South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: **NOTICE OF COMPLETION OF A DRAFT ENVIRONMENTAL ASSESSMENT**

PROJECT TITLE: **PROPOSED AMENDED RULE 1469 – HEXAVALENT CHROMIUM EMISSIONS FROM CHROMIUM ELECTROPLATING AND CHROMIC ACID ANODIZING OPERATIONS**

In accordance with the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and has prepared a Draft Environmental Assessment (EA) to analyze environmental impacts from the project identified above pursuant to its certified regulatory program (SCAQMD Rule 110). The Draft EA includes a project description and analysis of potential adverse environmental impacts that could be generated from the proposed project. The purpose of this letter, the attached Notice of Completion (NOC), and the Draft EA is to allow public agencies and the public the opportunity to review and comment on the environmental analysis in the Draft EA.

This letter, the attached NOC, and the Draft EA are not SCAQMD applications or forms requiring a response from you. Their purpose is simply to provide information to you on the above project. If the proposed project has no bearing on you or your organization, no action on your part is necessary. The Draft EA and other relevant documents may be obtained by calling the SCAQMD Public Information Center at (909) 396-2039 or accessing the SCAQMD's CEQA website at: http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects

Comments focusing on your area of expertise, your agency's area of jurisdiction, if applicable, or issues relative to the environmental analysis for the proposed project will be accepted during a 32-day public review and comment period beginning Friday, February 16, 2018 and ending at 5:00 p.m. on Tuesday, March 20, 2018. **Please send any comments relative to the CEQA analysis in the Draft EA to Mr. Sam Wang (c/o CEQA) at the address shown above.** Comments can also be sent via facsimile to (909) 396-3982 or email to swang1@aqmd.gov. Please include the name and phone number of the contact person. Questions regarding the proposed amended rule language should be directed to Mr. Neil Fujiwara at (909) 396-3512 or by email to nfujiwara@aqmd.gov.

The Public Hearing for the proposed amended rule is scheduled for April 6, 2018. (Note: Public meeting dates are subject to change).

Date: February 15, 2018 **Signature:**

Barbara Radlein
Program Supervisor, CEQA Special Projects
Planning, Rules, and Area Sources

Reference: California Code of Regulations, Title 14, Sections 15070, 15071, 15072, 15073, 15105, 15251, 15252, 15371, and 15372

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765-4182

NOTICE OF COMPLETION OF A DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Project Title:
Proposed Amended Rule (PAR) 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Project Location: The proposed project may affect facilities located throughout the South Coast Air Quality Management District's (SCAQMD) jurisdiction, which covers all of Orange County, the urban portions of Los Angeles and San Bernardino counties southwest of the San Bernardino and San Gabriel mountains, and nearly all of Riverside County, with the exception of communities near the state border.

Description of Nature, Purpose, and Beneficiaries of Project: SCAQMD staff is proposing to amend Rule 1469 to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 contains new requirements for: 1) hexavalent chromium-containing tanks, such as dichromate seal tanks, that are currently not regulated; 2) air pollution control equipment to be installed on hexavalent chromium-containing Tier II tanks that emit or have the potential to emit hexavalent chromium; 3) conducting periodic source testing and parametric monitoring of air pollution control equipment; 4) complying with building enclosure provisions; 5) maintaining minimum freeboard height on certain tanks; 6) conducting additional housekeeping and implementing best management practices for all hexavalent chromium containing tanks; 7) permanent total enclosures to be vented to air pollution control equipment in the event of non-compliance with specific source testing or monitoring requirements; 8) reducing allowable surface tension limits; 9) prohibiting the use of chemical fume suppressants that contain perfluorooctane sulfonic acid (PFOS); and 10) evaluating the use of non-PFOS chemical fume suppressants with toxicity concerns via a revised certification process conducted by SCAQMD and the California Air Resources Board. Some facilities that may be affected by PAR 1469 are identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5. While the reduction of hexavalent chromium emissions is expected to create an environmental benefit, activities that facility operators may undertake to comply with PAR 1469 may also create secondary adverse environmental impacts from the construction and operation activities primarily associated with installing new or modifying existing air pollution control equipment. However, analysis of PAR 1469 in the Draft EA did not result in the identification of any environmental topic areas that would be significantly adversely affected.

Lead Agency:	**Division:**
South Coast Air Quality Management District	Planning, Rule Development and Area Sources

Draft EA and all supporting documentation are available at:	**or by calling:**	**Draft EA can also be obtained by accessing SCAQMD's website at:**
SCAQMD Headquarters 21865 Copley Drive Diamond Bar, CA 91765	(909) 396-2039 **or by emailing:** PICrequests@aqmd.gov	http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects

The Notice of Completion is provided to the public through the following:

☑ Los Angeles Times (February 16, 2018)
☑ SCAQMD Mailing List & Interested Parties
☑ SCAQMD Public Information Center
☑ SCAQMD Website

Draft EA Review Period (32 days): February 16, 2018 – March 20, 2018

Scheduled Public Meeting Date(s) (subject to change):
SCAQMD Governing Board Hearing: April 6, 2018, 9:00 a.m.; SCAQMD Headquarters – Auditorium

The proposed project will have no statewide, regional or areawide significance; therefore, no CEQA scoping meeting is required for the proposed project pursuant to Public Resources Code Section 21083.9(a)(2).

Send CEQA Comments to:	**Phone:**	**Email:**	**Fax:**
Mr. Sam Wang	(909) 396-2649	swang1@aqmd.gov	(909) 396-3982

Direct Questions on PAR 1469 to:	**Phone:**	**Email:**	**Fax:**
Mr. Neil Fujiwara	(909) 396-3512	nfujiwara@aqmd.gov	(909) 396-3324

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Environmental Assessment for Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

February 2018

SCAQMD No. 02072018SW
State Clearinghouse No: TBD

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INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD or District) in 1977[1] as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). By statute, SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the District[2]. Furthermore, SCAQMD must adopt rules and regulations that carry out the AQMP[3]. The AQMP is a regional blueprint for how SCAQMD will achieve air quality standards and healthful air and the 2016 AQMP[4] contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP includes control measure TXM-02: Control of Toxic Metal Particulate Emissions from Plating and Anodizing Operations, which identifies Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid and Anodizing Operations.

Prior to the adoption of Rule 1469, chromium electroplating (hard and decorative) and chromic acid anodizing processes were regulated by Rule 1169 – Hexavalent Chromium – Chrome Plating and Chromic Acid Anodizing which was adopted on June, 3, 1988. However, on October 9, 1998, Rule 1169 was repealed and the provisions were adopted instead in Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, which is part of Regulation XIV – Toxics and Other Non-Criteria Pollutants.

Ambient monitoring was conducted near several Rule 1469 facilities, and this data, combined with sampling data and emissions testing indicated that the application of heat and/or air sparging[5] can cause hexavalent chromium emissions from the tank depending on the concentration of hexavalent chromium in a tank. Since these activities were not previously known to be sources of hexavalent chromium emissions, PAR 1469 now addresses these tanks and includes requirements to help minimize the release of fugitive emissions from these operations such as building enclosures, best management practices, and housekeeping provisions. PAR 1469 also has additional provisions to ensure continuous proper operation of point source air pollution control equipment and contingency provisions to add air pollution control equipment for a building enclosure for any facility that has repeated non-compliance with the point source emission requirements.

[1] The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch. 324 (codified at Health and Safety Code Section 40400-40540).
[2] Health and Safety Code Section 40460(a).
[3] Health and Safety Code Section 40440(a).
[4] SCAQMD, 2016 Air Quality Management Plan. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf
[5] Air sparging is solution mixing by dispersing air into the tank solution to create a homogeneous solution.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA), California Public Resources Code Section 21000 *et seq.*, requires environmental impacts of proposed projects to be evaluated and feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects to be identified and implemented. The lead agency is the "public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment" (Public Resources Code Section 21067). Since PAR 1469 is a SCAQMD-proposed amended rule, SCAQMD has the primary responsibility for supervising or approving the entire project as a whole and is the most appropriate public agency to act as lead agency (CEQA Guidelines[6] Section 15051(b)).

CEQA requires that all potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented if feasible. The purpose of the CEQA process is to inform the lead agency, responsible agencies, decision makers, and the general public of potential adverse environmental impacts that could result from implementing PAR 1469 and to identify feasible mitigation measures or alternatives, when an impact is significant.

Public Resources Code Section 21080.5 allows public agencies with regulatory programs to prepare a plan or other written documents in lieu of an environmental impact report once the Secretary of the Resources Agency has certified the regulatory program. SCAQMD's regulatory program was certified by the Secretary of Resources Agency on March 1, 1989, and has been adopted as SCAQMD Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment.

PAR 1469 has been crafted to further reduce emissions of hexavalent chromium from the facilities and tanks that were not previously known to be sources of hexavalent chromium emissions and has requirements to help minimize the release of fugitive emissions from these operations such as building enclosures, best management practices, and housekeeping provisions. Because PAR 1469 requires discretionary approval by a public agency, it is a "project" as defined by CEQA[7]. PAR 1469 (the proposed project) will reduce emissions of hexavalent chromium and will provide an overall environmental benefit to air quality. However, SCAQMD's review of the proposed project also shows that implementation of PAR 1469 may create secondary adverse effects on the environment either directly or indirectly. SCAQMD's review of these secondary adverse effects shows that PAR 1469 would not have any significant adverse effects on the environment. Thus, the type of CEQA document appropriate for the proposed project is an Environmental Assessment (EA). The EA is a substitute CEQA document, prepared in lieu of a Negative Declaration (CEQA Guidelines Section 15252), pursuant to SCAQMD's Certified Regulatory Program (CEQA Guidelines Section 15251(l) and SCAQMD Rule 110). The EA is also a public disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental impacts of the proposed project; and, 2) be used as a tool by decision makers to facilitate decision making on the proposed project.

Thus, SCAQMD, as lead agency for the proposed project, prepared a Draft EA pursuant to its Certified Regulatory Program. The Draft EA includes a project description in Chapter 1 and an

[6] The CEQA Guidelines are codified at Title 14 California Code of Regulations Section 15000 *et seq.*
[7] CEQA Guidelines Section 15378

Environmental Checklist in Chapter 2. The Environmental Checklist provides a standard tool to identify and evaluate a project's adverse environmental impacts and the analysis concluded that no significant adverse impacts would be expected to occur if PAR 1469 is implemented. Because PAR 1469 will have no statewide, regional or areawide significance, no CEQA scoping meeting is required to be held pursuant to Public Resources Code Section 21083.9(a)(2). Further, pursuant to CEQA Guidelines Section 15252, since no significant adverse impacts were identified, no alternatives or mitigation measures are required.

The Draft EA is being released for a 32-day public review and comment period from February 16, 2018 to March 20, 2018. Any comments received during the public comment period on the analysis presented in this Draft EA will be responded to and included in the Final EA. Prior to making a decision on the adoption of PAR 1469, the SCAQMD Governing Board must review and certify the Final EA as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PAR 1469.

PROJECT LOCATION

Rule 1469 currently applies to all chromium electroplating and chromic acid anodizing facilities located throughout SCAQMD's jurisdiction. SCAQMD staff has identified 115 facilities that conduct decorative or hard chromium electroplating or chromic acid anodizing operations that would be subject to PAR 1469. Of the 115 affected facilities, 47 facilities conduct decorative hexavalent chromium plating, 31 facilities conduct hard hexavalent chromium plating, 31 facilities conduct chromic acid anodizing, only 4 facilities conduct trivalent chromium plating, and 2 facilities conduct both chromic acid anodizing and hard hexavalent chromium plating. The majority of the plating and anodizing facilities subject to PAR 1469 conduct hexavalent chromium plating or chromic acid anodizing. All 115 facilities are categorized using North American Industry Classification System (NAICS) code and summarizes in Appendix D of this Draft EA. Appendix D also contains the list of affected facilities and their locations within SCAQMD's jurisdiction.

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of SSAB and MDAB. The Basin, which is a subarea of SCAQMD's jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. It includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. A federal nonattainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (see Figure 1-1).

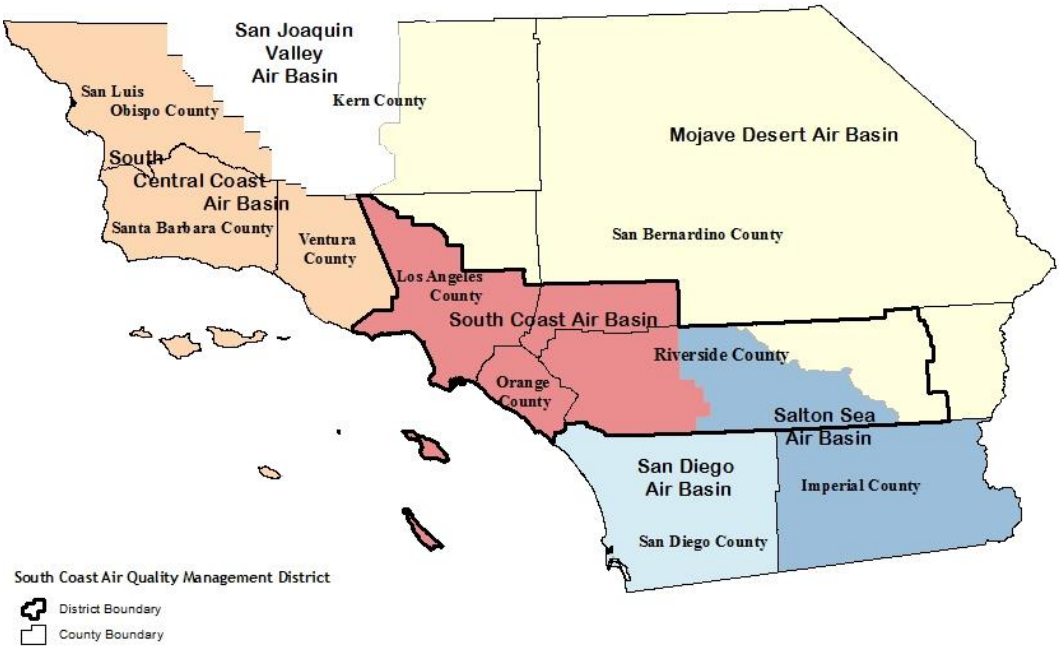


Figure 1-1
Southern California Air Basins

PROJECT BACKGROUND

Prior to the adoption of Rule 1469, chromium electroplating (hard and decorative) and chromic acid anodizing processes were originally regulated by Rule 1169 which was first adopted on June 3, 1988 to reduce hexavalent chromium emissions from these operations. However, on October 9, 1998, Rule 1169 was repealed and provisions were adopted instead in Rule 1469 which is part of Regulation XIV that focuses on reducing emissions of various types of toxics and non-criteria pollutants. In addition to facilities that perform chromium electroplating or chromic acid anodizing operations, Rule 1469 also regulates other activities that are generally associated with chromium electroplating and chromic acid anodizing operations. .

In 2015, SCAQMD staff initiated rulemaking for PAR 1469 as a result of data collected from conducting air monitoring and sampling near a chromic acid anodizing facility located in Newport Beach in Orange County. SCAQMD staff had been conducting air monitoring near the facility since 2009 and in 2012 and 2013, levels of hexavalent chromium increased. These increases triggered a series of further evaluations which identified sources within the facility as having elevated levels of hexavalent chromium emissions. As SCAQMD staff continued to conduct additional monitoring and sampling, and engineering evaluations, the following conditions were identified as contributing to the elevated hexavalent chromium levels: 1) cross-drafts in the building that housed the chromic acid anodizing process allowed emissions to flow out of the building and interfered with the collection efficiency of the air pollution control equipment; and 2) high hexavalent chromium emissions were detected from a process tank, a heated sodium dichromate seal tank, that was not currently regulated under Rule 1469. SCAQMD and the facility entered into a stipulated Order for Abatement requiring the facility to shut down when ambient monitors detect a rolling average exceeding a specified level of hexavalent chromium. As a result, the facility implemented changes to address their hexavalent

chromium emissions. In particular, additional air pollution control equipment was installed on their chromic acid anodizing process line (including the heated sodium dichromate seal tank). Also, the facility constructed a building enclosure with negative air that was vented to air pollution control equipment. After these key improvements were implemented, the average annual concentrations of hexavalent chromium dropped steadily from 2013 to 2016. However, average emissions in 2017 slightly increased above previous years, to just below 0.4 nanograms per cubic meter (ng/m^3). This increase in hexavalent chromium emissions may have occurred as a result of construction work involving concrete demolition and removal of the rubble from the facility.

In 2015, SCAQMD rules staff began visiting other Rule 1469 facilities to get a better understanding of current operating conditions, to observe the different types of building enclosures and housekeeping practices, and to evaluate other process tanks that can also be sources of hexavalent chromium emissions similar to the heated sodium dichromate seal tank. About the same time as the rule development process for PAR 1469, SCAQMD staff was separately conducting air monitoring in the city of Paramount to investigate potential sources of hexavalent chromium near a metal forging facility. In October 2016, SCAQMD expanded its monitoring network in Paramount and began monitoring near a chromic acid anodizing facility. Initial results of hexavalent chromium emissions were measured at 26 ng/m3 near that facility. Additional monitoring and sampling were conducted and as was observed with the facility, a heated sodium dichromate seal tank combined with cross-drafts allowing emissions to flow directly out of the facility's building were some of the sources that contributed to the high measurements of hexavalent chromium.

The combination of data from conducting ambient monitoring, sampling, and emissions testing indicated that the application of heat and/or air sparging can cause hexavalent chromium emissions from the tank and emissions will increase as the concentration of hexavalent chromium in the tank and the temperature increases. Since these activities were not previously known to be sources of hexavalent chromium emissions, PAR 1469 now addresses these tanks and includes requirements to help minimize the release of fugitive emissions from these operations such as building enclosures, best management practices, and housekeeping provisions. PAR 1469 also has provisions to ensure continuous proper operation of point source air pollution control equipment and contingency provisions to add air pollution control equipment for a building enclosure for any facility that has repeated non-compliance of the point source emission requirements.

PROJECT DESCRIPTION

The purpose of PAR 1469 is to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 proposes new requirements for hexavalent chromium-containing tanks, such as heated sodium dichromate seal tanks, that are currently not regulated under Rule 1469. The proposal requires the installation of air pollution control equipment for hexavalent chromium-containing tanks that have the potential to emit hexavalent chromium. In addition, PAR 1469 includes requirements to conduct periodic source testing, to conduct parameter monitoring of air pollution control equipment, to operate all hexavalent chromium-containing tanks in building enclosures, and to employ additional housekeeping and best management practices for all hexavalent chromium-containing tanks. Proposed requirements include triggered provisions for installing a permanent total enclosure vented to air pollution control equipment in the event of non-compliance with specific source

testing or monitoring requirements. PAR 1469 also revises existing requirements to reduce surface tension limits that prohibit the use of chemical fume suppressants (CFS) that contain perfluorooctane sulfonic acid in order to be consistent with the United States Environmental Protection Agency (U.S. EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP)[8] for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks. SCAQMD staff is incorporating provisions to encourage use of alternative plating and anodizing techniques that minimize or eliminate the use of hexavalent chromium and including provisions for phasing out the use a revised certification process by SCAQMD and the California Air Resources Board (CARB) for certain chemicals that are used in CFS that have toxicity concerns

The following is a detailed summary of the key elements contained in PAR 1469. A draft of PAR 1469 can be found in Appendix A.

Purpose – subdivision (a)

New subdivision (a) has been added to clarify that PAR 1469 is designed to reduce hexavalent chromium emissions from facilities that perform chromium electroplating or chromic acid anodizing operations, and other activities that are generally associated with chromium electroplating and chromic acid anodizing operations.

Applicability – subdivision (b)

Subdivision (b) has been revised to clarify that PAR 1469 applies to the owner or operator of any facility performing chromium electroplating or chromic acid anodizing by removing references to SCAQMD Rules 1401 and 1401.1 and chromium electroplating/chromic acid anodizing kits.

Definitions – subdivision (c)

Subdivision (c) removes or modifies existing definitions and adds new definitions of terms used throughout PAR 1469:

- ADD-ON AIR POLLUTION CONTROL DEVICE (modified)
- ADD-ON NON-VENTILATED AIR POLLUTION CONTROL DEVICE (new)
- AIR POLLUTION CONTROL TECHNIQUE (modified)
- APPROVED CLEANING METHOD (new)
- BARRIER (new)
- BREAKDOWN (removed)
- BUILDING ENCLOSURE (new)
- EARLY EDUCATION CENTER (new)
- ENCLOSURE OPENING (new)
- FREEBOARD HEIGHT (new)
- FUGITIVE EMISSIONS (modified)
- HIGH EFFICIENCY PARTICULATE ARRESTORS (HEPA) (modified)
- HIGH EFFICIENCY PARTICULATE ARRESTOR (HEPA) VACUUM (new)
- LOW PRESSURE SPRAY NOZZLE (new)
- MECHANICAL FUME SUPPRESSANT (modified)
- PERFLUROOCTANE SULFONIC ACID (PFOS) BASED FUME SUPPRESSANT (new)
- PERMANENT TOTAL ENCLOSURE (new)

[8] National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63 Subpart N. https://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-9

- STALAGMOMETER (modified)
- TANK PROCESS AREA (new)
- TENSIOMETER (modified)
- TIER I HEXAVALENT CHROMIUM-CONTAINING TANK (new)
- TIER II HEXAVALENT CHROMIUM-CONTAINING TANK (new)
- WEEKLY (modified)

The new definitions for Tier I and Tier II Hexavalent Chromium-Containing Tanks are necessary as many components of PAR 1469 are designed to address previously unregulated tanks that have the potential for hexavalent chromium emissions.

As explained previously, SCAQMD staff sampled a number of tanks and the results showed that some tanks contained high levels of hexavalent chromium even though they are not currently regulated by Rule 1469. To be consistent with the federal NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, SCAQMD staff selected a limit of 1,000 ppm hexavalent chromium.

The definition for a Tier I tank is as follows:

- TIER I HEXAVALENT CHROMIUM-CONTAINING TANK means a tank permitted as containing a hexavalent chromium concentration of 1,000 parts per million (ppm) or greater and is not a TIER II HEXAVELENT-CHROMIUM CONTAINING TANK.

There is also a greater concern about any hexavalent chromium-containing tank that also operates under heated, air sparged, or electrolytic conditions because hexavalent chromium emissions can be generated outside of the tank. In particular, high concentrations of hexavalent chromium in solution were found in heated sodium dichromate seal tanks and chrome stripping tanks.

Based on SCAQMD sampling and testing data, tanks containing any concentration of hexavalent chromium that are operated at or below 140 degrees Fahrenheit (^{o}F) have not been shown to exhibit elevated hexavalent chromium emissions. Additional sampling and testing data has demonstrated a correlation between temperature and concentration. Elevated temperatures correlated with hexavalent chromium emissions at lower concentrations. Therefore, additional criteria are applied when determining a Tier II Hexavalent Chromium-Containing Tank, as outlined in the following definition:

- TIER II HEXAVALENT CHROMIUM-CONTAINING TANK means a tank concentration containing hexavalent chromium that meets any of the following with the corresponding hexavalent chromium concentrations in Table 1-1:

Table 1-1
Tier II Hexavalent Chromium-Containing Tank Definitions

Tank Condition	Hexavalent Chromium Concentration
Operating temperature between 140°F-150°F	>1,500 ppm
Operating temperature between 150°F-160°F	>500 ppm
Operating temperature greater than 160°F	>100 ppm
Uses air sparging as an agitation method	>1,000 ppm
Electrolytic	>1,000 ppm

Facilities that conduct chromic acid anodizing may have some tanks that would be considered Tier II tanks based on the concentration of hexavalent chromium and air sparging being the agitation method. However, industry representatives indicated that these tanks would be converted to use mechanical agitation, such as eductors. By modifying the agitation method, the tanks would not be considered a Tier II tank and therefore not require add-on controls

Requirements – Subdivision (d)
Paragraph (d)(1) has been revised to change the requirement for a separate meter to be hardwired for each tank instead of for each rectifier.

Paragraph (d)(2) has been revised to clarify two terms: 1) electroplating is referring to chromium electroplating; and 2) anodizing tank is referring to a chromic acid anodizing tank.

New paragraph (d)(4) has been added to require any Tier I or Tier II Hexavalent Chromium-Containing Tank existing before rule adoption that undergoes specific modifications to maintain a freeboard height within the range as specified in the most current edition (i.e. at the time the permit application was deemed complete by the SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists. A modification under this provision includes a dimensional change to the tank. Freeboard height is the vertical distance from the tank bath surface, including liquid or foam, to the lip of the tank with parts and equipment submerged in the tank.

Requirements for Building Enclosures – subdivision (e)
New subdivision (e) has been added to establish requirements for operating any Tier I or Tier II Hexavalent Chromium-Containing Tank and associated process tanks within a building enclosure beginning 90 days after date of rule adoption. Building enclosures shall meet the following requirements:

- New paragraph (e)(1): The combined area of all building enclosure openings, including any roof openings for passage of equipment or vents through which fugitive hexavalent chromium emissions can escape from the building enclosure, shall not exceed three percent of the building enclosure envelope, which is calculated as the total surface area of the building enclosure's exterior walls, floor and horizontal projection of the roof on the ground. Information on calculations for the building enclosure envelope, including locations and dimensions of openings counted toward the three percent allowance are required to be

provided in the compliance status reports pursuant to paragraphs (p)(2) and (p)(3) (see description under subdivision (p).

- New paragraph (e)(2): Ensure that any building enclosure opening that is on opposite ends of the building enclosure where air movement can pass through are not simultaneously open except during the passage of vehicles, equipment or people when one or more of the following methods are implemented:
  - ✓ Automated roll-up door;
  - ✓ Overlapping plastic strip curtain;
  - ✓ Vestibule doors;
  - ✓ Airlock system; or
  - ✓ Alternative method to minimize the release of fugitive hexavalent chromium emissions from the building enclosure that the owner or operating can demonstrate to the Executive Officer as (an) equivalent or more effective method(s) to minimize the movement of air within the building enclosure.
- New paragraph (e)(3): Except for the movement of vehicles, equipment or people, close any building enclosure opening (or use any of the methods listed above) that directly opens towards a sensitive receptor, school, or early education center that is located within 100 feet, as measured from the property line of the sensitive receptor, school, or early education center to the building enclosure opening.
- New paragraph (e)(4): Ensure that all roof openings that are located within 15 feet from the edge of any Tier II Hexavalent Chromium-Containing Tank are closed, except for roof openings that are used to allow access to equipment or parts, or provide intake air for a building enclosure that does not create air velocities that impact the collection efficiency of a ventilation system for an add-on air pollution control device.
- New paragraph (e)(5): Prohibit operation of any device located on the roof of any building enclosure that pulls air from the building enclosure to the outdoor air unless the air is vented to an add-on air pollution control device that is fitted with HEPA filters.
- New paragraph (e)(6): Inspect any building enclosure at least once a calendar month for breaks or deterioration that could cause or result in fugitive emissions.
- New paragraph (e)(7): Repair any breaks or deterioration that could or results in fugitive hexavalent chromium emissions from any building enclosure within 72 hours of discovery. An extension may be granted if the owner or operator can substantiate that the repair will take longer than that 72 hours and temporary measures are implemented that ensure no fugitive emissions results from a break.
- New paragraph (e)(8): PAR 1469 requires that a building enclosure design should not conflict with any other agency's requirements, and instead should be constructed in a manner that is compliant with all agencies. This may require the owner or operator of a facility to install additional equipment or modify the existing structure. If any other agency requirements conflict, the owner or operator shall notify the Executive Officer in writing within 30 days of rule adoption to explain which SCAQMD building enclosure requirements the facility cannot comply with, and the alternatives that the facility would implement to minimize the release of fugitive emissions.
- New paragraph (e)(9): The owner or operator will have 90 days upon receiving approval from the Executive Officer to implement the approved alternative compliance measures. The owner or operator of a facility that implements and maintains the approved alternative

compliance measures shall have met the applicable requirements specified in paragraphs (e)(1) through (e)(5).

Housekeeping Requirements – subdivision (f)

The housekeeping requirements that were originally in paragraph (d)(4) have been moved to its own dedicated subdivision (f) and clarified to apply to chromium electroplating and chromic acid anodizing operations. Amended provisions include the following:

- Revised paragraph (f)(3) requires the use of an approved cleaning method or using a drip tray or other containment device.
- Revised paragraph (f)(4) requires the use of an approved cleaning method to clean surfaces within the enclosed storage area, open floor area, walkways around the Tier I or Tier II Hexavalent Chromium-Containing Tank(s), or any surface potentially contaminated with hexavalent chromium or surfaces that potentially accumulate dust at least daily.
- Revised paragraph (f)(5) requires that containers that contain chromium or chromium-containing waste material shall be kept closed at all times except when filling or emptying.
- New paragraph (f)(6) has been added to address the cleaning requirements in the buffing, grinding, or polishing area. On each day when buffing, grinding, or polishing, the owner or operator shall clean floors within 20 feet of a buffing, grinding, or polishing workstation and any entrance/exit point within one hour of the end of the last operating shift of when buffing, grinding, or polishing are conducted. Previous requirements pertaining to establishing a physical barrier between buffing, grinding, or polishing and where chromium electroplating or chromic acid anodizing have been moved to paragraph (g)(6) in subdivision (g) - Best Management Practices. Previous requirements pertaining to compressed air cleaning have been moved to paragraph (g)(7) in subdivision (g) - Best Management Practices.
- New paragraph (f)(7) has been added to require owners or operators to remove any flooring in the tank process areas that is made of fabric or fibrous material such as carpets or rugs where hexavalent chromium materials can be trapped.
- New paragraph (f)(8) has been added to require owners or operators to conduct abatement measures of suspect hexavalent chromium prior to the installation, modification, or removal of any add-on air pollution control device to prevent the generation of fugitive emissions:
    - Prior to being disturbed, roof surfaces shall be cleaned by using a HEPA vacuum;
    - Any and all roof surfaces that remain stained after completion of the initial roof cleaning shall be treated by encapsulation or removed through controlled demolition;
    - All construction and demolition activities shall be conducted within a temporary total enclosure that is vented to HEPA filtration;
    - All waste material generated by abatement, construction, or demolition shall be disposed as hazardous waste; and
    - Notify the District at least 48 hours prior to the commencement of any work being done by calling 1-800-CUT-SMOG.

Best Management Practices – subdivision (g)

New subdivision (g) has been added which establishes Best Management Practices that prescribe how an owner or operator shall conduct chromium electroplating or chromic acid anodizing and other ancillary operations to prevent the release or generation of fugitive emissions.

Revised paragraph (g)(1) has been expanded to minimize the dragout occurring outside of tanks conducting chromium electroplating or chromic acid anodizing to include Tier I and Tier II Hexavalent Chromium-Containing Tanks. For facilities with automated lines, the owner or operator shall now be able to containing equipment other than drip trays to prevent hexavalent chromium-containing liquid from falling through the space between tanks. Cleaning requirements additionally includes cleaning of residue on the drip tray or other equipment used for containment. Facilities without automated lines shall handle parts in a manner that does not cause hexavalent chromium-containing liquid to drip outside of the tank unless the liquid is captured by a drip tray or other containment device.

New paragraph (g)(2) adds requirements for the spray rinse of parts or equipment. Owners or operators may spray rinse the part or equipment if they are fully lowered inside a tank where the overspray and all of the liquid is captured inside the tank. If an owner or operator chooses to spray rinse above a process tank, they must ensure that any hexavalent chromium-containing liquid is captured and returned to the tank, and:

- Install splash guard(s) at the tank that is free of holes, tears or openings. Splash guards shall be cleaned daily, such that there is no accumulation of visible dust or residue potentially contaminated with hexavalent chromium; or
- For tanks located within a process line utilizing an overhead crane system that would be restricted by the installation of splash guards, a low pressure spray nozzle may be used instead and operated in a matter that water flows off of the part or equipment.

New paragraph (g)(3) requires owners or operators to clearly label each tank within the tank process area with a tank number or other identifier, bath contents, maximum concentration (ppm) of hexavalent chromium, operating temperature range, and any agitation method used.

New paragraph (g)(4) requires that the owner or operator of a Tier II Hexavalent Chromium-Containing Tank that is subject to paragraph (d)(4), shall make inch markings on the interior of the tank, including markings to indicate the acceptable freeboard height range as specified in the most current edition (i.e. at the time the permit application was deemed complete by the SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists from the lip of the tank.

Paragraph (g)(5) was relocated from the housekeeping requirements that were originally in paragraph (d)(4) and requires all buffing, grinding, and polishing operations to take place within a building enclosure.

Paragraph (g)(6) was relocated from the housekeeping requirements that were originally in paragraph (d)(4) and requires a barrier to be installed that separates the buffing, grinding, or polishing area within a facility from the chromium electroplating or chromic acid anodizing operation.

New paragraph (g)(7) prohibits compressed air cleaning or drying within 15 feet of any chromium electroplating or chromic acid anodizing operation unless a barrier separates those areas from compressed air cleaning or drying operation, or the compressed air cleaning or drying is conducted in a permanent total enclosure.

Add-On Air Pollution Control Devices and Emission Standards – subdivision (h)

PAR 1469 creates a new subdivision (h) for requirements regarding add-on air pollution control devices and emission standards. Paragraph (h)(2) now consolidates the emission standards and control requirements for existing, modified, and new hexavalent hard and decorative chromium electroplating and chromic acid anodizing facilities, which has been reproduced in Table 1-2. Additionally, all effective dates for notification to the Executive Officer, emission standards, and control requirements were removed as these dates are now past and in full effect.

Table 1-2
Hexavalent Chromium Emission Limits for Existing Tanks

Facility Type	Distance to Sensitive Receptor (meters)	Annual Permitted Amp-Hrs	Emission Limit (mg/amp-hr)	Required Air Pollution Control Technique
Existing Facility	< 100	≤ 20,000	0.01	Use of Certified CFS. Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr.
Existing Facility	< 100	> 20,000	0.0015	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Existing Facility	> 100	≤ 50,000	0.01	Use of Certified CFS. Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr.
Existing Facility	> 100	> 50,000 and ≤ 500,000	0.0015	Use of an air pollution control technique approved by the Executive Officer.
Existing Facility	> 100	> 500,000	0.0015	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Modified Facility	Any	Any	0.0015	Using an add-on air pollution control device(s), or an approved alternative method pursuant to subdivision (i) to control hexavalent chromium emissions.
New Facility	Any	Any	0.0011	Using a HEPA add-on air pollution control device, or an approved alternative method pursuant to subdivision (i) to control hexavalent chromium emissions.

Subparagraph (h)(2)(b) retains the siting requirements for New Chromium Electroplating and Chromic Acid Anodizing Facilities.

All requirements to conduct a facility-wide screening health risk assessment have been removed in this subdivision because these assessments are currently addressed by SCAQMD's ongoing

program for new source review of toxics (Rule 1401 and 1401.1) and implementation of AB2588 (Rule 1402).

Paragraph (h)(3) applies to decorative chromium electroplating processes using a trivalent chromium bath. PAR 1469 removes the requirement to utilize a certified CFS, as certification at the federal and state level only require this of hexavalent chromium electroplating and chromic acid anodizing operations, however, adds that CFS cannot contain PFOS for consistency with the NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.

Emission Controls and Standards for Tier II Hexavalent Chromium-Containing Tanks

Paragraph (h)(4) adds new requirements for Tier II Hexavalent-Chromium Containing Tanks that are not chromium electroplating or chromic acid anodizing tanks. These tanks are required to be vented to an add-on air pollution control device and must meet the following standards:

- For existing facilities, 0.0015 mg/amp-hr, if any tanks that are vented are electrolytic; or
- For new facilities, 0.0011 mg/amp-hr, if any tanks that are vented are electrolytic; or
- 0.20 mg/hr, if all tanks that are vented are not electrolytic; or
- 0.004 mg/hr-ft^2, with the applicable surface area based on the tank surface area of all Tier II Hexavalent Chromium-Containing Tank(s) vented to an add-on air pollution control device, if the ventilation system has a maximum exhaust rate of greater than 5,000 cfm; or
- 0.004 mg/hr-ft^2, with the applicable surface area based on the tank surface area of all Tier II Hexavalent Chromium-Containing Tank(s) and other tanks required to be controlled by SCAQMD Permits to Operate vented to an add-on air pollution control device, if all tanks that are vented to the add-on air pollution control device are located in a permanent total enclosure.

For existing and new facilities with non-chromium electroplating or chromic acid anodizing Tier II tanks that are electrolytic, the emission standard is consistent with the emission limits in Table 1-2, Hexavalent Chromium Emission Limits for Existing Tanks for chromium electroplating and chromic acid anodizing tanks.

The emission limit for non-electrolytic tanks is based on review of 80 source tests conducted on existing add-on air pollution control equipment venting chromium electroplating and chromic acid anodizing tanks. The source tests were conducted from 1999 through 2016. Of the 80 source tests, approximately 20 source tests were not used in the analysis as they either vented multiple electroplating or anodizing tanks or the source test was conducted with very high amperes that were not representative of the normal operations. The average emission rate for the remaining source tests was 0.18 mg/hr. Additionally, due to the fact that uncontrolled hexavalent chromium emissions from non-electrolytic tanks are typically much lower than that of electroplating and anodizing tanks, staff believes that these non-chromium electroplating or chromic acid anodizing Tier II tanks can meet an emission limit of 0.20 mg/hr.

For Tier II Hexavalent Chromium-Containing Tanks that are in operation prior to date of rule adoption, the owner or operator shall submit a permit application to the SCAQMD for the add-on air pollution control devices based on the primary electrolytic operation conducted at the facility as specified below in Table 1-3.

Table 1-3
Permit Application Submittal Schedule for Add-On Air Pollution Control Device

Electrolytic Process at the Facility	Compliance Date for Permit Application Submittal for Add-on Air Pollution Control Device
Chromic Acid Anodizing	[180 Days after Date of Adoption]
Hard Chromium Electroplating	[365 Days after Date of Adoption]
Decorative Chromium Electroplating	[545 Days after Date of Adoption]

If a facility has multiple chromium electrolytic processes occurring, the earliest compliance date would apply to the facility.

The add-on air pollution control device shall be installed and operated no later than one year after a Permit to Construct is issued. Beginning no later than 30 days after rule adoption until the subject add-on air pollution control device is installed, the owner or operator is required to cover the subject tank no later than 30 minutes after ceasing operation of the tank. Tank covers are to be free of holes, tears, or gaps and handled in a manner that does not lead to fugitive emissions.

Owners or operators shall not be subject to the requirements of venting a Tier II Hexavalent Chromium-Containing Tank to an add-on air pollution control device if the uncontrolled hexavalent chromium emission rate is less than the applicable emission rate limit of subparagraph (h)(4)(A), as demonstrated by a SCAQMD-approved source test conducted pursuant to the Technical Guidance Document for *Measurement of Hexavalent Chromium Emissions from Chromium Plating and Chromic Acid Anodizing Operations for Certification of Wetting Agent Chemical Mist Suppressant Subject to SCAQMD Rule 1469.*

Paragraph (h)(5) requires facilities to operate add-on air pollution controls at the applicable minimum hood induced capture velocity specified in the most current edition (i.e. at the time the permit application was deemed complete by SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by American Conference of Governmental Industrial Hygienists.

