



Air Pollution Control Board
Greg Cox District 1
Dianne Jacob District 2
Pam Slater District 3
Ron Roberts District 4
Bill Horn District 5
Air Pollution Control District
R. J. Sommerville Director

DATE: July 21, 1999

TO: San Diego County Air Pollution Control District

SUBJECT: REPEAL OF RULE 1201 - CHROME PLATING AND CHROMIC ACID
ANODIZING (District: All)

SUMMARY:

Overview

Rule 1201, adopted in 1990, implemented a statewide Hexavalent Chromium Airborne Toxic Control Measure (ATCM) to control hexavalent chromium emissions from chrome plating and chromic acid anodizing operations. In 1995, the Environmental Protection Agency (EPA) promulgated Subpart N - National Emission Standards for Hazardous Air Pollutants (NESHAP) for the same facilities. As a result, these facilities are subject to both Rule 1201, and the federal NESHAP, with its extremely onerous monitoring, recordkeeping, and reporting requirements, resulting in duplicative and sometimes conflicting requirements for local businesses.

To alleviate this problem, the state Air Resources Board revised the statewide ATCM to replace the federal regulation and gained EPA approval. Hence, facilities in California are no longer subject to the NESHAP if they comply with the ATCM. To accomplish this, the District may either amend Rule 1201 in accordance with the revised ATCM or directly implement and enforce it. To avoid the time-consuming and costly local rule amendment process, the District is proposing to repeal Rule 1201 and directly implement and enforce the ATCM.

Repealing Rule 1201 and implementing the ATCM will relieve local businesses from the excessive paperwork required by the federal regulation. While the ATCM requires more monitoring, recordkeeping, and reporting than Rule 1201, it is significantly less burdensome for local businesses than the federal NESHAP.

A public workshop was held on May 4, 1999. The workshop report is provided in Attachment II.

Subject: REPEAL OF RULE 1201 - CHROME PLATING AND CHROMIC ACID ANODIZING (District: All)

Recommendations
AIR POLLUTION CONTROL OFFICER

Adopt the resolution repealing Rule 1201 and make appropriate findings:

(i) of necessity, authority, clarity, consistency, non-duplication, and reference as required by Section 40727 of the State Health and Safety Code;

(ii) that repealing Rule 1201 will alleviate a problem and will not interfere with the attainment of ambient air quality standards (Section 40001 of the State Health and Safety Code);

(iii) that an assessment of the socioeconomic impact of the proposed repeal is not required by Section 40728.5 of the State Health and Safety Code because repealing Rule 1201 will not significantly affect air quality or emission limitations; and

(iv) that it is certain there is no possibility that the repeal of Rule 1201 may have a significant adverse effect on the environment, and this action is exempt from the provisions of the California Environmental Quality Act pursuant to California Code of Regulations, Title 14, Section 15061 (b)(3).

Fiscal Impact

Repealing Rule 1201 will have no fiscal impact on the District.

Advisory Board Statement

The Air Pollution Control Advisory Committee recommended repealing Rule 1201 at its June 23, 1999, meeting.

BACKGROUND:

Compliance with Board Policy on Adopting New Rules

On February 2, 1993, the Board directed that, with the exception of a regulation requested by business or a regulation for which a socioeconomic impact assessment is not required, no new or revised regulation shall be implemented unless specifically required by federal or state law. The proposed repeal of Rule 1201 is consistent with this Board directive.

Socioeconomic Impact Assessment

Section 40728.5 of the State Health and Safety Code requires the District to perform a socioeconomic impact assessment for new and revised rules and regulations significantly affecting air quality or emission limitations. Repealing Rule 1201 does not affect air quality or emission

Subject: REPEAL OF RULE 1201 - CHROME PLATING AND CHROMIC ACID ANODIZING (District: All)

limitations because the District will implement the equally stringent statewide Hexavalent Chromium ATCM. Therefore, a socioeconomic impact assessment is not required.

California Environmental Quality Act

The California Environmental Quality Act requires an environmental review for certain actions. It is certain there is no possibility that the repeal of Rule 1201 may have a significant adverse effect on the environment because it will be replaced by the equally stringent Hexavalent Chromium ATCM. Therefore, the repeal of Rule 1201 is exempt from the provisions of the California Environmental Quality Act pursuant to California Code of Regulations, Title 14, Section 15061(b)(3).

