardous wastes in 2004, 2005, and 2006. The owner also asserts that only alkaline cleaning and nickel filtering wastes are ever off-hauled for disposal. Without losses either of spents, or residual tank bottoms, or of drag-out rinses, all solution baths, even with chemical additions, must eventually deteriorate in quality through cross-contamination and the build-up of mineralization and inactive solution carrier compounds. In other words, any metal finishing shop is expected generate wastewaters which must either be hauled off-site for disposal or discharged to the sewers. Thus, for MJB Chrome Plating, the existing records imply that the shop generates no wastewaters, since the records indicate neither the off-site disposal nor the discharge to the sewers of process-related wastewaters.

Physical Configuration - Second, although MJB Chrome Plating asserts that it operates as a "zero-discharging" metal finishing shop, it appears to still have the physical means to

discharge to the sewers since the network of drainage lines, left in-place throughout the shop, seems to retain functional operability. The only observed disabling of the drainage lines involved temporary plugs found in the outlets from four rinse tanks. Otherwise the network was intact. The drainage lines also were observed to incorporate at least one standpipe vent, which had two siphon hoses inserted into the vent opening. Temporary plugs cannot prevent the inadvertent or unauthorized discharge of process-related wastewaters to the sewers. Instead, the entire network of drainage lines must be removed and the non-domestic sewer connections must be permanently sealed. ***See*** the photos in section 1.7.

Pump and Hose Delivery - Finally, MJB Chrome Plating uses a portable pump and hose extension for the delivery of nickel drag-out rinses back to the solution tank. The portable pump can be stationed any where in the shop and the hose is long enough that its outlet can be directed to the open drainage line standpipe vent or even the bathroom sewer connection. Maintaining only short hose lengths prevents the delivery of spent solutions to improper disposal points.

3.3 Dilution and Bypassing

The Federal standards in 40 CFR 403.6(d) and 403.17(d) prohibit "dilution as a substitute for treatment" and "bypassing any treatment necessary to comply with standards. There is no possibility to violate the prohibition against dilution as a substitute for treatment since MJB Chrome Plating does not provide wastewater treatment nor discharge wastewaters to the sewers.

On the other hand, any inadvertent or unauthorized discharge to the sewers would violate the prohibition against bypassing treatment necessary to comply since compliance with Federal standards and local limits is achieved through the capture and off-hauling of all wastewaters. It is possible that MJB Chrome Plating can bypassed to the sewers for the reasons laid out in Section 3.2 above, in particular because bypassing may be physically very possible and no wastewaters are off-hauled for disposal. Bypassing to the sewers remains a real possibility at MJB Chrome Plating because there is no documented or authorized outlet of any accumulated wastes and wastewaters from the shop. Periodic monitoring of the sewer laterals upstream and downstream from MJB Chrome Plating would provide some assurance against bypassing. ***See*** Section 3.2 above. ***Also*** see Section 2.0 above.

4.0 Compliance with Federal Monitoring Requirements

Significant industrial users must self-monitor for all regulated parameters at least twice per year unless the sewerage agency monitors in place of self-monitoring. 40 CFR 403.12(e) & 403.12(g).

Each sample must be representative of the sampling day's operations. Sampling must be representative of the conditions occurring during the reporting period. 40 CFR 403.12(g) and 403.12(h).

Summary

MJB Chrome Plating does not qualify as a significant industrial user since it is not authorized to discharge its Federally-regulated wastewaters to the sewers. As a result, it is not necessary to for Rialto to issue a permit with self-monitoring requirements. Since compliance is achieved through zero-discharge practices, it is appropriate that Rialto has issued a permit that substitutes a written certification of no discharge in lieu of semi-annual self-monitoring.

Requirements

- None.

Recommendations

- The semi-annual self-certification statements should include copies of the hazardous waste manifests documenting the off-hauling of spents, spent static rinses, and residuals.

- The semi-annual self-certification statements should include statements explaining how much wastewater is generated and disposed of from each of the following tank series:

bath #	gal (est)	associated rinses tank #	gal (est)	operational function
A1	250	A2 static drag-out	150	alkaline soap cleaning
A3	150	none	-	HCl-acid derust
A4	50	none	-	paint stripping
B6-7	280	none	-	alkaline soap cleaning
B8	200	B9 static drag-out	150	alkaline electrocleaning
B10	200	B11 static drag-out	80	HCl-acid activation
B12	50	none	-	HNO3-acid desmut
B14	400	B15 static drag-out	150	bright nickel plating
B16	400	none	-	copper strike plating
B19	1000	B25 spray drag-out	1000	bright nickel plating
B26	400	B27-29 spray drag-out / seal	180	chromium plating
C13	80	none	-	zincate coating
C17	150	none	-	H_2SO_4-acid die cast stripping
C30	50	none	-	HNO_3-acid aluminum stripping
C31	400	none	-	cyanide-cadmium plating
C32	400	none	-	cyanide-brass plating