Alternative Compliance Methods for New, Modified, and Existing Hexavalent Decorative and Hard Chromium Electroplating and Chromic Acid Anodizing Facilities – Subdivision (i)

PAR 1469 removes the following paragraphs as they refer to past interim compliance options:

- Alternative Interim Compliance Options – Inventory and Health Risk Assessment
- Alternative Interim Compliance Options – Emission Reduction Plan
- Alternative Interim Compliance Options – Facility wide Mass Emission Rate
- Alternative Interim Compliance Options – Alternative Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities with Low Annual Ampere Hour Usage

The alternative interim compliance options are no longer options and facilities will be required to comply with the respective requirements specified in subdivision (h). Subdivision (i) does, however, retain the option to operate under an alternative compliance method as currently allowed for in Rule 1469. The alternative compliance option is available for existing, new, and modified facilities if the owner or operator can demonstrate that the alternative method(s) is enforceable, provides an equal or greater hexavalent chromium reduction, or greater risk reduction than would direct compliance with the requirements of paragraph (h).

Training and Certification – Subdivision (j)

This section has been moved to its own dedicated subdivision (j) with no modifications to existing requirements.

Source Test Requirements and Test Methods – Subdivision (k)

The subdivision has been renamed and relocated from subdivision (e) to (k). Currently, Rule 1469 only requires a source test either by 2009 or during installation. SCAQMD staff believes that periodic source tests are necessary to verify the continued performance of both the capture and control of hexavalent chromium emissions for add-on air pollution control devices specified in this rule. Although parameter monitoring can verify the operation of specific elements of the add-on air pollution control device, source tests allows for the comprehensive evaluation of the system.

The owner or operator using air pollution control techniques to comply with applicable emission limits of this rule shall conduct an initial source test to demonstrate compliance with applicable emission standards, with subsequent periodic source testing or emissions screening testing at least once every 36 months thereafter as specified in paragraph (k)(3). Failure to retest following a failed or unsuccessful source test within 60 days shall constitute a violation of this rule.

Paragraph (k)(3) sets forth requirements for source testing and emissions evaluation compliance dates. The initial source test must be conducted 120 days after approval of the initial source test protocol. The due to date to submit an initial source test protocol is based on the facility's permitted annual ampere-hours, with facilities that have higher permitted limits required to submit sooner. A source test conducted after September 1, 2015 may be used to demonstrate compliance with the initial source test requirement. If not previously approved by SCAQMD, the owner or operator shall submit the source test to SCAQMD no later than 30 days after adoption of the rule. The Executive Officer shall notify the owner or operator within 30 days of receiving the source test results if it has demonstrated compliance with applicable emission limits, is representative of the method to control emissions currently in use, and the test was conducted using one of the approved test methods specified in the rule. A facility using a source test to demonstrate compliance with the initial source test requirement will be required to conduct a subsequent source test no later than 36 months from the adoption date of the rule instead of 36 months from the date of the subject source test.

In lieu of conducting a source test for subsequent tests, the owner or operator may conduct an emission screening of hexavalent chromium, which is an emission test following a source test protocol that consistence of one run instead of three runs and is representative of operating conditions at the facility:

Additionally, facilities with a District-approved source test conducted after January 1, 2009 will be allowed to conduct an emission screening to satisfy the requirements of conducting the initial source test so long as the subject source test met the criteria stated above.

The emission screening of hexavalent chromium will show whether the air pollution control technique is operating and performing as intended. While parameter monitoring may evaluate the performance of capture periodically, the emission screening allows the verification of emission limits. Owners or operators may utilize this option as a method to reduce the costs for potential work hours lost or having a source testing company conduct multiple runs. Within 30 days of receiving the results of the emission screening, the owner or operator shall submit the

results to SCAQMD. The owner or operator will be required to conduct a complete source test using an approved method within 60 days of conducting an emission screening that fails the capture efficiency test(s) specified in the source test protocol, exceeds an emission limit specified in the Permit to Operate, or exceeds an emission standard of the rule.

The owner or operator shall submit a source test protocol for source tests required under subdivision (k) as specified below in Table 1-4:

Table 1-4
Submittal Dates of Source Test Protocol

Permitted Air Pollution Control Technique	Facility Permitted Annual Ampere-Hours	Due Date of Initial Source Test Protocol	Due Date of Subsequent Source Test Protocol
Existing on or Before [Date of Adoption]	> 20,000,000	No later than [180 Days After Date of Rule Adoption]	180 Days Prior to Due Date of Subsequent Source Test
	≤ 20,000,000 and > 1,000,000	No later than [365 Days After Date of Rule Adoption]	180 Days Prior to Due Date of Subsequent Source Test
	≤ 1,000,000	No later than [545 Days After Date of Rule Adoption]	180 Days Prior to Due Date of Subsequent Source Test
New or Modified After [Date of Adoption]	Any	60 days After Initial Start-Up	180 Days Prior to Due Date of Subsequent Source Test

The submission of the source test protocol is separated into three categories based on the facility permitted ampere-hours. The most recent SCAQMD approved source test protocol may use for subsequent source tests if there are no changes in either the tanks controlled by the APCD or the APCD since the last successful SCAQMD approved source test.

Capture Efficiency

PAR 1469 specifies that the owner or operator using an add-on air pollution control device or add-on non-ventilated air pollution device shall demonstrate that all emissions are captured by measuring collection slot velocity and the push air manifold pressure. The demonstration shall be made during any source test. Additional parameter monitoring shall take place at least once every 180 days. An adequate collection slot velocity is required to ensure that collection of hexavalent chromium emissions is at the level measured during the source test.

A deficient measurement would indicate that the hexavalent chromium emissions are not being collected and being controlled by the add-on air pollution control device. If the measurement of a collection slot velocity is measured in the "repairable measurement" of 90-95% of the most recent passing source or emission screening or less than 2,000 feet per minute (fpm) and greater than 1,800 fpm, the owner or operator shall repair or repair and re-measure within 3 calendar days of the measurement. The tank controlled by the add-on air pollution control device may continue to operate with the add-on air pollution control device in operation. If the owner or operator fails to demonstrate that the collection slot is in the "acceptable measurement" range,

greater than 95% of the most recent source test or emission screening or greater than 2,000 fpm, the owner or operator shall shut-down any tanks associated with the any add-on air pollution control devices associated with the collection slot. If the measurement of the collection slot velocity is measured to be in the "failing measurement" range, less than 90% of the most recent source test or emission screening or less than 1,800 fpm the owner or operator shall immediately shut-down any tanks associated with any air add-on air pollution control devices associated with the collection slot.

This prevents the owner or operator from operating a tank that may be emitting hexavalent chromium since the hexavalent chromium emissions are not being sufficiently collected. The owner or operator shall demonstrate that the collection slot is in the "acceptable measurement" by re-measuring the collection slot velocity under typical operating conditions of the tank, with the exception of the suspension of electrolytic operations, prior to resuming electrolytic operations. The periodic measurement requirements to demonstrate the capture efficiency are summarized in Table 1-5 below.

Table 1-5
Periodic Measurement to Demonstrate Capture Efficiency

	Collection Slot(s) Velocity	Push Air Manifold Pressure (for push-pull systems only)	Required Action
Acceptable Measurement	> 95% of the most recent source test or emission screening; or ≥ 2,000 fpm	95-105% compared to the most recent passing source test or emission screening	None
Repairable Measurement	90-95% of the most recent passing source test or emission screening test, or < 2,000 fpm and > 1,800 fpm	90-110% of the most recent passing source test or emission screening test	Repair or replace, and re-measure within 3 calendar days of measurement
Failing Measurement	< 90% of the most recent passing source test or emission screening test, or <1,800 fpm	> 110% or < 90% of the most recent passing source test or emission screening test	Immediately shut down all tanks controlled by the add-on air pollution control device

PAR 1469 clarifies the requirements of the smoke test to clarify that both add-on air pollution control devices and add-on non-ventilated air pollution control devices are to be tested. Add-on air pollution control devices have emission collection systems and the smoke tests demonstrates through a qualitative evaluation that emissions coming from the tank are being collected. Add-on non-ventilated air pollution control devices typically do not have an emissions collection system and a smoke test would demonstrate the containment of hexavalent chromium emissions by devices such as tank covers and merlin hoods.

Certification of Wetting Agent Chemical Fume Suppressant – Subdivision (l)

PAR 1469 modifies the existing requirements by prohibiting the addition of PFOS-based CFS and lowering the minimum surface tension of the tank to 40 dynes/cm, as measured by the stalagmometer, or below 33 dynes/cm, as measured by a tensiometer. This modification is made to be consistent with the federal NESHAP for Chromium Electroplating. The certification list will be updated periodically based on the certification process conducted by the SCAQMD and the California Air Resources Board (CARB). Owner or operators shall use certified CFS in accordance with the certification and manufacturer specifications.

PAR 1469 adds a new requirement that no later than July 1, 2020, the Executive Officer shall notify the owner or operator of the availability of a CFS that meets the requirements by July 1, 2022 and the certification status of any potential CFS going through the certification process.

Beginning July 1, 2022, the owners or operators of a facility shall only add a CFS to a Tier II Hexavalent Chromium-Containing Tank that meets the requirement of (l)(1) based on a certification process conducted by SCAQMD and CARB. The date was chosen to allow sufficient time for facilities to implement alternatives, manufacturers to potentially reformulate, and SCAQMD staff to certify the CFS.

The previous certification process involved emission testing to determine a corresponding surface tension to consistently produce an emission rate of 0.01 mg/ampere-hour. The new certification process may consider: toxicity reviews of compounds in the CFS, emission testing for CFS emissions, surface tension, emission testing for hexavalent chromium emissions, and additional data to evaluate the CFS.

If the notification indicates that a CFS that meets the certification requirements will not be available by January 1, 2022, then the owner or operator shall install and implement an air pollution control technique to meet the emission limits specified in paragraph (h)(2) no later than July 1, 2022.

As discussed in Chapter 1, CFS may be used in conjunction with other air pollution control techniques. Assuming that no CFS are certified, it is anticipated that facilities will either be required to install additional add-on air pollution control devices, upgrade existing air pollution control techniques, or modify operating practices. Owners or operators will be required to modify or obtain a Permit to Operate that reflects the change and conduct any required emission testing.

In lieu of installing or modifying an air pollution control technique, the owner or operator of a facility may submit a written commitment to the Executive Officer no later than January 1, 2021 that states the facility shall phase-out the use of hexavalent chromium in the electroplating or chromic acid anodizing tank that is using a CFS by July 1, 2023. This commitment shall be signed by the owner or operator of the facility. The owner or operator may continue to use a CFS certified pursuant to paragraph (l)(1) until July 1, 2023.

The owner or operator that fails to phase-out the use of hexavalent chromium by July 1, 2023, will be required to cease operating the electroplating or chromic anodizing tank that contains hexavalent chromium until the facility can meet the specified emission limits. While the tank may be in compliance with surface tension limits, a facility that fails to cease operating the tank will be in violation of this provision.

Parameter Monitoring – Subdivision (m)

PAR 1469 modifies the section to require revised and additional parameter monitoring requirements for add-on air pollution control devices.

Pressure Drops

PAR 1469 removes this subparagraph as the requirements have been moved to subparagraph (m)(1)(A).

Differential and Static Pressure

PAR 1469 requires additional monitoring of operational parameters. The owner or operator must continuously monitor the operation of the add-on air pollution control device by installing and maintaining mechanical gauges to ensure the applicable pressures and air flows are maintained at the push manifold, collection manifold, and across each stage of the control device. Each mechanical gauge shall be installed so that it is easily visible and in clear sight of the operation or maintenance personnel. The differential or static pressure shall be maintained within the value established during the source test and specified in the Permit to Operate. The gauges shall be labeled with the acceptable operating pressure and/or airflow ranges.

HEPA Filters

The owner or operator of an add-on air pollution control device equipped with HEPA filters shall ensure that the monitoring device for pressure drop:

- Is equipped with ports to allow for periodic calibration in accordance with manufacturer's specifications;
- Is calibrated according to manufacturer's specification at least once every calendar year; and
- Is maintained in accordance with the manufacturer's specification.

Wetting Agent Chemical Fume Suppressants (Excluding Decorative Chromium Electroplating Tanks Using a Trivalent Chromium Bath)

The requirement to measure weekly after 20 daily measurements of surface tension with no violation has been modified to every third operating day, not less than a weekly frequency. The required non-PFOS CFS evaporate and degrade faster than the PFOS-containing products. SCAQMD staff is concerned that this faster degradation can result in faster increases to surface tensions values. More frequent periodic monitoring of tank bath surface tensions will ensure that an adequate amount of CFS are being used to comply with the surface tension limits specified in the rule and permit conditions.

Polyballs or Similar Mechanical Fume Suppressants

The requirement to visually inspect for coverage comparable to the coverage during the source test each operating day has been modified to include Tier II Hexavalent Chromium-Containing Tanks.

Inspection and Maintenance & Operation and Maintenance Plan – Subdivision (n)

The requirements for inspection and maintenance & the operation and maintenance plan apply to add-on air pollution control devices or add-on non-ventilated air pollution control devices. The existing table previously found in Table 4 has been moved to Appendix 4, Table 4-1 and incorporates the newly added parameter monitoring requirements of subdivision (l). The existing requirements for facilities using CFS or mechanical fume suppressants has also been

moved to Appendix 4, Table 4-2. PAR 1469 also combines the existing requirements for the operation and maintenance plan into this subdivision.

Recordkeeping and Reporting – Subdivisions (o) and (p)

PAR 1469 clarifies that the inspection records apply to facilities using either an add-on air pollution control devices or an add-on non-ventilated air pollution control devices. Additional recordkeeping requirements have been included to reflect the proposed provisions for building enclosures, housekeeping, best management practices, periodic source tests, capture efficiency tests, emission screening, and parameter monitoring.

As part of the ongoing compliance status and emission reports (specified in Appendix 3), facilities must report the results of add-on air pollution ventilation measures conducted during the most recent source test. Facilities must report the velocity of each collection slot and push air manifold. Facilities must also report any pollution prevention measures that have been implemented that eliminate or reduce the use of hexavalent chromium in the chromium electroplating or chromic acid anodizing process. Also required in the compliance status reports are calculations for building enclosure envelopes, including locations and dimensions of openings counted towards the 3% allowance.

PAR 1469 revises "Reports of Breakdowns" to "Notification of Incident". As background, SCAQMD Rule 430 provides breakdown coverage, where the facility would not be in violation of a permit condition or rule requirement, if the Executive Officer determines that it was a valid breakdown based on evidence provided by the owner or operator. However, the existing reference to Rule 430 in Rule 1469 is conflicting as Rule 430 does not apply to any Regulation XIV rules.

As a result, PAR 1469 replaces breakdown provisions with "Notification of Incident" which incorporates similar notification language used in Rule 430 by requiring the owner or operator to notify SCAQMD via 1-800-CUT-SMOG within one hour of the incident or within one hour of the time the owner or operator knew or reasonably should have known of the following:

- Any failed smoke test
- Any failed source test
- An exceedance of a permitted ampere-hour limit
- A malfunction of a non-resettable ampere-hour meter

A supplemental report is required to be submitted no later than 30 calendar days from the date of incident.

New and Modified Sources (removed)

PAR 1469 removes previous subdivision (l) relating to New and Modified Sources as facilities are required to submit a permit prior to altering or installing equipment under existing SCAQMD rules for permitting (Regulation II) and toxic new source review (Rule 1401).

Exemptions – Subdivision (q)

Due to the new requirements for Tier I and II Hexavalent Chromium-Containing Tanks, PAR 1469 removes the exemption for process tanks associated with a chromium electroplating or chromic acid anodizing process in which neither chromium electroplating nor chromic acid anodizing is taking place. One of the objectives of PAR 1469 is to control emissions from tanks

that were identified as sources of hexavalent chromium where neither electroplating nor chromic acid anodizing is taking place.

PAR 1469 also removes the exemption that would suspend requirements during periods of equipment breakdown. As discussed earlier, references to Rule 430 have been removed due to the lack of applicability to Regulations XIV.

Title V Permit Requirements (removed)
PAR 1469 removes the subdivision as SCAQMD Rule 3002 already requires a facility to obtain a Title V permit and comply with the conditions. Therefore this subdivision is unnecessary and duplicative.

Chromium Electroplating or Chromic Acid Anodizing Kits Requirements (removed)
PAR 1469 removes the requirements for chromium electroplating or chromic acid anodizing kits as this existing language was from the state's Chrome Plating ATCM regarding prohibitions on chromium electroplating and chromic acid anodizing kits. This language has been removed because Rule 1469 facilities are still subject to those requirements under state law.

Conditional Requirements for Permanent Total Enclosure – Subdivision (t)
PAR 1469 requires the owner or operator to install a permanent total enclosure if:

- More than one non-passing source test as required in paragraph (k)(1) occurred within a consecutive 48-month period; or
- More than one failure of the owner or operator to cease operating an electroplating or anodizing line associated with a failed measurement of the collection system of an add-on air pollution control device, or a failed smoke test of an add-on air pollution control device or add-on non-ventilated air pollution control device within a consecutive 48-month period.

Permanent total enclosures will be required to vent to an add-on air pollution control device that is fitted with HEPA filters, or other filter media that is rated by the manufacturer to be equally or more effective, and designed in a manner that does not conflict with requirements or guidelines set forth by OSHA or CAL-OSHA regarding worker safety, or the National Fire Protection Association regarding safety. Permit applications for permanent total enclosures shall be submitted to the Executive Officer as follows:

- No later than 180 days after notification by the Executive Officer if the property line of the facility is within 500 feet of the property line of any sensitive receptor, school, or early education center.
- No later than 270 days after notification by the Executive Officer for all other facilities.

Installation of the permanent total enclosure shall be completed no later than 12 months after the Permit to Construct is issued by the Executive Officer.

Under the proposed amended rule, the owner or operator would be allowed to contest the requirement to install a permanent total enclosure within 30 days of receiving notification from the Executive Officer that the requirement had been triggered. A written report contesting the requirement shall include evidence that installation of the permanent total enclosure is not warranted based on the following criteria:

- The specified incidences of non-compliances did not occur; and
- The owner or operator resolved the specified incidences of non-compliances in a timely manner; and
- The owner or operator implemented specific measures minimize the hexavalent chromium emissions.

The Executive Officer will use the information in the written report to determine whether the permanent total enclosure is required and will notify the owner or operator within 90 days of receiving the written report.

Hexavalent Chromium Phase-out – Subdivision (u)

Owners and operators of facilities with an existing Tier II tank that plan to eliminate or reduce hexavalent chromium concentrations within the tank shall not be subject to the requirements of paragraph (h)(4) to vent the tank to an add-on air pollution control device. In order to qualify for this exemption, facilities must submit a plan to the Executive Officer for approval that includes:

- The method by which the hexavalent chromium concentration will be eliminated or reduced and expected completion date; and
- A list of milestones necessary to occur, including their projected dates; and
- A list of all control measures that will be implemented until the concentration is eliminated or reduced.

Facilities must also submit a progress report to the Executive Officer by the 5th of every month indicating the performance to meet the increments of progress for the previous month, or submit according to an alternative schedule as specified in the approved plan. Implementation of the plan must be completed within 2 years of approval of the Hexavalent Chromium Phase-Out Plan. In addition, facilities unable to eliminate or reduce emissions by the expected completion date or if a Phase-Out Plan is denied after it is resubmitted, the owner or operator must submit permit applications for add-on air pollution control devices within 30 days of when they knew, or should have known that they could not meet the date. The add-on air pollution control device must be installed no later than 180 days after a Permit to Construct is issued.

CHAPTER 2

ENVIRONMENTAL CHECKLIST

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's potential adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Proposed Amended Rule (PAR) 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Mr. Sam Wang, (909) 396-2649
PAR 1469 Contact Person	Mr. Neil Fujiwara, (909) 396-3512
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	PAR 1469 is to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 contains new requirements for: 1) hexavalent chromium-containing tanks, such as dichromate seal tanks, that are currently not regulated; 2) air pollution control equipment to be installed on hexavalent chromium-containing Tier II tanks that emit or have the potential to emit hexavalent chromium; 3) conducting periodic source testing and parametric monitoring of air pollution control equipment; 4) complying with building enclosure provisions; 5) maintaining minimum freeboard height on certain tanks; 6) conducting additional housekeeping and implementing best management practices for all hexavalent chromium containing tanks; 7) permanent total enclosures to be vented to air pollution control equipment in the event of non-compliance with specific source testing or monitoring requirements; 8) reducing allowable surface tension limits; 9) prohibiting the use of chemical fume suppressants that contain perfluorooctane sulfonic acid (PFOS); and 10) evaluating the use of non-PFOS chemical fume suppressants with toxicity concerns via a revised certification process conducted by SCAQMD and the California Air Resources Board. Some facilities that may

	be affected by PAR 1469 are identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5. While the reduction of hexavalent chromium emissions is expected to create an environmental benefit, activities that facility operators may undertake to comply with PAR 1469 may also create secondary adverse environmental impacts from the construction and operation activities primarily associated with installing new or modifying existing air pollution control equipment. However, analysis of PAR 1469 in the Draft EA did not result in the identification of any environmental topic areas that would be significantly adversely affected.
Surrounding Land Uses and Setting:	Various
Other Public Agencies Whose Approval is Required:	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓"involve at least one impact that is a "Potentially Significant Impact". An explanation relative to the determination of impacts can be found following the checklist for each area.

☐ Aesthetics	☐ Geology and Soils	☐ Population and Housing
☐ Agriculture and Forestry Resources	☐ Hazards and Hazardous Materials	☐ Public Services
☐ Air Quality and Greenhouse Gas Emissions	☐ Hydrology and Water Quality	☐ Recreation
☐ Biological Resources	☐ Land Use and Planning	☐ Solid and Hazardous Waste
☐ Cultural Resources	☐ Mineral Resources	☐ Transportation and Traffic
☐ Energy	☐ Noise	☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

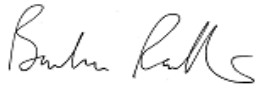
☑ I find the proposed project, in accordance with those findings made pursuant to CEQA Guidelines Section 15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and, 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: 1) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards; and, 2) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: February 15, 2018 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA Special Projects
Planning, Rules, and Area Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

As discussed in Chapter 1, the main focus of PAR 1469 is to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 has been evaluated relative to each of the 17 environmental topics identified in the following environmental checklist. Many requirements in PAR 1469 would not be expected to cause any physical changes that that could have secondary adverse environmental effects. For example, requirements to keep records, submit source testing protocols, and provide notifications are administrative or procedural in nature and would not be expected to create any secondary adverse environmental effects. In addition, more stringent requirement of the best management practices is not expected to cause environmental impacts because facilities currently are implementing most of the best management practices and the additional best management practices do not require any major construction for the facilities.

PAR 1469 also contains requirements that may cause physical activities to occur at sites affected by the proposed project and these activities may create secondary adverse environmental impacts. For example, in order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing new add-on air pollution control devices (APCDs) to control hexavalent chromium emissions from Tier II tanks, relocating hexavalent chromium-containing tanks into buildings, installing building enclosures, conducting additional source tests, and the implementation of additional housekeeping and best management practices for all hexavalent chromium-containing tanks. Activities associated with tank relocations, installing building enclosures constructions, and installing APCD are treated as construction impacts while conducting source tests and implementing housekeeping are considered operational impacts. Thus, the analysis in this Draft EA focuses on the potential secondary adverse environmental impacts associated with these activities. To evaluate these impacts, the following assumptions were relied upon in the analyses for the 115 facilities in SCAQMD's jurisdiction that are subject to PAR 1469:

Construction:

- 61 facilities have 118 Tier II tanks that would be required to have 118 APCDs installed within 36 months after the date of adoption of PAR 1469.

- Each APCD consists of ductwork, one blower, one mist eliminator and one HEPA filter system.

- An additional 27 APCDs are assumed to be installed at 27 decorative chrome electroplating, hard chrome electroplating or chromic acid anodizing facilities that use CFS without a HEPA or equivalent APCD in the event that no chemical fume suppressants will be certified prior to July 1, 2022. The owners/operators of these affected facilities will plan for and install the APCDs prior to this date. The construction schedule for installing these APCDs is estimated to occur from 5/1/2021 – 7/1/2021.

- For each tank required to be controlled under PAR 1469, one APCD is assumed to be installed. This is a conservative assumption that overestimates actual number of APCDs that may be installed and resulting impacts from construction and operation, for the following reasons:

- Equipment associated with multiple APCDs being delivered to one facility can be shipped on the same truck;

- Some facilities may be able to vent emissions from multiple tanks to one APCD, depending on proximity of the tanks relative to the location of the APCD;

- Some facilities may be able to either vent a Tier II tank to an existing APCD, provided there is enough capacity to handle the extra flow, or upgrade an existing APCD to accommodate any additional tanks.

- Facilities that conduct chromic acid anodizing may have some tanks that would be considered Tier II tanks depending on the concentration of hexavalent chromium in the tanks and if air sparging is used as the agitation method. However, industry representatives indicated that these tanks would be converted to use mechanical agitation, such as eductors. By modifying the agitation method, the tanks would not be considered a Tier II tank and therefore not require APCDs to be installed.

- Up to 6 stripping tanks may need to undergo minor construction activities because the tanks are currently located outside of a building. In order to comply with the building enclosure requirements prescribed in subdivision (e) of PAR 1469, these tanks will need to be relocated inside a building. The tank relocation is expected to occur within 90 days after the date of adoption of PAR 1469.

- Some facilities may need to modify the buildings in which the tanks are operating in order to comply with the three percent building of the building envelop enclosure requirement in subdivision (e). Based on observations from site visits and survey results, the building improvements that may be necessary are expected to be minor. Modifications to those buildings to meet the requirements of PAR 1469 include closing doors, windows, and other openings or installing a roll-up door or plastic strip curtains. These activities can be accomplished with one to several employees in a short period of time (from one to three days) using hand tools and onsite materials. PAR 1469 does not require that all openings to be closed, only specific openings and allows openings that represent up to three percent of the building envelop. Therefore, the environmental impacts associated with the building improvement activities that may be employed to comply with the three percent building enclosure requirement are considered to be negligible and are not evaluated further.

- For the "worst-case" peak construction day, 12 APCDs are assumed to be constructed on a given day. SCAQMD staff use the total numbers of APCD divided by 12 months which is a very conservative assumption and approach.

- The installation of one APCD will require one air compressor, one welder, one forklift, and one aerial lift to operate four hours per day for five days and will require a construction crew consisting of six members (1 vendor driving a medium duty delivery truck (MDT) and 5 workers driving light duty vehicles (LDA/LDT1/LDT2)).

- The relocation of one tank will requires one forklift and one welder to operate four hours per day for one day. The analysis assumes that only one construction crew (the welder

who is not a facility employee) will drive one LDA/LDT1/LDT2 vehicle to do the welding work. All other work can be done by facility employees.

- CalEEMod version 2016.3.2 will be used to analyze the emissions from vehicle trips during construction.

Operation:

- Up to 98 facilities will need to comply with either the full or screening source testing requirements described in subdivision (k) of PAR 1469 for the Tier II tanks. Owners/operators of affected facilities would be expected to hire a source testing company to do the work. This analysis assumes that one source testing vehicle (LDT) with a 2-person crew and one maintenance truck (MDV) with a 2-person crew will each drive approximately 40 miles round trip each day to conduct the required source tests or emission screening tests at each facility.

- For the "worst-case" peak operation day, up to four source testing vehicles and four maintenance trucks will be conducting source tests or emissions screening tests on the same day.

- Any facility that exceeds the source test limits in PAR 1469 after re-testing will be subject to requirements to install a permanent total enclosure with negative air vented to pollution controls. The installation of the permanent total enclosure and negative air will have associated vehicle trips and equipment to complete the installation and these activities are considered as construction impacts. Implementing negative air control system will have associated electricity use are considered as operational impacts.

- No additional employees are expected to be hired as a result of PAR 1469.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

I. a), b) c) & d) No Impact. To reduce hexavalent chromium emissions from the affected facilities, new APCDs (e.g., HEPA filters) will need to be installed or in some instances, older or less efficient APCDs may need to be replaced with newer, cleaner, more efficient APCDs. In addition, in order to comply with the building enclosure requirements in PAR 1469, some facilities may need to relocate their tanks from outside of the building to inside.

Due to the size and weight of the APCD that may need to be replaced or installed and the tanks that may need to be relocated, construction equipment such as aerial lifts, compressors, welders, and forklifts, et cetera, will be needed to carry out these activities. Chromium electroplating and chromic acid anodizing facilities work with all sizes of products so it is not uncommon for these facilities to already have aerial lifts, forklifts and other types of heavy equipment on site as part of their day-to-day operations. An aerial lift, when fully extended may be temporarily visible in the surrounding areas while in use if the construction work is primarily occurring outside of existing buildings or structures. However, the visibility of an aerial lift to surrounding areas will also depend on where the equipment is located within each facility's property boundary. Except for the use of aerial lift, the majority of the construction equipment is expected to be low in height and not substantially visible to the surrounding area due to existing fencing along the property lines and existing structures currently within the facilities that may buffer the views of the construction activities.

Because each affected facility is located in existing industrial, commercial or mixed land use areas, the construction equipment is not expected to be substantially discernable from what exists on-site for routine operations and maintenance activities. Further, the construction activities are not expected to adversely impact views and aesthetics resources since most of the heavy equipment and activities are expected to occur within the confines of each existing enclosed facility and are expected to introduce only minor visual changes to areas outside each facility, if at all, depending on the location of the construction activities within the facility.

Lastly, the construction activities are expected to be temporary in nature and will cease following completion of the installation of new or modifications to existing APCDs or relocation of tanks. Once construction of any new or modified APCDs and tank relocations are completed, any construction equipment that has been rented will be removed from each facility. Further, these new or modified APCDs would be expected to blend in with the existing industrial profile at the affected facilities because the heights of these units are typically smaller when compared to neighboring existing equipment onsite and their associated stack heights would be about the same or shorter than existing stacks within the affected facilities.

PAR 1469 also contains requirements for facility owners or operators to conduct periodic source testing and parametric monitoring of APCDs, and to conduct additional housekeeping and implement best management practices for all hexavalent chromium containing tanks. These low-profile activities are limited to occur within each facility's property such that scenic vistas would not be affected.

Therefore, any potential construction and operation of new and modified existing APCDs and tanks as a result of the proposed project would not be expected to damage, degrade, or obstruct scenic resources and the existing visual character of any site in the vicinity of affected facilities.

There are no components in PAR 1469 that would require construction activities to occur at night. Further, cities often have their own limitations and prohibitions that restrict construction

from occurring during evening hours and weekends. Therefore, no additional temporary construction lighting at the facility would be expected. Similarly, while the proposed project has no provisions that would require affected equipment to operate at night, some facilities currently operate multiple shifts and existing lighting is utilized during the nighttime shifts. For those facilities that are projected to modify existing buildings or install APCDs, once construction is complete, additional permanent light fixtures may be installed on or near the new or modified structures for safety and security reasons. These permanent light fixtures should be positioned to direct light downward toward equipment within the facility so as to not create additional light or glare offsite to residences or sensitive receptors. Therefore, the proposed project is not expected to create a new source of substantial light or glare at any of the affected facilities in a manner that would adversely affect day or nighttime views in the surrounding areas.

Conclusion

Based upon these considerations, significant adverse aesthetics impacts are not expected from implementing PAR 1469. Since no significant aesthetics impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES.** Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on agriculture and forestry resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion
PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

II. a), b), c), & d) No Impact. Compliance with PAR 1469 is expected to be met by installing or replacing APCDs, relocating tanks, installing building enclosures, and conducting additional source tests and parametric monitoring of APCDs. Since both construction and operation activities that would occur as a result of implementing the proposed project would occur within the existing boundaries of each affected facility, there are no provisions in PAR 1469 that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements relative to agricultural resources would be altered by the proposed project. For these reasons, implementation of PAR 1469 would not convert farmland to non-agricultural use or conflict with zoning for agriculture use or a Williamson Act contract. Furthermore, it is not expected that PAR 1469 would conflict with existing zoning for, or cause rezoning of, forest land; or result in the loss of forest land or conversion of forest land to non-forest use. Consequently, the proposed project would not create any significant adverse agriculture or forestry impacts.

Conclusion
Based upon these considerations, significant adverse agriculture and forestry resources impacts are not expected from implementing PAR 1469. Since no significant agriculture and forestry resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☑	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☑	☐
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

Significance Criteria

To determine whether or not air quality and greenhouse gas impacts from implementing PAR 1469 are significant, impacts will be evaluated and compared to the criteria in Table 2-1. PAR 1469 will be considered to have significant adverse impacts if any one of the thresholds in Table 2-1 are equaled or exceeded.

Table 2-1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction** [b]	**Operation** [c]
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO_2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [d]		
NO_2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average annual average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
$PM_{2.5}$ 24-hour average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation)	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average	1.5 μg/m^3 (state) 0.15 μg/m^3 (federal)	

[a] Source: SCAQMD CEQA Handbook (SCAQMD, 1993)
[b] Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
[c] For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
[d] Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
[e] Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO_2eq = metric tons per year of CO_2 equivalents > = greater than

Revision: March 2015

Discussion
PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

III. a) No Impact. The SCAQMD is required by law to prepare a comprehensive district-wide Air Quality Management Plan (AQMP) which includes strategies (e.g., control measures) to reduce emission levels to achieve and maintain state and federal ambient air quality standards, and to ensure that new sources of emissions are planned and operated to be consistent with the SCAQMD's air quality goals. The AQMP's air pollution reduction strategies include control measures which target stationary, area, mobile and indirect sources. These control measures are based on feasible methods of attaining ambient air quality standards. Pursuant to the provisions of both the state and federal Clean Air Acts, the SCAQMD is also required to attain the state and federal ambient air quality standards for all criteria pollutants.

The most recent regional blueprint for how the SCAQMD will achieve air quality standards and healthful air is outlined in the 2016 AQMP[9] which contains multiple goals of promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP contains control measure TXM-02: Control of Toxic Metal Particulate Emissions from Plating and Anodizing Operations, which identifies Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid and Anodizing Operations, to specifically address reducing fugitive particulate matter (PM) emissions and hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations.

PAR 1469 has been crafted to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations and will result in the installation of APCDs, tank relocations, adding building enclosure requirements. PAR 1469 will also require additional source tests and parametric monitoring of APCDs, additional housekeeping, and implementation of best management practices. Upon implementation, PAR 1469 would be expected to reduce exposure to hexavalent chromium emissions affecting neighboring businesses and residents.

For these reasons, PAR 1469 is not expected to obstruct or conflict with the implementation of the 2016 AQMP because the emission reductions from implementing PAR 1469 are in

[9] SCAQMD, Final 2016 Air Quality Management Plan, March, 2017. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf

accordance with the emission reduction goals in the 2016 AQMP. PAR 1469 will help reduce toxic and fugitive PM emissions which are consistent with the goals of the 2016 AQMP. Therefore, implementing PAR 1469 to reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations would not conflict with or obstruct implementation of the applicable air quality plans. Since no significant impacts were identified for this issue, no mitigation measures are necessary or required.

III. b) and f) Less Than Significant Impact. SCAQMD staff is not aware of any new chromium electroplating and chromic acid anodizing operations facilities planned to be constructed in the immediate future and is unable to predict or forecast, when, if any, would be built in the long-term. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of construction and operation impacts for new facilities is concluded to be speculative and will not be evaluated further in this analysis. Instead, the focus of the analysis will be on the 115 existing facilities and the effects of complying with PAR 1469 as explained in the following discussion.

Construction Activities

The primary source of air quality construction impacts would be from PAR 1469's key requirements to install new APCDs and associated ventilation systems as needed, remove the old existing APCDs (if any) and replace with the new ones, relocate tanks currently operating outside of the buildings by moving them inside, and construct building enclosures.

Operational Activities

Similarly, the primary source of air quality impacts during operation would be from the requirements to maintain the APCDs and conduct additional source tests of the APCDs. Thus, the analysis focuses on the potential secondary adverse environmental impacts from these activities during operation. Other operational activities including conducting parametric monitoring of APCDs, implementing additional housekeeping and best management practices, maintaining minimum freeboard height on certain tanks and reducing allowable surface tension limits are all procedural support activities to help achieve beneficial reductions in hexavalent chromium emissions without creating any adverse air quality impacts.

Table 2-2 summarizes the key requirements in PAR 1469 that may create secondary adverse air quality and greenhouse gas (GHG) impacts during construction and operation.

Table 2-2
Sources of Potential Secondary Adverse Air Quality and GHG Impacts During Construction and Operation

Key Requirements in PAR 1469	Physical Actions Anticipated During:	
	Construction	**Operation**
Subdivision (d): Tanks currently operating outside of the buildings	Relocate tanks	None
Subdivision (e): Building enclosures	1. Close the doors, windows, and other openings 2. Install roll-up doors or plastic strip curtains	None
Subdivisions (f) & (g): Housekeeping and best management practices	None	Already in practice; minimal additional actions
Subdivision (h): Add-on air pollution control devices, parameter monitoring, and emission standards	Replace and/or install APCDs	1. Air pollution control equipment (e.g., HEPA) operation 2. Vehicle trips due to filter replacement, waste disposal, and filter leak detection
Subdivision (k): Source test	None	Vehicle trips due to additional periodic source testing

For the purpose of the conducting a worst-case CEQA analysis, for the 115 chromium electroplating and chromic acid anodizing operations facilities that will be subject to PAR 1469, the following assumptions have been made:

- 61 facilities have 118 Tier II tanks that would be required to have 118 APCDs installed within 36 months after the date of adoption of PAR 1469. Each APCD consists of ductwork, one blower, one mist eliminator and one HEPA filter system. Table 2-3 summarizes the APCD installation schedule based on the type of facilities subject to the requirements in PAR 1469.

Table 2-3
Estimated APCD Installation Schedule

Type of facilities	Estimated number of APCDs to be installed	Estimated construction schedule
Chromic Acid Anodizing	63	4/1/2019 – 4/1/2020
Hard Plating	21	10/1/2019 – 10/1/2020
Decorative Plating	34	4/1/2020 – 4/1/2021

- An additional 27 APCDs are assumed to be installed at 27 decorative chrome electroplating, hard chrome electroplating or chromic acid anodizing facilities that use CFS without a HEPA or equivalent APCD in the event that no CFS will be certified prior to July 1, 2022. The owners/operators of these affected facilities will plan for and install the APCDs prior to this date. The construction schedule for installing these APCDs is estimated to occur from 5/1/2021 – 7/1/2021;

- For each tank required to be controlled under PAR 1469, one APCD is assumed to be installed. This is a conservative assumption that overestimates actual number of APCDs that may be installed and resulting impacts from construction and operation, for the following reasons:

    - Equipment associated with multiple APCDs being delivered to one facility can be shipped on the same truck;

    - Some facilities may be able to vent emissions from multiple tanks to one APCD, depending on proximity of the tanks relative to the location of the APCD;

    - Some facilities may be able to either vent a Tier II tank to an existing APCD, provided there is enough capacity to handle the extra flow, or upgrade an existing APCD to accommodate any additional tanks.

    - Facilities that conduct chromic acid anodizing may have some tanks that would be considered Tier II tanks depending on the concentration of hexavalent chromium in the tanks and if air sparging is used as the agitation method. However, industry representatives indicated that these tanks would be converted to use mechanical agitation, such as eductors. By modifying the agitation method, the tanks would not be considered a Tier II tank and therefore not require APCDs to be installed.

- Up to 6 stripping tanks may need to undergo minor construction activities because the tanks are currently located outside of a building. In order to comply with the building enclosure requirements prescribed in subdivision (e) of PAR 1469, these tanks will need to be relocated inside a building. The tank relocation is expected to occur within 90 days after the date of adoption of PAR 1469.