Comparison to Existing Requirements

Health and Safety Code Section 40727.2 (a) requires that whenever the District proposes adopting or amending a rule or regulation, an analysis be prepared to identify and compare the air pollution control elements of the proposal with corresponding elements of existing or proposed federal or District requirements. Repealing Rule 1201 will result in the direct implementation of the amended statewide Hexavalent Chromium ATCM that combines both state and federal requirements. EPA determined the amended ATCM is equivalent to the federal NESHAP. The state Air Resources Board has already adopted the amended ATCM. Therefore, pursuant to Health and Safety Code Section 40727.2, subsection (g), the analysis described in Health and Safety Code Section 40727.2 (a) is not required.

Attachment I contains the Resolution repealing Rule 1201 from the District's Rules and Regulations.

Attachment II contains the report on the workshop held on May 4, 1999.

WALTER F. EKARD
Chief Administrative Officer


R. J. SOMMERVILLE
Air Pollution Control Officer

**AIR POLLUTION CONTROL BOARD
AGENDA ITEM INFORMATION SHEET**

SUBJECT: REPEAL OF RULE 1201 - CHROME PLATING AND CHROMIC ACID ANODIZING (District: All)

CONCURRENCE(S)

TD 7/1/99

COUNTY COUNSEL Approval of Form Yes N/A
Type of Form: Standard Form Ordinance Resolution Contract
Review Board Letter Only Yes N/A

CHIEF FINANCIAL OFFICER/AUDITOR Yes N/A
Requires Four Votes Yes No

CHIEF INFORMATION OFFICER Yes N/A

DEPARTMENT OF HUMAN RESOURCES Yes N/A

CONTRACT REVIEW PANEL Yes N/A

Other Concurrence(s):

BUSINESS IMPACT STATEMENT: Yes N/A


PREVIOUS RELEVANT BOARD ACTIONS:
May 28, 1991 (2) APCB.

BOARD POLICIES APPLICABLE: N/A

ORIGINATING DEPARTMENT: Air Pollution Control District County of San Diego

CONTACT PERSON:

<u>Richard J. Smith, Assistant Director</u>	<u>(858) 694-3303</u>	<u>(858) 505-6350</u>	<u>0176</u>	<u>dsmithha@co.san-diego.ca.us</u>
Name	Phone	Fax	Mail Station	e-mail


R. J. Sommerville, Air Pollution Control Officer
DEPARTMENT AUTHORIZED REPRESENTATIVE

July 21, 1999
MEETING DATE

WEDNESDAY, JULY 21, 1999

Re Rules and Regulations of the)
Air Pollution Control District)
of San Diego County)

**RESOLUTION REPEALING RULE 1201
OF REGULATION XII
OF THE RULES AND REGULATIONS OF THE
SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT**

On motion of Member Horn, seconded by Member Roberts,
the following resolution is adopted:

WHEREAS, the San Diego County Air Pollution Control Board, pursuant to Section 40702 of the Health and Safety Code, adopted Rules and Regulations of the Air Pollution Control District of San Diego County; and

WHEREAS, said Board now desires to amend said Rules and Regulations; and

WHEREAS, notice has been given and a public hearing has been had relating to the amendment of said Rules and Regulations pursuant to Section 40725 of the Health and Safety Code.

NOW THEREFORE IT IS RESOLVED AND ORDERED by the San Diego County Air Pollution Control Board that the Rules and Regulations of the Air Pollution Control District of San Diego County be and hereby are amended as follows:

Rule 1201. Hexavalent Chromium - Chrome Plating and Chromic Acid Anodizing is repealed in its entirety.

IT IS FURTHER RESOLVED AND ORDERED that the subject repeal of Rule 1201 of Regulation XII shall take effect upon adoption.

PASSED AND ADOPTED by the Air Pollution Control Board of the San Diego County Air Pollution Control District, State of California, this 21st day of July, 1999, by the following votes:

- AYES:** Jacob, Roberts, Horn
- NOES:** None
- ABSENT:** Cox, Slater


7/21/99 (APCD 2)

Resolution/Rule 1201
6/15/99

APPROVED AS TO FORM AND LEGALITY
COUNTY COUNSEL
BY Dutton
SENIOR DEPUTY

I hereby certify that the foregoing is a full, true and correct copy of the Original Resolution which is now on file in my office.

THOMAS J. PASTUSZKA
Clerk of the Air Pollution Control Board

By 
Grace Andoh, Deputy



Resolution No. 99-216
7/21/99 (APCD 2)

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

CHANGE COPY

PROPOSED REPEAL OF RULE 1201 IN ITS ENTIRETY

**RULE 1201. HEXAVALENT CHROMIUM - CHROME PLATING AND
CHROMIC ACID ANODIZING (Rev. Effective 5/28/91)**

(a) APPLICABILITY

This rule shall apply to any stationary source which operates chrome plating or chromic acid anodizing equipment using hexavalent chromium compounds.