- Some facilities may need to modify the buildings in which the tanks are operating in order to comply with the three percent building enclosure requirement in subdivision (e). Based on observations from site visits and survey results, the building improvements that may be necessary are expected to be minor. For example, to achieve a building enclosure, some buildings may only need to have the doors, windows, and other openings closed or a roll-up door or plastic strip curtains installed. These activities can be accomplished with one to several employees in a short period of time (from one to three days) using hand tools and onsite materials. Therefore, the environmental impacts associated with the building improvement activities that may be employed to comply with the three percent building enclosure requirement are considered to be negligible and are not included in this analysis.

- Figure 2-1 illustrates the estimated construction days and schedule per requirement and tank types.

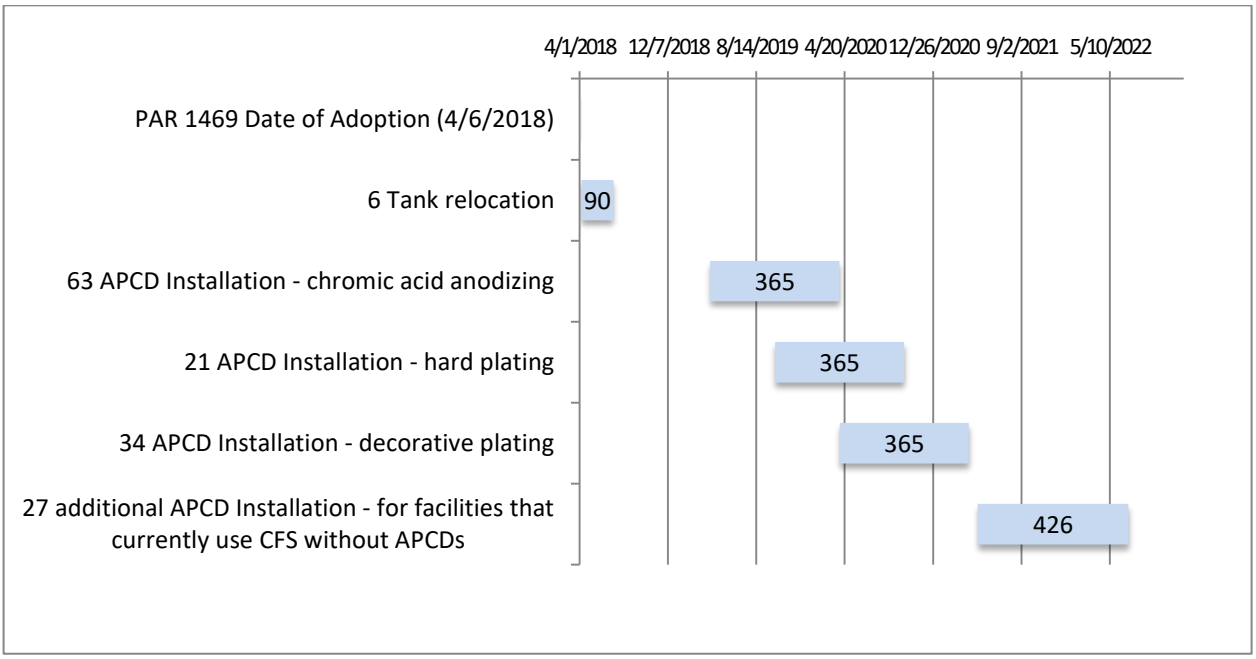


Figure 2-1
Estimated Construction Days and Schedule by
Different Rule Requirements And Tank Types

- According to the construction schedule in Table 2-3 and Figure 2-1, on a "worst-case" peak construction day, up to 12 APCDs are assumed to be constructed on a given day from 10/1/2019 to 4/1/2020.

- The installation of one APCD will require one air compressor, one welder, one forklift, and one aerial lift to operate four hours per day for five days and will require a construction crew consisting of six members (1 vendor driving a medium duty delivery truck (MDT) and 5 workers driving light duty vehicles (LDA/LDT1/LDT2)).

- The relocation of one tank will requires one forklift and one welder to operate four hours per day for one day. The analysis assumes that only one construction crew (the welder who is not a facility employee) will drive one LDA/LDT1/LDT2 vehicle to do the welding work. All other work can be done by facility employees.

- CalEEMod version 2016.3.2 will be used to analyze the emissions from vehicle trips during construction.

- Up to 98 facilities will need to comply with either the full or screening source testing requirements described in subdivision (k) of PAR 1469 for the Tier II tanks. Owners/operators of affected facilities would be expected to hire a source testing company to do the work. This analysis assumes that one source testing vehicle (LDT) with a 2-person crew and one maintenance truck (MDV) with a 2-person crew will each drive approximately 40 miles round trip each day to conduct the required source tests or emission screening tests at each facility. These activities are considered operational impacts.

- For "worst-case" peak operation day, up to four source testing vehicles and four maintenance trucks will be conducting source tests or emissions screening tests on the same day.

- Any facility that exceeds the source test limits in PAR 1469 after re-testing will be required to install a permanent total enclosure with negative air. The installation of the permanent total enclosure and negative air will have associated vehicle and equipment to complete the installation and these activities are considered construction impacts. Implementing negative air control system will have associated electricity use are considered operational impacts.

- CARB-EMFAC2014 will be used to analyze the emissions from vehicle trips during operation.

- No additional employees are expected to be hired as a result of PAR 1469.

Construction Impacts

Construction emissions were estimated by using the California Emissions Estimator Model® version 2016.3.2 (CalEEMod[10]). To install APCDs and to relocate tanks to inside of the buildings the use of the following construction off-road equipment was assumed: air compressor, welder, forklift, and aerial lift[11]. In addition, emissions from all on-road vehicles transporting workers, vendors, and material removal and delivery during construction were also calculated using CalEEMod. The detailed output reports for the CalEEMod runs are included in Appendix C of this Draft EA. Table 2-4 and Table 2-5 summarize the results of the construction air quality analysis during the tank relocations and APCD installations, respectively. Appendix C also contains the spreadsheets with the results and assumptions used for this analysis.

Table 2-4
Peak Daily Construction Emissions During Tank Relocations

Construction Activity	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
3 tank relocations occurring on a peak day	1.13	5.43	6.30	0.01	0.75	0.45
Total Peak Daily Construction Emissions	1.13	5.43	6.30	0.01	0.75	0.45
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

a. The emissions are estimated using CalEEMod version 2016.3.2.
b. Tank relocations are expected to occur during the first 90 days after the rule is adopted. Three tank relocations are expected to occur on a peak day.
c. Appendix C contains the detailed calculations.

[10] CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects.

[11] In general, no or limited construction emissions from grading are anticipated because modifications or installation of new APCD would occur at existing industrial/commercial facilities and, therefore, would not be expected to require digging, earthmoving, grading, etc.

Table 2-5
Peak Daily Construction Emissions During APCD Installations

Construction Activity	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
12 APCD installations occurring on a peak day	7.17	42.02	46.60	0.08	4.30	3.13
Total Peak Daily Construction Emissions	7.17	42.02	46.60	0.08	4.30	3.13
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

a. The emissions are estimated using CalEEMod version 2016.3.2.
b. APCD installation is expected to occur one year after the rule is adopted and therefore this has no overlap with tank relocation work. It is conservatively assumed in the peak day, there will be 12 APCD installation work among PAR1469 affected facilities.
c. Appendix C contains the detailed calculations.

The construction impact analysis assumes that it will take one week each to complete one APCD installation or one tank relocation. However, the actual construction time could be substantially less than one week for some facilities.

Based on the construction schedule in Table 2-3 and Figure 2-1, the peak daily emissions are expected to occur from 10/1/2019 to 4/1/2020, which assuming up to 12 APCD installations would occur on a peak day. Further, given the duration of the construction that each facility may undergo and the total 41-month timeframe for all the affected facilities to comply with the requirements in PAR 1469, the construction phases for some facilities were assumed to overlap which resulted in 12 APCD installations occurring on a peak day. Installation of the APCDs is expected to occur starting from the second year after the rule is adopted and up to 12 APCD is expected to occur on a peak day. Tank relocations are expected to occur during the first 90 days after the rule is adopted and up to three tank relocations are expected to occur on a peak day.

As shown in Table 2-4 and 2-5, the air quality impacts due to construction from implementing PAR1469 are expected to be less than significant.

Operational Impacts

As explained previously, secondary air quality operational impacts are expected to occur from the following activities: maintenance of the APCDs and conducting periodic source testing. Total operational emissions were estimated using CARB's EMFAC2014[12] for following mobile sources: trucks for waste disposal, filter replacement, and leak detection, and vehicles to transport workers to conduct source testing. Currently, some of the affected facilities have existing APCDs that collect PM which is considered to be hazardous and as such, requires to be periodically sent to a certified landfill or recycling facility for proper disposal or recycling. After PAR 1469 is implemented, additional PM is expected to be collected by the APCDs, but the

[12] The EMFAC emissions model is developed and used by CARB to assess emissions from on-road vehicles including cars, trucks, and buses in California. EMFAC2014 was approved by U.S. EPA on Dec. 14, 2015. https://www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles

affected facilities are expected to continue their existing practices for handling their waste. Therefore, it is not expected to have increased waste disposal trucks occurring on a peak day due to implementing PAR 1469.

PAR 1469 would also require source testing of each APCD that is installed. In order to conduct source testing, additional vehicle trips to and from the facility on the day of source testing are expected to occur to transport personnel and equipment for the source test. The APCD maintenance work and source testing is expected to be conducted at 98 facilities and the following vehicles are assumed to be required per source test each year: one medium duty truck for waste disposal, filter replacement, or filter leak inspection truck; and one source testing vehicle.

Of the 98 facilities, four facilities are assumed to conduct maintenance of the APCDs and four facilities are assumed to conduct source testing on the same day, such that 4 trucks and 4 vehicles would be operating on a peak day. In addition, a round trip distance of 40 miles was assumed for every on-road vehicle used during operation. The air quality impacts during operation are summarized in Table 2-6. The detailed spreadsheets with the assumptions used for this analysis are provided in Appendix C.

Table 2-6
Peak Daily Operational Emissions

Key Activities During Operation	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
Conduct source testing	0.01	0.03	0.39	0.00	0.07	0.72
Conduct maintenance on APCDs	0.01	0.03	0.10	0.00	0.13	0.04
Total Peak Daily Operational Emissions	0.02	0.06	0.48	0.00	0.20	0.75
SIGNIFICANCE THRESHOLD DURING OPERATION	55	55	550	150	150	55
SIGNIFICANT?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

a. It is conservatively assumed in the peak day, there will be an additional four source test vehicles (LDA) and four maintenance trucks (MDT) to all PAR 1469 affected facilities.
b. It is conservatively assumed in the peak year, there will be an additional 98 source test vehicles (LDA) and 98 maintenance trucks (MDT) to all PAR 1469 affected facilities.
c. Each LDA and each MDV is assumed to travel a round trip distance of 40 miles.
d. The increased medium duty truck is for additional waste disposal truck, filter replacement, filter leak inspection and other maintenance work for the APCDs.
e. See Appendix C for detailed calculations.

As indicated in Table 2-6, operational emissions anticipated from implementing PAR 1469 do not exceed any significance threshold. Therefore, the operational air quality impact is considered less than significant. The proposed project is not expected to result in significant adverse operational criteria pollutant emission impacts.

Construction and Operation Overlap Impact

Given the number of affected facilities and the varying requirements for each affected facility to comply with PAR 1469 requirements, there is a possibility that there will be an overlap of construction activities and corresponding construction emissions occurring at some facilities with

operational activities and corresponding operational emissions occurring at other facilities. Based on PAR 1469 requirements, the overlap will occur from the date of adoption of PAR 1469 until 7/1/2021 which is when the last APCD installation work is expected to be completed. The most conservative maximum emissions during this overlap period are estimated in Table 2-7 which adds the peak daily construction emissions from Table 2-4 and 2-5 and the peak daily operational emissions from Table 2-6 and compares the total to the operation emission significant thresholds which are lower than the significant thresholds during construction. Also, according to SCAQMD policy, the peak daily emissions from the construction and operation overlap period should be estimated and compared to the SCAQMD's CEQA significance thresholds for operation.

Table 2-7
Peak Daily Emissions in Construction and Operation Overlap Phase

Construction and Operation Overlap Phase	**VOC (lb/day)**	**NOx (lb/day)**	**CO (lb/day)**	**SOx (lb/day)**	**PM10 (lb/day)**	**PM2.5 (lb/day)**
Peak Construction Emissions	7.17	42.02	46.60	0.08	4.30	3.13
Peak Operational Emissions	0.02	0.06	0.48	0.00	0.20	0.75
Total Emissions	7.19	42.08	47.08	0.08	4.50	3.88
SIGNIFICANCE THRESHOLD DURING OPERATION	55	55	550	150	150	55
SIGNIFICANT?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

a. The maximum construction impact during the overlap phase is conservatively assumed to be the peak daily construction emissions from Table 2-3.
b. The maximum operational impact during the overlap phase is conservatively assumed to be the peak daily operational emissions from Table 2-4.

As indicated in Table 2-7, the peak daily emissions that are expected to occur during the construction and operational overlap period anticipated from implementing PAR 1469 do not exceed any of the SCAQMD's CEQA air quality significance thresholds. Therefore, the air quality impacts from construction and operation overlap are considered to be less than significant. In conclusion, the proposed project is not expected to result in significant adverse air quality impacts during the construction and operation overlap period.

Indirect Criteria Pollutant Emissions from Electricity Consumption

Indirect criteria pollutant and GHG emissions are expected from the generation of electricity to operate new APCDs that occurs off-site at electricity generating facilities (EGFs). Emissions from electricity generating facilities are already evaluated in the CEQA documents for EGF projects when they are built or modified. The analysis in Section VI - Energy b), c) and d) demonstrates that there is sufficient capacity from power providers for the increased electricity consumption needed to implement PAR 1469.

Under the SCAQMD's RECLAIM program, EGFs were provided or purchased annual allocations of NOx and SOx emissions that decline over time. However, PAR 1469 will cause an increase in energy use and a corresponding increase in emissions from the EGFs providing additional electricity (see Section VI - Energy for the analysis of the energy impacts). Any potential NOx and SOx emission increases at the EGFs would need to be offset under the

RECLAIM program in accordance with SCAQMD Regulation XX and increases in other pollutants would need to be offset under the New Source Review program in accordance with SCAQMD Regulation XIII – New Source Review. Thus, air quality impacts from electricity consumption are anticipated to be to less than significant.

III. c) Less Than Significant Impact.

Cumulatively Considerable Impacts

Based on the foregoing analysis, since criteria pollutant project-specific air quality impacts from implementing PAR 1469 would not be expected to exceed the air quality significance thresholds in Table 2-1, cumulative air quality impacts are also expected to be less than significant. SCAQMD cumulative significance thresholds are the same as project-specific significance thresholds. Therefore, potential adverse impacts from implementing PAR 1469 would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

The SCAQMD guidance on addressing cumulative impacts for air quality is as follows: "As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR." "Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."[13]

This approach was upheld by the court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the South Coast Air Quality Management District's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines Section 15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although the project will contribute additional air pollutants to an existing nonattainment area, these increases are below the significance criteria…". "Thus, we conclude that no fair argument exists that the Project will cause a significant unavoidable cumulative contribution to an air quality impact." As in *Chula Vista* and *Rialto Citizens for Responsible Growth*, here the SCAQMD has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. In *Rialto Citizens for Responsible Growth*, the court upheld the SCAQMD's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively considerable. Thus, it may be

[13] SCAQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf.

concluded that the proposed project will not contribute to a significant unavoidable cumulative air quality impact.

III. d) Less Than Significant Impact. Diesel particulate matter (DPM) is considered a carcinogenic and chronic toxic air contaminant (TAC). Since the diesel equipment used during the construction of the tank relocation or APCD installation is expected to be a short-term project (i.e. no more than six months at any facility), a Health Risk Assessment (HRA) was not conducted. In addition, implementation of PAR 1469 is expected to create an environmental benefit by reducing toxic impacts by controlling fugitive PM emissions (containing hexavalent chromium) during operation. The analysis in Section III. b) and f) concluded that the quantity of pollutants that may be generated from implementing the proposed project would be less than significant during construction, operation, and the construction and operation overlap period. Thus, the quantity of pollutants that may be generated from implementing PAR 1469 would not be considered substantial, irrespective of whether sensitive receptors are located near the affected facilities. For these reasons, implementation of PAR 1469 is not expected to expose sensitive receptors to substantial pollutant concentrations. Therefore, no significant adverse air quality impacts to sensitive receptors are expected from implementing PAR 1469.

III. e) Less Than Significant Impact.

Odor Impacts

As previously explained, this analysis assumes that new or modified APCDs will be constructed and some tanks will be relocated at the affected facilities and these facilities already operate diesel equipment and trucks. With regard to odors, currently, for all diesel-fueled equipment and vehicles, the diesel fuel is required to have a low sulfur content (e.g., 15 ppm by weight or less) in accordance with SCAQMD Rule 431.2 – Sulfur Content of Liquid Fuels. Such fuel is expected to minimize odor. The operation of construction equipment will occur within the confines of existing affected facilities. Dispersion of diesel emissions over distance generally occurs so that odors associated with diesel emissions may not be discernable to offsite receptors, depending on the location of the equipment and its distance relative to the nearest offsite receptor. Further, the diesel trucks that will be operated onsite will not be allowed to idle longer than five minutes per any one location in accordance with the CARB idling regulation, so odors from these vehicles would not be expected for a prolonged period of time. Therefore, the addition of several pieces of construction equipment and trucks that will operate intermittently, over a relatively short period of time, are not expected to generate diesel exhaust odor substantially greater than what is already typically present at the affected facilities.

Operation of the new APCDs are also not expected to generate any new odors because these devices are electric and the process of collecting the metal PM in enclosed bags, containers and filters would mean that these odorous materials would be captured, such that the existing odor profiles at the affected facilities would be reduced. PAR 1469 prohibits the operation of Tier II tanks outside of a building and requires all affected facilities to conduct operations at hexavalent chromium-containing tanks inside the building. The building enclosure requirements in PAR 1469 will also reduce odors at these facilities. Thus, PAR 1469 is not expected to create significant adverse objectionable odors during construction or operation. Since no significant impacts were identified for this issue, no mitigation measures for odors are necessary or required.

III. g) and h) Less Than Significant Impact.

Greenhouse Gas (GHG) Impacts

Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming. State law defines GHG to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) (Health and Safety Code Section 38505(g)). The most common GHG that results from human activity is CO2, followed by CH4 and N2O.

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. However, a study conducted on the health impacts of CO2 "domes" that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects[14].

The analysis of GHGs is different than the analysis of criteria pollutants for the following reasons. For criteria pollutants, the significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health (e.g., one-hour and eight-hour standards). Since the half-life of CO2 is approximately 100 years, for example, the effects of GHGs occur over a longer term. They affect the global climate over a relatively long time frame. As a result, the SCAQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (i.e., annual emissions). GHG emissions are typically considered to have a cumulative impact because they contribute to global climate effects.

GHG emission impacts from implementing PAR 1469 were calculated at the project-specific level during construction and operation. For example, installation and operation of APCD has the potential to increase the use of fuel during construction and electricity during operation which will in turn increase CO_2 emissions.

The SCAQMD convened a Greenhouse Gas CEQA Significance Threshold Working Group to consider a variety of benchmarks and potential significance thresholds to evaluate GHG impacts. On December 5, 2008, the SCAQMD adopted an interim CEQA GHG Significance Threshold for projects where SCAQMD is the lead agency (SCAQMD 2008). This GHG interim threshold is set at 10,000 metric tons of CO_2 equivalent emissions (CO_2e) per year (MT/yr). Projects with incremental increases below this threshold will not be cumulatively considerable.

[14] Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at: http://news.stanford.edu/news/2010/march/urban-carbon-domes-031610.html.

Table 2-8 summarizes the GHG analysis which shows that PAR 1469 may result in the generation of 6.81 amortized[15] MT/yr of CO2e emissions during construction and 3.29 MT/yr of CO2e emissions from mobile sources and 82.90 MT/yr of CO2e emissions from electricity usage during operation from all the affected facilities for a total of 93.00 MT/yr of CO2e emissions, which is less than the SCAQMD significance threshold of 10,000 MT/yr of CO2e. The detailed calculations of project GHG emissions can be found in Appendix C.

Table 2-8
GHG Emissions From 98 Affected Facilities

Activity	CO_2e (MT/year[a])
Construction [b]	6.81
Operation – mobile sources	3.29
Operation – electricity usage	82.90
Total Project Emissions	93.00
SIGNIFICANCE THRESHOLD	**10,000**
SIGNIFICANT?	**NO**

[a.] 1 metric ton = 2,205 pounds
[b.] GHGs from short-term construction activities are amortized over 30 years

Thus, as shown in Table 2-8 the SCAQMD's GHG significance threshold for industrial sources will not be exceeded. For this reason, implementing the proposed project is not expected to generate significant adverse cumulative GHG air quality impacts. Further, PAR 1469 is not expected to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG gases.

Conclusion
Based upon these considerations, significant air quality and GHG emissions impacts are not expected from implementing PAR 1469. Since no significant air quality and GHG emissions impacts were identified, no mitigation measures are necessary or required.

[15] GHGs from short-term construction activities are amortized over 30 years. To amortize GHGs from temporary construction activities over a 30-year period (*est. life of the project/ equipment*), the amount of CO_2e emissions during construction are calculated and then divided by 30.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Significance Criteria

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

IV. a), b), c), & d) No Impact. The proposed project does not require the acquisition of land or building new structures, or construct on greenland to comply with the provisions of PAR 1469. The sites of the affected facilities that would be subject to PAR 1469 currently do not support riparian habitat, federally protected wetlands, or migratory corridors because they are existing developed and established facilities currently used for industrial purposes. Additionally, special status plants, animals, or natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service are not expected to be found on or in close proximity to the affected facilities because the affected facilities are in existing industrial, commercial or mixed land use areas. Therefore, PAR 1469 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely in the District.

Compliance with PAR 1469 is expected to reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations at the affected facilities, which would be expected to improve, not worsen, present conditions of plant and animal life, since previously uncontrolled hexavalent chromium emissions would be captured and disposed of properly before they could have the potential to impact plant and animal life. PAR 1469 does not require acquisition of additional land or further conversions of riparian habitats or sensitive natural communities where endangered or sensitive species may be found. Finally, the APCDs contemplated as part of implementing PAR 1469 would be installed at existing facilities and

would not be built on or near a wetland or in the path of migratory species. Therefore, PAR 1469 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely in the SCAQMD.

IV. e) & f) No Impact. The proposed project is not envisioned to conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans. Land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by implementing PAR 1469. Additionally, PAR 1469 would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, and would not create divisions in any existing communities because all activities associated with complying with PAR 1469 would occur at existing facilities in previously disturbed areas which are not typically subject to Habitat or Natural Community Conservation Plans.

The SCAQMD, as the Lead Agency, has found that, when considering the record as a whole, there is no evidence that implementing of PAR 1469 would have potential for any new adverse effects on wildlife resources or the habitat upon which wildlife depends. Accordingly, based upon the preceding information, the SCAQMD has, on the basis of substantial evidence, rebutted the presumption of adverse effect contained in Title 14 of the California Code of Regulations Section 753.5 (d) - Projects Eligible for a No Effect Determination.

Conclusion

Based upon these considerations, significant biological resource impacts are not expected from implementing PAR 1469. Since no significant biological resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5?	☐	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource, site, or feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☐	☐	☑
e)	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074?	☐	☐	☐	☑

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance, or tribal cultural significance to a community or ethnic or social group or a California Native American tribe.
- Unique paleontological resources or objects with cultural value to a California Native American tribe are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker

vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

V. a), b), c), d) & e) No Impact. There are existing laws in place that are designed to protect and mitigate potential impacts to cultural resources. For example, CEQA Guidelines state that generally, a resource shall be considered "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources, which include the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
- Has yielded or may be likely to yield information important in prehistory or history (CEQA Guidelines §15064.5).

Buildings, structures, and other potential culturally significant resources that are less than 50 years old are generally excluded from listing in the National Register of Historic Places, unless they are shown to be exceptionally important. For any of the buildings or structures that may be affected by PAR 1469 that are older than 50 years, they are buildings that are currently utilized for industrial purposes and would generally not be considered historically significant since they would not have any of the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. Therefore, PAR 1469 is not expected to cause any impacts to significant historic cultural resources.

Construction-related activities are expected to be confined within the existing footprint of the affected facilities that have already been fully developed and paved, PAR 1469 is not expected to require physical changes to the environment which may disturb paleontological or archaeological resources. Furthermore, it is envisioned that these areas are already either devoid of significant cultural resources or whose cultural resources have been previously disturbed. Therefore, PAR 1469 has no potential to cause a substantial adverse change to a historical or archaeological resource, directly or indirectly to destroy a unique paleontological resource or site or unique geologic feature, or disturb any human remains, including those interred outside formal cemeteries. Implementing of PAR 1469 is, therefore, not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources in the District.

PAR 1469 is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, PAR 1469 is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. For these reasons, PAR 1469 is not expected to cause any substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

As part of releasing this CEQA document for public review and comment, the SCAQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code Section 21080.3.1(b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project.

In the event that a Tribe submits a written request for consultation during this 30-day period, the SCAQMD will initiate a consultation with the Tribe within 30 days of receiving the request in accordance with Public Resources Code Section 21080.3.1(b). Consultation ends when either: 1) both parties agree to measures to avoid or mitigate a significant effect on a Tribal Cultural Resource and agreed upon mitigation measures shall be recommended for inclusion in the environmental document [see Public Resources Code Section 21082.3(a)]; or, 2) either party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached [see Public Resources Code Section 21080.3.2(b)(1)-(2) and Section 21080.3.1(b)(1)].

Conclusion

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing PAR 1469. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI.	**ENERGY.** Would the project:				
a)	Conflict with adopted energy conservation plans?	☐	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☐	☑
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☐	☑
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☐	☑
e)	Comply with existing energy standards?	☐	☐	☐	☑

Significance Criteria

Impacts to energy resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

VI. a) & e) No Impact. PAR 1469 is not expected to conflict with any adopted energy conservation plans or violate any energy conservation standards because existing facilities would be expected to continue implementing any existing energy conservation plans that are currently in place regardless of whether PAR 1469 is implemented.

PAR 1469 is not expected to cause new development because it does not require new facilities to be built. While PAR 1469 will primarily apply to existing facilities, it will also apply to any new facilities that may be built in the future. However, SCAQMD staff is not aware of any new chromium electroplating and chromic acid anodizing operations facilities planned to be constructed in the immediate future and is unable to speculate, predict, or forecast, when, if any, would be built in the long-term. Any energy resources that may be necessary to install building enclosures, air pollution control equipment, conduct source tests, conduct monitoring and employ housekeeping would be used to achieve reductions in hexavalent chromium from chromium electroplating and chromic acid anodizing operations facilities, and therefore, would not be using non-renewable resources in a wasteful manner. The air quality benefits that would be expected to occur as a result of implementing these activities would not require utilities that would provide additional electricity and natural gas to the affected facilities to substantially alter power or natural gas system because any additional energy needed to implement PAR 1469 can be provided from existing supplies. For these reasons, PAR 1469 would not be expected to conflict with energy conservation plans or existing energy standards, or use non-renewable resources in a wasteful manner.

VI. b), c) & d) Less Than Significant Impact. PAR 1469 will increase the use of electricity from the operation of newly installed APCDs, including the blower and filtration systems needed to create enough flow rate to the filtration system. Diesel fuel would be consumed by construction equipment during construction phase. Gasoline fuel would be consumed by vehicles used during construction and operation. No natural gas will be needed during construction. The following sections evaluate the various forms of energy sources that may be affected by the implementation of PAR 1469.

Construction

During construction, diesel and gasoline fuel will be consumed by portable construction equipment (e.g., welders, forklifts, and etc.) needed to install the APCDs and to relocate the tanks and by construction workers' vehicles and vendor trucks traveling to and from each facility. To estimate "worst-case" energy impacts associated with construction activities, SCAQMD staff took the total construction SOx emissions to scale to the total diesel fuel usage since the estimated SOx emissions during construction are derived from CARB's OFFROAD2011 and EMFAC2014 models. These two models both calculate the SOx emissions based on the mass-balanced method and the sulfur content in the fuel. Therefore, the total diesel fuel consumption from construction associated equipment and trucks can be estimated by scaling the SOx emissions from one single piece of construction equipment with known diesel fuel usage in gallons per day to the total construction SOx emissions. Appendix C contains the assumptions and calculations for estimating fuel usage associated with construction.

The fuel usage per construction worker commute round trips was calculated by assuming that each workers' gasoline vehicle would get a fuel economy rate of approximately 20 miles per gallon and would travel 29.4 miles round trip to and from the construction site in one day based on default values in CalEEMod. Table 2-9 lists the projected energy impacts associated with the construction from all affected facilities.

Table 2-9
Total Projected Fuel Usage for Construction Activities

Fuel Type	Year 2016 Estimated Basin Fuel Demand[a] (mmgal/yr)	Fuel Usage[b] (mmgal)	Total % Above Baseline	Exceed Significance Thresholds?[c]
Diesel	749	0.0093	0.0012	No
Gasoline	6,997	0.0012	0.00002	No

[a] California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets, 2017 California Energy Commission (http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html). [Accessed February 6, 2018.]
[b] Estimated peak fuel usage from construction activities. Diesel usage estimates are based on the usage of portable construction equipment. Gasoline usage estimates are derived from construction workers' and vendor vehicle daily trips to and from work.
[c] SCAQMD's energy threshold for both types of fuel used is 1% of fuel supply.

The 2016 California Annual Retail Fuel Outlet Report Results from the California Energy Commission (CEC) state that 749 million gallons of diesel and 6,997 million gallons of gasoline were consumed in 2016 in the Basin. Thus, if an additional 9,293 gallons of diesel consumed (0.0012% above baseline) and 1,248 gallons of gasoline are consumed (0.00002% above baseline) during construction, they are below SCAQMD's 1% significance threshold for fuel supply. No significant adverse impact on fuel supplies would be expected.

Operation

Electricity Use
SCAQMD staff estimates there will be additional electricity usage for the new or modified APCDs, including the blower and filtration, which are expected to be powered by electricity. The analysis assumes that 145 additional blowers would be needed to operate the APCD at 98 facilities. The additional electricity consumption from operation is estimated and presented in Table 2-10. Electrical energy impacts associated with project operation are considered less than significant.

Table 2-10
PAR 1469Additional Electricity Consumption from Operation

Energy Use	Consumption (GW-h)
APCD: Blowers and Filtration System (100 bhp @ 0.001788 GW-h) x 145	0.259
SCAQMD Basin Electricity End Use Consumption [a,b]	120,210
Total Impact % of Capacity	**0.0002**
SIGNIFICANT?[b]	**NO**

[a] Final 2016 SCAQMD AQMP Chapter 10, 2012 Electricity Use in GWh (http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp)
[b] It is assumed the energy supply is equal to energy consumption.
[c] SCAQMD's energy threshold for electricity is 1% of supply.

Gasoline Use From Operational Vehicles

Additional vehicle trips are expected to be needed for the additional source testing and APCD maintenance work (filter replacement or inspection, and disposal of waste). Each vehicle is assumed to drive approximately 40 miles, round trip, with a fuel economy of approximately 20 miles per gallon (mpg) for LDA/LDT and 10 mpg for. As previously explained in Section III - Air Quality and Greenhouse Gases, by assuming that each affected 98 facility will need one LDA/LDT and one MDT per year and the corresponding annual total gasoline use would be approximately 588 gallons per year.

The 2016 California Annual Retail Fuel Outlet Report Results from California Energy Commission states that 6,997 million gallons of gasoline are consumed in 2016 in the Basin. Thus, based on the foregoing analysis and the summary presented in Table 2-11, an additional 588 gallons of gasoline consumed per year of operation at all 98 affected facilities is not expected to have a significant adverse impact on fuel supplies

Table 2-11
Annual Total Projected Fuel Usage for Operational Activities

Type of Equipment	Gasoline (gal/yr)
LDA/LDT	196
MDT	392
Total:	588
Year 2016 Estimated Basin Fuel Demand (gal/yr) [a]	6,997,000,000
Total % Above Baseline	0.00001
SIGNIFICANT?[b]	**NO**

[a] California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets, 2017 California Energy Commission (http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html). [Accessed February 6, 2018.]

[b] SCAQMD's energy threshold for fuel used is 1% of fuel supply.

Natural Gas Impacts

None of the APCD requires natural gas for operation as these units require electricity. Similarly, none of the vehicles that may be needed to deliver supplies or haul away waste would require natural gas. Thus, no natural gas would be required to implement PAR 1469.

Based on the foregoing analysis, the operational-related activities associated with the implementation of PAR 1469 are necessary and will not use energy in a wasteful manner and will not result in substantial depletion of existing energy resource supplies. Further, as shown in the preceding analysis, the quantities of electricity, gasoline and diesel fuel needed to implement PAR 1469 would not create a significant demand of energy when compared to existing supplies. Thus, there are no significant adverse energy resources impacts associated with the implementation of PAR 1469.

Conclusion

Based upon these considerations, significant adverse energy impacts are not expected from implementing PAR 1469. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII.	**GEOLOGY AND SOILS.** Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑
	• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑
	• Strong seismic ground shaking?	☐	☐	☐	☑
	• Seismic–related ground failure, including liquefaction?	☐	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

Significance Criteria

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction, or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

VII. a), b), c), d), & e) No Impact. Since PAR 1469 would result in installing or modifying APCDs, relocating tanks, and installing building enclosures activities at existing facilities located in developed, mostly industrial and commercial settings, no site preparation is anticipated that could adversely affect geophysical conditions in the District. The proposed project does not cause or require a new facility to be constructed.

Southern California is an area of known seismic activity. As part of the issuance of building permits, local jurisdictions are responsible for assuring that the Uniform Building Code is adhered to and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represents the foundation condition at the site. The Uniform Building Code requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction.

Accordingly, the installation of new or modification of existing APCDs at existing facilities to comply with PAR 1469 is expected to conform to the Uniform Building Code and all other applicable state and local building codes. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The local city or county is responsible for assuring that the existing affected facilities comply with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some non-structural damage; and, 3) resist major earthquakes without collapse but with some structural and non-structural damage.

The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site. The Uniform Building Code requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction.

Accordingly, existing buildings and equipment, as well as any that may be modified or replaced as a result of PAR 1469, are likely to conform to the Uniform Building Code and all other applicable state codes in effect at the time they were constructed. Thus, PAR 1469 would not alter the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structures to the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated.

Since PAR 1469 would only require facilities to install or modify APCDs and to relocate tanks, it does not involve construction activities that will result in substantial soil erosion or the loss of topsoil. Since PAR 1469 will affect existing facilities, it is expected that the soil types present at the affected facilities will not be made further susceptible to expansion or liquefaction. Furthermore, subsidence is not anticipated to be a problem since only minor excavation, grading, or filling activities, if any, are expected to occur at the affected facilities. Additionally, the areas where the existing facilities are located are not envisioned to be prone to new landslide impacts or have unique geologic features since the existing facilities are currently operational. Any new installations or modifications to existing buildings or APCDs would not be expected to increase or exacerbate any existing risks at the affected facility locations. Therefore, because PAR 1469 would not involve locating facilities on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, no impacts are anticipated.

Since PAR 1469 will affect chromium electroplating and chromic acid anodizing operations at existing facilities by requiring the installation of new or the modification of APCDs and relocation of tanks, people or property will not be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal because no additional water will be necessary to upgrade the building enclosures or operate the APCDs. Further, because each affected facility has an existing sewer system the installation of septic tanks or alternative wastewater disposal systems or modifications to the existing sewer systems would not be

necessary. Thus, implementation of PAR 1469 will not adversely affect soils associated with a installing a new septic system or alternative wastewater disposal system or modifying an existing sewer.

Conclusion

Based upon these considerations, significant adverse geology and soils impacts are not expected from the implementation of PAR 1469. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	☐	☐	☑	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑
h)	Significantly increased fire hazard in areas with flammable materials?	☐	☐	☑	☐

Significance Criteria

Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

VIII. a) & b) Less than Significant Impact. PAR 1469 may increase the amount of hexavalent chromium that is captured by APCDs, in lieu of being directly emitted into the air. Additional metal PM emissions will also be captured through facility owners/operators employing additional housekeeping practices on a regular basis. Overall, the capture of these metal PM emissions would reduce health risks to the public and the environment.

Spent metal and captured metal waste is currently transported from affected facilities to offsite facilities that either recycle or dispose of the metal waste at a hazardous waste landfill. Once PAR 1469 is implemented and the building enclosures upgrades, tank relocations, and APCD installations are completed, the additional metals that will be captured by the new APCDs would continue to be either recycled off-site or hauled away to a hazardous waste landfill, which is what the affected facilities are currently doing. Hence, no new significant hazards are expected to the public or environment through the continued routine transport, disposal or recycling of metal waste generated at affected facilities.

Therefore, PAR 1469 is not expected to create a significant hazard to the public or environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment.

VIII. c) Less than Significant Impact. There are at least 16 facilities that are located within a one-quarter mile of a school. These facilities are identified in Appendix D. PAR 1469, if implemented, would reduce human exposure to hexavalent chromium by requiring metal PM emissions from chromium electroplating and chromic acid anodizing operations to be collected and vented to APCDs instead of being vented to the atmosphere. Other proposed requirements will also reduce those emissions. All of the affected facilities, including the 16 that are located within one-quarter mile of a school, are expected to continue to take the appropriate and required actions to ensure proper handling of existing quantities of hazardous or acutely hazardous materials, substances or wastes that are currently generated. Further, any increased quantities that may be collected at each facility by efficient collection systems and APCDs that will be employed as a result of PAR 1469, would also be expected to be handled in the same or similar manner regardless of each facility's proximity to a school because PAR 1469 does not include new requirements or alter existing requirements for hazardous waste disposal.

VIII. d) No Impact. Government Code §65962.5 refers to hazardous waste handling practices at facilities subject to the Resources Conservation and Recovery Act (RCRA). PAR 1469 would affect 24 facilities that are identified on lists of California Department of Toxics Substances Control hazardous waste facilities per Government Code §65962.5. These facilities are identified in Appendix D. However, compliance with PAR 1469 will ensure that metal PM, which may be toxic and hazardous, will be captured by APCDs. The more material that is captured, the less that will be emitted directly to the atmosphere. Currently, metal PM waste is stored and transported in closed containers and PAR 1469 would not alter existing or add new requirements to change how the metal waste is stored while awaiting to be transported off-site to a recycling facility or a hazardous waste landfill. Hazardous wastes from the existing facilities are required to be managed in accordance with applicable federal, state, and local rules and regulations and compliance with these regulations is expected to continue after PAR 1469 is implemented. Therefore, compliance with PAR 1469 would not create a new significant hazard to the public or environment.

VIII. e) No Impact. Federal Aviation Administration regulations, 14 CFR Part 77 – Safe, Efficient Use and Preservation of the Navigable Airspace, provide information regarding the types of projects that may affect navigable airspace. Projects may adversely affect navigable airspace if they involve construction or alteration of structures greater than 200 feet above ground level within a specified distance from the nearest runway or objects within 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each one foot vertically from the nearest point of the runway).

Construction activities from implementing the proposed project are expected to occur within the existing confines of the affected facilities. Appendix D identifies 17 facilities that are located within two miles of an airport. However, the installation of APCDs, the upgrades of building enclosures, and the relocation of tanks are expected to be conducted in accordance with all appropriate building, land use and fire codes and any new installations or structures are expected to be well below the height relative to the elevation of existing flight patterns so as to not interfere with plane flight paths consistent with 14 CFR Part 77. Such codes are designed to protect the public from hazards associated with normal operation. Therefore, the proposed project is not expected to result in a safety hazard for people residing or working in the area of the affected facilities even if construction would occur within the vicinity of an airport. Therefore, if the owner/operator of these 17 facilities modifies to their facilities to comply with

PAR 1469, the modifications would not be expected to result in a safety hazard for people residing or working in the project area even within the vicinity of an airport.

VIII. f) No Impact. Health and Safety Code Section 25506 et seq. specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the emergency release or threatened release of a hazardous material. Business emergency response plans generally require the following:

- Identification of individuals who are responsible for various actions, including reporting, assisting emergency response personnel and establishing an emergency response team;
- Procedures to notify the administering agency, the appropriate local emergency rescue personnel, and the California Office of Emergency Services;
- Procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
- Procedures to notify the necessary persons who can respond to an emergency within the facility;
- Details of evacuation plans and procedures;
- Descriptions of the emergency equipment available in the facility;
- Identification of local emergency medical assistance; and,
- Training (initial and refresher) programs for employees in:
    1. The safe handling of hazardous materials used by the business;
    2. Methods of working with the local public emergency response agencies;
    3. The use of emergency response resources under control of the handler;
    4. Other procedures and resources that will increase public safety and prevent or mitigate a release of hazardous materials.

In general, every county or city and all facilities using a certain amount of hazardous materials are required to formulate detailed contingency plans to eliminate, or at least minimize, the possibility and effect of fires, explosion, or spills. In conjunction with the California Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for area and business emergency response plans. These requirements include immediate notification, mitigation of an actual or threatened release of a hazardous material, and evacuation of the emergency area.

Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public (surrounding local communities), but the facility employees as well. The proposed project would not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. Further, the existing facilities already have an emergency response plan in place, as applicable. While the installation of APCDs, building enclosures, and relocation of tanks may require an update of each affected facility's existing emergency response plan to reflect the new equipment or building modifications, the action of modifying an emergency response plan will not create

any environmental impacts. Thus, PAR 1469 is not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

VIII. g) No Impact. The facilities affected by PAR 1469 are currently located in existing industrial, commercial or mixed land use areas and the physical activities that may be taken to comply with PAR 1469 would occur inside existing property boundaries which are not located near wildlands; therefore, there is no existing risk from wildland fires and implementation of PAR 1469 would not create a new risk.

The proposed project would also not increase the existing risk of fire hazards in areas with flammable brush, grass, or trees since no substantial or native vegetation typically exists on or near the facilities (specifically because they could be a fire hazard). Thus, PAR 1469 is not expected to expose people or structures to wildfires. Therefore, no significant increase in wildland fire hazards is expected at the facilities that would be affected by the proposed project.

VIII. h) Less Than Significant Impact. The Uniform Fire Code and Uniform Building Code set standards intended to minimize risks from flammable or otherwise hazardous materials. Local jurisdictions are required to adopt the uniform codes or comparable regulations. Local fire agencies require permits for the use or storage of hazardous materials and permit modifications for proposed increases in their use. Permit conditions depend on the type and quantity of the hazardous materials at the facility. Permit conditions may include, but are not limited to, specifications for sprinkler systems, electrical systems, ventilation, and containment. The fire departments make annual business inspections to ensure compliance with permit conditions and other appropriate regulations. Further, businesses are required to report increases in the storage or use of flammable and otherwise hazardous materials to local fire departments. Local fire departments ensure that adequate permit conditions are in place to protect against the potential risk of upset. PAR 1469 would not change the existing requirements and permit conditions for the proper handling of flammable materials. Further, PAR 1469 does not contain any requirements that would prompt facility owners/operators to begin using new flammable materials. In addition, the National Fire Protection Association has special designations for deflagrations (e.g., explosion prevention) from metal dust. Therefore, operators of metal activities that require baghouse emission control technologies will also need to select reliable, economical and effective means of explosion control such as baghouse explosion suppression, containment and venting. Additional information pertaining to these types of protective measures is available in Chapter 8 of the *Industrial Ventilation, A Manual for Recommended Practice for Design*, 28th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2013.

Conclusion

Based upon these considerations, significant adverse hazards and hazardous materials impacts are not expected from implementing PAR 1469. Since no significant hazards and hazardous materials impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	☐	☐	☑	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	☐	☐	☐	☑
d)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
e)	Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
g)	Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
h)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐
i)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☑	☐

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.

- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

IX. a) Less than Significant Impact. PAR 1469 contains requirements for facility owners or operators to conduct chromium electroplating and chromic acid anodizing operations within building enclosures and to vent to APCDs such as HEPA filters when there is a Tier II tank. The APCDs (HEPA filters) do not utilize water as part of their day-to-day functions. Thus, no wastewater will be generated from the use of air pollution control equipment to control emissions from chromium electroplating and chromic acid anodizing activities.

PAR 1469 also contains housekeeping requirements that require facility owners or operators to use approved cleaning methods such as a wet mop, damp cloth, low pressure spray nozzle, wet wash system, or using a high efficiency particulate arrestor (HEPA) vacuum on a daily basis instead of weekly basis. There are 115 facilities that would be required to conduct housekeeping. When employing these housekeeping efforts, PAR 1469 provides facility owners/operators with a choice of using either wet cleaning or dry HEPA vacuuming. If dry HEPA vacuuming is used to comply with the housekeeping requirements, then no water would be needed and no wastewater would be generated.

Nonetheless, wet cleaning has been widely used in many of the affected facilities and PAR 1469 will continue to provide wet cleaning as an option for complying with the housekeeping requirements. For this reason, the analysis assumes that wet cleaning will continue to be employed as a compliant method and if more facilities elect to use wet cleaning, the amount of wastewater generated from wet cleaning would be expected to increase as a result. For any facility owner or operator that chooses to conduct wet cleaning, but that does not currently have

a wastewater treatment system or a wastewater discharge permit, the dirty water resulting from wet cleaning would need to be collected, stored and disposed of as hazardous waste and these facilities would be required to comply with the applicable hazardous waste disposal regulations. Thus, the collected dirty water at these facilities would not be allowed to be discharged as wastewater.

For any affected facility that currently has a wastewater discharge permit, the owner or operator will be required to comply with the permitted effluent discharge concentration and flow limits which means the any wastewater generated from conducting housekeeping via the approved wet cleaning method would likely need to be treated prior to discharge.

In either of these scenarios, wet cleaning conducted in accordance with complying with the housekeeping requirements in PAR 1469 would not be expected to violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable of the Publicly Owned Treatment Works (POTW) or Regional Water Quality Control Board, or otherwise substantially degrade water quality that the requirements are meant to protect.

IX. b) No Impact. As previously explained, water is not needed to operate the APCDs in chromium electroplating and chromic acid anodizing operations facilities. For any facility owners or operators that choose to conduct wet cleaning, any additional water that may be needed would likely be supplied by each facility's current water supplier. Further, the quality of water that would likely be supplied to each affected facility will be potable water since potable water is currently supplied at all of the affected facilities in order to provide drinking water for employees, water for sinks and toilets, and water for any landscaping, if applicable. Should any of the affected facilities have a groundwater well onsite with groundwater pumping rights, the facility owners/operators would not likely choose to use groundwater in lieu of potable water to conduct wet cleaning because groundwater typically contains sand and other soil particles and debris which would not be a suitable quality for conducting wet cleaning. Therefore, implementation of PAR 1469 would not be expected to cause facilities to utilize groundwater for conducting wet cleaning, substantially deplete groundwater supplies, or interfere substantially with groundwater recharge.

IX. c) & d) No Impact. PAR 1469 contains requirements for facility owners or operators that conduct chromium electroplating and chromic acid anodizing operations to install APCDs (HEPA filters) which do not utilize water as part of their day-to-day functions. Thus, no new drainage facilities or alterations to existing drainage facilities will be needed beyond what currently exists at the existing facilities. Similarly, there are no streams or rivers running through the properties of the existing facilities, so any construction activities that may occur as a result of complying with PAR 1469 would not be expected to alter the course of a stream or river. PAR 1469 does not contain any requirements that would change existing drainage patterns or the procedures for how surface runoff water is handled. Thus, PAR 1469 is not expected to have any significant adverse effects on any existing drainage patterns, or cause an increase rate or amount of surface runoff water that would exceed the capacity of the facilities' existing or planned storm water drainage systems.

IX. e), f), & g) No Impact. The facilities affected by PAR 1469 are currently located in existing industrial, commercial or mixed land use areas. Since PAR 1469 would result in construction activities at existing facilities to install or modify APCDs and upgrade buildings enclosures and

relocate tanks, some minor site preparation and construction activities may be necessary. However, while some new APCDs may be installed at existing facilities, PAR 1469 would not cause or require a new facility or new housing to be constructed. Further, the installation of new APCDs and the upgrade of building enclosures would occur on-site at the existing facilities. Therefore, PAR 1469 is not expected to result in placing houses or structures within 100-year flood hazard areas that could create new flood hazards or create significant adverse risk impacts from flooding as a result of failure of a levee or dam or inundation by seiches, tsunamis, or mudflows. As explained in Section IX. h) and i) in more detail below, each facility that elects to conduct wet cleaning may need approximately 10 gallons per day and a corresponding amount (e.g., 10 gallons) of wastewater would be generated. Because the generation of 10 gallons per day of wastewater per facility is a relatively minimal amount of water, implementation of PAR 1469 is not expected to require or result in the construction of new water or wastewater treatment or new storm water drainage, or expansion at any of the affected facilities that elect to conduct wet cleaning.

IX. h) & i) Less than Significant Impact. As explained in Section IX. a), PAR 1469 provides facility owners or operators with a choice of using either wet cleaning or dry HEPA vacuuming. If dry HEPA vacuuming is used to comply with the housekeeping requirements, then no water would be needed and no wastewater would be generated. There are 115 facilities that would be required to conduct housekeeping and some facility operators have indicated to SCAQMD staff during site visits that they would prefer to conduct dry HEPA vacuuming in lieu of wet cleaning because dry HEPA vacuuming would allow for the recycling and sale of the captured precious metals. Further, wet cleaning would be less preferable because it would require the use of water and the treatment of the wastewater generated prior to disposal.

Nonetheless, because PAR 1469 provides wet cleaning as an option for complying with the housekeeping requirements, this analysis assumes that some wet cleaning could occur and wastewater may be generated. SCAQMD staff is unable to predict with any precision the number of facilities that will actually elect to conduct wet cleaning, the amount of water that would be needed, and the amount of wastewater that may be generated as part of conducting wet cleaning to comply with PAR 1469.

To get an idea of the scale of water and water quality impacts that might occur from conducting wet cleaning to comply with PAR 1469, SCAQMD staff use the survey data and observations from the site visits to calculate water use estimates for conducting wet cleaning to comply with PAR 1469 based on a peak daily use. For a conservative analysis, all 115 affected facilities are assumed to conduct wet cleaning on the same day to comply with the housekeeping requirements in PAR 1469. Assuming the maximum amount of water that would be needed per facility is approximately 10 gallons for conducting wet cleaning using an approved method, then an equivalent amount of wastewater (e.g., 10 gallons) may also be generated per facility. As such, 1,150 gallons of water per day may be needed for all 115 facilities (e.g., 115 facilities x 10 gallons per day) to conduct wet cleaning and the same amount of wastewater may be generated. Based on some facility owners and operators indicating the use of dry HEPA vacuuming and some facilities currently already conducting wet cleaning, SCAQMD staff believes that the estimated use of water and the corresponding generation of wastewater on a peak day probably substantially overestimates what the actual impact may be. Also, it is important to keep in mind that the maximum amount of water needed to conduct wet cleaning at one facility was estimated to be 10 gallons per day so any wastewater generated at an individual facility should be well within the existing and projected overall capacity of POTWs located throughout the District

whenever the wet cleaning activities are conducted. Therefore, wastewater impacts associated with the disposal of waterborne clean-up waste material generated from implementing PAR 1469 are not expected to significantly adversely affect POTW operations. Further, the small volume of wastewater that may be generated from wet cleaning would not be expected to require or warrant the construction of new or the expansion of existing wastewater treatment or storm water drainage facilities. Table 2-12 summarizes the projected amount of water that may be needed for the 115 affected facilities to conduct wet cleaning to comply with the housekeeping requirements in PAR 1469.

Table 2-12
Projected Water Demand

PAR 1469 Wet Cleaning Activity	Additional Water Demand on a Peak Day (gal/day)
PAR 1469 Housekeeping Measures	1,150
Significance Threshold for Potable Water:	262,820
SIGNIFICANT FOR POTABLE WATER?	**NO**
Significance Threshold for Total Water:	5,000,000
SIGNIFICANT FOR TOTAL WATER?	**NO**

Therefore, since the estimated potable water demand and total water demand would be less than significance thresholds for potable and total water, respectively, the water demand impacts that are expected occur from implementing PAR 1469 would be less than significant. Further, existing water supplies are expected to be sufficiently available to serve the proposed project from existing entitlements and resources without the need for new or expanded entitlements because the projected increased water demand is based on a peak day, but that amount of water will not be needed every day. Therefore, PAR 1469 is not expected to have significant adverse water demand impacts.

Conclusion

Based upon these considerations, significant adverse hydrology and water quality impacts are not expected from implementing PAR 1469. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

Significance Criteria

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

X. a) No Impact. PAR 1469 does not require the construction of new facilities, and any physical effects that will result from PAR 1469, will occur at existing facilities located in industrial, commercial, or mixed use areas and would not be expected to go beyond existing boundaries. For this reason, implementation of PAR 1469 would not be expected to physically divide an established community. Therefore, no impacts are anticipated.

X. b) No Impact. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by PAR 1469. All construction and operation activities that are expected to occur as a result of complying with PAR 1469 will occur within the confines of the existing facilities and would not be expected to

affect or conflict with any applicable land use plans, policies, or regulations. Further, no new development or alterations to existing land designations will occur as a result of the implementation of PAR 1469. Therefore, present or planned land uses in the region will not be affected as a result of implementing PAR 1469.

Conclusion

Based upon these considerations, significant adverse land use and planning impacts are not expected from implementing PAR 1469. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES.** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XI. a) & b) No Impact. PAR 1469 would require the installation of new or the modification of existing APCDs, upgrades to building enclosures, and tank relocations. The construction and operation activities necessary to implement PAR 1469 would not require the use of a known

mineral resource. Thus, there are no provisions in PAR 1469 that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as aggregate, coal, clay, shale, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Conclusion

Based upon these considerations, significant adverse mineral resource impacts are not expected from implementing PAR 1469. Since no significant mineral resource impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of permanent noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐

Significance Criteria

Noise impact will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings,

upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XII. a), b), & c) Less than Significant Impact. The facilities affected by PAR 1469 are currently located in urbanized industrial, commercial, or mixed land use areas. The existing noise environment at each of the facilities is typically dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and exiting facility premises. Large, potentially noise-intensive construction equipment would be needed temporarily during construction to install new or modify existing APCDs and to relocate tanks as part of implementation of PAR 1469. Operation of the construction equipment would be expected to comply with all existing noise control laws and ordinances. Since the facilities are located in industrial, commercial, or mixed land use areas, which have a higher background noise level when compared to other areas, the noise generated during construction will likely be indistinguishable from the background noise levels at the property line.

Once the construction is complete, the noise from the chromium electroplating and chromic acid anodizing activities currently being conducted outdoors will be located within the enclosures as required by PAR 1469. Thus, the existing noise profile from these activities is expected to be less than what is currently being generated on-site. Similarly, for any facility that installs new APCDs such as HEPA filters, substantial amounts of noise are not typically produced by these types of devices. Due to the attenuation rate of noise based on distance from the source, it is unlikely that noise levels exceeding local noise ordinances from operation new air pollution control equipment would occur beyond a facility's boundaries. Furthermore, OSHA and CAL-OSHA have established noise standards to protect worker health. Furthermore, compliance with local noise ordinances limiting the hours of construction will reduce the temporary noise impacts from construction to sensitive receptors. These potential noise increases are expected to be within the allowable noise levels established by the local noise ordinances for industrial areas, and thus are expected to be less than significant.

XII. d) Less than Significant Impact. As explained previously in Section VIII e), 17 of the affected facilities are located within two miles of an airport. However, the installation of APCDs, the upgrades of building enclosures, and the relocations of tanks are expected to be constructed in accordance with all appropriate building, land use and fire codes and any new installations or structures are expected to be well below the height relative to the elevation of existing flight patterns so as to not interfere with plane flight paths consistent with Federal Aviation Regulation, Part 77. However, compliance with PAR 1469 are not expected to expose people residing or working in the vicinity of those 17 facilities to the same degree of excessive noise levels associated with airplanes because all noise producing equipment at those 17 facilities, as well as at all the other affected facilities, must comply with local noise ordinances and applicable OSHA or CAL-OSHA workplace noise reduction requirements. Therefore, the impacts are expected to be less than significant.

Conclusion

Based upon these considerations, significant adverse noise impacts are not expected from the implementing PAR 1469. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIII.	**POPULATION AND HOUSING.** Would the project:				
a)	Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	☐	☐	☐	☑
b)	Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Significance Criteria

Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XIII. a) No Impact. The construction activities associated with PAR 1469 at the affected facilities are relatively minimal such that they would not be expected to require the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population. On a peak day, the analysis assumes that up to 72 workers may be needed to perform construction activities to comply with PAR 1469 at all 98 affected facilities and these workers can be supplied from the existing labor pool in the local Southern California area. Further, the installation of new or the modification of existing APCDs would not be expected to

require new employees to operate and maintain the equipment because several of the facilities already have existing APCDs in place with personnel trained to maintain the equipment. In the event that new employees are hired, the number of new employees hired at any one facility would likely be relatively small, perhaps no more than one or two per facility. The human population within the District is anticipated to grow regardless of implementing PAR 1469. As a result, PAR 1469 is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth in the District or population distribution.

XIII. b) No Impact. PAR 1469 regulates operations at existing chromium electroplating and chromic acid anodizing operations facilities and as previously explained in Section III – Air Quality, SCAQMD staff is not aware of any new chromium electroplating and chromic acid anodizing operations facilities planned to be constructed in the immediate future and is unable to predict or forecast, when, if any, would be built in the long-term. Thus, PAR 1469 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly or cause the displacement of substantial numbers of people that would induce the construction of replacement housing elsewhere in the District.

Conclusion
Based upon these considerations, significant adverse population and housing impacts are not expected from implementing PAR 1469. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Other public facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XIV. a) & b) No Impact. Implementation of PAR 1469 is expected to cause facility owners or operators to install new or modify existing APCDs, to upgrade building enclosures and to relocate tanks, all the while continuing current operations at the existing affected facilities. New safety hazards are not expected to occur during construction because the construction activities would not involve the use or handling of hazardous materials. The metal PM to be captured by the APCDs, once they become operational, may be explosive in nature. Thus, the design of the APCDs will need to conform to the National Fire Protection Association standards which have special designations for deflagrations (e.g., explosion prevention) from metal dust. Additional information pertaining to these types of protective measures is available in Chapter 8 of the *Industrial Ventilation, A Manual for Recommended Practice for Design*, 28th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2013.

The increased use of APCDs, housekeeping, best management practices, and APCD maintenance activities, or the temporary use of construction worker vehicles and trucks would not be expected to substantially alter or increase the need or demand for additional public services (e.g., fire and police departments and related emergency services, et cetera) above current levels, so no significant impact to these existing services is anticipated.

XIV. c) No Impact. As noted in Section XIII - Population and Housing, PAR 1469 is not expected to induce population growth in any way because the local labor pool (e.g., workforce) is expected to be sufficient to accommodate 72 construction workers to perform any construction activities that may be necessary at affected facilities and operation of new or modified APCDs is not expected to require additional employees. In the event that new employees are hired, the number of new employees at any one facility would likely be small, no more than one or two per facility. Therefore, with no significant increase in local population, no impacts would be expected to local schools.

XIV. d) No Impact. PAR 1469 is expected to result in the installation and use of new or modified APCDs, upgrades to building enclosures, and the relocation of tanks. Besides obtaining building permits from the local agency and SCAQMD permits for installing APCDs, there will be no need for other types of government services because the affected facilities will continue their existing operations. Because PAR 1469 does not require any change in production rates that would in turn trigger the need for additional oversight by public facilities, PAR 1469 would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As explained earlier, there will be no substantive increase in population as a result of implementing PAR 1469, and, therefore, no need for physically altered government facilities.

Conclusion

Based upon these considerations, significant adverse public services impacts are not expected from implementing PAR 1469. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV.	**RECREATION.**				
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	☐	☐	☐	☑

Significance Criteria

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XV. a) & b) No Impact. As explained previously in Section XIII - Population and Housing, the owners or operators of the affected facilities who need to perform any construction activities to comply with PAR 1469 can draw from the existing labor pool in the local Southern California area. Further, the installation of new or the modification of existing APCDs would not be expected to require new employees to operate and maintain the equipment because several of the facilities already have existing APCDs in place with personnel trained to maintain the

equipment. In the event that new employees are hired, the number of new employees hired at any one facility would likely be relatively small, perhaps no more than one or two per facility. The human population within the District is anticipated to grow regardless of implementing PAR 1469. As a result, PAR 1469 is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth in the District or population distribution. Further, there are no provisions in PAR 1469 that would affect or increase the demand for or use of existing neighborhood and regional parks or other recreational facilities. Further PAR 1469 would not require the construction of new or the expansion of existing recreational facilities that might, in turn, cause adverse physical effects on the environment because PAR 1469 will not directly or indirectly substantively increase or redistribute population.

Conclusion

Based upon these considerations, significant adverse recreation impacts are not expected from implementing PAR 1469. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID AND HAZARDOUS WASTE. Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☑	☐
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on solid and hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XVI. a) Less than Significant Impact. Landfills are permitted by the local enforcement agencies with concurrence from the California Department of Resources Recycling and Recovery (CalRecycle). Local agencies establish the maximum amount of solid waste which can be received by a landfill each day and the operational life of a landfill. This analysis of solid waste impacts assumes that safety and disposal procedures required by various agencies in California will provide reasonable precautions against the improper disposal of hazardous wastes in a municipal waste landfill. Because of state and federal requirements, some facilities are attempting to reduce or minimize the generation of solid and hazardous wastes by incorporating source reduction technologies to reduce the volume or toxicity of wastes generated, including improving operating procedures, using less hazardous or nonhazardous substitute materials, and upgrading or replacing inefficient processes.

PAR 1469 would require the installation of new or the modification of existing APCDs. In the worst case, the analysis assumes that 145 APCDs will be installed in all 98 affected facilities. While most of the APCDs are expected to be new installations, some existing APCDs will be modified or refurbished while others will be dismantled and completely replaced. Any scrap metal from these APCD installations, replacements, or modifications may have economic value such that it can recycled, instead of landfilled. As such, very minimal amounts of solid waste are expected to be generated during construction.

In addition, the operation of APCDs such as HEPA filters could generate solid waste from the collection of metal PM and from the replacement of torn bags and spent filters in HEPA systems. Mixed metal compounds could be captured with the use of filtration controls at a 99.9 percent control rate. Currently, the affected facilities send their waste metal materials for recycling or disposal at a hazardous waste landfill. Based on the number of APCDs that may be needed at the affected facilities, the analysis shows that spent filters, torn bags, and waste collected by the APCDs (HEPA filters) may generate up to 30,933 cubic yards per year of hazardous waste. The estimated solid waste from these activities is summarized in Table 2-13.

Table 2-13
Total Solid Waste Generation

Control Type	Potential Number of Affected Units	Total Waste Generated Per Year (cubic yards)
Disposal of Torn Bags and Spent Filters	145 (118+27)	640 (each) 30,933 (total, worst-case, per year)

Note: This analysis assumes that each APCD will need filter replacement every 3 years and will generate 640 cubic yards of filters fabrics, metals, and the other total solid waste.

The nearest RCRA landfills are Republic Services and US Ecology from all 98 facilities. The Republic Services La Paz County Landfill has approximately 20,000,000 cubic yards of capacity remaining for the 50 year life expectancy (400,000 cubic yards per year). The US Ecology, Inc., facility in Beatty, Nevada has approximately 638,858 cubic yards of capacity remaining for the three year life expectancy (212,952 cubic yards per year). US Ecology, Inc., currently receives approximately 18,000 cubic yards per year of waste, so 194,952 cubic yards per year (212,952 cubic yards per year – 18,000 cubic yards per year) would be available should any of the affected facilities elect to dispose of their hazardous materials at this facility.

With a disposal of 30,933 cubic yards per year of filters fabrics, and metals, the total solid and hazardous waste impacts from PAR 1469 are conservatively estimated at 8 percent and 14 percent of the available Republic Services and US Ecology landfill capacity, respectively. Thus, the amount of hazardous waste that may be generated by the proposed project is relatively small, would not be considered to create a significant demand on existing landfill capacity, and would not likely require new RCRA landfills to be built.

Finally, all new APCDs are expected to be installed within the currently developed footprint at existing facilities. Because the newly installed APCDs will have a finite lifetime

(approximately 20 years), each unit will ultimately have to be replaced at the end of its useful life. The APCDs may be refurbished and used elsewhere or the scrap metal or other materials from any replaced units would be expected to be recycled due to its economic value. For these reasons, any solid or hazardous waste impacts specifically associated with implementing the proposed project are expected to be minor. As a result, no substantial change in the amount or character of solid or hazardous waste streams is expected to occur.

Because the waste disposal needs from implementing PAR 1469 are expected to be served by existing landfills with sufficient permitted capacity to accommodate each affected facility's solid waste disposal needs, potential solid and hazardous waste impacts from implementing PAR 1469 would not be significant.

XVI. b) No Impact. It is assumed that facility operators at the facilities currently comply with all applicable local, state, or federal waste disposal regulations and PAR 1469 does not contain any provisions that would alter current practices. Thus, implementation of PAR 1469 is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations in a manner that would cause a significant adverse solid and hazardous waste impact.

Conclusion
Based upon these considerations, significant adverse solid and hazardous waste impacts are not expected from implementing PAR 1469. Since no significant solid and hazardous waste impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII.	**TRANSPORTATION AND TRAFFIC.** Would the project:				
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☑	☐
b)	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☑	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☐	☑
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on transportation and traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees.
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day.
- Increase customer traffic by more than 700 visits per day.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium-containing tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XVII. a) & b) Less Than Significant Impact

Construction

As previously discussed in Section III - Air Quality and Greenhouse Gas Emissions, compliance with PAR 1469 may require construction activities associated with installing APCDs, upgrading building enclosures, and relocating tanks. Approximately 60 construction worker trips (round

trips) and 12 vendor truck trips (round trips) for a total of 72 construction round trips are assumed to be needed on a peak construction day for 12 APCD installations with overlapping construction schedules. Thus, construction is not expected to affect on-site traffic or parking for each affected facility. Further, since the additional 72 construction round trips that may occur on a peak day are well below the significant threshold of 350 round trips, regional traffic and transportation impacts during construction are not expected to cause a significance adverse impact. The estimated vehicle trips from all activities on the peak day during construction are summarized in Table 2-14.

Operation

APCDs that are installed to comply with PAR 1469 will collect toxic PM waste products from chromium electroplating and chromic acid anodizing activities, as well as dry solids from spent filters and torn bags. These solid waste materials will need to be transported off-site from each facility to either disposal or recycling facilities. In addition, fresh filters will need to replace the spent filters and these will need to be delivered to each facility. Similarly, fresh bags will be needed to replace torn bags and these will also need to be delivered to each facility as needed. Finally, since all of the affected facilities will be required to conduct source tests to comply with PAR 1469, workers needed to conduct the source tests will also generate trips. All of the trips needed to haul wastes and deliver supplies as well as conduct source tests will contribute to operational traffic and transportation impacts.

For a "worst case" analysis, SCAQMD staff assumed that four facilities on a peak day would generate a maximum of four additional vehicle trips (round trips) to account for worker trips needed to conduct source testing and four additional truck trips (round trips) during operation to haul away collected waste, and to inspect, replace and dispose of filters. While these vehicle and truck trips are assumed to overlap on a given day, the eight round trips that may occur are not expected to significantly adversely affect circulation patterns on local roadways or the level of service at intersections near each of the affected facilities. In fact, this low volume of additional daily vehicle traffic is negligible over the entire District. Further, as previously explained in Section XII – Population and Housing, the installation of new or the modification of existing APCDs would not be expected to require new, additional permanent employees to operate and maintain the equipment because many of the facilities already have existing APCDs in place with personnel trained to maintain the equipment. In the event that new employees are hired, it is expected that the number of new employees hired at any one facility would be relatively small, perhaps no more than one or two per facility. Thus, even for the trips that would be associated with employing a small amount of new workers at each affected facility, implementation of PAR 1469 is not expected to cause a significant increase in the number of worker trips during operation at any of the affected facilities. The estimated vehicles from all activities is summarized in Table 2-14.

Table 2-14
Estimation of Vehicle Trips (Round Trips)

Phase	Worker Vehicles	Vendor Trucks
Construction [a]	60 per day	12 per day
Operation	Up to 4 additional vehicles (LDA) for source test and 4 additional APCD maintenance truck (MDV) from all 98 affected facilities per day[b]	

[a] The worst case analysis for construction is based on a maximum of 5 worker vehicles plus 1 vendor trucks per day for 12 APCD installation during a peak day to account for overlapping construction.

[b] The worst case analysis during operation is based on a maximum of 4 additional source testing vehicles and 4 additional APCD maintenance truck to do filter/bag replacement or inspection, and disposal at 98 affected facilities.

XVII. c) No Impact. As explained previously in Section VIII – Hazards and Hazardous Materials, 17 of the affected facilities are located within two miles of an airport. However, the installation of the APCDs, the upgrades of building enclosures, and the relocation of tanks are expected to be conducted in accordance with all appropriate building, land use and fire codes and any new installations or structures are expected to be well below the height relative to the elevation of existing flight patterns so as to not interfere with plane flight paths consistent with Federal Aviation Regulation, Title 14 Part 77. Thus, compliance with PAR 1469 would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risk.

XVII. d) & e) No Impact. PAR 1469 does not involve or require the construction of new roadways because the focus of PAR 1469 is reducing hexavalent chromium emissions from chromium electroplating and chromic acid anodizing facilities. Thus, there will no change to current public roadway designs that could increase traffic hazards. Further, PAR 1469 is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the facilities. Emergency access at each of the affected facilities is not expected to be impacted because PAR 1469 does not contain any requirements specific to emergency access points and each affected facility is expected to continue to maintain their existing emergency access. Further, the building enclosure upgrade requirements in PAR 1469 do not contain any specifications relative to any facility's emergency access. In addition, in order to build the total enclosures, the facility would likely need to get approvals from the local land use authority and that's when they would check for emergency access. PAR 1469 does not include provisions which would conflict with emergency access. Since PAR 1469 is expected to involve short-term construction activities that would create new, minor delivery/haul truck trips that would be expected to cease after construction is completed, the proposed project is not expected to alter the existing long-term circulation patterns within the areas of each affected facility during construction. Similarly, during operation, the projected increase of additional vehicle trips that may be needed at each affected facility would be at less than significant levels individually and cumulatively such that implementation of the proposed project is not expected to require a modification to circulation. Thus, no long-term impacts on the traffic circulation system are expected to occur during construction or operation.

XVII. f) No Impact. PAR 1469 does not contain any requirements that would affect or alter adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Further, the facilities would still be expected to comply with, and not interfere with adopted policies, plans, or programs

supporting alternative transportation (e.g., bicycles or buses) that exist in their respective cities. Since all of the requirements and compliance activities associated with implementing PAR 1469 would be expected to occur on-site, PAR 1469 would have no impact on each facility's ability to comply with any applicable alternative transportation plans or policies.

Conclusion

Based upon these considerations, significant adverse transportation and traffic impacts are not expected from implementing PAR 1469. Since no significant transportation and traffic impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☑	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

Discussion

XVIII. a) No Impact. As explained in Section IV - Biological Resources, PAR 1469 is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because any construction and operational activities associated with the facilities are expected to occur entirely within the boundaries of existing developed facilities in areas that have been greatly disturbed and that currently do not support any species of concern or the habitat on which they rely. For these reasons, PAR 1469 is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past.

XVIII. b) Less Than Significant Impact. Based on the foregoing analyses, PAR 1469 would not result in significant adverse project-specific environmental impacts. Potential adverse impacts from implementing PAR 1469 would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for any environmental topic because there are no, or only

minor incremental project-specific impacts that were concluded to be less than significant. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulative considerable. SCAQMD cumulative significant thresholds are the same as project-specific significance thresholds.

This approach was upheld by the court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the SCAQMD's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines §15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although the project will contribute additional air pollutants to an existing nonattainment area, these increases are below the significance criteria…". "Thus, we conclude that no fair argument exists that the Project will cause a significant unavoidable cumulative contribution to an air quality impact." As in *Chula Vista* and *Rialto Citizens for Responsible Growth*, here the SCAQMD has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. In *Rialto Citizens for Responsible Growth*, the court upheld the SCAQMD's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively considerable. Thus, the implementation of PAR 1469 will not cause a significant unavoidable cumulative impact.

Therefore, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by PAR 1469 for any environmental topic.

XVIII. c) Less Than Significant Impact. Based on the foregoing analyses, PAR 1469 is not expected to cause adverse effects on human beings for any environmental topic, either directly or indirectly because: 1) the air quality and GHG impacts were determined to be less than the significance thresholds as analyzed in Section III – Air Quality and Greenhouse Gases; 2) the increased demand for energy, water, and solid waste disposal, can be met by utilizing existing services as analyzed in Section VI - Energy, Section IX - Hydrology and Water Quality, and Section XVI – Solid and Hazardous Waste; 3) the hazards and hazardous materials impacts were determined to be less than significant as analyzed in Section VIII – Hazards and Hazardous Materials; 4) the noise impacts were determined to be less than significant as analyzed in Section XII – Noise; and, 5) the transportation and traffic impacts were determined to be less than the significance thresholds as analyzed in Section XVI – Transportation and Traffic. In addition, the analysis concluded that there would be no significant environmental impacts for the remaining environmental impact topic areas: aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology and soils, land use and planning, mineral resources, public services, population and housing, and recreation.

Conclusion

As previously discussed in environmental topics I through XVIII, the proposed project has no potential to cause significant adverse environmental effects. Therefore, no mitigation measures are necessary or required.

APPENDICES

Appendix A: Proposed Amended Rule 1469 –Hexavalent Chromium Emissions From Chromium Electroplating And Chromic Acid Anodizing Operations

Appendix B: CalEEMod Files and Assumptions

Appendix C: CEQA Impact Evaluations – Assumptions and Calculations

Appendix D: PAR 1469 List of Affected Facilities

APPENDIX A

Proposed Amended Rule 1469 – Hexavalent Chromium Emissions From Chromium Electroplating And Chromic Acid Anodizing Operations

(Adopted October 9, 1998)(Amended May 2, 2003)
(Amended December 5, 2008)(Pending Amendment April 6, 2018)

PROPOSED AMENDED RULE 1469. HEXAVALENT CHROMIUM EMISSIONS FROM CHROMIUM ELECTROPLATING AND CHROMIC ACID ANODIZING OPERATIONS

(a) Purpose

The purpose of this rule is to reduce hexavalent chromium emissions from facilities that perform chromium electroplating or chromic acid anodizing operations and other activities that are generally associated with chromium electroplating and chromic acid anodizing operations.

(~~a~~b) Applicability

(~~1~~) This rule shall apply to the owner or operator of any facility performing chromium electroplating or chromic acid anodizing. ~~Compliance with this rule shall be in addition to other applicable rules, such as Rule 1401 – New Source Review of Toxic Air Contaminants and Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools.~~

(~~2~~) ~~Any person who sells, supplies, offers for sale, uses, or manufactures for sale in the District a chromium electroplating or chromic acid anodizing kit.~~

(~~b~~c) Definitions

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

(1) ADD-ON AIR POLLUTION CONTROL DEVICE means equipment installed in the ventilation system ~~of chromium electroplating and anodizing tanks~~ of a Tier I or Tier II Hexavalent Chromium-Containing Tank(s) for the purposes of collecting and containing chromium emissions from the tank(s).

(2) ADD-ON NON-VENTILATED AIR POLLUTION CONTROL DEVICE means equipment installed on any Tier I or Tier II Hexavalent Chromium-Containing Tank for the purposes of collecting, containing, and eliminating chromium emissions (e.g., merlin hood cover, tank cover) that does not utilize a ventilation system.

(~~2~~3) AIR POLLUTION CONTROL TECHNIQUE means any method, such as an add-on air pollution control device, add-on non-ventilated air pollution control device, mechanical fume suppressant or a chemical

fume suppressant, that is used to reduce chromium emissions from one or more Tier I or Tier II Hexavalent Chromium-Containing Tanks~~chromium electroplating and chromic acid anodizing tanks~~.

(~~3~~4) AMPERE-HOURS means the integral of electrical current applied to an electroplating tank (amperes) over a period of time (hours).

(~~4~~5) ANNUAL PERMITTED AMPERE-HOURS means the maximum allowable chromium electroplating or anodizing rectifier production in ampere-hours, on an annual basis as specified in the Permit to Operate, Permit to Construct, or Compliance Plan for the facility.

(6) APPROVED CLEANING METHOD means cleaning using a wet mop, damp cloth, low pressure spray nozzle, wet wash system, or using a high efficiency particulate arrestor (HEPA) vacuum.

(~~5~~7) AREA SOURCE means any stationary source of hazardous air pollutants that is not a major source as defined in this rule.

(~~6~~8) BASE MATERIAL means the metal, metal alloy, or plastic that comprises the workpiece.

(9) BARRIER means a physical divider that prevents air flows from influencing the collection efficiency of an add-on air pollution control device, and also prevents the migration of dust generated from buffing, grinding, and polishing activities to enter tank process areas.

(~~7~~10) BATH COMPONENT means the trade or brand name of each component in trivalent chromium electroplating baths, including the chemical name of the wetting agent contained in that component.

~~(8) BREAKDOWN means an unforeseeable impairment of an air pollution control device or related operating equipment which causes a violation of any emission limitation or restriction prescribed by this rule or by State law and which: is not the result of neglect or disregard of any air pollution control law, rule, or regulation; is not intentional or the result of negligence, or improper maintenance; is not a recurrent breakdown of the same equipment; and, does not constitute a nuisance as defined in the State of California Health and Safety Code, Section 41700, with the burden of proving the criteria of this section placed upon the person seeking to come under the provisions of this law.~~

(11) BUILDING ENCLOSURE means a permanent building, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off), with limited openings to allow access for

people, vehicles, equipment, or parts that is free of breaks or deterioration that could cause or result in fugitive emissions.

(9~~12~~) CHEMICAL FUME SUPPRESSANT means any chemical agent that reduces or suppresses fumes or mists at the surface of an electroplating or anodizing bath; another term for fume suppressant is mist suppressant.

(~~10~~13) CHROMIC ACID means the common name for chromium anhydride (CrO_3).

(~~11~~14) CHROMIC ACID ANODIZING means the electrolytic process by which an oxide layer is produced on the surface of a base material for functional purposes (e.g., corrosion resistance or electrical insulation) using a chromic acid solution. In chromic acid anodizing, the part to be anodized acts as the anode in the electrical circuit, and the chromic acid solution, with a concentration typically ranging from 50 to 100 grams per liter (g/L), serves as the electrolyte.

(~~12~~15) CHROMIUM ELECTROPLATING OR CHROMIC ACID ANODIZING TANK means the receptacle or container in which hard or decorative chromium electroplating or chromic acid anodizing occurs.