(b) EXEMPTIONS

The provisions of Sections (d) and (e) of this rule shall not apply to non-immersion plating or anodizing operations in which the plating or anodizing solution is applied to the part being plated or anodized by use of a brush or stylus for the purposes of touch-up or repair.

(c) DEFINITIONS (Rev. Effective 5/28/91)

For the purposes of this rule the following definitions shall apply:

- (1) **"Ampere-Hour"** means the integral of electrical current applied to a plating tank (amperes) over a period of time (hours).
- (2) **"Anti-Mist Additive"** means a chemical which reduces the emission rate of hexavalent chromium when added to and maintained in a chrome plating tank.
- (3) **"Chrome Plating"** means hard chrome plating or decorative chrome plating.
- (4) **"Chromic Acid"** means an aqueous solution of chromium trioxide (CrO_3) or a commercial solution containing chromium trioxide, dichromic acid ($\text{H}_2\text{Cr}_2\text{O}_7$) or trichromic acid ($\text{H}_2\text{Cr}_3\text{O}_{10}$).
- (5) **"Chromic Acid Anodizing"** means the electrolytic process by which a metal surface is converted to an oxide surface coating by the action of a solution containing chromic acid.
- (6) **"Chromium"** means hexavalent chromium. Hexavalent chromium refers to the valence state of +6 for the chromium in the aqueous solution.
- (7) **"Control Equipment"** means any device which reduces chromium air contaminant emissions from an emissions collection system and which has been approved by the Air Pollution Control Officer.
- (8) **"Decorative Chrome Plating"** means the process by which chromium is electrodeposited from a solution containing compounds of chromium onto an object resulting in a metallic chromium layer less than or equal to 1 micron (0.00004 inch).

(9) **"Emission Factor"** means the mass of chromium emitted to the atmosphere during a test conducted on an emissions collection system and any associated control equipment, as determined in accordance with ARB Method 425, divided by the ampere-hours consumed during the testing by the tanks being served by the tested emissions collection system.

(10) **"Emissions Collection System"** means a device or apparatus, approved by the Air Pollution Control Officer, used to gather the chromium emissions from the surface of a chrome plating or chromic acid anodizing tank or tanks. An emissions collection system typically consists of hoods, ducting and fan and may collect emissions from one or more plating or anodizing tanks.

(11) **"Facility-Wide Emissions from Hard Chrome Plating or Chromic Acid Anodizing"** means the total chromium emissions from all hard chrome plating or chromic acid anodizing at the stationary source over a calendar year. Emissions shall be calculated as the sum of emissions from all hard chrome plating and chromic acid anodizing at the stationary source. The emissions from each emissions collection system and associated control equipment shall be calculated by multiplying the emission factor for that emissions collection system and associated control equipment by the sum of ampere-hours consumed during that year for all of the tanks served by the emissions collection system.

(12) **"Hard Chrome Plating"** means the process by which chromium is electrodeposited from a solution containing compounds of chromium onto an object resulting in a chrome layer greater than 1 micron (0.00004 inch) thick.

(13) **"New Hard Chrome Plating and Chromic Acid Anodizing Equipment"** means any equipment installed after February 14, 1989 and used to conduct either hard chrome plating or chromic acid anodizing.

(14) **"Plating Tank"** means any container used to hold a chromium or chromic acid solution for the purposes of chrome plating or chromic acid anodizing.

(15) **"Stationary Source"** means a unit or an aggregation of units of non-vehicular air contaminant emitting articles, machines, equipment or other contrivances, all of which are located on one property or adjoining properties under the same ownership or entitlement to use and operate, and all of which are determined by the Air Pollution Control Officer to be related to one another through a similar product, raw material or function. This includes units or aggregation of units in the California Coastal Waters off San Diego County.

(16) **"Uncontrolled Chromium Emissions"** means the chromium emissions from the emissions collection systems at the stationary source calculated as if no control equipment is in use. The uncontrolled chromium emissions shall be calculated using an emission factor based on tests conducted in accordance with ARB Method 425, or an emission factor of 14 milligrams per ampere-hour, whichever is less.