(~~13~~16) COMPOSITE MESH-PAD SYSTEM (CMP) means an add-on air pollution control device typically consisting of several mesh-pad stages. The purpose of the first stage is to remove large particles. Smaller particles are removed in the second stage, which consists of the composite mesh pad. A final stage may remove any re-entrained particles not collected by the composite mesh pad.

(~~14~~17) DECORATIVE CHROMIUM ELECTROPLATING means the process by which a thin layer of chromium (typically 0.003 to 2.5 microns) is electrodeposited on a base metal, plastic, or undercoating to provide a bright surface with wear and tarnish resistance. In this process, the part(s) serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Typical current density applied during this process ranges from 540 to 2,400 Amperes per square meter (A/m^2) for total electroplating times ranging between 0.5 to 5 minutes.

(~~15~~18) DRAGOUT means fluid containing hexavalent chromium that drips off from parts being electroplated or anodized, or from equipment used to remove electroplated or anodized parts from a tank.

(19) EARLY EDUCATION CENTER means any public or private property, used for purposes of education as defined as an Early Learning and

Developmental Program by the U.S. Department of Education, but does not include any property in which education is primarily conducted in private homes. Early education center includes any building or structure, playground, athletic field, or other areas of early education center property.

(~~16~~2 0) ELECTROPLATING OR ANODIZING BATH means the electrolytic solution used as the conducting medium in which the flow of current is accompanied by movement of metal ions for the purpose of electroplating metal out of the solution onto a workpiece or for oxidizing the base material.

(~~17~~2 1) EMISSION LIMITATION means, for the purposes of this rule, the concentration of total chromium allowed to be emitted expressed in milligrams per dry standard cubic meter (mg/dscm), or the allowable surface tension expressed in dynes per centimeter (dynes/cm) for decorative chromium electroplating and chromic acid anodizing tanks; and the milligrams of hexavalent chromium per ampere-hour (mg/amp-hr) of electrical current applied to the electroplating tank for hard or decorative chromium electroplating tanks or chromic acid anodizing tanks, or mass emission rate.

(~~18~~2 2) ENCLOSED STORAGE AREA is any space or structure used to contain material that prevents its contents from being emitted into the atmosphere.

(23) ENCLOSURE OPENING is any opening such as passages, doorways, bay doors, and windows in a building enclosure. Stacks for add-on air pollution control devices subject to this rule or stacks that exclusively vent products of combustion from tank heaters or burners are not considered enclosure openings.

(~~19~~2 4) EXISTING FACILITY means a facility that is in operation before October 24, 2007.

(~~20~~2 5) FACILITY means the major or area source at which chromium electroplating or chromic acid anodizing is performed and/or any source or group of sources or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS)

source as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

(~~21~~26) FIBER-BED MIST ELIMINATOR means an add-on air pollution control device that removes contaminants from a gas stream through the mechanisms of inertial impaction and Brownian diffusion. This device is typically installed downstream of another control device, which serves to prevent plugging, and consists of one or more fiber beds. Each bed consists of a hollow cylinder formed from two concentric screens; the fiber between the screens may be fabricated from glass, ceramic, plastic, or metal.

(~~22~~27) FOAM BLANKET means the type of chemical fume suppressant that generates a layer of foam across the surface of a solution when current is applied to that solution.

(28) FREEBOARD HEIGHT means the vertical distance from the tank bath contents, including liquid or foam, to the lip of the tank with parts and equipment submerged in the tank.

(~~23~~29) FRESH WATER means water, such as tap water, that has not been previously used in a process operation or, if the water has been recycled from a process operation, it has been treated and meets the effluent guidelines for chromium wastewater.

(~~24~~30) FUGITIVE EMISSIONS~~DUST, for the purpose of this rule~~ means ~~any~~ emissions generated from the operations at the owner or operator's facility, including solid particulate matter, gas or mist, potentially containing hexavalent chromium that becomes airborne by natural or man-made activities~~, excluding particulate matter emitted from an exhaust stack~~.

(~~25~~31) HARD CHROMIUM ELECTROPLATING or INDUSTRIAL CHROMIUM ELECTROPLATING means a process by which a thick layer of chromium (typically greater than 1.0 microns) is electrodeposited on a base material to provide a surface with functional properties such as

wear resistance, a low coefficient of friction, hardness, and corrosion resistance. In this process, the part serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Hard chromium electroplating process is performed at current densities typically ranging from 1,600 to 6,500 A/m^2 for total electroplating times ranging from 20 minutes to 36 hours depending upon the desired plate thickness.

(~~26~~32) HEXAVALENT CHROMIUM means the form of chromium in a valence state of +6.

(~~27~~33) HIGH EFFICIENCY PARTICULATE ARRESTORS (HEPA) means filter(s) that are individually dioctyl phthalate tested (or equivalent) with 0.3 micron particles or smaller, and rated by the manufacturer to have a control efficiency of not less than~~at~~ 99.97 percent ~~or more efficient in collecting particle sizes 0.3 microns or larger~~.

(34) HIGH EFFICIENCY PARTICULATE ARRESTOR (HEPA) VACUUM means a vacuum that is both designed for the use of and fitted with HEPA filters that are free of tears, fractures, holes or other types of damage, and securely latched and properly situated in the vacuum to prevent air leakage from the filtration system.

(~~28~~35) LEAK means the release of chromium emissions from any opening in the emission collection system prior to exiting the emission control device.

(36) LOW PRESSURE SPRAY NOZZLE means a spray nozzle capable of regulating water pressure to 35 pounds per square inch or less.

(~~29~~37) MAJOR SOURCE means any stationary source or group of stationary sources located within a contiguous area and under common control that emits, or has the potential to emit, considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

(~~30~~38) MAXIMUM CUMULATIVE POTENTIAL RECTIFIER CAPACITY means the summation of the total installed rectifier capacity associated with the hard chromium electroplating tanks at a facility, expressed in amperes, multiplied by the maximum potential operating schedule of 8,400 hours per year and 0.7, which assumes that electrodes are energized 70 percent of the total operating time. The maximum potential operating schedule is based on operating 24 hours per day, 7 days per week, 50 weeks per year.

(~~31~~3 9) MECHANICAL FUME SUPPRESSANT means any physical device, including but not limited to polyballs, that reduces fumes or mist at the surfaces of an electroplating or anodizing bath by direct contact with the surface of the bath. ~~Polyballs are the most commonly used mechanical fume suppressant.~~

(~~32~~4 0) MODIFICATION means either:

(A) any physical change in, change in method of operation of, or addition to an existing permit unit subject to this rule that requires an application for a permit to construct and/or operate and results in an increase in hexavalent chromium emissions. Routine maintenance and/or repair shall not be considered a physical change. A change in the method of operation of equipment, unless previously limited by an enforceable permit condition, shall not include:

(i) an increase in the production rate or annual ampere-hours, unless such increases will cause the maximum design capacity of the equipment to be exceeded, or will cause a facility to be subject to a different requirement in Table ~~2~~1 of paragraph (~~c~~h)(~~11~~2); or

(ii) an increase in the hours of operation; or

(iii) a change in ownership of a source;

(B) the addition of any new chromium electroplating or anodizing tank at an existing facility which increases hexavalent chromium emissions; or

(C) the fixed capital cost of the replacement of components exceeding 50 percent of the fixed capital cost that would be required to construct a comparable new source.

(~~33~~4 1) MODIFIED FACILITY means any facility which has undergone a modification on or after October 24, 2007.

(~~34~~4 2) NEW FACILITY means any facility that begins initial operations on or after October 24, 2007. "New Facility" does not include the installation of a new chromium electroplating or anodizing tank at an existing facility or the modification of an existing facility.

(~~35~~4 3) OPERATING PARAMETER VALUE means a minimum or maximum value established for a control device or process parameter which, if

achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator is in continual compliance with the applicable emission limitation or standard.

(364) PACKED-BED SCRUBBER means an add-on air pollution control device consisting of a single or double packed-bed that contains packing media on which the chromic acid droplets impinge. The packed-bed section of the scrubber is followed by a mist eliminator to remove any water entrained from the packed-bed section.

(45) PERFLUOROOCTANE SULFONIC ACID (PFOS) BASED FUME SUPPRESSANT means a fume suppressant that contains 1 percent or greater PFOS (CAS No. 1763-23-1) by weight.

(46) PERMANENT TOTAL ENCLOSURE means a permanent building or containment structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off) that has limited openings to allow access for people and vehicles, that is free of breaks or deterioration that could cause or result in fugitive emissions, and has been evaluated to meet the design requirements set forth in U.S. EPA Method 204, or other design approved by the Executive Officer.

(374) RESPONSIBLE OFFICIAL means one of the following:

(A) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the U. S. EPA Administrator.

(B) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(C) For a municipality, state, Federal, or other public agency: either a principal executive officer or ranking elected official. For the

purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the U.S. Environmental Protection Agency [U.S. EPA]).

(D) For sources (as defined in this rule) applying for or subject to a Title V permit: "responsible official" shall have the same meaning as defined in District's Regulation XXX.

(~~38~~4<u>8</u>) SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for purposes of the education of more than 12 children at the school, including in kindergarten and grades 1 through 12, inclusive, but does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property, but does not include unimproved school property.

(~~39~~4<u>9</u>) SCHOOL UNDER CONSTRUCTION means any property that meets any of the following conditions.

(A) construction of a school has commenced; or

(B) a CEQA Notice for the construction of a school has been issued; or

(C) a school has been identified in an approved local government specific plan.

(~~40~~5<u>0</u>) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

(~~41~~5<u>1</u>) SOURCE means any chromium electroplating or chromic acid anodizing operation and any equipment or materials associated with the selected associated air pollution control technique.

(~~42~~5<u>2</u>) STALAGMOMETER means a device used to measure the surface tension of a solution by determining the <u>mass of a drop of liquid by weighing a known</u> number of drops, or <u>by counting the number of drops obtained from</u> ~~the weight of each drop, in~~ a given volume of liquid.

(~~43~~5 SUBSTANTIAL USE of a permit to construct means one or more of the

3) following:

(A) the equipment that constitutes the source has been purchased or acquired;

(B) construction activities, other than grading or installation of utilities or foundations, have begun and are continuing; or

(C) a contract to complete construction of the source within one year has been entered into.

(44<u>5</u> <u>4</u>) SURFACE TENSION means the property, due to molecular forces, that exists in the surface film of all liquids and tends to prevent liquid from spreading.

(45<u>5</u> <u>5</u>) TANK OPERATION means the time in which current and/or voltage is being applied to a chromium electroplating tank or a chromic acid anodizing tank.

<u>(56)</u> <u>TANK PROCESS AREA means the area in the facility within 30 feet of any Tier I or Tier II Hexavalent Chromium-Containing Tank and any associated process tanks, or to the nearest wall in a building enclosure or permanent total enclosure, whichever is closer.</u>

(46<u>5</u> <u>7</u>) TENSIOMETER means a device used to measure the surface tension of a solution by measuring the force necessary to pull a filament<u>, plate,</u> ~~or~~ ring<u>, or other District-approved object</u> from the surface of a liquid.

<u>(58)</u> <u>TIER I HEXAVALENT CHROMIUM-CONTAINING TANK means a tank permitted as containing a hexavalent chromium concentration of 1,000 parts per million (ppm) or greater and is not a TIER II HEXAVALENT CHROMIUM-CONTAINING TANK.</u>

<u>(59)</u> <u>TIER II HEXAVALENT CHROMIUM-CONTAINING TANK means a tank concentration containing hexavalent chromium that meets any of the following:</u>

<u>**Tank Condition**</u>	<u>**Hexavalent Chromium Concentration**</u>
<u>Operating temperature between 140°F-150°F</u>	<u>>1,500 PPM</u>
<u>Operating temperature between 150°F-160°F</u>	<u>>500 PPM</u>
<u>Operating temperature greater than 160°F</u>	<u>>100 PPM</u>
<u>Uses air sparging as an agitation method</u>	<u>>1,000 PPM</u>
<u>Electrolytic</u>	<u>>1,000 PPM</u>

(47<u>6</u> TRIVALENT CHROMIUM means the form of chromium in a valence

0) state of +3.

(486 1) TRIVALENT CHROMIUM PROCESS means the process used for electrodeposition of a thin layer of chromium onto a base material using a trivalent chromium solution instead of a chromic acid solution.

(496 2) WEEKLY means at least once every ~~seven~~ calendar week~~days~~.

(506 3) WETTING AGENT means the type of chemical fume suppressant that reduces the surface tension of a liquid.

(~~c~~d) Requirements

(1) The owner or operator of a chromium electroplating tank, chromic acid anodizing tank, or group of such tanks, shall equip each tank with a continuous recording, non-resettable, ampere-hour meter that operates on the electrical power lines connected to the tank or group of tanks. A separate meter shall be hard wired for each ~~rectifier~~tank.

(2) The owner or operator of a source with any chromium electroplating or chromic acid anodizing tank using a wetting agent chemical fume suppressant shall use only wetting agent chemical fume suppressants certified pursuant to subdivision (~~f~~l).

(3) No hexavalent chromium electroplating or chromic acid anodizing tank shall be air sparged when electroplating is not occurring, or while chromic acid is being added.

(4) The owner or operator shall maintain a tank freeboard height to be within the range as specified in the most current edition (i.e. at the time the permit application was deemed complete by the SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists for any Tier II Hexavalent Chromium-Containing Tank installed after [Date of Rule Adoption], or for any Tier II Hexavalent Chromium-Containing Tank that undergoes a modification after [Date of Rule Adoption] involving a physical change to the dimensions of the tank.

(e) Requirements for Building Enclosures

Beginning [90 days after Date of Rule Adoption], the owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing shall

only operate a Tier I or Tier II Hexavalent Chromium-Containing Tank and associated process tanks within a building enclosure that meets the following requirements:

(1) The combined area of all enclosure openings, including but not limited to, any roof openings for passage of equipment or vents through which fugitive emissions can escape from the building enclosure, shall not exceed 3% of the building enclosure envelope, which is calculated as the total surface area of the building enclosure's exterior walls, floor and horizontal projection of the roof on the ground. Information on calculations for the building enclosure envelope, including locations and dimensions of openings that are counted towards the 3% allowance, shall be provided in the compliance status reports required in paragraphs (p)(2) and (p)(3).

(2) Ensure that any building enclosure openings that are on opposite ends of the building enclosure where air movement can pass through are not simultaneously open except during the passage of vehicles, equipment or people by closing or using one or more of the following methods for the enclosure opening(s) on one of the opposite ends of the building enclosure:

(A) Automated roll-up door;

(B) Overlapping plastic strip curtain;

(C) Vestibule;

(D) Airlock system; or

(E) Alternative method to minimize the release of fugitive emissions from the building enclosure that the owner or operator can demonstrate to the Executive Officer (an) equivalent or more effective method(s) to minimize the movement of air within the building enclosure.

(3) Except for the movement of vehicles, equipment or people, close any building enclosure opening or use any of the methods listed in subparagraph (e)(2)(A) through (e)(2)(E), that directly faces and opens towards a sensitive receptor, school, or early education center that is located within 100 feet, as measured from the property line of the sensitive receptor, school, or early education center to the building enclosure opening.

(4) Close all enclosure openings in the roof that are located within 15 feet

from the edge of any Tier II Hexavalent Chromium-Containing Tank except enclosure openings in the roof that are used to:

(A) Allow access for equipment or parts; or

(B) Provide intake air or circulation air for a building enclosure that does not create air velocities that impact the collection efficiency of a ventilation system for an add-on air pollution control device.

(5) Prohibit operation of any device located on the roof of any building enclosure that pulls air from the building enclosure to the outdoor air unless the air is vented to an add-on air pollution control device that is fitted with HEPA filters.

(6) Inspect any building enclosure at least once a calendar month for breaks or deterioration that could cause or result in fugitive emissions.

(7) Repair any breaks or deterioration that could or results in fugitive emissions from any building enclosure within 72 hours of discovery. The owner or operator may request an extension by calling 1-800-CUT-SMOG. The Executive Officer may approve a request for an extension beyond the 72-hour limit if the request is submitted before the 72-hour time limit has expired, and the owner or operator provides information that substantiates:

(A) the repair will take longer than 72 hours, or the equipment, parts, or materials needed for the repair cannot be obtained within 72 hours; and

(B) temporary measures are implemented that ensure no fugitive emissions result from the break or deterioration.

(8) The owner or operator shall notify the Executive Officer of any of the requirements specified in paragraphs (e)(1) through (e)(5) that cannot be complied with due to conflicting requirements set forth by the federal Occupational Safety and Health Administration (OSHA) or the California Division of Occupational Safety and Health (CAL-OSHA) regarding worker safety. The written notification shall be submitted to the Executive Officer for review and approval no later than [30 days after Date of Rule Adoption] for facilities existing before [Date of Rule Adoption], and prior to initial start-up for all other facilities. The written notification shall include:

(A) An explanation as to why the provision(s) specified in paragraphs (e)(1) through (e)(5) is in conflict with the requirements set forth

by the federal Occupational Safety and Health Administration (OSHA) or the California Division of Occupational Safety and Health (CAL-OSHA) regarding worker safety; and

(B) Alternative compliance measure(s) that would be implemented to minimize the release of fugitive emissions to the outside of the building enclosure.

(9) The owner or operator shall implement alternative compliance measure(s) specified in paragraph (e)(8), as approved by the Executive Officer, no later than 90 days after receiving notification of approval. Compliance with approved alternative compliance measures shall constitute compliance with the applicable provisions of paragraphs (e)(1) through (e)(5).

~~(4)~~(f) Housekeeping Requirements~~:~~

An owner or operator of a ~~hexavalent~~ chromium electroplating or chromic acid anodizing facility shall:

~~(A)~~(1) Store chromic acid powder or flakes, or other substances that may contain hexavalent chromium, in a closed container in an enclosed storage area when not in use;

~~(B)~~(2) Use a closed container when transporting chromic acid powder or flakes from an enclosed storage area to electroplating or anodizing tanks;

~~(C)~~(3) Clean~~ up~~, using an approved cleaning method, or contain using a drip tray or other containment device, any liquid or solid material that may contain hexavalent chromium that is spilled immediately and no later~~longer~~ than one hour after being spilled;

~~(D)~~(4) Clean, using an approved cleaning method, surfaces within the enclosed storage area, open floor area, walkways around the ~~electroplating or anodizing tank(s)~~Tier I or Tier II Hexavalent Chromium-Containing Tank(s), or any surface potentially contaminated with hexavalent chromium or surfaces that potentially accumulate dust at least daily~~once every seven days in one or more of the following manners: HEPA vacuumed, hand wiped with a damp cloth, wet mopped, or maintained with the use of non-toxic chemical dust suppressants~~; ~~and~~

~~(E)~~(5) Store, dispose of, recover, or recycle chromium or chromium-containing wastes generated from housekeeping activities of this subdivision using

practices that do not lead to fugitive emissions~~dust~~. Containers that contain chromium-containing waste material shall be kept closed at all times except when being filled or emptied;

(6) Within 1 hour of the end of the last operating shift for when buffing, grinding, or polishing are conducted, the owner or operator shall clean, using an approved cleaning method, floors within 20 feet of a buffing, grinding, or polishing workstation and any entrance/exit point of a building enclosure.

(7) Eliminate all flooring on walkways in the tank process areas that is made of fabric such as carpets or rugs where hexavalent chromium containing materials can become trapped.

~~(F) Install a physical barrier to separate the buffing, grinding, or polishing area within a facility from the hexavalent chromium electroplating or anodizing operation. The barrier may take the form of plastic strip curtains.~~

~~(G) Compressed air cleaning operations shall not be conducted at or adjacent to the buffing and grinding areas or the hexavalent chromium electroplating or anodizing operations.~~

(8) Abatement of Suspect Hexavalent Chromium Prior to Installation, Modification, or Removal of Add-on Air Pollution Control Devices

During the installation, modification, or removal of any add-on air pollution control device, the owner or operator shall perform the following:

(A) Prior to being disturbed, roof surfaces shall be cleaned by using a HEPA vacuum; and

(B) Any and all roof surfaces that remain stained after completion of the initial roof cleaning shall be treated by encapsulation or removed through controlled demolition; and

(C) All construction and demolition activities shall be conducted within a temporary total enclosure that is vented to HEPA filtration; and

(D) All waste materials generated by abatement, construction, or demolition shall be disposed as hazardous waste; and

(E) Notify the District at least 48 hours prior to the commencement of any work being performed by calling 1-800-CUT-SMOG.

(g) Best Management Practices

~~(H)~~(1) The owner or operator of a facility that performs chromium electroplating or chromic acid anodizing shall ~~M~~minimize dragout outside of the ~~electroplating or anodizing tank(s)~~Tier I or Tier II Hexavalent Chromium-Containing Tank(s) by implementing the following practices:

~~(i)~~(A) Facilities with automated lines shall have drip trays, or other containment equipment, installed between the ~~electroplating or anodizing tanks~~ Tier I and Tier II Hexavalent Chromium-Containing Tank(s) and its adjacent tank(s)~~so~~ such that the liquid does not fall through the space between tanks. Trays shall be placed such that the liquid is captured and returned to the tank(s), and cleaned such that there is no accumulation of visible dust or residue on the drip tray or other containment equipment potentially contaminated with hexavalent chromium.

~~(ii)~~(B) Facilities without automated lines shall handle each electroplated or anodized part, or equipment used to handle such parts, so that liquid containing chromium, including chromic acid, is not dripped outside the ~~electroplating or anodizing tanks~~Tier I and Tier II Hexavalent Chromium-Containing Tank(s), including associated process tanks, unless the liquid is captured by a drip tray or other containment device. ~~Facilities spraying down parts over the electroplating or anodizing tank(s) to remove excess chromic acid shall have a splash guard installed at the tank to minimize overspray and to ensure that any hexavalent chromium laden liquid is captured and returned to the electroplating or anodizing tank. Splash guards shall be cleaned such that there is no accumulation of visible dust potentially contaminated with hexavalent chromium.~~

(2) The owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall not spray rinse parts or equipment with that have chromium-containing liquid unless the parts or equipment are fully lowered inside a tank where the overspray and all of the liquid is captured inside the tank. The owner or operator may alternatively ensure that any liquid containing chromium is captured and returned to the tank by meeting the following conditions when rinsing

above a tank:

(A) Installing a splash guard(s) at the tank that is free of holes, tears or openings. Splash guards shall be cleaned at least daily such that there is no accumulation of visible dust or residue potentially contaminated with hexavalent chromium; or

(B) For tanks located within a process line utilizing an overhead crane system that would be restricted by the installation of splash guards specified in subparagraph (f)(2)(A), use a low pressure spray nozzle used and operated in a manner such that water flows off of the part or equipment and into the tank, and does not splash off parts or equipment during the rinsing process.

(3) Maintain clear labeling of each tank within the tank process area with a tank number or other identifier, SCAQMD permit number, bath contents, maximum concentration (ppm) of hexavalent chromium, operating temperature range, and any agitation methods used.

(4) Maintain a visible indicator, such as an etched line or paint mark, on the interior of a tank subject to paragraph (d)(4) that shows inch markings in addition to the location that is within the acceptable freeboard height range as specified in the most current edition (i.e. at the time the permit application was deemed complete by the SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists.

(5) Conduct all buffing, grinding, and polishing operations within a building enclosure.

(6) Install a barrier to separate the buffing, grinding, or polishing area within a facility from the chromium electroplating or chromic acid anodizing operation. The barrier may take the form of plastic strip curtains.

(7) Prohibit compressed air cleaning or drying operations within 15 feet of all Tier I or Tier II Hexavalent Chromium-Containing Tank(s) unless:

(A) A barrier separates those areas from the compressed air cleaning or drying operation such that particulates from those areas do not become airborne as a result of any compressed air cleaning or drying operation; or

(B) Compressed air cleaning or drying operations are conducted in a permanent total enclosure.

(h) Add-on Air Pollution Control Devices and Emission Standards

~~(5)~~(1) The owner or operator of a chromium electroplating or chromic acid anodizing facility ~~Add-on air pollution control device(s) for hard or decorative chromium electroplating or chromic acid anodizing tanks~~ shall not ~~be~~ remove~~d~~ or render~~ed~~ inoperable add-on air pollution control device(s) for hard or decorative chromium electroplating or chromic acid anodizing tanks unless it is replaced by air pollution control techniques meeting a higher control efficiency than previously achieved, or an emission rate of 0.0015 milligrams per ampere-hour or less, whichever control efficiency is more effective, as demonstrated by a ~~performance~~ source test conducted pursuant to subdivision (e~~k~~), or unless the facility is operating under an approved alternative compliance method pursuant to ~~paragraph (d)(6)~~subdivision (i).

~~(6) Add-On Control Requirement for Hard Chromium Electroplating Tanks~~

~~During tank operation, each owner or operator of an existing, modified or new source, except facilities that have applied for and received approval for an alternative compliance method pursuant to paragraph (d)(6) or an existing operation that has applied for and received approval for an interim alternative requirement as specified in paragraph (d)(5), shall control hexavalent chromium emissions discharged to the atmosphere from that source by reducing the hexavalent chromium emissions using an add-on air pollution control device.~~

~~(7) Training and Certification~~

~~(A) Chromium electroplating personnel responsible for environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data shall complete a District-approved training program every two years. Initial training shall have been completed prior to May 1, 2004 for facilities existing before that time. For new facilities, initial training must be completed within a period not to exceed two years of start-up.~~

~~(B) Only persons who have completed a District-approved training program and have received a certification issued by the District shall be responsible for recordkeeping associated with environmental compliance, maintaining electroplating bath~~

chemistries, and testing and recording electroplating bath surface tension data.

(C) Notwithstanding subparagraph (c)(7)(B), in the event that all persons who have completed a District-approved training program leave employment at a facility, the owner or operator may be responsible for recordkeeping associated with environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data for a period not to exceed two years.

(8) Interim Emission Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities Located 25 Meters or Less from a Licensed Daycare, Hospital, Convalescent Home, or a Residence, or Located 100 Meters or Less from an Existing, as of May 2, 2003, School.

The following emission limitations shall be in effect until the limits of paragraph (c)(11) become effective.

(A) The owner or operator shall reduce hexavalent chromium emissions to an emission limitation of 0.0015 milligram or less per ampere-hour for each tank, as measured after add-on controls, if any; or

(B) The owner or operator shall comply with any applicable interim alternative compliance option, as specified in paragraphs (d)(1) through (d)(5).

(9) Interim Emission Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities Located More than 25 Meters from a Licensed Daycare, Hospital, Convalescent Home, or a Residence, and More than 100 Meters from an Existing, as of May 2, 2003, School.

The following emission limitations shall be in effect until the limits of paragraph (c)(11) become effective.

(A) The owner or operator shall reduce hexavalent chromium emissions to an emission limitation of:

(i) 0.01 milligrams or less per ampere-hour for each tank, as measured after add-on controls, if any, when actual consumption of electrical current used by the facility for electroplating or anodizing tanks subject to this rule is less

than the threshold given in Table 1, for the appropriate operating scenario and operating schedule, or the applicable distance-adjusted ampere-hour level as specified in Appendix 7; or

(ii) 0.0015 milligrams or less per ampere-hour for each tank, as measured after add-on controls, if any, when actual consumption of electrical current used by the facility for electroplating or anodizing tanks subject to this rule exceeds the threshold given in Table 1, for the appropriate facility operating scenario and regular operating schedule, or the applicable distance-adjusted ampere-hour level as specified in Appendix 7; or

(B) The owner or operator shall comply with any applicable interim alternative compliance option, as specified in paragraphs (d)(1) through (d)(5).

Table 1

Ampere-Hour Thresholds for Facilities Located More than 25 Meters from a Sensitive Receptor or a Residence

Operating Scenario	**Regular Operating Schedule**	**Ampere-Hour Threshold**
Vented to Air Pollution Control Device	More than 12 hours per day	1,800,000 ampere-hours/yr
Vented to Air Pollution Control Device	12 hours per day or less	1,600,000 ampere-hours/yr
Not Vented to Air Pollution Control Device	Any	1,150,000 ampere-hours/yr

(10) Interim Emission Standards for Existing Facilities Conducting Multiple Hexavalent Chromium Electroplating Processes or Anodizing Processes

(A) For any facility subject to paragraph (c)(9) where a combination of hexavalent chromium electroplating or chromic acid anodizing is conducted, the owner or operator shall comply with an emission limitation in lieu of the one specified in paragraph (c)(9). The emission limitation shall be determined by calculating weighted facility energy consumption over any

~~calendar year, using the following equation:~~

$$\text{Weighting Factor} = \frac{\text{Tanks Vented to APC Operating > 12 hrs/day (Amp-hrs/yr)}}{(1)} + \frac{\text{Tanks Vented to APC Operating} \leq \text{12 hrs/day (Amp-hrs/yr)}}{(2)} + \frac{\text{Tanks Not Vented to APC (Amp-hrs/yr)}}{(3)}$$

~~Where:~~

~~(1) = 1,800,000 ampere-hours per year or applicable distance-adjusted ampere-hour level as specified in Appendix 7.~~

~~(2) = 1,600,000 ampere-hours per year or applicable distance-adjusted ampere-hour level as specified in Appendix 7.~~

~~(3) = 1,150,000 ampere-hours per year or applicable distance-adjusted ampere-hour level as specified in Appendix 7.~~

~~(B) If weighted source energy consumption is less than or equal to 1, the applicable emission limitation shall be 0.01 milligram or less per ampere-hour for each tank~~

~~(C) If weighted source energy consumption is greater than 1, the applicable emission limitation shall be 0.0015 milligram or less per ampere-hour for each tank, as measured after add-on controls, if any.~~

~~(11)~~(2) Emission Standards for ~~Existing~~ Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Facilities ~~beginning October 24, 2007~~

(A) The owner or operator ~~of an existing facility~~ shall control hexavalent chromium emissions discharged to the atmosphere by meeting the requirements identified below in Table 1~~2~~. Alternatively, a facility can choose to comply by operating under an approved alternative compliance method pursuant to subdivision (i)~~paragraph (d)(6)~~.

Table 1: Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks

Facility Type	Distance to Sensitive Receptor (meters)[1]	Annual Permitted Amp-Hrs	Hexavalent Chromium Emission Limit (mg/amp-hr)	Required Air Pollution Control Technique
Existing Facility	< 100	< 20,000	0.01	Use of Certified Chemical Fume Suppressant. Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr.
Existing Facility	< 100	> 20,000	0.0015	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Existing Facility	> 100	< 50,000	0.01	Use of Certified Chemical Fume Suppressant. Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr.
Existing Facility	> 100	> 50,000 and < 500,000	0.0015	Use of an air pollution control technique approved by the Executive Officer.
Existing Facility	> 100	> 500,000	0.0015	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Modified Facility	Any	Any	0.0015	Using an add-on air pollution control device(s), or an approved alternative method pursuant to subdivision (i) to control hexavalent chromium emissions.
New Facility	Any	Any	0.0011	Using a HEPA add-on air pollution control device, or an approved alternative method pursuant to subdivision (i) to control hexavalent chromium emissions.

[1] Distance shall be measured, rounded to the nearest meter, from the edge of the chromium electroplating or anodizing tank nearest the sensitive receptor (for facilities without add-on air pollution control devices), or from the stack or centroid of stacks (for facilities with add-on air pollution control devices), to the property line of the nearest sensitive receptor existing on or before October 24, 2007.

~~**Table 2: Hexavalent Chromium Emission Limits for Existing Tanks**~~

~~Distance to Sensitive Receptor (meters)~~	~~Annual Permitted Ampere-hours~~	~~Emission Limit (mg/amp-hr)~~	~~Effective Date~~
~~≤ 100~~	~~≤ 20,000~~	~~0.01[2]~~	~~4/24/2008~~
~~≤ 100~~	~~> 20,000 and ≤ 200,000~~	~~0.0015[1]~~	~~10/24/2010~~
~~≤ 100~~	~~> 200,000~~	~~0.0015[1]~~	~~10/24/2009~~
~~> 100~~	~~≤ 50,000~~	~~0.01[2]~~	~~4/24/2008~~

> 100	> 50,000 and ≤ 500,000	0.0015	10/24/2011
> 100	> 500,000	0.0015[1]	10/24/2009

[1] Measured after add-on air pollution control device(s).
[2] Achieved through use of Certified Chemical Fume Suppressants. Alternatively, a facility may install an add-on air pollution control device(s) that controls emissions to below 0.0015 mg/amp-hr.

(B) The owner or operator of an existing facility shall submit by November 24, 2007, a notification to the District providing distance(s) to the nearest sensitive receptor. Distances shall be measured as follows:

(i) For facilities that do not have an add-on air pollution control device on October 24, 2007, the measurement shall be the distance, rounded to the nearest foot, from the edge of the hexavalent chromium electroplating or anodizing tank nearest the sensitive receptor to the property line of the nearest sensitive receptor that exists on October 24, 2007.

(ii) For facilities with an add-on air pollution control device on October 24, 2007, the measurement shall be the distance, rounded to the nearest foot, from the centroid of the stack to the property line of the nearest sensitive receptor that exists on October 24, 2007.

(C) Screening Health Risk Assessment

(i) The owner or operator of an existing facility shall conduct a screening health risk assessment if annual hexavalent chromium emissions from the chromium electroplating and chromic acid anodizing operations exceed 15 grams in the calendar year following the year of the facility's applicable effective compliance date specified in Table 2 of paragraph (c)(11) and any calendar year thereafter.

(ii) The screening health risk assessment shall be conducted for hexavalent chromium emissions from the hexavalent chromium electroplating and chromic acid anodizing operations, and in accordance with the most current version of the District's "Risk Assessment Procedures of Rules 1401 and 212" or "Air Toxics Hot Spots Program Risk Assessment Guidelines" *(OEHHA Guidelines).*

(iii) The owner or operator shall submit the screening health

~~risk assessment to the Executive Officer within 120 days of the end of the calendar year during which the facility's hexavalent chromium emissions exceeded 15 grams.~~

~~(iv) The owner or operator may comply with clause (c)(11)(C)(i) by using an existing health risk assessment or screening health risk assessment previously approved by the District provided the existing health risk assessment is:~~

~~(I) Based on the most current version of the District's "Risk Assessment Procedures of Rules 1401 and 212" or *OEHHA Guidelines*; and~~

~~(II) representative of the chromium electroplating or chromic acid anodizing operating conditions for the subject year; and~~

~~(III) calculated using an annual hexavalent chromium emission amount that is equal to or greater than the amount of the subject year; and~~

~~(IV) uses receptor distances less than or equal to those for the subject year.~~

~~(12) Modified Hexavalent Chromium Electroplating or Chromic Acid Anodizing Facilities~~

~~(A) The owner or operator of a modified facility shall, upon start-up of modification, control hexavalent chromium emissions from the electroplating or anodizing tank(s) by:~~

~~(i) Using an add-on air pollution control device(s), or an approved alternative method pursuant to paragraph (d)(6), to control hexavalent chromium emission, and~~

~~(ii) Meeting an emission limit of 0.0015 milligrams per ampere-hour or less.~~

~~(B) When annual emissions of hexavalent chromium after modification are expected to exceed 15 grams per calendar year, the owner or operator shall demonstrate that the modification complies with District Rules 1401, 1401.1 and 1402 prior to initial start-up.~~

~~(13) New Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities~~

~~(A)~~(The owner or operator of a new facility conducting hexavalent

B) chromium electroplating or chromic acid anodizing operations shall:

(i) Demonstrate that the new facility is not located in an area that is zoned for residential or mixed use; and

(ii) Demonstrate that the new facility, determined by the District, is not located within 1,000 feet from the boundary of a sensitive receptor, a school under construction, or any area that is zoned for residential or mixed use;

~~(iii) Reduce hexavalent chromium emissions discharged to the atmosphere from the electroplating or anodizing tank(s) by installing a HEPA add-on air pollution control device, or an approved alternative method pursuant to paragraph (d)(6);~~

~~(iv) Meet a hexavalent chromium emission rate of ≤ 0.0011 milligrams/ampere-hour as measured after the HEPA add-on air pollution control device;~~

~~(v) Conduct a facility-wide screening health risk assessment for all toxic air contaminant emissions which shall be submitted to the District when filing applications for Permit to Construct/Operate the new equipment. The screening health risk assessment shall be conducted in accordance with the most current version of the District's "Risk Assessment Procedures of Rules 1401 and 212" or *OEHHA Guidelines*; and~~

~~(vi) Comply with District Rules 1401 and 1401.1, if applicable.~~

~~(B)(~~C) A new facility shall be deemed to meet the requirements specified in clauses ~~(c)(13)(A)(i)~~(h)(2)(B)(i) and (ii) if one of the following criteria is met, even if the facility does not meet the requirement at the time of initial start-up:

(i) The requirements specified in clauses ~~(c)(13)(A)(i)~~(h)(2)(B)(i) and (ii) are met at the time a permit to construct is issued by the District, and substantial use of the permit to construct takes place within one year after it is issued; or

(ii) The requirements specified in clauses ~~(c)(13)(A)(i)~~(h)(2)(B)(i) and (ii) are met at the time a ~~p~~Permit to ~~c~~Construct is issued by the District, and

substantial use of the ~~p~~Permit to ~~c~~Construct takes place before any zoning change occurs that affects the operation's ability to meet the requirement at the time of initial start-up.

~~(C)~~(D) Prior to initial start-up, the owner or operator of a new facility shall demonstrate to the District that the new facility meets the requirements specified in paragraph ~~(c)(13)~~(h)(2).

~~(14)~~(3) Decorative Chromium Electroplating Tanks Using a Trivalent Chromium Bath

(A) During tank operation, the owner or operator of an existing, modified, or new facility shall control chromium emissions discharged to the atmosphere by meeting one or more of the requirements identified below.

Method of compliance	Requirement
Add-on air pollution control device, or chemical fume suppressants forming a foam blanket, or mechanical fume suppressants (i.e. polyballs)	≤ 0.01 milligrams of total chromium per dry standard cubic meter of air (mg/dscm) (4.4x10-6 gr/dscf)
~~Certified c~~Chemical fume suppressants containing a wetting agent that do not contain PFOS	Use wetting agent as bath component and comply with recordkeeping and reporting provisions of paragraphs ~~(j)(9)~~(o)(8) and ~~(k)~~(p)(5)~~.~~

~~(B) New facilities that perform electroplating using a trivalent chromium bath shall conduct a facility-wide screening health risk assessment for all toxic air contaminant emissions which shall be submitted to the District when filing applications for Permit to Construct/Operate the new equipment. The screening health risk assessment shall be conducted in accordance with the most current version of the District's "Risk Assessment Procedures of Rules 1401 and 212" or *OEHHA Guidelines*.~~

~~(15) Permit Application Submittals~~

~~(A) The owner or operator of a hexavalent chromium electroplating or chromic acid anodizing facility subject to this rule, that either~~

~~does not have a permitted annual ampere-hour limit, or is requesting a reduction of an existing ampere-hour limit, shall submit an application for administrative change of operating condition subject to fees specified in Rule 301. The application shall be submitted to the District no later than February 24, 2009.~~

~~(B) The owner or operator of an existing hexavalent chromium electroplating or chromic acid anodizing facility shall submit permit applications for all new or modified equipment necessary to comply with the requirements of Table 2 of paragraph (c)(11). Permit applications shall be submitted to the District no later than 8 months prior to the applicable effective date of Table 2.~~

(4) Tier II Hexavalent Chromium-Containing Tanks

(A) The owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall collect and vent all hexavalent chromium emissions from each Tier II Hexavalent Chromium-Containing Tank, excluding chromium electroplating and chromic acid anodizing tanks subject to paragraphs (h)(2) and (h)(3), to an add-on air pollution control device, or an approved alternative method pursuant subdivision (i), that meets the following hexavalent chromium emission limits:

(i) For existing facilities, 0.0015 mg/amp-hr, if any tanks that are vented are electrolytic; or

(ii) For new facilities, 0.0011 mg/amp-hr, if any tanks that are vented are electrolytic; or

(iii) 0.20 mg/hr, if all tanks vented to the add-on air pollution control device are not electrolytic and the ventilation system has a maximum exhaust rate of 5,000 cfm or less; or

(iv) 0.004 mg/hr-ft^2, with the applicable surface area based on the tank surface area of all Tier II Hexavalent Chromium-Containing Tank(s) vented to an add-on air pollution control device, if the ventilation system has a maximum exhaust rate of greater than 5,000 cfm; or

(v) 0.004 mg/hr-ft^2, with the applicable surface area based on the tank surface area of all Tier II Hexavalent Chromium-

Containing Tank(s) and other tanks required to be controlled by SCAQMD Permit to Operate vented to an add-on air pollution control device, if all tanks that are vented to the add-on air pollution control device are located in a permanent total enclosure.