(d) **STANDARDS** (Rev. Effective 5/28/91)

(1) Requirements for Decorative Chrome Plating Operations. No person shall operate a decorative chrome plating tank unless one of the following control techniques is applied:

(i) An anti-mist additive is continuously maintained in the plating tank in a manner which has been demonstrated, to the satisfaction of the Air Pollution Control Officer, as reducing chromium emissions by at least 95% when compared to emissions when the anti-mist additive is not used; or,

(ii) An equivalent method approved by the Air Pollution Control Officer.

(2) Requirements for Hard Chrome Plating and Chromic Acid Anodizing Operations. No person shall operate a hard chrome plating tank or chromic acid anodizing tank unless:

(i) The tank has an emissions collection system which is designed and operated to capture and contain the chromium emissions discharged to the air from the tank; and

(ii) The chromium emissions from the emissions collection system serving the tank have been reduced as follows:

(A) if facility-wide chromium emissions from hard chrome plating and chromic acid anodizing are less than or equal to 2 pounds per year, chromium emissions shall be reduced by at least 95% when compared to uncontrolled chromium emissions from the emissions collection system or reduced to less than 0.15 milligrams of chromium per ampere-hour of electrical charge applied to the tank(s) served by the emissions collection system;

(B) if facility-wide chromium emissions from hard chrome plating and chromic acid anodizing are greater than 2 pounds per year, but less than 10 pounds per year, emissions shall be reduced by at least 99% when compared to uncontrolled chromium emissions from the emissions collection system or reduced to less than 0.03 milligrams of chromium per ampere-hour of electrical charge applied to the tank(s) served by the emissions collection system; or

(C) if facility-wide chromium emissions from hard chrome plating and chromic acid anodizing are greater than or equal to 10 pounds per year, emissions shall be reduced by at least 99.8% when compared to uncontrolled chromium emissions from the emissions collection system or reduced to less than 0.006 milligrams of chromium per ampere-hour of electric current applied to the tank(s) served by the emissions collection system.

(3) Usage Records. Any person subject to Subsection (d)(2) of this rule shall keep written records of the total monthly usage of electricity in units of ampere-hours for all plating tanks served by each emissions collection system. These records shall be maintained at the stationary source for at least two years and shall be made available to the Air Pollution Control Officer upon request.

(4) Reporting. Electricity usage information shall be submitted to the District on an annual basis. The reports shall contain that information determined by the Air Pollution Control Officer to be necessary and sufficient to allow a separate determination of compliance for each emissions collection system. Reports shall be submitted in accordance with the format and schedule specified by the Air Pollution Control Officer.

(e) **COMPLIANCE SCHEDULE** (Rev. Effective 5/28/91)

Any person subject to this rule shall comply with the following increments of progress:

(1) For decorative chrome plating stationary sources:

(i) On or before June 6, 1990, any person subject to Subsection (d)(1) shall submit an application for an Authority to Construct and Permit to Operate with a detailed description of the methods to be used to achieve compliance. The description

shall include operating parameters such as chemical concentrations, bath temperatures, additive depths, and any other information deemed necessary by the Air Pollution Control Officer; and

(ii) On or before September 6, 1990, any person subject to Subsection (d)(1) shall demonstrate compliance with the requirements of this rule.

(2) For hard chrome plating and/or chromic acid anodizing stationary sources having emissions less than or equal to 2 pounds per year:

(i) On or before September 6, 1990, any person subject to Subsection (d)(2)(ii)(A) shall submit an application for an Authority to Construct and Permit to Operate for equipment to meet the requirements of Subsections (d)(2)(i) and (d)(2)(ii)(A); and

(ii) On or before September 6, 1991, any person subject to Subsection (d)(2)(ii)(A) shall demonstrate compliance with the requirements of this rule.

(3) For hard chrome plating and/or chromic acid anodizing stationary sources having emissions more than 2 pounds per year but less than 10 pounds per year.

(i) On or before March 6, 1991, any person subject to Subsection (d)(2)(ii)(B) shall submit an application for an Authority to Construct and Permit to Operate for equipment to meet the requirements of Subsections (d)(2)(i) and (d)(2)(ii)(B); and

(ii) On or before March 6, 1992, any person subject to Subsection (d)(2)(ii)(B) shall demonstrate compliance with the requirements of this rule.

(4) For hard chrome plating and/or chromic acid anodizing stationary sources having emissions greater than or equal to 10 pounds per year.