(B) For Tier II Hexavalent Chromium-Containing Tanks specified in subparagraph (h)(4)(A) existing prior to [Date of Adoption], the owner or operator shall submit complete permit applications for add-on air pollution control devices to the Executive Officer as specified below:

Electrolytic Process at the Facility	**Compliance Date for Permit Application Submittal for Add-on Air Pollution Control Device**
Chromic Acid Anodizing	[180 Days after Date of Adoption]
Hard Chromium Electroplating	[365 Days after Date of Adoption]
Decorative Chromium Electroplating	[545 Days after Date of Adoption]

(i) Install the add-on air pollution control device(s) no later than 1 year after a Permit to Construct for the add-on air pollution control device(s) has been issued by the Executive Officer; and

(ii) Beginning no later than [30 days after Date of Adoption] until the add-on air pollution control device specified in clause (h)(4)(B) has been installed, cover the tank no later than 30 minutes after ceasing operation of the tank. Tank covers shall be free of holes, tears, and gaps and handled in a manner that does not lead to fugitive emissions.

(C) The owner or operator shall not be subject to the requirement of subparagraph (h)(4)(A) to vent a Tier II Hexavalent Chromium-Containing Tank to an add-on air pollution control device if the uncontrolled hexavalent chromium emission rate of the tank is less than the applicable emission rate specified in (h)(4)(A), as demonstrated by a District-approved source test conducted pursuant to the Technical Guidance Document for *Measurement of Hexavalent Chromium Emissions from Chromium Plating and*

Chromic Acid Anodizing Operations for Certification of Wetting Agent Chemical Mist Suppressant Subject to SCAQMD Rule 1469 made available by the Executive Officer.

(5) Ventilation Design and Operation for Air Pollution Control Techniques

The owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall operate air pollution control techniques required under subdivision (h) and (t) at the applicable minimum hood induced capture velocity specified in the most current edition (i.e. at the time the permit application was deemed complete by the SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists.

~~(d) Alternative Compliance Options and Methods~~

~~(1) Alternative Interim Compliance Options – Inventory and Health Risk Assessment~~

~~In lieu of complying with the interim requirements of paragraphs (c)(8), (c)(9), or (c)(10) an owner/operator may elect to submit an inventory and health risk assessment prepared pursuant to Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, subdivisions (n) [Emissions Inventory Requirements] and (j) [Risk Assessment Procedures].~~

~~(A) Health risk assessments approved by the Executive Officer prior to May 2, 2003, shall demonstrate that facility-wide emissions of all toxic air compounds result in a cancer risk of:~~

~~(i) Less than 25 in a million for facilities located more than 25 meters from a licensed daycare center, hospital, convalescent home, or a residence, and located more than 100 meters from an existing, as of May 2, 2003, school (kindergarten through grade 12).~~

~~(ii) Less than 10 in a million for facilities located 25 meters or less from a licensed daycare center, hospital, convalescent home, or a residence, or located 100 meters or less from an existing, as of May 2, 2003, school (kindergarten through grade 12).~~

~~(B) Health risk assessments not approved by the Executive Officer~~

~~prior to May 2, 2003, shall demonstrate that facility-wide emissions of all toxic compounds with existing controls result in a cancer risk of those specified in (d)(1)(A)(i) or (d)(1)(A)(ii) at their respective receptor distances.~~

~~(i) The inventory and health risk assessment shall be submitted by January 1, 2004.~~

~~(ii) After review, the Executive Officer will notify the facility in writing whether a health risk assessment conducted pursuant to this paragraph is approved or disapproved.~~

~~(iii) If a health risk assessment conducted pursuant to this paragraph is disapproved, or if the approved cancer risk exceeds those specified in (d)(1)(A)(i) or (d)(1)(A)(ii) at their respective receptor distances, the facility shall comply with the applicable interim requirements of (c)(8), (c)(9), or (c)(10) no later than one year after notification by the District. Within 60 days from the date of disapproval, the owner or operator shall begin use of a wetting agent chemical fume suppressant certified pursuant to subdivision (f).~~

~~(C) The owner or operator of a facility subject to subparagraph (d)(1)(A) or (d)(1)(B) shall comply with enforceable conditions to ensure that controls result in a cancer risk of those specified in (d)(1)(A)(i) or (d)(1)(A)(ii) at their respective receptor distances.~~

~~(D) If a health risk assessment, approved under this paragraph as demonstrating a cancer risk of those specified in (d)(1)(A)(i) or (d)(1)(A)(ii) at their respective receptor distances, is subsequently determined to demonstrate actual cancer risks exceeding 25 in a million or 10 in a million, as applicable, the health risk assessment will be disapproved and the owner or operator of the facility shall comply with the specific applicable interim requirements of (c)(8), (c)(9), or (c)(10) no later than one year after notification of disapproval by the District. Within 60 days from the date of notification, the owner or operator shall begin use of a wetting agent chemical fume suppressant certified pursuant to subdivision (f).~~

~~(2) Alternative Interim Compliance Options – Emission Reduction Plan~~

(A) In lieu of complying with the specific interim requirements of paragraph (c)(8), the owner or operator of a facility located 25 meters or less from a licensed daycare center, hospital, convalescent home, or a residence, or located 100 meters or less from an existing, as of May 2, 2003, school (kindergarten through grade 12) may elect to submit an Emission Reduction Plan identifying potential emission reduction strategies on or before May 1, 2004. The plan shall demonstrate that facility-wide hexavalent chromium emissions result in a cancer risk of ≤ 10 in a million and shall include, but is not limited to, the following areas:

(i) pollution prevention;

(ii) voluntary, enforceable reduction in ampere-hour limits; and

(iii) installation of add-on control.

(B) Following Executive Officer approval, the owner or operator of a facility that elects to implement an Emissions Reduction Plan shall do the following:

(i) submit all necessary permit applications within 90 days of plan approval; and

(ii) install necessary control equipment within 15 months from the date of plan approval; and

(iii) conduct any performance test required for compliance with a permit condition or a compliance plan condition pursuant to subdivision (e).

(3) Alternative Interim Compliance Options – Maximum Installed Controls

Effective May 1, 2005, in lieu of complying with the interim requirements of paragraphs (c)(8), (c)(9), or (c)(10) the owner or operator shall use HEPA or an equivalent air pollution control technique and use a wetting agent chemical fume suppressant, certified under subdivision (f), and comply with all applicable permit conditions and approved Compliance Plan conditions.

(4) Alternative Interim Compliance Options – Facility-wide Mass Emission Rate

(A) As an alternative to complying with the interim emission limitation requirements of paragraph (c)(9), the owner or operator

of a facility that is located more than 25 meters from a licensed daycare center, hospital, convalescent home, or a residence, and located more than 100 meters from an existing, as of May 2, 2003, school (kindergarten through grade 12) shall provide calculations in the Compliance Plan to demonstrate that facility-wide emissions of hexavalent chromium do not exceed the threshold in Table 3 for the appropriate facility operating scenario and regular operating schedule, or the applicable distance-adjusted annual emission level as specified in Appendix 7.

Table 3
Annual Emission Thresholds for Facilities Located More than 25 Meters from a Licensed Daycare Center, Hospital, Convalescent Home, or a Residence

Operating Scenario	**Regular Operating Schedule**	**Annual Emission Threshold**
Vented to Air Pollution Control Device	12 hours per day or less	0.036 lbs/yr
Vented to Air Pollution Control Device	More than 12 hours per day	0.04 lbs/yr
Not Vented to Air Pollution Control Device	Any	0.025 lbs/yr

(B) The owner or operator of a facility complying with this paragraph shall use the Hexavalent Chromium Source Test Parameter Guidance Document to establish testing parameters.

(C) The owner or operator of a facility complying with this paragraph shall update the facility-wide emissions calculations every year using process information from the preceding twelve months, and shall provide such calculations upon request.

(5) Alternative Interim Compliance Options – Alternative Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities with Low Annual Ampere-Hour Usage

(A) Until the emission limits of paragraph (c)(11) become effective, the Executive Officer may approve a Compliance Plan specifying interim alternative standards for facilities with actual consumption of electrical current less than or equal to 365,000 ampere-hours for any calendar year. For hard chromium electroplating facilities constructed on or before December 16,

~~1993, the Executive Officer, with U.S. EPA concurrence shall approve this plan if equivalent results are obtained. Upon approval, the requirements identified in the plan shall be the applicable requirements under this regulation.~~

~~(B) At a minimum, the hexavalent chromium electroplating or chromic acid anodizing tank shall use chemical fume suppressants containing a wetting agent to lower the surface tension of the electroplating bath to no more than 45 dynes per centimeter (dynes/cm) ($3.1x10^{-3}$ pound-force per foot [lbF/ft]), or the surface tension established during testing of a certified fume suppressant under subdivision (f).~~

~~(C) Upon approval of a facility's Compliance Plan, the Executive Officer may require additional emission reduction techniques as necessary to reduce the public health impact of emissions from the operation.~~

~~(D) The owner or operator shall comply with the applicable monitoring [subdivision (g)], recordkeeping [subdivision (j)], and reporting [subdivision (k)] requirements.~~

~~(E) If the facility is located 25 meters or less from a licensed daycare center, hospital, convalescent home, or a residence, or located 100 meters or less from an existing, as of May 2, 2003, school (kindergarten through grade 12), and actual consumption of electrical current exceeds 500,000 ampere-hours per year after May 2, 2003, the owner or operator shall use HEPA or an equivalent air pollution control technique and use a wetting agent chemical fume suppressant certified under subdivision (f), on all hexavalent chromium electroplating and chromic acid anodizing tanks. An application for a permit to construct the control equipment shall be filed within 90 days of the date of the approved Notice of Violation for the ampere-hour threshold exceedance and the control equipment shall be installed within 15 months from the date of the approved Notice of Violation for the ampere-hour threshold exceedance.~~

~~(F) Emission-Related Exceedance~~

~~(i) Effective November 1, 2003, the owner or operator of a facility subject to paragraph (d)(5) located 25 meters or less~~

~~from a licensed daycare center, hospital, convalescent home, or a residence, or located 100 meters or less from an existing, as of May 2, 2003, school (kindergarten through grade 12) that is using a wetting agent chemical fume suppressant with no associated add-on air pollution control device(s) will begin to accrue notices of violation for emission-related exceedances specified under (d)(5)(F)(ii). The owner or operator of a facility who accrues three or more approved notices of violation for an emission-related exceedance within a five year period shall comply with the emission limitation specified in subparagraph (c)(8)(A) by installing a ventilation system and HEPA controls, or equivalent controls, on all hexavalent chromium electroplating and chromic acid anodizing tanks.~~

~~An application for a permit to construct the control equipment shall be filed within 90 days of the date of the third approved notice of violation and the control equipment shall be installed within 15 months from the date of the third approved notice of violation.~~

~~(ii) An emission-related exceedance, for the purpose of this rule, is defined as:~~

~~(I) exceeding the applicable surface tension limit established under subdivision (f) or subparagraph (d)(5)(B) for a wetting agent chemical fume suppressant; or~~

~~(II) exceeding the ampere-hour limit specified in subparagraph (d)(5)(A) by 135,000 ampere-hours per year, or less, or exceeding the ampere-hour limit in an approved Compliance Plan condition for any calendar year; or~~

~~(III) exceeding the chromic acid weight concentration limit specified in any permit issued after May 2, 2003; or~~

~~(IV) a missing stalagmometer, tensiometer, or ampere-hour meter or a broken or inoperable stalagmometer, tensiometer, or ampere-hour meter~~

~~unless:~~

~~(a) it is repaired or replaced within one week after its breakdown; or~~

~~(b) the tank or tanks served by the device are removed from service until the device has been repaired or replaced; or~~

~~(c) the owner can provide proof of ordering a new device within 7 days after the device became broken or inoperable, and the device is replaced within 14 days after it became broken or inoperable.~~

~~(iii) For the purpose of counting notices of violations which may trigger the installation of controls pursuant to this subparagraph, a notice of violation shall be counted as a single emission-related exceedance even if it cites multiple emission-related exceedances as defined in subparagraph (d)(5)(F), provided that the multiple emission-related exceedances are based on a single field inspection conducted in one day.~~

~~(iv) The provisions of subparagraph (d)(5)(F) shall apply to an owner or operator of a facility within any five year time period.~~

~~(v) The provisions of this paragraph shall in no way limit the evaluation or prosecution by the District of any notices of violation or any emissions-related exceedances contained therein.~~

~~(6)~~(i) Alternative Compliance Methods for New, Modified and Existing Hexavalent Decorative and Hard Chromium Electroplating and Chromic Acid Anodizing Facilities

The owner or operator of a facility may submit to the District an alternative compliance method(s) to ~~sub~~paragraphs ~~(c)(11)(A)~~(h)(2) for existing facilities, ~~clause (c)(12)(A)(i) for~~ modified facilities, and ~~clause (c)(13)(A)(iii) for~~ new facilities, and paragraph (h)(4) for Tier II Hexavalent Chromium-Containing Tanks. In order to operate under this subdivision~~paragraph~~, the owner or operator shall:

~~(A)~~(Submit information contained in Appendix ~~8~~ 7 to the Executive Officer.

1)

~~(B)~~(Demonstrate that the alternative method(s) is enforceable, provides an

2) equal, or greater hexavalent chromium emission reduction, and provides an equal, or greater risk reduction than would direct compliance with the requirements of ~~(c)(11)(A)~~(h)(2)(A) for existing facilities, ~~(c)(12)(A)(i) for~~ modified facilities, and ~~(c)(13)(A)(iii) for~~ new facilities, and (h)(4) for Tier II Hexavalent Chromium-Containing Tanks.

~~(C) Implement alternative method(s), upon approval by the Executive Officer, within the applicable compliance dates of Table 2 of (c)(11)(A) for existing facilities and prior to initial start-up for new or modified facilities.~~

(j) Training and Certification

(1) Chromium electroplating and chromic acid anodizing personnel responsible for environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data shall complete a District-approved training program every two years. For new facilities, initial training must be completed within a period not to exceed two years of start-up.

(2) Only persons who have completed a District-approved training program and have received a certification issued by the District shall be responsible for recordkeeping associated with environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data.

(3) Notwithstanding paragraph (j)(2), in the event that all persons who have completed a District-approved training program leave employment at a facility, the owner or operator may be responsible for recordkeeping associated with environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data for a period not to exceed two years.

(e~~k~~) ~~Performance~~ Source Test Requirements and Test Methods

(1) ~~Performance~~ Source Test Requirement

The owner or operator of ~~an existing~~ a facility subject to this rule using ~~add-on air pollution control device(s), foam blanket chemical fume suppressants, or mechanical fume suppressants~~air pollution control

techniques to comply with the applicable requirements of subdivision (h)~~paragraphs (c)(8) through (c)(11), (d)(5), or any source electing to comply with the mg/dscm emission standard in paragraph (c)(14)~~ shall conduct an ~~performance~~initial source test to demonstrate compliance with the applicable emission standards of subdivision (h) ~~within 180 days after initial startup or before the applicable effective date listed in Table 2 of paragraph (c)(11), whichever is sooner. New or modified facilities complying with the requirements of paragraphs (c)(12) and (c)(13) shall conduct a performance test within 60 days after initial start-up~~.

~~(2) Use of Existing Performance Test~~

~~(A) A performance test conducted prior to July 24, 1997 may be used to demonstrate compliance with applicable interim emission standards specified in (c)(8), (c)(9), (c)(10), and (d)(5), or the mg/dscm emission standard in (c)(14) provided the existing source test is approved by the Executive Officer.~~

~~(B) A performance test conducted after January 1, 2000 may be used to demonstrate compliance with emission standards of paragraph (c)(11) or (c)(14) upon District approval. The owner or operator of the facility shall submit the subject performance test to the District's Compliance Division by February 24, 2009 for evaluation, and shall meet, at a minimum, the following criteria:~~

~~(i) The test demonstrated compliance with the applicable emission limits of paragraph (c)(11) or (c)(14); and~~

~~(ii) The test is representative of the method to control emissions currently in use as of December 5, 2008; and~~

~~(iii) The test was conducted using one of the approved test methods specified in paragraph (e)(3).~~

(~~3~~2) Approved Test Methods

(A) Emissions testing shall be conducted in accordance with one of the following test methods:

(i) CARB Test Method 425, last amended July 28, 1997, (section 94135, Title 17, California Code of Regulations (CCR)); or

(ii) U.S. EPA Method 306, (40 CFR 63 Appendix A) with a minimum of three test runs; or

(iii) SCAQMD Method 205.1, for results reported as total

chromium.

(B) Emissions testing ~~from the cover of electroplating and anodizing tanks~~for add-on non-ventilated air pollution control devices shall be conducted in accordance with Smoke Test to Verify the Seal Integrity of Covers Designed to Reduce Chromium Emissions from Electroplating and Anodizing Tanks procedures (See Appendix ~~5~~4).

(C) Surface tension using a tensiometer shall be measured in accordance with U.S. EPA Method 306B (40 CFR 63 Appendix A). Surface tension using a stalagmometer shall be measured using the procedure set forth in Appendix 10, or an alternative procedure approved by the District.

(3) Source Test and Emission Evaluation Compliance Dates

(A) The owner or operator shall conduct the initial source test to comply with paragraph (k)(1) no later than 120 days after approval of the initial source test protocol specified in paragraph (k)(4), unless otherwise approved in writing by the Executive Officer. Subsequent source tests are required to be conducted within 36 months of the most recent successful District-approved source test. Failure to retest following a failed or unsuccessful source test within 60 days shall constitute as a violation of this rule.

(B) A source test conducted after September 1, 2015 may be used to demonstrate compliance with the initial source test required in subparagraph (k)(3)(A). If not previously approved by the District, the owner or operator shall submit the subject source test to the District's Compliance Division by [30 days after Date of Adoption]. The subject source test shall meet, at a minimum, the criteria specified in clauses (k)(3)(B)(i) through (iii) below. The Executive Officer shall notify the owner or operator within 30 days of receiving the source test if it has been approved.

(i) The test demonstrated compliance with the applicable emission limits of subdivision (h);

(ii) The test is representative of the method to control emissions currently in use as of [Date of Adoption]; and

(iii) The test was conducted using one of the approved test methods specified in paragraph (k)(2).

(C) Emission Screening

(i) An emission screening of hexavalent chromium for a Tier II Hexavalent Chromium-Containing Tank subject to (k)(3)(A) may be alternatively conducted to comply with the requirements for subsequent source tests specified in subparagraph (k)(3)(A). The emission screening of hexavalent chromium shall:

(A) Follow a source test protocol previously submitted and approved by the District;

(B) Consist of one run to evaluate the capture and control of hexavalent chromium emissions; and

(C) Be representative of operating conditions at the facility.

(ii) The owner or operator shall submit to the District the results of the emission screening within 30 days of receiving the results.

(iii) The owner or operator will be required to conduct a complete source test using an approved test method specified under paragraph (k)(2) within 60 days of conducting an emission screening that:

(A) Fails the capture efficiency test(s) specified in the source test protocol;

(B) Exceeds an emission limit specified in the Permit to Operate; or

(C) Exceeds an emission standard specified in subdivision (h).

(iv) The owner or operator may conduct an emissions screening test to satisfy the requirement for the initial source test required in subparagraph (k)(3)(A) if the owner or operator conducted a source test after January 1, 2009. If the source test was not previously approved by the District, the owner or operator shall submit the subject source test to the District's Compliance Division by [30 days after Date of Adoption]. The subject source test shall meet, at a minimum, the criteria specified in clauses (k)(3)(B)(i) through (iii) above. The Executive Officer shall notify the

owner or operator within 30 days of receiving the source test if it has been approved.

(4) ~~Pre-Test~~Source Test Protocol

The owner or operator shall submit source test protocols for source tests required under subdivision (k) as specified below in Table 3:

Table 3: Submittal Dates of Source Test Protocol

Permitted Air Pollution Control Technique	Facility Permitted Annual Ampere-Hours	Due Date of Initial Source Test Protocol	Due Date of Subsequent Source Test Protocol
Existing on or Before [Date of Adoption]	> 20,000,000	No later than [180 Days After Date of Rule Adoption]	180 Days Prior to Due Date of Subsequent Source Test
	< 20,000,000 and > 1,000,000	No later than [365 Days After Date of Rule Adoption]	180 Days Prior to Due Date of Subsequent Source Test
	< 1,000,000 and > 50,000	No later than [545 Days After Date of Rule Adoption]	180 Days Prior to Due Date of Subsequent Source Test
New or Modified After [Date of Adoption]	Any	60 days After Initial Start-Up	180 Days Prior to Due Date of Subsequent Source Test

(A) Permitted air pollution control techniques existing on or before [Date of Rule Adoption] with a complete permit application submitted by [60 days after Date of Rule Adoption] for equipment modification shall instead be subject to the requirements of modified permitted air pollution control technique for the submittal of the initial source test protocol.~~Facilities subject to the provisions of paragraph (e)(1), above, that are either installing new equipment or modifying existing equipment, shall submit a pre-test protocol at least 60 days prior to conducting a performance test. Facilities that are conducting a performance test for existing equipment that require no modification, shall submit a pre-test protocol to the District's Compliance Division no later than 8 months prior to the applicable effective date of Table 2 of paragraph (c)(11).~~

(B) The ~~pre-test~~source test protocol shall include the performance test criteria of the end user and all assumptions, required data, and

calculated targets for testing the following:

(i) target chromium concentration;

(ii) preliminary chromium analytical data; and

(iii) planned sampling parameters.

(C) In addition, the ~~pre-test~~source test protocol shall include information on equipment, logistics, personnel, and other resources necessary for an efficient and coordinated test.

(D) The most recent District-approved source test protocol may be used for subsequent source tests if there are no changes since the last successful District-approved source test.

(5) Emission Points Test Requirements

Each emission point subject to the requirements of this rule shall be tested unless a waiver is granted by U.S. EPA and approved by the Executive Officer.

~~(6) For any interim alternative compliance option in subdivision (d) that requires the results of a performance test to demonstrate facility-wide emissions or cancer risk, or any facility operating under an alternative compliance method pursuant to paragraph (d)(6), the owner or operator shall submit a performance test conducted pursuant to subdivision (e).~~

~~(7)~~(6) Capture Efficiency

(A) Quantitative Assessment

~~(A)~~ (i) The owner or operator of a facility using an add-on air pollution control device or add-on non-ventilated air pollution control device to comply with the requirements of subdivision (h)~~paragraphs (c)(8) through (c)(13), (d)(5), (d)(6), or any source electing to comply with the mg/dscm emission standard in paragraph (c)(14),~~ shall demonstrate that all emissions are captured by the associated ~~ventilation system~~add-on air pollution control device or add-on non-ventilated air pollution control device by a quantitative measurement approved by the District. The demonstration shall be made during any ~~performance~~ source test specified in subdivision (k)~~paragraph (e)(1) conducted after December 5, 2008~~. An example of an approved quantitative measurement is demonstrating that the capture system meets

the design criteria and ventilation velocities specified in the American Conference of Governmental Hygienists Industrial Ventilation, A Manual of Recommended Practice.

(ii) The owner or operator subject to clause (k)(6)(A)(i) that has an add-on air pollution control device shall measure the velocity of all collection slots and, if applicable, the pressure of the push air manifold, or at alternate locations based on the most recent District-approved source test, in order to demonstrate continuous compliance with the capture efficiency of the add-on air pollution control device at least once every 180 days. The owner shall comply with the monitoring and repair requirements specified below in Table 4.

Table 4: Add-on Air Pollution Control Device Parameter Monitoring

	Collection Slot(s) Velocity	**Push Air Manifold Pressure (for push-pull systems only)**	**Required Action**
Acceptable Measurement	≥ 95% of the most recent passing source test or emission screening; or ≥ 2,000 fpm	95-105% compared to the most recent passing source test or emission screening	None
Repairable Measurement	90-95% of the most recent passing source test or emission screening test, or < 2,000 fpm and > 1,800 fpm	90-110% of the most recent passing source test or emission screening test	Repair or replace, and re-measure within 3 calendar days of measurement
Failing Measurement	< 90% of the most recent passing source test or emission screening test, or <1,800 fpm	> 110% or < 90% of the most recent passing source test or emission screening test	Immediately shut down all tanks controlled by the add-on air pollution control device

(A) The owner or operator of an add-on air pollution control device that demonstrates a parameter monitored to be a repairable measurement shall correct in a timely manner as specified in Table 4: Add-on Air Pollution Control Device Parameter Monitoring.

(B) The owner or operator that is required to shut down a tank controlled by an add-on air pollution control device due to the failing to correct a repairable measurement in a timely manner or upon detection of failing measurement, shall demonstrate that the collection slot velocity and push air manifold pressure are within the acceptable measurement range by re-measuring under typical operating conditions of the tank, with the exception of electrolytic operation remaining shutdown, prior to resuming operation.

(B) Qualitative Assessment

~~(B)~~ The owner or operator of a facility subject to (k)(6)(A)(i)~~(c)(7)(A)~~ shall periodically conduct a smoke test in order to demonstrate continuous compliance with the capture efficiency of the ~~ventilation system~~air pollution control device or add-on non-ventilated air pollution control device. The test shall be:

(i) Conducted using the method described in Appendix 5, Appendix 8~~9~~, or any other method deemed acceptable by the Executive Officer;

(ii) Conducted initially upon start-up for new and modified add-on air pollution control devices or add-on non-ventilated air pollution control devices ~~facilities, and within 60 days of the effective date of this rule for existing facilities~~; and

(iii) Conducted periodically by the facility or a third party at least once every ~~six months~~180 days of a previously conducted test, and in conjunction with the Quantitative Assessment measurement requirement of subparagraph (k)(6)(A), if applicable.

~~(C)~~ (iv) The owner or operator of ~~a ventilation system~~an add-on air pollution control device or add-on non-ventilated air pollution control device that demonstrates non-compliance with any smoke test shall immediately shutdown, upon discovery, all associated chromium electroplating or chromic anodizing lines ~~associated with such ventilation systems~~ until a smoke test demonstrating full compliance

with subparagraph ~~(e)(7)(B)~~(k)(6)(B) is achieved.

(7) The owner or operator shall conduct all capture efficiency tests and measurements specified in subparagraphs (k)(6)(A) and (k)(6)(B) under typical operating conditions, except tanks required to be shut down pursuant to (k)(6)(A)(ii)(II) and (k)(6)(B)(iv).

~~(f)~~(l) Certification of Wetting Agent Chemical Fume Suppressants

(1) The owner or operator shall not add PFOS based fume suppressants to any chromium electroplating or chromic acid anodizing bath. Any wetting agent chemical fume suppressant used to comply with the requirements of this rule shall be certified by the Executive Officer as able to reduce or suppress hexavalent chromium emissions at the surface of an electroplating or anodizing bath through the reduction of surface tension of the bath to a level at which an emission factor below 0.01 milligrams per ampere hour is achieved. Wetting agent chemical fume suppressants shall meet, at a minimum, a surface tension below ~~45~~40 dynes/cm, as measured by a stalagmometer, or below ~~35~~33 dynes/cm, as measured by a tensiometer, unless an alternative is approved pursuant to subdivision (q)~~(m)~~. The Executive Officer will publish and periodically update a list of certified chemical fume suppressants based on a certification process conducted by the SCAQMD and CARB. The owner or operator shall use certified chemical fume suppressants in accordance with the certification and manufacturer specifications.

(2) No later than July 1, 2020, the Executive Officer shall notify the owner or operator of the following information:

(A) The availability of a wetting agent chemical fume suppressant that meets the requirements of paragraph (l)(1) by July 1, 2022; and

(B) The certification status of any potential wetting agent chemical fume suppressants that is going through the certification process specified in paragraph (l)(1).

(3) Beginning July 1, 2022, the owner or operator shall only add a wetting agent chemical fume suppressant to a Tier II Hexavalent Chromium-Containing Tank that meets requirements of (l)(1).

(4) If the notification specified in paragraph (l)(2) indicates that a wetting agent chemical fume suppressant that meets the requirements of paragraph

(l)(1) will not be available for use by July 1, 2022, then the owner or operator shall install and implement an air pollution control technique to meet the emission limits specified in paragraph (h)(2) no later than July 1, 2022.

(5) In lieu of complying with paragraph (l)(3), the owner or operator may submit no later than January 1, 2021, a written and signed commitment to the Executive Officer stating that the facility will phase out by July 1, 2023, the use of hexavalent chromium in the electroplating or chromic acid anodizing tank(s) that use a wetting agent chemical fume suppressant. The owner or operator may continue to use a wetting agent chemical fume suppressant certified pursuant to paragraph (l)(1) until July 1, 2023.

(6) An owner or operator that fails to phase out the use of hexavalent chromium by July 1, 2023 pursuant to paragraph (l)(5) will be required to cease operation of the electroplating or chromic acid anodizing tank that contains hexavalent chromium until the facility can meet the emission limits specified in paragraph (h)(2) for the subject tank.

(~~g~~m) Parameter Monitoring

(1) Add-On Air Pollution Control Device

~~(A) Pressure Drop~~

~~The owner or operator shall continuously monitor the pressure drop across an add-on air pollution control device such as a composite mesh pad (CMP), packed bed scrubber (PBS), a CMP/PBS, fiber-bed mist eliminator, and a High Efficiency Particulate Arrestors (HEPA) filter with a mechanical gauge. The gauge shall be located so that it can be easily visible and in clear sight of the operation or maintenance personnel. The pressure drop shall be maintained within ± 1 inch of water of the value established during the performance test to demonstrate compliance with the emission limitation for CMP, PBS, a CMP/PBS, and a fiber-bed mist eliminator. The pressure drop shall be maintained within –1/2 times to +2 times the inches of water of the value established during the performance test to demonstrate compliance with the emission limitation for HEPA filters.~~

~~(B)~~(~~Inlet Velocity~~ Pressure and Air Flow

A)

Beginning [60 Days after Rule Adoption], ~~T~~the owner or operator shall continuously monitor the operation of the add-on air pollution control device by installing and maintaining mechanical gauges to measure the applicable pressures and air flows as specified in Table 5~~inlet velocity pressure of a packed bed scrubber with a mechanical gauge. The gauge shall be located so that it is easily visible and in clear sight of the operation or maintenance personnel. The inlet velocity pressure shall be maintained within ± 10 percent of the value established during the performance test to demonstrate compliance with the emission limitation.~~:

Table 5:
Pressure and Air Flow Measurement Parameters

Location	Parameter Monitored	Units
Push Manifold (for push-pull systems)	Static Pressure	Inches of water
Collection Manifold or Any Location within the System Using a Flow Meter	Static Pressure or Volumetric Flow Rate	Inches of water or Actual Cubic Feet per Minute
Across Each Stage of the Control Device	Differential Pressure	Inches of water

Each mechanical gauge shall be located so that it is easily visible and in clear sight of the operation or maintenance personnel. The velocity pressure, exhaust flow rate, or static pressure shall be maintained within the value established during the source test and specified in the Permit to Operate to demonstrate compliance with the emission limitation. The gauge shall be labeled with the acceptable operating pressure and/or airflow ranges. The pressure and air flow gauges shall be maintained as specified in Table 4-1 of Appendix 4.

(B) HEPA Filters

For the purposes of subparagraph (m)(1)(A), the owner or operator of an add-on air pollution control device equipped with HEPA filters shall ensure that the monitoring device for pressure drop:

(i) Is equipped with ports to allow for periodic calibration in accordance with manufacturer specifications;

(ii) Is calibrated according to manufacturer's specification at least once every calendar year;

(iii) Is maintained in accordance with manufacturer's specification.

(2) Wetting Agent Chemical Fume Suppressants (Excluding Decorative Chromium Electroplating Tanks Using a Trivalent Chromium Bath)

(A) The owner or operator shall monitor the surface tension of the chromium electroplating or chromic acid anodizing tank that contains a certified chemical fume suppressant with either a stalagmometer or tensiometer using the applicable method pursuant to subparagraph (e~~k~~)(~~3~~2)(C). The surface tension shall be maintained below the respective value established in the list of certified chemical fume suppressants pursuant to subdivision (~~f~~l), or at or below a more stringent value specified in permit conditions or approved Compliance Plan conditions. Surface tension shall be measured daily for 20 operating days, and ~~weekly~~ every third operating day thereafter, but no less than once weekly, as long as there is no violation of the surface tension requirement. If a violation occurs, the measurement frequency shall return to daily for 20 operating days, and every third operating day~~weekly~~ thereafter.

(B) The owner or operator of a facility operating under an approved alternative compliance method pursuant to ~~paragraph (d)(6)~~subdivision (i), and using chemical fume suppressants as all or partial control of hexavalent chromium emissions must measure and monitor the surface tension of the electroplating or anodizing bath ~~–~~each operating day ~~daily~~. The surface tension must be maintained at or below the surface tension measured during the ~~performance~~source test.

(3) Fume Suppressants Forming a Foam Blanket

The owner or operator shall monitor the foam blanket thickness across the surface of the chromium electroplating or chromic acid anodizing tank. The foam blanket thickness shall be maintained consistent with the requirements established during the ~~performance~~ source test to

demonstrate compliance with the emission limitation. Foam thickness shall be measured hourly for 15 operating days, and ~~daily~~ each operating day thereafter as long as there is no violation of the foam thickness requirement. If a violation occurs, the measurement frequency shall return to hourly for 15 operating days, and ~~daily~~ each operating day thereafter.

(4) Polyballs or Similar Mechanical Fume Suppressants

The owner or operator shall visually inspect the Tier II Hexavalent Chromium-Containing Tank~~chromium electroplating or chromic acid anodizing tank~~ for coverage comparable to the coverage during the ~~performance~~ source test ~~daily~~each operating day.

(~~h~~n) Inspection and Maintenance and Operation and Maintenance Plan~~Requirements~~

(1) Owners or operators of ~~hexavalent~~ chromium electroplating and chromic acid anodizing operations using an add-on air pollution control device or add-on non-ventilated air pollution control device shall comply with the applicable inspection and maintenance requirements listed in Table 4-1 of Appendix 4. The owner or operator of an add-on air pollution control device or add-on non-ventilated air pollution control device custom designed for a specific operation shall develop operating and maintenance requirements. ~~The requirements shall be submitted to the District for review and approval no later than 120 days after the effective date of this rule for custom systems existing before December 5, 2008, and prior to initial start-up for custom systems installed on or after December 5, 2008.~~ The requirements and frequency of inspection ~~must~~ shall be sufficient to ensure compliance.

~~Table 4~~
~~Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s)~~

~~Control Technique/Equipment~~	~~Inspection and Maintenance Requirements~~	~~Frequency~~
~~Composite mesh pad (CMP) system.~~	~~1. Visually inspect device to ensure that there is proper drainage, no unusual chromic acid buildup on the pads, and no evidence of chemical attack that affects the structural integrity of the device.~~	~~1. Once per quarter.~~
	~~2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.~~	~~2. Once per quarter.~~

Table 4
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
	3. Visually inspect ductwork from tank to the control device to ensure there are no leaks.	3. Once per quarter.
	4. Perform washdown of the composite mesh pads in accordance with manufacturer's recommendations.	4. Per manufacturer.
Packed bed scrubber (PBS)	1. Visually inspect device to ensure there is proper drainage, no unusual chromic acid buildup on the packed beds, and no evidence of chemical attack that affects the structural integrity of the device.	1. Once per quarter.
	2. Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist.	2. Once per quarter.
	3. Same as number 3 above for CMP system.	3. Once per quarter.
	4. Add fresh makeup water to the packed bed[A].	4. Whenever makeup is added.
PBS/CMP system	1. Same as for CMP system.	1. Once per quarter.
	2. Same as for CMP system.	2. Once per quarter.
	3. Same as for CMP system.	3. Once per quarter.
	4. Same as for CMP system	4. Per manufacturer.

[A] Horizontal packed-bed scrubbers without continuous recirculation must add make-up water to the top of the packed-bed.

Table 4
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Fiber-bed mist eliminator[B]	1. Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no unusual chromic acid buildup in the units, and no evidence of chemical attack that affects the structural integrity of the devices.	1. Once per quarter.
	2. Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks.	2. Once per quarter.
	3. Perform washdown of fiber elements in accordance with manufacturer's recommendations.	3. Per manufacturer.
High Efficiency Particulate Arrestors filter (HEPA)	1. Look for changes in the pressure drop.	1. Once per week.
	2. Replace HEPA filter.	2. Per manufacturer's specifications or District's requirement.
Chromium Tank Covers	1. Drain the air inlet (purge air) valves at the end of each day that the tank is in operation.	1. Once per day.
	2. Visually inspect access door seals and membranes for integrity.	2. Once per week.
	3. Drain the evacuation unit directly into the electroplating tank or into the rinse tanks (for recycle into the electroplating tank).	3. Once per week.

[B] Inspection and maintenance requirements for the control device installed upstream of the fiber-bed mist eliminator to prevent plugging do not apply as long as the inspection and maintenance requirements for the fiber-bed unit are followed.

~~Table 4~~
~~Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) (cont)~~

~~Control Technique/Equipment~~	~~Inspection and Maintenance Requirements~~	~~Frequency~~
	~~4. Visually inspect membranes for perforations using a light source that adequately illuminates the membrane (e.g., Grainger model No. 6X971 Fluorescent Hand Lamp).~~	~~4. Once per month.~~
	~~5. Visually inspect all clamps for proper operation; replace as needed.~~	~~5. Once per month.~~
	~~6. Clean or replace filters on evacuation unit.~~	~~6. Once per month.~~
	~~7. Visually inspect piping to, piping from, and body of evacuation unit to ensure there are no leaks and no evidence of chemical attack.~~	~~7. Once per quarter.~~
	~~8. Replace access door seals, membrane evacuation unit filter, and purge air inlet check valves in accordance with the manufacturer's recommendations.~~	~~8. Per manufacturer.~~
~~Pitot tube~~	~~Backflush with water, or remove from the duct and rinse with fresh water. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained. Check Pitot tube ends for damage. Replace Pitot tube if cracked or fatigued.~~	~~Once per quarter.~~
~~Ampere-hour meter~~	~~Install and maintain per manufacturer's specifications.~~	~~Per manufacturer.~~

(2) Hard and decorative chromium electroplating, and chromic acid anodizing operations using chemical fume suppressants ~~(i.e. wetting agent, foam)~~ or mechanical fume suppressants ~~(i.e., polyballs)~~ shall comply with the applicable inspection and maintenance requirements in Table 4-2~~5~~ of Appendix 4.

~~Table 5~~
~~Summary of Inspection and Maintenance Requirements for Sources Using Chemical or Mechanical Fume Suppressants~~

~~Equipment~~	~~Inspection and Maintenance Requirement for Monitoring Equipment~~	~~Frequency~~
~~Ampere-hour meter~~	~~Install and maintain per manufacturer's specifications.~~	~~Per manufacturer.~~
~~Stalagmometer/ Tensiometer~~	~~Calibrate and maintain per manufacturer's specifications.~~	Per manufacturer.

~~(i)~~ ~~Operation and Maintenance Plan Requirements~~

~~(1)~~(3) Operation and Maintenance Plan

The owner or operator subject to the inspection and maintenance requirements of paragraph ~~(h)(1) and (h)(2)~~(n)(1) and (n)(2) shall prepare an operation and maintenance plan. For major sources, the plan shall be incorporated by reference into the source's Title V permit. The plan shall incorporate the inspection and maintenance requirements for that device or monitoring equipment, as identified in Tables 4-1 and 4-2~~5~~ of Appendix 4, and shall include the following elements:

(A) A standardized checklist to document the operation and maintenance of the source, the add-on air pollution control device, and the process and control system monitoring equipment; and

(B) Procedures to be followed to ensure that equipment is properly maintained.

The owner or operator may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided the alternative plans meet the requirements of this subdivision.

~~(2)~~(4) Operation and Maintenance Plan Availability

The owner or operator shall keep the written operation and maintenance plan on record after it is developed, to be made available for inspection, upon request.

~~(3)~~(5) Operation and Maintenance Plan Modifications

Any changes made by the owner or operator should be documented in an addendum to the plan. In addition, the owner or operator shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, for a period of 5 years after each revision to the plan.

~~(4)~~(6) Breakdown Provisions In Operation and Maintenance Plan

The operation and maintenance plan shall be revised as necessary to minimize breakdowns.

(~~j~~o) Recordkeeping

(1) Inspection records for sources using add-on control air pollution control devices or add-on non-ventilated air pollution control devices:

The owner or operator shall maintain inspection records to document that the inspection and maintenance requirements of subdivision (~~h~~n) and Tables 4-1 and 4-2~~5~~ of Appendix 4, and that the provisions of the operation and maintenance plan required by subdivision ~~(i)~~(n) have been met. The record can take the form of a checklist and should identify:

(A) the device inspected;

(B) the date and time of inspection;

(C) a brief description of the working condition of the device during the inspection;

(D) maintenance activities performed on the components of the air pollution control system (i.e. duct work replacement, filter pad replacement, fan replacement, etc.); and

(E) any actions taken to correct deficiencies found during the inspection.

(2) Inspection Records for Sources Using Chemical ~~Fume Suppressants (i.e. wetting agent, foam)~~ or Mechanical Fume Suppressants ~~(i.e., polyballs).~~

The owner or operator shall maintain inspection records to document that the inspection and maintenance requirement of paragraph ~~(h)(2)~~(n)(2) ~~and Tables 4 and 5~~ have been met. The record can take the form of a checklist.

(3) ~~Performance~~ Source Test, Capture Efficiency, and Smoke Test Records

The owner or operator shall maintain test reports and records documenting the conditions and results of all ~~performance~~ source tests, capture efficiency tests, emission screenings, and smoke tests required by subdivision (k)~~(e)~~. The records shall include performance test results required to determine compliance with paragraph ~~(g)(1)~~(m)(1), including the pressure drop established during the ~~performance~~ source test to demonstrate compliance with the emission limitation ~~for composite mesh pad (CMP), packed bed scrubber (PBS), and CMP/PBS, and a fiber bed mist eliminator and the inlet velocity pressure established during the performance test to demonstrate compliance with the emission limitation~~.

(4) Monitoring Data Records

The owner or operator shall maintain records of continuously recorded ampere-hour data required by paragraph (~~c~~d)(1) and monitoring data required by subdivision (m)~~(g) that are used to demonstrate compliance with the requirements of subdivision (c) and subdivision (d), if applicable, including the date and time the data are collected~~.

(A) Cumulative Rectifier Usage Records

The owner or operator shall, on a monthly basis, record the actual cumulative rectifier usage expended during each month of the reporting period, and the total usage expended to date.

(B) Pressure Drop

The owner or operator shall record the pressure drop once a week. ~~The pressure drop shall be recorded daily beginning February 1, 2009.~~

(C) ~~Inlet Velocity~~ Pressure Measurements

The owner or operator shall record the ~~inlet velocity~~applicable pressures and velocities each operating day as specified in Table 5 of subdivision (m) ~~once a week. The inlet velocity pressure shall be recorded daily beginning February 1, 2009.~~

(D) Surface Tension

(i) The owner or operator shall record the surface tension daily for 20 operating days, and ~~weekly~~ every third operating day thereafter, but no less than once weekly as long as there is no violation of the surface tension requirement. If the surface tension exceeds the respective value established in the list of certified chemical fume suppressants pursuant to

subdivision (f), or a more stringent value specified in permit conditions or approved Compliance Plan conditions, the owner or operator shall again record the surface tension daily for 20 operating days, and ~~weekly thereafter~~every third operating day.

(ii) For facilities operating under an approved alternative compliance method pursuant to ~~paragraph (d)(6)~~subdivision (i), and using chemical fume suppressants as all or partial control of hexavalent chromium emissions, the owner or operator shall record the surface tension of the electroplating or anodizing bath daily.

(E) Mechanical Fume Suppressant and Foam Blankets

(i) The owner or operator using a foam blanket to comply with the emission standards of subdivisions ~~(c) or (d)~~(h) or (i), shall record the foam thickness hourly for 15 operating days, and daily thereafter as long as there is no violation of the foam thickness requirement. If a violation occurs, the measurement frequency shall return to hourly for 15 operating days, and daily thereafter.

(ii) The owner or operator using polyballs or other mechanical fume suppressants to comply with the emission standards of subdivisions ~~(c) or (d)~~(h) or (i), shall record the coverage of the electroplating or anodizing bath daily. Coverage shall be reported as a percentage of bath surface area.

~~(5)~~ ~~Breakdown Records~~

~~The owner or operator shall maintain records of the occurrence, duration, and cause (if known) and action taken on each breakdown.~~

~~(6)~~(5) Records of Excesses

The owner or operator shall maintain records of exceedances of: the emission limitations in subdivision(s) ~~(c) and (d)~~(h) and (i), the monitoring parameter values established under subdivision ~~(g)~~(m), or any site-specific operating parameters established for alternative equipment. The records shall include the date of the occurrence, the duration, cause (if known), and, where possible, the magnitude of any excess emissions.

~~(7)~~(6) The owner or operator shall maintain records demonstrating compliance

) with housekeeping practices and best management practices, as required by ~~paragraph (c)(4)~~subdivisions (f) and (g), including the dates on which specific activities were completed, and records showing that chromium or chromium-containing wastes have been stored, disposed of, recovered, or recycled using practices that do not lead to fugitive emissions~~dust~~.

~~(8)~~(7) Records of Fume Suppressant Additions

For sources using fume suppressants to comply with the standards, the owner or operator shall maintain records of the date, time, approximate volume, and product identification of the fume suppressants that are added to the electroplating or anodizing bath.

~~(9)~~(8) Records of Trivalent Bath Components

For sources complying with paragraph ~~(c)(14)~~(h)(3) using trivalent chromium baths, the owner or operator shall maintain records of the bath components purchased, with the wetting agent clearly identified as a bath constituent contained in one of the components.

~~(10)~~(9) Records of Filter Purchase and Disposal

For sources using add-on air pollution control devices to comply with the standards, the owner or operator shall retain purchase orders for filters and waste manifest records for filter disposal.

~~(11) New/Modified Source Review Information~~

~~The owner or operator shall maintain records supporting the notifications and reports required by the District's new source review provisions and/or subdivision (l).~~

(10) The owner or operator shall keep records of building inspection and repairs specified in paragraphs (e)(6) and (e)(7).

(~~12~~11) Records Retention

All records shall be maintained for five years, at least two years on site.

(~~k~~p) Reporting

(1) ~~Performance~~ Source Test Documentation

(A) Notification of ~~Performance~~ Source Test

(i) The owner or operator of a source shall notify the Executive

Officer that a ~~performance~~ source test shall be conducted at least 60 calendar days before the performance test is scheduled.

(ii) The provisions in clause (~~k~~p)(1)(A)(i), above, do not apply if the ~~performance~~ source test was conducted prior to July 24, 1997 and was approved by the Executive Officer and the U.S. EPA.

(B) Reports of ~~Performance~~ Source Test Results

The owner or operator shall report ~~performance~~ source test results to the Executive Officer. Reports of ~~performance~~ source test results shall be submitted no later than 90 calendar days following the completion of the required ~~performance~~ source test, and shall be submitted as part of the notification of compliance status required by paragraphs (~~k~~p)(2) and (p)(3).

(C) The content of ~~performance~~ source test reports shall contain, at a minimum, the information identified in Appendix 1.

(2) Initial Compliance Status Report

An initial compliance status report is required each time that a source becomes subject to the requirements of this rule. The owner or operator shall submit to the Executive Officer an initial compliance status report, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with this rule.

(A) Initial Compliance Status Report Due Date

The initial compliance status report for existing facilities shall be submitted to the Executive Officer no later than April 24, 2008. New or modified facilities shall submit the initial compliance status report upon start-up.

(B) The initial compliance status report shall contain, at a minimum, the information identified in Appendix 2.

(3) Ongoing Compliance Status and Emission Reports

The owner or operator shall submit a summary report to the Executive Officer to document the ongoing compliance status.

(A) Frequency of Ongoing Compliance Status and Emission Reports

The report shall be submitted each calendar year on or before February 1 for all sources and shall include information covering the preceding calendar year (January 1 through December 31).

(B) The content of ongoing compliance status and emission reports shall, at a minimum, contain the information identified in Appendix 3.

(4) ~~Reports of Breakdowns~~Notification of Incident

(A) The owner or operator shall ~~report breakdowns as required by District Rule 430~~notify the Executive Officer within one hour of the incident or within one hour of the time the owner or operator knew or reasonably should have known of, any failed smoke test, any failed source test, any exceedance of a permitted ampere-hour limit, or any malfunction of a non-resettable ampere-hour meter by calling 1-800-CUT SMOG. In the cases of emergencies that prevent the owner or operator from reporting all required information within the 1 hour limit, the Executive Officer may extend the time for reporting the required information provided such owner or operator has notified the Executive Officer of the incident within the 24-hour limit. The notification shall include the following information~~.~~:

(i) Date and time of the incident and when it was discovered;

(ii) Specific location and equipment involved;

(iii) Responsible party to contact for further information;

(iv) Causes of the incident, to the extent known; and

(v) Estimated time for repairs and correction.

(B) Within seven calendar days after a reported incident has been corrected, but no later than thirty calendar days from the initial date of the incident, unless an extension has been approved in writing by the Executive Officer, the owner or operator shall submit a written incident report to the Executive Officer that includes:

(i) An identification of the equipment involved in causing, or suspected of having caused, or having been affected by the incident;

(ii) The duration of the incident;

(iii) The date of correction and information demonstrating that compliance is achieved;

(iv) An identification of the types of emissions, if any, resulting from the incident;

(v) A quantification of the excess emissions, if any, resulting

from the incident and the basis used to quantify the emissions;

(vi) Information substantiating that steps were immediately taken to correct the condition causing the incident, and to minimize the emissions, if any, resulting from the incident;

(vii) Written verification that the facility is operating in compliance with SCAQMD Rule 1469. If the facility is not in compliance with SCAQMD Rule 1469, provide an approximate date the facility is expected to be in compliance;

(viii) A description of the corrective measures undertaken and/or to be undertaken to avoid such an incident in the future; and

(ix) Pictures of the equipment that failed, if available.

(5) Reports Associated with Trivalent Chromium Baths Exclusively Using a Chemical Fume Suppressant Containing a Wetting Agent

Owners or operators with trivalent chromium baths exclusively using a certified chemical fume suppressant containing a wetting agent to comply with subparagraph ~~(c)(14)(A)~~(h)(5)(A) are not subject to paragraphs (1) through (3) of this subdivision, but shall instead submit the following reports:

(A) Sources Currently Using Trivalent Chromium

No later than November 24, 2007, the owner or operator of an existing facility shall submit a notification of compliance status that contains the information specified in (~~k~~p)(5)(A)(i) through (iii). New and modified facilities shall submit this information within 30 days after December 5, 2008~~the effective date of this rule~~.

(i) The name and address of each source subject to this paragraph;

(ii) A statement that a trivalent chromium process that incorporates a wetting agent will be used to comply; and

(iii) The list of bath components that comprise the trivalent chromium bath, with the wetting agent clearly identified.

(B) Sources Changing to Trivalent Chromium

Within 30 days of a change to the trivalent chromium electroplating process, a report that includes:

(i) A description of the manner in which the process has been

changed and the emission limitation, if any, now applicable to the source; and

(ii) The notification and reporting requirements of paragraphs (1), (2), and (3) of this subdivision, if the source complies with the emission limitation option, or paragraph (5) of this subdivision, if the source uses a wetting agent to comply. The report shall be submitted in accordance with the schedules identified in those paragraphs

(6) Adjustments to the Timeline for Submittal and Format of Reports

The Executive Officer may adjust the timeline for submittal of periodic reports, allow consolidation of multiple reports into a single report, establish a common schedule for submittal of reports, or accept reports prepared to comply with other state or local requirements. Adjustments shall provide the same information and shall not alter the overall frequency of reporting.

~~(l)~~ ~~New and Modified Sources~~

~~(1)~~ ~~Notification of Construction~~

~~After the effective date of this rule no person may construct or modify a source, such that it becomes a source subject to this section, without submitting a notification of construction or modification to the Executive Officer and receiving approval in advance to construct or modify the source. The contents of the Notification of Construction shall include information as listed in Appendix 4.~~

~~(2)~~ ~~New Source Review Rules~~

~~In lieu of complying with the requirements in paragraph (l)(1) of this subdivision, a facility may fulfill these requirements by complying with the District's new source review rule or policy, provided similar information is obtained.~~

(~~m~~q) Procedure for Establishing Alternative Requirements

(1) Request Approval of an Alternative Requirement

Any person may request approval of an alternative requirement. The person seeking such approval shall submit the proposed alternative requirement to the Executive Officer for approval. The request shall include the proposed alternative requirement, the reason for requesting the

alternative requirement, and information demonstrating that the criteria for approval identified in Appendix 6 is met.

(2) Approval of an Alternative Requirement

The Executive Officer may approve an alternative requirement if it determines that application of the alternative requirement meets the criteria for approval identified in Appendix 6 and the Executive Officer has submitted the proposed alternative requirements and has received concurrence from the applicable concurring agencies identified in Appendix 6.

(3) Approval Criteria

Nothing in this subdivision prohibits the Executive Officer from establishing approval criteria more stringent than that required in Appendix 6.

(4) Alternatives Already Approved by U.S. EPA

Waivers for alternatives already approved by the U.S. EPA prior to October 24, 2007 shall remain in effect until the effective dates of the specified requirements become effective.

(~~n~~r) Exemptions

~~(1) This rule shall not apply to process tanks associated with a chromium electroplating or chromic acid anodizing process in which neither chromium electroplating nor chromic acid anodizing is taking place. Examples of such tanks include, but are not limited to, rinse tanks, etching tanks, and cleaning tanks. Tanks that contain a chromium solution in which no electrolytic process occurs, are not subject to this rule. An example of such a tank is a chromium conversion coating tank where no electrical current is applied.~~

~~(2)~~(1) The requirements of subdivisions ~~(g), (h), and (i)~~(m) and (n) do not apply to decorative chromium electroplating tanks using a trivalent chromium bath with a wetting agent.

~~(3) The requirements of paragraphs (c)(8) through (c)(14), (d)(5) and (d)(6), and subdivision (i) do not apply during periods of equipment breakdown, provided the provisions of District Rule 430 are met, notwithstanding subparagraph (b)(3)(B) of Rule 430.~~

~~(o) Title V Permit Requirements~~

~~The owner or operator of a major source facility subject to the requirements of this section is required to obtain a Title V permit from the District in accordance with the procedures set forth in District Regulation XXX.~~

(~~p~~s) Rule 1402 Inventory Requirements

The owner or operator of chromium electroplating or chromic acid anodizing tanks at a facility that is in compliance with this rule will not be required to submit an emission inventory to the Executive Officer for emissions of toxic compounds subject to this rule, pursuant to ~~subparagraph (n)(1)(B)~~paragraph (p)(1) of Rule 1402 - Control of Toxic Air Contaminants from Existing Sources.

~~(q) Chromium Electroplating or Chromic Acid Anodizing Kits Requirements~~

~~(1) Except as provided in paragraph (q)(2), no person shall sell, supply, offer for sale, or manufacture for sale in the District, any chromium electroplating or chromic acid anodizing kit.~~

~~(2) The provisions of paragraph (q)(1) do not apply to any person that sells, supplies, offers for sale, or manufactures for sale in the District a chromium electroplating or chromic acid anodizing kit to the owner or operator of a permitted facility at which chromium electroplating or chromic acid anodizing is performed.~~

~~(3) No person shall use a chromium electroplating or chromic acid anodizing kit to perform chromium electroplating or chromic acid anodizing unless these activities are performed at a permitted facility that complies with the requirements of this rule.~~

~~(4) For the purposes of this section, "chromium electroplating or chromic acid anodizing kit" means chemicals and associated equipment for conducting chromium electroplating or chromic acid anodizing including, but not limited to, internal and external tank components.~~

(t) Conditional Requirements for Permanent Total Enclosure

(1) The owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall install a Permanent Total Enclosure for a Tier II Hexavalent Chromium-Containing Tank if:

(A) More than one incident of conducting a non-passing source test as required in paragraph (k)(1) within a consecutive 48-month period; or

(B) More than one incident of the owner or operator failing to cease

operating an electroplating or anodizing line associated with a failed measurement of the collection system of an add-on air pollution control device, or a failed smoke test of an add-on air pollution control device or add-on non-ventilated air pollution control device within a consecutive 48-month period.

(2) Prior to determining if a facility is required to install a permanent total enclosure, the owner or operator of a facility may contest the requirement to install a permanent total enclosure.

(A) Within 30 days of the date of notification by the Executive Officer, the owner or operator of facility may submit a written report to the Executive Officer providing evidence that the installation of a Permanent Total Enclosure is not warranted based on the following criteria:

(i) The incidences of non-compliances specified in paragraph (t)(1) did not occur; and

(ii) The owner or operator resolved the incidences of non-compliance specified in paragraph (t)(1) in a timely manner; and

(iii) The owner or operator implemented specific measures to minimize hexavalent chromium emissions.

(B) The Executive Officer shall use the information provided by the owner or operator of a facility to determine if a permanent total enclosure is required and will notify the owner or operator within 90 days of receiving the written report.

(3) The owner or operator required to install a permanent total enclosure pursuant to subsection (t) shall vent the Permanent Total Enclosure to an add-on air pollution control device that is fitted with HEPA filters, or other filter media that is rated by the manufacturer to be equally or more effective, and designed in a manner that does not conflict with requirements or guidelines set forth by OSHA or CAL-OSHA regarding worker safety, or the National Fire Protection Association regarding safety.

(4) The owner or operator that has been notified by the Executive Officer to have triggered the requirement specified in paragraph (t)(1) shall install the permanent total enclosure no later than 12 months after the Permit to Construct is issued by the Executive Officer. The owner or operator shall submit complete permit applications for the permanent total enclosure to

the Executive Officer no later than:

(A) 180 days after notification by the Executive Officer if the property line of the facility is within 500 feet of the property line of any sensitive receptor, school, or early education center.

(B) 270 days after notification by the Executive Officer for all other facilities.

(u) Hexavalent Chromium Phase-Out Plan

(1) The owner or operator shall not be subject to the requirements of paragraph (h)(4) to vent a Tier II Hexavalent Chromium-Containing Tank, existing on or before [Date of Adoption], to an add-on air pollution control device, if the owner or operator submits a Hexavalent Chromium Phase-Out Plan to the Executive Officer for review and approval no later than [90 Days after Date of Adoption] containing the following:

(A) A commitment that the facility will permanently eliminate or reduce hexavalent chromium concentrations within the subject tank to below the concentration of a Tier I Hexavalent Chromium-Containing Tank;

(B) A description of the method by which hexavalent chromium concentrations will be permanently eliminated or reduced from the subject tank(s) and the date of final completion, not to exceed 2 years from approval of the Hexavalent Chromium Phase-Out Plan;

(C) A list of milestones, including any testing required to meet specifications or quality assurance requirements, that are necessary to occur in order to allow the facility to reduce or eliminate hexavalent chromium by the completion date;

(D) Completion date for each of the milestones listed in subparagraph (u)(1)(C); and

(E) A list of all control measures that will be implemented for the subject tank(s), including dates of implementation, until the hexavalent chromium-concentration is eliminated or reduced as stated.

(2) The plan shall be subject to the fees specified in Rule 306.

(3) The Executive Officer shall notify the owner or operator in writing whether the plan is approved or disapproved. Determination of approval status shall be based on, at a minimum, submittal of information that satisfies the

criteria set forth in paragraph (u)(1). If the plan is disapproved, the owner or operator shall resubmit the plan, subject to plan fees specified in Rule 306, within 30 calendar days after notification of disapproval of the hexavalent chromium phase out plan. The resubmitted plan shall include any information necessary to address deficiencies identified in the disapproval letter.

(4) Upon approval of the Hexavalent Chromium Phase-Out Plan, the owner or operator shall implement the approved plan and shall submit a progress report to the Executive Officer by the 5th of every month indicating the performance to meet the increments of progress for the previous month, or submit according to an alternative schedule as specified in the approved plan.

(5) If the owner or operator does not eliminate or reduce hexavalent chromium by the final completion date as stated in the approved Hexavalent Chromium Phase-Out Plan or the Executive Officer denies a resubmitted Hexavalent Chromium Phase-Out Plan, the owner or operator shall:

(A) Submit complete permit applications for add-on air pollution control device required to meet the requirements of paragraph (h)(4) within 30 days of when the facility knew, or should have known, it could not meet the completion date; and

(B) Install the add-on air pollution control device(s) no later than 180 days after a Permit to Construct for the add-on air pollution control device(s) has been issued by the Executive Officer.

Appendix 1 – Content of ~~Performance~~ Source Test Reports.

~~Performance~~ Source test reports shall contain, at a minimum, the following information:

1. A brief process description;
2. Sampling location description(s);
3. A description of sampling and analytical procedures and any modifications to standard procedures;
4. Test results in milligrams/ampere-hour;
5. Quality assurance procedures and results;
6. Records of operating conditions during the test, preparation of standards, and calibration procedures;
7. Original data for field sampling and field and laboratory analyses;
8. Documentation of calculations; ~~and~~
9. Applicable Industrial Ventilation Limits;
10. Collection slot velocities (if applicable);
11. Measured static, differential, or velocity pressure at the push manifold, collection manifold, across each stage of the control device, and exhaust stack (if applicable); and

~~9~~12. Any other information required by the test method.

~~Note: Test reports consistent with the provisions of ARB Method 425 will fulfill the above performance test report content requirement.~~

Appendix 2 – Content of Initial Compliance Status Reports.

Initial compliance status reports shall contain, at a minimum, the following information:

1. Facility name, AQMD ID number, facility address, owner/operator name, and telephone number;
2. The distance of the facility to the property line of the nearest commercial/industrial building and sensitive receptor using measurement methods provided in ~~subparagraph (c)(11)(B)~~paragraph (h)(2);
3. Sensitive receptor locations, if they are located within one-quarter of a mile from the center of the facility;
4. Building parameters
   - Stack height in feet (point sources); or
   - Building area in square feet (volume sources).
5. Maximum potential rectifier capacity per tank and facility maximum operating schedule (more than or less than or equal to 12 hours per day);
6. The applicable emission limitation and the methods that were used to determine compliance with this limitation;
7. Facility-wide emissions ~~established under paragraph (d)(4)~~, if applicable;
8. If a ~~performance~~ source test is required, the test report documenting the results of the ~~performance~~source test, which contains the elements listed in Appendix 1;
9. If an initial smoke test demonstrating the capture efficiency of ~~a ventilation system~~ the add-on air pollution control device or add-on non-ventilated air pollution control device is required, the test report documenting the results which contain the elements listed in Appendix 8~~9~~;
10. The type and quantity, in pounds, of hazardous air pollutants emitted by the source. ~~(If the owner or operator is subject to the construction and modification provisions of subdivision (l) and had previously submitted emission estimates, the owner or operator shall state that this report corrects or verifies the previous estimate.)~~;
11. For each monitored parameter for which a compliant value is to be established under subdivision (m)~~(g)~~, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit;

12. The methods that will be used to determine continuous compliance, including a description of monitoring and reporting requirements, if methods differ from those identified in this section;
13. A description of the air pollution control technique for each emission point;
14. A statement that the owner or operator has completed and has on file the operation and maintenance plan as required by subdivision (n)~~(i)~~;
15. The actual cumulative ampere-hour usage expended during the preceding calendar year, if operation occurred;
16. Information on calculations for the building enclosure envelope pursuant to paragraph (e)(1), including locations and dimensions of openings that are counted towards the 3% allowance;
17. A statement that the owner or operator, or personnel designated by the owner or operator, has completed a District-approved training program pursuant to ~~paragraph (c)(7)~~subdivision (j); and
18. A statement by the owner or operator as to whether the source has complied with the provisions of this section.

Appendix 3 – Content of Ongoing Compliance Status and Emission Reports.

Ongoing compliance status and emission reports shall, at a minimum, contain the following information:

1. The company name and address of the source;
2. An identification of the operating parameter that is monitored for compliance determination, as required by subdivision (m)~~(g)~~;
3. The relevant emission limitation for the source, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the notification of initial compliance status required by Appendix 2;
4. The beginning and ending dates of the calendar year for the reporting period;
5. A description of the type of process performed in the source;
6. The actual cumulative rectifier usage expended during the calendar year of the reporting period, on a month-by-month basis, if the source is a hard or decorative chromium electroplating tank or chromic acid anodizing tank;
7. Updated facility-wide emissions~~ established under paragraph (d)(4)~~, if applicable;
8. Hexavalent chromium and trivalent chromium emissions data in grams per year for the reporting period;
9. Sensitive receptor distances, if they are located within ¼ of mile from the center of the facility and facility maximum operating schedule (more than or less than or equal to 12 hours per day), if changed since submittal of the initial compliance status report or subsequent ongoing compliance status and emission reports. Sensitive receptor distances shall be measured using methods provided in (h)(2)~~ (c)(11)(B)~~;
10. A summary of any excess emissions or exceeded monitoring parameters as identified in the records required by paragraph (~~j~~o)(6);
11. A certification by a responsible official that the inspection and maintenance requirements in subdivision (n~~h~~) were followed in accordance with the operation and maintenance plan for the source;
12. If the operation and maintenance plan required by subdivision (n~~i~~) was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emissions and/or monitoring parameter excesses are believed to have occurred, and a copy of the record(s) required by paragraph (o~~j~~)(1) documenting that the operation and maintenance plan was not followed;

13. If applicable, results of periodic smoke tests demonstrating capture efficiency of ~~ventilation system(s)~~an add-on air pollution control device or add-on non-ventilated air pollution control device conducted during the reporting period;
14. A description of any changes in monitoring, processes, or controls since the last reporting period;
15. A statement that the owner or operator, or personnel designated by the owner or operator has, within the last 2 years, completed a District-approved training program pursuant to ~~paragraph (c)(7)~~subdivision (j);
16. Add-on air pollution ventilation measurements conducted during the most recent District-approved passing source test that include:
    (A) The velocity of each collection slot, including the velocity values that would be 95% and 90% of the source-tested value.
    (B) For push-pull systems, the pressure of each push air manifold, including the pressure values that would be 110%, 105%, 95%, and 90% of the source-tested value;
17. A summary of any pollution prevention measures that the facility has implemented that eliminates or reduces the use of hexavalent chromium in the chromium electroplating or chromic acid anodizing process an associated process tanks.
18. Updated information on calculations for the building enclosure envelope pursuant to paragraph (e)(1), including locations and dimensions of openings that are counted towards the 3% allowance.

1~~6~~9. The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

~~17~~20.The date of the report.

~~**Appendix 4 – Notification of Construction Reports.**~~

~~Notification of Construction reports shall contain the following information:~~

~~(A) The owner or operator's name, title, and address;~~

~~(B) The address (i.e., physical location) or proposed address of the source if different from the owner's or operator's;~~

~~(C) A notification of intention to construct a new source or make any physical or operational changes to a source that may meet or has been determined to meet the criteria for a modification;~~

~~(D) The expected commencement and completion dates of the construction or modification;~~

~~(E) The anticipated date of (initial) startup of the source;~~

~~(F) The type of process operation to be performed (hard or decorative chromium electroplating, or chromic acid anodizing);~~

~~(G) A description of the air pollution control technique to be used to control emissions, such as preliminary design drawings and design capacity if an add-on air pollution control device is used; and~~

~~(H) An estimate of emissions from the source based on engineering calculations and vendor information on control device efficiency, expressed in units consistent with the emission limits of this subpart. Calculations of emission estimates should be in sufficient detail to permit assessment of the validity of the calculations.~~

~~Note: A facility can fulfill these report content requirements by complying with the District's new source review rule or policy, provided similar information is obtained.~~

Appendix 4 – Summary of Inspection and Maintenance Requirements

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Composite mesh-pad (CMP) system.	1. Visually inspect device to ensure that there is proper drainage, no unusual chromic acid buildup on the pads, and no evidence of chemical attack that affects the structural integrity of the device.	1. Once per quarter.
	2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.	2. Once per quarter.
	3. Visually inspect ductwork from tank to the control device to ensure there are no leaks.	3. Once per quarter.
	4. Perform washdown of the composite mesh-pads in accordance with manufacturer's recommendations.	4. Per manufacturer.
Packed-bed scrubber (PBS)	1. Visually inspect device to ensure there is proper drainage, no unusual chromic acid buildup on the packed-beds, and no evidence of chemical attack that affects the structural integrity of the device.	1. Once per quarter.
	2. Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist.	2. Once per quarter.
	3. Same as number 3 above for CMP system.	3. Once per quarter.
	4. Add fresh makeup water to the packed-bed[A].	4. Whenever makeup is added.

[A] Horizontal packed-bed scrubbers without continuous recirculation must add make-up water to the top of the packed-bed.

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
PBS/CMP system	1. Same as for CMP system.	1. Once per quarter.
	2. Same as for CMP system.	2. Once per quarter.
	3. Same as for CMP system.	3. Once per quarter.
	4. Same as for CMP system	4. Per manufacturer.
Fiber-bed mist eliminator[B]	1. Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no unusual chromic acid buildup in the units, and no evidence of chemical attack that affects the structural integrity of the devices.	1. Once per quarter.
	2. Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks.	2. Once per quarter.
	3. Perform washdown of fiber elements in accordance with manufacturer's recommendations.	3. Per manufacturer.
High Efficiency Particulate Arrestors filter (HEPA)	1. Look for changes in the pressure drop.	1. Once per week.
	2. Replace HEPA filter.	2. Per manufacturer's specifications or District's requirement.

[B] Inspection and maintenance requirements for the control device installed upstream of the fiber-bed mist eliminator to prevent plugging do not apply as long as the inspection and maintenance requirements for the fiber-bed unit are followed.

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Chromium Tank Covers	1. Drain the air-inlet (purge air) valves at the end of each day that the tank is in operation.	1. Once per day.
	2. Visually inspect access door seals and membranes for integrity.	2. Once per week.
	3. Drain the evacuation unit directly into the electroplating tank or into the rinse tanks (for recycle into the electroplating tank).	3. Once per week.
Pitot tube	Backflush with water, or remove from the duct and rinse with fresh water. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained. Check Pitot tube ends for damage. Replace Pitot tube if cracked or fatigued.	Once per quarter.
Ampere-hour meter	Install and maintain per manufacturer's specifications.	Per manufacturer.
Temperature Gauge	1. Install and maintain per manufacturer's specification at each Tier I and II Hexavalent Chromium-Containing Tank.	1. Per manufacturer.
	2. Calibrated or confirmed to be accurate.	2. Once per year
Collection Slots and Push Air Manifolds for Push-Pull Systems	1. Visually inspect slots and push air manifolds to confirm that there are no obstructions or clogs.	1. Once per week.
	2. Clean slots or push air manifolds.	2. Once every 180 days.
	3. Measure slot velocity of each slot and pressure at each push air manifold using a hot-wire anemometer, vein anemometer, or approved device	3. Once every 180 days.
Pressure and Air Flow Gauges	Install and maintain per manufacturer's specifications.	Per manufacturer

Table 4-2
Summary of Inspection and Maintenance Requirements for Sources Using Chemical or Mechanical Fume Suppressants

Equipment	Inspection and Maintenance Requirement for Monitoring Equipment	Frequency
Ampere-hour meter	Install and maintain per manufacturer's specifications.	Per manufacturer.
Stalagmometer/ Tensiometer	Calibrate and maintain per manufacturer's specifications.	Per manufacturer.

Appendix 5 – Smoke Test for Chromium Tank Covers.

SMOKE TEST TO VERIFY THE SEAL INTEGRITY OF COVERS DESIGNED TO REDUCE CHROMIUM EMISSIONS FROM CHROMIUM ELECTROPLATING~~ AND~~, CHROMIC ACID ANODIZING, AND TIER II HEXAVALENT CHROMIUM-CONTAINING TANKS

1. Applicability and Principle

1.1 Applicability. This ~~alternative~~ method is applicable to all ~~hard chromium electroplating and anodizing operations~~Tier II Hexavalent Chromium-Containing Tank where a chromium tank cover or add-on non-ventilated air pollution control device is used on the tank for reducing chromium emissions.

1.2 Principle. During ~~chromium electroplating or anodizing~~electrolytic operations, gas bubbles ~~of hydrogen and oxygen gas~~ generated during the process rise to the surface of the tank liquid and burst. Non-electrolytic tanks that are either heated or air sparged generate bubbles that rise to the surface. Upon bursting, tiny droplets of chromic acid (chromium mist) or hexavalent chromium laden become entrained in the air above the tank. Because the chromium tank cover completely encloses the air above the tank, the chromium mist either falls back into the solution because of gravity or collects on the inside walls of the chromium tank cover and runs back into the solution. A semi-permeable membrane allows passage of the hydrogen and oxygen out of the chromium tank cover. A ~~lit~~ smoke device is placed inside the chromium tank cover to detect leaks at the membrane, joints, or seals.

2. Apparatus

2.1 Smoke device. Adequate to generate 500 to 1000 ft^3 of smoke/20 ft^2 of tank surface area ~~(e.g., Model #1A=15 SECONDS from Superior Signal, New York)~~.

2.2 Small container. To hold the smoke device.

3. Procedure

Place the small container on a stable and flat area at center of the chromium tank cover (you can use a board and place it on the buss bars). Place the smoke device inside the container. After ~~lighting~~ activating the smoke device, quickly close the access door to avoid smoke from escaping. Let smoke device ~~completely burn;~~fill the entire space under the chromium tank cover ~~will now be filled~~ with ~~the~~ smoke. Observe for leaks of smoke from each seal, joint, and membrane of the chromium tank cover. Record these observations including the locations and a qualitative assessment of any leaks of smoke.

When all seals, joints, and membranes have been observed, evacuate the unit to remove the smoke from the chromium tank cover.

Appendix 6 – Approval of Alternatives for Specific Requirements

Section	Requirement	Description of Authority	Approving Agency	Concurring Agency
(a)	Applicability	Assisting an owner or operator in determining whether a facility is subject to the ATCM	District	
~~(c)~~(h)	Standards	Approving alternative standards	District	U.S. EPA
~~(e)(1)~~(k)(1)	Performance Test Requirement	Waiving a performance test requirement	District	
~~(e)(2)~~(k)(3)	Use of Existing Performance Tests	Approving the use of existing performance test results to demonstrate compliance, based on the "Description of the Technical Review Protocol for Performance Tests of California Chrome Plating Sources" (see Attachment 2 of the July 10, 1998 memorandum from John S. Seitz entitled, "Delegation of 40 CFR Part 63 General Provisions Authorities to State and Local Air Pollution Control Agencies.")	District	
~~(e)(3)~~(k)(2)	Test Method	Approving site-specific alternatives to test methods	District for minor[1] or intemediate[2] changes	U.S. EPA for major[3] changes, and ARB
~~(e)(4)~~(k)(4)	Pre-Test Protocol	Approving pre-test protocols	District	
~~(e)(5)~~(k)(5)	Test All Emission Points	Waiving the requirement to test all emission points	District	
~~(g)~~(m)	Parameter Monitoring	Approving site-specific changes in monitoring methodology	District for minor[1] or intermediate[4] changes	U.S. EPA for major[3] changes
~~(h)~~(n)	Inspection and Maintenance Requirements	Approving site-specific changes to inspection and maintenance requirements	District	
~~(i)~~(n)	Operation and Maintenance Plans	Approving or requiring site-specific changes to operation and maintenance plans	District	
~~(j)(1)-(10)~~(o)(1)	Recordkeeping	Waiving or altering recordkeeping requirements	District	U.S. EPA for major[3]

Section	Requirement	Description of Authority	Approving Agency	Concurring Agency
- (o)(11)				changes
~~(j)(12)~~(o)(12)	Retention of Records	Waiving or altering the requirement to retain records for 5 years	District	U.S. EPA for major[3] changes
~~(k)~~(p)	Reporting	Waiving or altering reporting requirements	District	U.S. EPA[5] for major[3] changes

1 Minor change to a test method or monitoring is a modification to a federally enforceable test method or monitoring that (a) does not decrease the stringency of the emission limitation or standard or the compliance and enforcement measures for the relevant standard; (b) has no national significance (e.g., does not affect implementation of the application regulation for other affected sources, does not set a national precedent, and individually does not result in a revision to the test method or monitoring requirement); and (c) is site specific, made to reflect or accommodate the operation characteristics, physical constraints, or safety concerns of an affected source.

2 Intermediate change to a test method is a within-method modification to a federally enforceable test method involving "proven technology" (generally accepted by the scientific community as equivalent or better) that is applied on a site-specific basis and that may have the potential to decrease the stringency of the associated emission limitation or standard. Intermediate changes are not approvable if they decrease the stringency of the standard.

3 Major change to a test method or monitoring is a modification to a federally enforceable test method or federally required monitoring that uses unproven technology or procedures or is an entirely new method (sometimes necessary when the required test method is unsuitable).

4 Intermediate change to monitoring is a modification to federally required monitoring involving "proven technology" (generally accepted by the scientific community as equivalent or better) that is applied on a site-specific basis and that may have the potential to decrease the stringency of the compliance and enforcement measures for the relevant standard.