(i) On or before September 6, 1990, any person subject to Subsection (d)(2)(ii)(C) shall submit a compliance plan outlining the method of compliance with Subsection (d)(2)(ii)(C). The plan shall contain the following:

(A) a description of the steps the person intends to take to identify the process changes and emission control devices necessary to achieve compliance;

(B) a schedule for the steps identified above;

(C) an estimate of facility-wide emissions from hard chrome plating or chromic acid anodizing;

(D) the emission factor and annual ampere-hour values used to estimate facility-wide emissions; and

(E) any other information deemed necessary by the Air Pollution Control Officer to ensure compliance with the requirements of this rule.

In addition, any person subject to the requirements of Subsection (d)(2)(ii)(C) shall, on or before September 6, 1990, submit an application for an Authority to Construct and Permit to Operate for equipment to meet the requirements of Subsections (d)(2)(i) and (d)(2)(ii)(A); and,

(ii) On or before September 6, 1991, any person subject to Subsection (d)(2)(ii)(C) shall submit an application for an Authority to Construct and Permit to Operate for equipment to meet the requirements of Subsection (d)(2)(ii)(C) and shall demonstrate compliance with the requirements of Subsections (d)(2)(i) and (d)(2)(ii)(A); and,

(iii) On or before March 6, 1994, any person subject to Subsection (d)(2)(ii)(C) shall demonstrate compliance with the requirements of Subsection (d)(2)(ii)(C).

(5) For new hard chrome plating and/or chromic acid anodizing equipment.

New hard chrome plating and chromic acid anodizing equipment shall demonstrate compliance with the provisions of Subsection (d)(2)(ii)(B) upon initial installation and startup. New equipment and associated emissions collection systems and control equipment shall be installed pursuant to a District Authority to Construct. If uncontrolled chromium emissions from the hard chrome plating or chromic acid anodizing stationary source are greater than or equal to 10 pounds per year, the stationary source shall also comply with the requirements of Subsections (d)(2)(ii)(C) and (e)(4)(iii).

(f) **TEST METHODS** (Effective 5/28/91)

Measurements of chromium emissions subject to Subsection (d)(2) of this rule shall be conducted in accordance with ARB Method 425 as it exists on May 28, 1991.

**AIR POLLUTION CONTROL DISTRICT
SAN DIEGO COUNTY**

**PROPOSED REPEAL OF RULE 1201
HEXAVALENT CHROMIUM - CHROME PLATING
AND CHROMIC ACID ANODIZING
AND
IMPLEMENTATION OF THE AIRBORNE
TOXIC CONTROL MEASURE**

WORKSHOP REPORT

A workshop notice was mailed to all businesses and government entities in San Diego County that are involved in chrome plating and anodizing operations. In addition, notices were mailed to all local Chambers of Commerce, all local Economic Development Corporations, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

The workshop was held on May 4, 1999, and was attended by two people. The workshop comments and District responses are as follows:

1. WORKSHOP COMMENT

Many facility operators add fume suppressants to the electroplating or anodizing bath to comply with standards of the State Airborne Toxic Control Measure (ATCM). Specifically, the facility operator is required to maintain records of the date, time, approximate volume, and product identification of the fume suppressants that are added. What is the reason for recording the time of fume suppressant addition?

DISTRICT RESPONSE

As discussed, the modifications to this ATCM result from the integration of the California air toxic control program with new requirements of the federal National Emissions Standards for Hazardous Air Pollutants (NESHAP) developed by U.S. EPA. The need to record the time fume suppressant is added is a specific requirement of the federal EPA. Adherence to recordkeeping will also serve as a tool to track compliance.

2. **WORKSHOP COMMENT**

If a facility has submitted the required Initial Compliance Status Report to the District, is it necessary to resubmit this report?

DISTRICT RESPONSE

The Initial Compliance Status Report must only be submitted once. Those facilities that already submitted this report to the District do not need to resubmit it unless there are significant changes to the operation. In such cases, the District requires a new (or modified) Compliance Status Report.

3. **WORKSHOP COMMENT**

There are several emission standards listed in the ATCM depending on facility size. These standards are more stringent for facilities with greater potential to emit. How does the District determine the applicable standard for a source that will be modified and possibly increase its emissions of hexavalent chromium?

DISTRICT RESPONSE

In order to determine the applicable standard for a modified source, the District will review historic facility emissions and equipment capacity. In addition, the facility owner will be consulted to project or confirm intended usage of hexavalent chromium containing compounds. From that, the District will determine the applicable standard and the most suitable means to ensure compliance. The standard and compliance assurance methods will be documented in permit conditions limiting the equipment operations or capacity.

5/25/99
DR:ls