5 U.S. EPA concurrence is not needed for adjustments made according to paragraph (~~k~~p)(6).

~~Appendix 7 – Distance-Adjusted Ampere-Hour and Annual Emissions Limits For Facilities Located More Than 25 Meters from a Residence or Sensitive Receptor.~~

~~Facilities subject to the interim requirements of paragraph (c)(9) or complying with the interim facility-wide mass emission rate in paragraph (d)(4) may adjust the ampere-hour or annual emission limits according to actual receptor distance. Ampere-hour limits refer to actual consumption of electrical current from all hexavalent chromium electroplating and chromic acid anodizing operations at a facility.~~

~~Use the following tables to determine the appropriate ampere-hours or annual emissions for compliance with the interim emission limitations in paragraph (c)(9), or compliance with the interim facility-wide mass emission rate in paragraph (d)(4) according to the distance to the nearest receptor. Receptor distance is measured as follows:~~

~~Table 7-1~~
~~Measuring Receptor Distance~~

~~Source Type~~	~~Measure From:~~	~~Measure To:~~
~~Point Source, Single Stack~~	~~Stack~~	~~Property Line of Nearest Receptor~~
~~Point Source, Multiple Stacks~~	~~Centroid of Stacks~~	~~Property Line of Nearest Receptor~~
~~Volume Source No Stack~~	~~Center of Building~~	~~Property Line of Nearest Receptor~~

~~**Table 7-2**~~

~~**Hexavalent Chromium Electroplating and Chromic Acid Anodizing Operation Vented to Air Pollution Control Device(s) Normally Operating 12 Hours Per Day or Less**~~

~~Distance to Nearest Receptor (m)~~	~~25~~	~~30~~	~~35~~	~~40~~	~~45~~	~~50~~	~~55~~	~~60~~
~~Ampere-Hours/yr (x10^6)~~	~~1.60~~	~~1.74~~	~~1.88~~	~~2.03~~	~~2.22~~	~~2.44~~	~~2.69~~	~~2.98~~
~~Annual Emissions (lbs/yr)~~	~~0.036~~	~~0.039~~	~~0.042~~	~~0.045~~	~~0.049~~	~~0.054~~	~~0.060~~	~~0.066~~
~~Distance to Nearest Receptor (m)~~	~~65~~	~~70~~	~~75~~	~~80~~	~~85~~	~~90~~	~~95~~	~~100~~
~~Ampere-Hours/yr (x10^6)~~	~~3.36~~	~~3.84~~	~~4.48~~	~~4.87~~	~~5.33~~	~~5.88~~	~~6.56~~	~~7.42~~
~~Annual Emissions (lbs/yr)~~	~~0.074~~	~~0.085~~	~~0.099~~	~~0.108~~	~~0.118~~	~~0.130~~	~~0.145~~	~~0.164~~

~~**Table 7-3**~~

~~**Any Hexavalent Chromium Electroplating and Chromic Acid Anodizing Operation Vented to Air Pollution Control Device(s) Normally Operating More Than 12 Hours Per Day**~~

~~Distance to Nearest Receptor (m)~~	~~25~~	~~30~~	~~35~~	~~40~~	~~45~~	~~50~~	~~55~~	~~60~~
~~Ampere-Hours/yr (x10^6)~~	~~1.80~~	~~1.80~~	~~1.80~~	~~1.80~~	~~1.80~~	~~1.80~~	~~1.92~~	~~2.05~~
~~Annual Emissions (lbs/yr)~~	~~0.039~~	~~0.039~~	~~0.039~~	~~0.039~~	~~0.039~~	~~0.039~~	~~0.042~~	~~0.044~~
~~Distance to Nearest Receptor (m)~~	~~65~~	~~70~~	~~75~~	~~80~~	~~85~~	~~90~~	~~95~~	~~100~~
~~Ampere-Hours/yr (x10^6)~~	~~2.20~~	~~2.38~~	~~2.58~~	~~2.74~~	~~2.92~~	~~3.12~~	~~3.35~~	~~3.62~~
~~Annual Emissions (lbs/yr)~~	~~0.048~~	~~0.051~~	~~0.056~~	~~0.059~~	~~0.063~~	~~0.068~~	~~0.073~~	~~0.078~~

~~Table 7-4~~

~~Decorative Chromium Electroplating and Chromic Acid Anodizing Operations Without Air Pollution Control~~

~~Distance to Nearest Receptor (m)~~	**~~25~~**	**~~30~~**	**~~35~~**	**~~40~~**	**~~45~~**	**~~50~~**	**~~55~~**	**~~60~~**
~~Ampere-Hours/yr (x10^6)~~	~~1.15~~	~~1.31~~	~~1.52~~	~~1.80~~	~~2.22~~	~~2.89~~	~~3.19~~	~~3.56~~
~~Annual Emissions (lbs/yr)~~	~~0.025~~	~~0.028~~	~~0.033~~	~~0.039~~	~~0.048~~	~~0.063~~	~~0.069~~	~~0.077~~
~~Distance to Nearest Receptor (m)~~	**~~65~~**	**~~70~~**	**~~75~~**	**~~80~~**	**~~85~~**	**~~90~~**	**~~95~~**	**~~100~~**
~~Ampere-Hours/yr (x10^6)~~	~~4.03~~	~~4.64~~	~~5.47~~	~~5.92~~	~~6.46~~	~~7.10~~	~~7.88~~	~~8.87~~
~~Annual Emissions (lbs/yr)~~	~~0.088~~	~~0.101~~	~~0.119~~	~~0.129~~	~~0.140~~	~~0.154~~	~~0.171~~	~~0.193~~

Appendix 7~~8~~ – Information Demonstrating an Alternative Method(s) of Compliance Pursuant to ~~Paragraph (d)(6).~~Subdivision (i)

The owner or operator of a facility applying for approval of an alternative method of compliance must submit to the District the following information.

1. A ~~performance~~ source test as specified in subdivision (~~e~~i). The test shall have been conducted in a manner consistent with normal electroplating or anodizing operations.
2. A demonstration that the alternative method achieves an equal or greater amount of reductions in hexavalent chromium emissions than would be achieved with direct compliance with the applicable emission rate in ~~(c)(11)(A), (c)(12)(A)(ii), or (c)(13)(A)(iv)~~(h)(2) or (h)(4).
3. Calculations based on scientifically valid risk assessment methodologies demonstrating that the alternative method results in reducing risk equally or greater than the risk reduction that would be achieved by direct compliance with the applicable emission rate ~~in Table 2 of subparagraph (c)(11)(A), (c)(12)(A)(ii), or (c)(13)(A)(iv)~~. A facility using in-tank controls shall only be modeled as a volume source and the resulting risk compared to the same facility modeled as a point source.
4. Documentation which demonstrates that the method is enforceable, including an operation and maintenance plan, an inspection and maintenance schedule, and a recordkeeping plan.
5. A demonstration that the facility is at least 25 meters from a sensitive receptor.

Appendix 8~~9~~ – Smoke Test to Demonstrate Capture Efficiency for ~~Ventilation Systems of~~an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (e~~k~~)(~~7~~6).

1. Applicability and Principle

1.1 Applicability. This method is applicable to all hard and decorative chromium electroplating and chromic acid anodizing operations where an add-on air pollution control device is used to reduce chromium emissions from the chromium electroplating or anodizing tank.

1.2 Principle. During chromium electroplating or anodizing operations, bubbles of hydrogen and oxygen gas generated during the process rise to the surface of the tank liquid and burst. Upon bursting, tiny droplets of chromic acid (chromium mist) become entrained in the air above the tank. Collection of this chromium mist is achieved ~~by the ventilation system associated~~ with the add-on air pollution control device for the tank(s) where chromium emissions are reduced downstream. Emission control efficiency at the exhaust of an add-on control device is related to capture efficiency at the inlet of the ~~ventilation system~~add-on air pollution control device. For this reason, it is imperative that 100% capture efficiency is maintained. A smoke device placed within the area where collection of chromic mist by the ~~ventilation system~~add-on air pollution control device occurs reveals this capture efficiency.

2. Apparatus

2.1 Smoke Generator. Adequate to produce a persistent stream of visible smoke ~~(e.g., Model #15-049 Tel-Tru™ T-T Smoke Sticks from E. Vernon Hill, Incorporated)~~.

3. Testing Conditions

The smoke test shall be conducted while the add-on air pollution control device is in normal operation and under typical draft conditions representative of the facility's chromium electroplating and/or chromic acid anodizing operations. This includes cooling fans and openings affecting draft conditions around the tank area including, but not limited to, vents, windows, doorways, bay doors, and roll-ups. The tank shall be in full operation during the smoke test with parts being processed (e.g. air sparging turned on). The smoke generator must be at full generation during the entire test and operated according to manufacturer's suggested use.

3. Procedure

The smoke test shall be conducted over a minimum twelve point matrix evenly distributed over the entire liquid surface of each chromium electroplating or

chromic acid anodizing tank vented to the add-on air pollution control device. Place the aperture of the smoke device at each point of the matrix at a height within one inch above the tank top. Observe collection of the smoke to the collection location(s) of the ~~ventilation system~~add-on air pollution control device. An acceptable smoke test shall demonstrate a direct stream to the collection location(s) of the ~~ventilation system~~add-on air pollution control device without meanderings out of this direct path. Record these observations at each of the points on the matrix providing a qualitative assessment of the collection of smoke to the ~~ventilation system~~add-on air pollution control device. The test shall also be documented by photographs or video at each point of the matrix.

Appendix 9~~10~~ – Surface Tension Measurement Procedure for a Stalagmometer

The stalagmometer shall first be properly cleaned before being used for the first time and after a period of storage. Properly clean the stalagmometer using the following procedure:

1. Set up stalagmometer in stand in a fume hood.
2. Place a clean 150 mL beaker underneath the stalagmometer then fill with reagent grade concentrated nitric acid. Immerse bottom tip (approximately ½") of stalagmometer into the beaker.
3. Squeeze rubber bulb and pinch at the arrow up (1) position to collapse. Place bulb end securely on top end of stalagmometer. Carefully draw the nitric acid by pinching the arrow up (1) position until the level is above the top etched line.
4. Allow nitric acid to remain in stalagmometer for 5 minutes and then carefully remove the bulb allowing the acid to completely drain.
5. Fill a clean 150 mL beaker with distilled or deionized water. Using the rubber bulb per the instructions in Step #3, rinse and drain stalagmometer with deionized or distilled water until the inside is "water break" free.
6. Fill a clean 150 mL beaker with isopropyl alcohol. Again using the rubber bulb per Step #3, rinse and drain stalagmometer twice with isopropyl alcohol and allow the stalagmometer to dry completely.
7. Take a sample of the solution to be tested and adjust the solution to room temperature. Measure the specific gravity and record reading.
8. Fill a clean 150 mL beaker with solution to be tested. Immerse bottom end of stalagmometer into the beaker. Fill the stalagmometer per instructions in Step #3, making sure that the solution level is above the top etched line.
9. Raise the stalagmometer so that the bottom end is completely out of solution. Remove bulb and immediately place a finger on the top end of the stalagmometer. Carefully use the finger to bring the solution level down to the top etched line. Do not release finger at this time.
10. "Wipe" the excess solution on the lower tip by touching it against the side of the beaker.
11. Release fingertip to allow solution to drain and count number of drops until the level reaches the bottom etched line.

Calculations for Surface Tension

$$\text{Surface tension (dynes/cm)} = \frac{Sw * Nw * D}{N * Dw}$$

Sw = Surface tension of water at 25°C or 77°F (72.75 dynes/cm)
Nw = water drop number etched on instrument
D = measured specific gravity (g/ml)
N = # of solution drops
Dw = water density (1.0 g/mL)

PRECAUTIONS:

1. Make sure the stalagmometer is clean (no sludge or film)
2. No chips, cracks, etc
3. Vertical placement
4. No vibration
5. 20 drops per minute rate (10 dynes/cm) +/- 1 drop per minute
6. Performance checked with water. The number of drops etched on the instrument shall be verified with deionized water to +/- 1 drop. If the number of drops are not within 1 drop, then the stalagmometer shall be cleaned. If the cleaning process does not bring the drop count within 1 drop of the etched number on the instrument, then the operator shall:
    a) Purchase a new stalagmometer; or
    b) Use the number of drops recorded for the distilled water run as (Nw) in the equation instead of the number of drops etched on the stalagmometer.
7. Sample at room temperature.

APPENDIX B

CalEEMod Files And Assumptions

APPENDIX B

CalEEMod Files And Assumptions

- **1 tank relocation (annual run)**

PAR1469_construction tank relocation

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 1 tank relocation (1 welder, 1 forklift)

Off-road Equipment - 1 tank relocation (1 welder, 1 forklift)

Trips and VMT - each tank relocation needs 5 worker vehicles and 1 vendor vehicle

PAR1469_construction tank relocation - South Coast AQMD Air District, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	10.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	9.3000e-004	4.5300e-003	5.1700e-003	1.0000e-005	3.1000e-004	3.1000e-004	6.2000e-004	8.0000e-005	2.9000e-004	3.8000e-004	0.0000	0.7555	0.7555	1.1000e-004	0.0000	0.7583
Maximum	**9.3000e-004**	**4.5300e-003**	**5.1700e-003**	**1.0000e-005**	**3.1000e-004**	**3.1000e-004**	**6.2000e-004**	**8.0000e-005**	**2.9000e-004**	**3.8000e-004**	**0.0000**	**0.7555**	**0.7555**	**1.1000e-004**	**0.0000**	**0.7583**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	9.3000e-004	4.5300e-003	5.1700e-003	1.0000e-005	3.1000e-004	3.1000e-004	6.2000e-004	8.0000e-005	2.9000e-004	3.8000e-004	0.0000	0.7555	0.7555	1.1000e-004	0.0000	0.7583
Maximum	**9.3000e-004**	**4.5300e-003**	**5.1700e-003**	**1.0000e-005**	**3.1000e-004**	**3.1000e-004**	**6.2000e-004**	**8.0000e-005**	**2.9000e-004**	**3.8000e-004**	**0.0000**	**0.7555**	**0.7555**	**1.1000e-004**	**0.0000**	**0.7583**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	2-14-2018	5-13-2018	0.0039	0.0039
		Highest	0.0039	0.0039

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	0	4.00	63	0.31
Building Construction	Air Compressors	0	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	4.0700e-003	3.8400e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.9000e-004	2.9000e-004	0.0000	0.4097	0.4097	1.0000e-004	0.0000	0.4122
Total	**7.7000e-004**	**4.0700e-003**	**3.8400e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.4097**	**0.4097**	**1.0000e-004**	**0.0000**	**0.4122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	3.5000e-004	1.7000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.0827	0.0827	0.0000	0.0000	0.0828
Worker	1.3000e-004	1.1000e-004	1.1700e-003	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2631	0.2631	1.0000e-005	0.0000	0.2634
Total	**1.5000e-004**	**4.6000e-004**	**1.3400e-003**	**0.0000**	**3.0000e-004**	**1.0000e-005**	**3.2000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.3459**	**0.3459**	**1.0000e-005**	**0.0000**	**0.3461**

3.2 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	4.0700e-003	3.8400e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.9000e-004	2.9000e-004	0.0000	0.4097	0.4097	1.0000e-004	0.0000	0.4122
Total	**7.7000e-004**	**4.0700e-003**	**3.8400e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.4097**	**0.4097**	**1.0000e-004**	**0.0000**	**0.4122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	3.5000e-004	1.7000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.0827	0.0827	0.0000	0.0000	0.0828
Worker	1.3000e-004	1.1000e-004	1.1700e-003	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2631	0.2631	1.0000e-005	0.0000	0.2634
Total	**1.5000e-004**	**4.6000e-004**	**1.3400e-003**	**0.0000**	**3.0000e-004**	**1.0000e-005**	**3.2000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.3459**	**0.3459**	**1.0000e-005**	**0.0000**	**0.3461**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **1 tank relocation (Summer run)**

PAR1469_construction tank relocation

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 1 tank relocation (1 welder, 1 forklift)

Off-road Equipment - 1 tank relocation (1 welder, 1 forklift)

Trips and VMT - each tank relocation needs 5 worker vehicles and 1 vendor vehicle

PAR1469_construction tank relocation - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.3722	1.8022	2.1015	3.6200e-003	0.1253	0.1231	0.2484	0.0337	0.1179	0.1516	0.0000	339.0885	339.0885	0.0488	0.0000	340.3073
Maximum	**0.3722**	**1.8022**	**2.1015**	**3.6200e-003**	**0.1253**	**0.1231**	**0.2484**	**0.0337**	**0.1179**	**0.1516**	**0.0000**	**339.0885**	**339.0885**	**0.0488**	**0.0000**	**340.3073**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.3722	1.8022	2.1015	3.6200e-003	0.1253	0.1231	0.2484	0.0337	0.1179	0.1516	0.0000	339.0885	339.0885	0.0488	0.0000	340.3073
Maximum	**0.3722**	**1.8022**	**2.1015**	**3.6200e-003**	**0.1253**	**0.1231**	**0.2484**	**0.0337**	**0.1179**	**0.1516**	**0.0000**	**339.0885**	**339.0885**	**0.0488**	**0.0000**	**340.3073**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	0	4.00	63	0.31
Building Construction	Air Compressors	0	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3100	1.6282	1.5351	2.0400e-003		0.1196	0.1196		0.1146	0.1146		180.6327	180.6327	0.0438		181.7285
Total	**0.3100**	**1.6282**	**1.5351**	**2.0400e-003**		**0.1196**	**0.1196**		**0.1146**	**0.1146**		**180.6327**	**180.6327**	**0.0438**		**181.7285**

3.2 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.3400e-003	0.1354	0.0647	3.5000e-004	0.0135	2.6300e-003	0.0162	4.0600e-003	2.5200e-003	6.5700e-003		36.5206	36.5206	7.6000e-004		36.5396
Worker	0.0539	0.0386	0.5018	1.2300e-003	0.1118	8.9000e-004	0.1127	0.0296	8.2000e-004	0.0305		121.9352	121.9352	4.1600e-003		122.0391
Total	**0.0622**	**0.1740**	**0.5664**	**1.5800e-003**	**0.1253**	**3.5200e-003**	**0.1288**	**0.0337**	**3.3400e-003**	**0.0370**		**158.4558**	**158.4558**	**4.9200e-003**		**158.5787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3100	1.6282	1.5351	2.0400e-003		0.1196	0.1196		0.1146	0.1146	0.0000	180.6327	180.6327	0.0438		181.7285
Total	**0.3100**	**1.6282**	**1.5351**	**2.0400e-003**		**0.1196**	**0.1196**		**0.1146**	**0.1146**	**0.0000**	**180.6327**	**180.6327**	**0.0438**		**181.7285**

3.2 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.3400e-003	0.1354	0.0647	3.5000e-004	0.0135	2.6300e-003	0.0162	4.0600e-003	2.5200e-003	6.5700e-003		36.5206	36.5206	7.6000e-004		36.5396
Worker	0.0539	0.0386	0.5018	1.2300e-003	0.1118	8.9000e-004	0.1127	0.0296	8.2000e-004	0.0305		121.9352	121.9352	4.1600e-003		122.0391
Total	**0.0622**	**0.1740**	**0.5664**	**1.5800e-003**	**0.1253**	**3.5200e-003**	**0.1288**	**0.0337**	**3.3400e-003**	**0.0370**		**158.4558**	**158.4558**	**4.9200e-003**		**158.5787**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **1 tank relocation (Winter run)**

PAR1469_construction tank relocation

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 1 tank relocation (1 welder, 1 forklift)

Off-road Equipment - 1 tank relocation (1 welder, 1 forklift)

Trips and VMT - each tank relocation needs 5 worker vehicles and 1 vendor vehicle

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.3771	1.8094	2.0572	3.5400e-003	0.1253	0.1231	0.2484	0.0337	0.1179	0.1516	0.0000	331.1344	331.1344	0.0485	0.0000	332.3470
Maximum	**0.3771**	**1.8094**	**2.0572**	**3.5400e-003**	**0.1253**	**0.1231**	**0.2484**	**0.0337**	**0.1179**	**0.1516**	**0.0000**	**331.1344**	**331.1344**	**0.0485**	**0.0000**	**332.3470**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.3771	1.8094	2.0572	3.5400e-003	0.1253	0.1231	0.2484	0.0337	0.1179	0.1516	0.0000	331.1344	331.1344	0.0485	0.0000	332.3470
Maximum	**0.3771**	**1.8094**	**2.0572**	**3.5400e-003**	**0.1253**	**0.1231**	**0.2484**	**0.0337**	**0.1179**	**0.1516**	**0.0000**	**331.1344**	**331.1344**	**0.0485**	**0.0000**	**332.3470**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	0	4.00	63	0.31
Building Construction	Air Compressors	0	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3100	1.6282	1.5351	2.0400e-003		0.1196	0.1196		0.1146	0.1146		180.6327	180.6327	0.0438		181.7285
Total	**0.3100**	**1.6282**	**1.5351**	**2.0400e-003**		**0.1196**	**0.1196**		**0.1146**	**0.1146**		**180.6327**	**180.6327**	**0.0438**		**181.7285**

3.2 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.5700e-003	0.1388	0.0680	3.5000e-004	0.0135	2.6400e-003	0.0162	4.0600e-003	2.5200e-003	6.5800e-003		36.4338	36.4338	7.8000e-004		36.4533
Worker	0.0586	0.0423	0.4541	1.1500e-003	0.1118	8.9000e-004	0.1127	0.0296	8.2000e-004	0.0305		114.0679	114.0679	3.8900e-003		114.1652
Total	**0.0672**	**0.1812**	**0.5221**	**1.5000e-003**	**0.1253**	**3.5300e-003**	**0.1288**	**0.0337**	**3.3400e-003**	**0.0370**		**150.5017**	**150.5017**	**4.6700e-003**		**150.6185**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3100	1.6282	1.5351	2.0400e-003		0.1196	0.1196		0.1146	0.1146	0.0000	180.6327	180.6327	0.0438		181.7285
Total	**0.3100**	**1.6282**	**1.5351**	**2.0400e-003**		**0.1196**	**0.1196**		**0.1146**	**0.1146**	**0.0000**	**180.6327**	**180.6327**	**0.0438**		**181.7285**

3.2 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.5700e-003	0.1388	0.0680	3.5000e-004	0.0135	2.6400e-003	0.0162	4.0600e-003	2.5200e-003	6.5800e-003		36.4338	36.4338	7.8000e-004		36.4533
Worker	0.0586	0.0423	0.4541	1.1500e-003	0.1118	8.9000e-004	0.1127	0.0296	8.2000e-004	0.0305		114.0679	114.0679	3.8900e-003		114.1652
Total	**0.0672**	**0.1812**	**0.5221**	**1.5000e-003**	**0.1253**	**3.5300e-003**	**0.1288**	**0.0337**	**3.3400e-003**	**0.0370**		**150.5017**	**150.5017**	**4.6700e-003**		**150.6185**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **APCD installation (annual run)**

PAR1469_20180126_construction

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Off-road Equipment - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Trips and VMT - each APCD installation needs 5 worker vehicles and 1 vendor vehicle

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	120.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0178	0.1052	0.1155	1.9000e-004	3.6900e-003	7.0000e-003	0.0107	9.9000e-004	6.8200e-003	7.8100e-003	0.0000	16.4719	16.4719	2.5200e-003	0.0000	16.5350
Maximum	**0.0178**	**0.1052**	**0.1155**	**1.9000e-004**	**3.6900e-003**	**7.0000e-003**	**0.0107**	**9.9000e-004**	**6.8200e-003**	**7.8100e-003**	**0.0000**	**16.4719**	**16.4719**	**2.5200e-003**	**0.0000**	**16.5350**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0178	0.1052	0.1155	1.9000e-004	3.6900e-003	7.0000e-003	0.0107	9.9000e-004	6.8200e-003	7.8100e-003	0.0000	16.4719	16.4719	2.5200e-003	0.0000	16.5350
Maximum	**0.0178**	**0.1052**	**0.1155**	**1.9000e-004**	**3.6900e-003**	**7.0000e-003**	**0.0107**	**9.9000e-004**	**6.8200e-003**	**7.8100e-003**	**0.0000**	**16.4719**	**16.4719**	**2.5200e-003**	**0.0000**	**16.5350**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	2-14-2018	5-13-2018	0.0876	0.0876
		Highest	0.0876	0.0876

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	12	4.00	63	0.31
Building Construction	Air Compressors	12	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	12	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	12	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	48	120.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0159	0.0996	0.0995	1.5000e-004		6.8900e-003	6.8900e-003		6.7200e-003	6.7200e-003	0.0000	12.3215	12.3215	2.3900e-003	0.0000	12.3813
Total	**0.0159**	**0.0996**	**0.0995**	**1.5000e-004**		**6.8900e-003**	**6.8900e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**12.3215**	**12.3215**	**2.3900e-003**	**0.0000**	**12.3813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	4.2200e-003	2.0100e-003	1.0000e-005	4.0000e-004	8.0000e-005	4.8000e-004	1.2000e-004	8.0000e-005	2.0000e-004	0.0000	0.9929	0.9929	2.0000e-005	0.0000	0.9935
Worker	1.5900e-003	1.3000e-003	0.0140	3.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	2.0000e-005	9.0000e-004	0.0000	3.1575	3.1575	1.1000e-004	0.0000	3.1602
Total	**1.8400e-003**	**5.5200e-003**	**0.0160**	**4.0000e-005**	**3.6900e-003**	**1.1000e-004**	**3.8000e-003**	**9.9000e-004**	**1.0000e-004**	**1.1000e-003**	**0.0000**	**4.1505**	**4.1505**	**1.3000e-004**	**0.0000**	**4.1537**

3.2 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0159	0.0996	0.0995	1.5000e-004		6.8900e-003	6.8900e-003		6.7200e-003	6.7200e-003	0.0000	12.3215	12.3215	2.3900e-003	0.0000	12.3813
Total	**0.0159**	**0.0996**	**0.0995**	**1.5000e-004**		**6.8900e-003**	**6.8900e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**12.3215**	**12.3215**	**2.3900e-003**	**0.0000**	**12.3813**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	4.2200e-003	2.0100e-003	1.0000e-005	4.0000e-004	8.0000e-005	4.8000e-004	1.2000e-004	8.0000e-005	2.0000e-004	0.0000	0.9929	0.9929	2.0000e-005	0.0000	0.9935
Worker	1.5900e-003	1.3000e-003	0.0140	3.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	2.0000e-005	9.0000e-004	0.0000	3.1575	3.1575	1.1000e-004	0.0000	3.1602
Total	**1.8400e-003**	**5.5200e-003**	**0.0160**	**4.0000e-005**	**3.6900e-003**	**1.1000e-004**	**3.8000e-003**	**9.9000e-004**	**1.0000e-004**	**1.1000e-003**	**0.0000**	**4.1505**	**4.1505**	**1.3000e-004**	**0.0000**	**4.1537**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **APCD installation (Summer run)**

PAR1469_20180126_construction

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Off-road Equipment - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Trips and VMT - each APCD installation needs 5 worker vehicles and 1 vendor vehicle

PAR1469_20180126_construction - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	120.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.1071	41.9374	46.5971	0.0773	1.5035	2.7998	4.3033	0.4044	2.7278	3.1322	0.0000	7,334.3135	7,334.3135	1.1146	0.0000	7,362.1771
Maximum	**7.1071**	**41.9374**	**46.5971**	**0.0773**	**1.5035**	**2.7998**	**4.3033**	**0.4044**	**2.7278**	**3.1322**	**0.0000**	**7,334.3135**	**7,334.3135**	**1.1146**	**0.0000**	**7,362.1771**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.1071	41.9374	46.5971	0.0773	1.5035	2.7998	4.3033	0.4044	2.7278	3.1322	0.0000	7,334.3134	7,334.3134	1.1146	0.0000	7,362.1771
Maximum	**7.1071**	**41.9374**	**46.5971**	**0.0773**	**1.5035**	**2.7998**	**4.3033**	**0.4044**	**2.7278**	**3.1322**	**0.0000**	**7,334.3134**	**7,334.3134**	**1.1146**	**0.0000**	**7,362.1771**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	12	4.00	63	0.31
Building Construction	Air Compressors	12	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	12	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	12	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	48	120.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.3604	39.8495	39.8001	0.0584		2.7575	2.7575		2.6878	2.6878		5,432.8440	5,432.8440	1.0555		5,459.2324
Total	**6.3604**	**39.8495**	**39.8001**	**0.0584**		**2.7575**	**2.7575**		**2.6878**	**2.6878**		**5,432.8440**	**5,432.8440**	**1.0555**		**5,459.2324**

3.2 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1001	1.6243	0.7759	4.2200e-003	0.1622	0.0316	0.1938	0.0487	0.0302	0.0789		438.2475	438.2475	9.1200e-003		438.4755
Worker	0.6466	0.4636	6.0211	0.0147	1.3413	0.0107	1.3520	0.3557	9.8600e-003	0.3656		1,463.2220	1,463.2220	0.0499		1,464.4693
Total	**0.7467**	**2.0879**	**6.7970**	**0.0189**	**1.5035**	**0.0423**	**1.5458**	**0.4044**	**0.0401**	**0.4445**		**1,901.4695**	**1,901.4695**	**0.0590**		**1,902.9448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.3604	39.8495	39.8001	0.0584		2.7575	2.7575		2.6878	2.6878	0.0000	5,432.8439	5,432.8439	1.0555		5,459.2324
Total	**6.3604**	**39.8495**	**39.8001**	**0.0584**		**2.7575**	**2.7575**		**2.6878**	**2.6878**	**0.0000**	**5,432.8439**	**5,432.8439**	**1.0555**		**5,459.2324**

3.2 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1001	1.6243	0.7759	4.2200e-003	0.1622	0.0316	0.1938	0.0487	0.0302	0.0789		438.2475	438.2475	9.1200e-003		438.4755
Worker	0.6466	0.4636	6.0211	0.0147	1.3413	0.0107	1.3520	0.3557	9.8600e-003	0.3656		1,463.2220	1,463.2220	0.0499		1,464.4693
Total	**0.7467**	**2.0879**	**6.7970**	**0.0189**	**1.5035**	**0.0423**	**1.5458**	**0.4044**	**0.0401**	**0.4445**		**1,901.4695**	**1,901.4695**	**0.0590**		**1,902.9448**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **APCD installation (Winter run)**

PAR1469_20180126_construction

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Off-road Equipment - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Trips and VMT - each APCD installation needs 5 worker vehicles and 1 vendor vehicle

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	120.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.1663	42.0234	46.0647	0.0763	1.5035	2.7999	4.3034	0.4044	2.7279	3.1323	0.0000	7,238.8642	7,238.8642	1.1116	0.0000	7,266.6543
Maximum	**7.1663**	**42.0234**	**46.0647**	**0.0763**	**1.5035**	**2.7999**	**4.3034**	**0.4044**	**2.7279**	**3.1323**	**0.0000**	**7,238.8642**	**7,238.8642**	**1.1116**	**0.0000**	**7,266.6543**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.1663	42.0234	46.0647	0.0763	1.5035	2.7999	4.3034	0.4044	2.7279	3.1323	0.0000	7,238.8642	7,238.8642	1.1116	0.0000	7,266.6543
Maximum	**7.1663**	**42.0234**	**46.0647**	**0.0763**	**1.5035**	**2.7999**	**4.3034**	**0.4044**	**2.7279**	**3.1323**	**0.0000**	**7,238.8642**	**7,238.8642**	**1.1116**	**0.0000**	**7,266.6543**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	12	4.00	63	0.31
Building Construction	Air Compressors	12	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	12	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	12	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	48	120.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.3604	39.8495	39.8001	0.0584		2.7575	2.7575		2.6878	2.6878		5,432.8440	5,432.8440	1.0555		5,459.2324
Total	**6.3604**	**39.8495**	**39.8001**	**0.0584**		**2.7575**	**2.7575**		**2.6878**	**2.6878**		**5,432.8440**	**5,432.8440**	**1.0555**		**5,459.2324**

3.2 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1028	1.6661	0.8155	4.2100e-003	0.1622	0.0317	0.1939	0.0487	0.0303	0.0790		437.2053	437.2053	9.3600e-003		437.4392
Worker	0.7030	0.5079	5.4491	0.0138	1.3413	0.0107	1.3520	0.3557	9.8600e-003	0.3656		1,368.8150	1,368.8150	0.0467		1,369.9828
Total	**0.8059**	**2.1739**	**6.2646**	**0.0180**	**1.5035**	**0.0424**	**1.5459**	**0.4044**	**0.0402**	**0.4446**		**1,806.0203**	**1,806.0203**	**0.0561**		**1,807.4220**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.3604	39.8495	39.8001	0.0584		2.7575	2.7575		2.6878	2.6878	0.0000	5,432.8439	5,432.8439	1.0555		5,459.2324
Total	**6.3604**	**39.8495**	**39.8001**	**0.0584**		**2.7575**	**2.7575**		**2.6878**	**2.6878**	**0.0000**	**5,432.8439**	**5,432.8439**	**1.0555**		**5,459.2324**

3.2 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1028	1.6661	0.8155	4.2100e-003	0.1622	0.0317	0.1939	0.0487	0.0303	0.0790		437.2053	437.2053	9.3600e-003		437.4392
Worker	0.7030	0.5079	5.4491	0.0138	1.3413	0.0107	1.3520	0.3557	9.8600e-003	0.3656		1,368.8150	1,368.8150	0.0467		1,369.9828
Total	**0.8059**	**2.1739**	**6.2646**	**0.0180**	**1.5035**	**0.0424**	**1.5459**	**0.4044**	**0.0402**	**0.4446**		**1,806.0203**	**1,806.0203**	**0.0561**		**1,807.4220**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C

CEQA Impact Evaluations – Assumptions and Calculations

Appendix C
CEQA Construction Impact Evaluations - Assumptions and Calculations
(2018/2/14 rev)

Criteria Pollutant Emissions Summary

PAR 1469 Requirement	VOC, lb/day	NOx, lb/day	CO, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day
1 tank relocation (Summer)	0.37	1.80	2.10	0.004	0.25	0.15
1 tank relocation (Winter)	0.38	1.81	2.06	0.004	0.25	0.03
Peak Day - 3 tank relocation on the same day	1.13	5.43	6.30	0.01	0.75	0.45
12 APCD Installations (Summer)	7.11	41.94	46.60	0.08	4.30	3.13
12 APCD Installations (Winter)	7.17	42.02	46.06	0.08	4.30	3.13
Peak Day - 12 APCD Installations on the same day	7.17	42.02	46.60	0.08	4.30	3.13
Daily Peak Construction Emissions	7.17	42.02	46.60	0.08	4.30	3.13
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75.00	100.00	550.00	150.00	150.00	55.00

Note:

1. The emissions are estimated using CalEEMod.

2. Tank relocation is expected to occur in the first 90 days after the rule is adopted. It is conservatively assumed in the peak day, there will be 3 tank relocation work among PAR1469 affected facilities.

3. APCD installation is expected to occur 1 year after the rule is adopted and therefore it has no overlap with tank relocation work. It is conservatively assumed in the peak day, there will be 12 APCD installtion work among PAR1469 affected facilities.

GHG Emissions Summary

PAR 1469 Requirement	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr
1 tank relocation	0.76	1.10E-04	-	0.76
6 tank relocation	4.53	0.00	-	4.55
12 APCD Installations	16.47	2.52E-03	-	16.54
145 APCD Installations	199.04	0.03	-	199.80
Total Emissions During Construction	203.57	0.03	-	204.35

6.81 amortized over 30 years

Gasoline Fuel Usage Estimations

Category	EPA/NHTSA Fuel Consumption								
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg	**gallon fuel consumed per year due to PAR 1469**	mmgal	Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)	Total % Above Baseline	
LDA/LDT1/LDT2				20.00	1,051				
MDT				10.00	197				
Reference:					1,248	0.0012	6,997	0.00002%	gasoline

National Highway Traffic Safety Administration (NHTSA) vocational vehicle standards, https://www.dieselnet.com/standards/us/fe_hd.php

EPA Fuel Economy report: https://www.epa.gov/fueleconomy/trends-report

California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html

Diesel Fuel Usage Estimations

Equipment	gal/hr	hrs/day	# piece	gals
Aerial lift	0.96	4	145	2784
Forklifts	0.96	4	151	2899.2
Air Compressors	0.9	4	145	2610
Welders	0.331	4	151	999.62
ref: fuel usage scaled from SOx emissions in OFFROAD (CARB)				9292.82

0.0093 749 0.0012% diesel

Appendix C
CEQA Operational Impact Evaluations - Assumptions and Calculations
(2018/2/14 rev)

Emissions Summary

PAR 1469 Requirement	CO, lb/day	NOx, lb/day	PM10, lb/day	PM2.5, lb/day	VOC, lb/day	SOX, lb/day	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr	All sites: Max. # used/day	All sites: Max. # day used/yr
Increased source test vehicles (LDA)	0.39	0.03	0.07	0.72	0.01	0.00	1.30	-	-	1.30	4	98
Increased maintenance truck (MDT)	0.10	0.03	0.13	0.04	0.01	0.00	0.08	-	-	1.99	4	98
Total	**0.48**	**0.06**	**0.20**	**0.75**	**0.02**	**0.00**	**1.38**	**-**	**-**	**3.29**		

Note:

1. It is conservatively assumed in the peak day, there will be an additional 4 source test vehicles (LDA) and 4 maintenance truck (MDT) to all PAR 1469 affected facilities.

2. It is conservatively assumed in the peak year, there will be an additional 98 source test vehicles (LDA) and 98 maintenance truck (MDT) to all PAR 1469 affected facilities.

3. Each LDA and each MDV is assumed to travel round trip up to 40 miles.

4. The increased medium duty truck is for additional waste disposal truck, filter replacement , filter leak inspection and other maintenance work for the APCDs.

Medium-Duty Truck (MDT) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e	VMT, mile/day
g/mile (RUNEX, PMBW, PMTW, Fugitive)	0.26	0.08	0.37	0.10	0.02	0.00	505.00			505.00	40.0
g/vehicle (IDLEX)	0.33	0.05	0.01	0.01	0.02	0.00	139.57			139.57	
lb/day, MT/day for GHG	0.02	0.01	0.03	0.01	0.00	0.00	0.02	-	-	0.02	

EF: from EMFAC2014, EPA AP-42

Light-Duty Automobiles (LDA) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e	VMT, mile/day
g/mile (RUNEX, PMBW, PMTW, Fugitive)	1.10	0.10	0.20	2.03	0.03	0.00	330.83			330.83	40.0
lb/day, MT/day for GHG	0.10	0.01	0.02	0.18	0.00	0.00	0.01	-	-	0.01	

EF: from EMFAC2014, EPA AP-42

ENERGY CALS

Category	EPA/NHTSA Fuel Consumption						
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg	**gallon fuel consumed per year due to PAR 1469**	Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)	Total % Above Baseline
Increased source test vehicles (LDA)				20.00	196		
Increased maintenance truck (MDT)				10.00	392		
Total					588	6,997	0.00001% gasoline

Reference:

EPA Fuel Economy report: https://www.epa.gov/fueleconomy/trends-report

National Highway Traffic Safety Administration (NHTSA) vocational vehicle standards, https://www.dieselnet.com/standards/us/fe_hd.php

California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html

Operation- Energy and GHG

HEPA filter and blower

Blower (100 bhp)	**Consumption (GW-h/yr)**	**Consumption in MWh/yr**
	0.001788	1.788

Ref: R1420.2 EA

	CO2	**CH4**	**N2O**	**CO2e**
Intensity (lb/MWhr)	702.44	0.03	0.01	704.95
MT/yr for GHG	0.57	0.00	0.00	0.57
Total MT/yr for GHG	82.61	0.00	0.00	82.90

Max. # of blowers (HEPA filter and blower)	**Max. Total Energy Consumption (MWh/yr)**
145	259.26

APPENDIX D

PAR 1469 List of Affected Facilities

Appendix D: PAR 1469 List of Affected Facilities

Facility Name	Facility ID	On Lists Per Government Code §65962.5 Per EnviroStor?	Address	City	Zip	Located Within Two Miles of Airport?	Nearest Sensitive Receptor	Approx. Distance to Nearest Sensitive Receptor (m)
K & L Anodizing Corp	236	No	1200 S Victory Blvd	Burbank	91502	No	Residence	≤25
Cal-Tron Plating Inc	1953	Yes	11919 Rivera Rd	Santa Fe Springs	90670	No	Hospital	>1000
Jan-Kens Enameling Co Inc	3887	No	715 E Cypress Ave	Monrovia	91016	No	Residence	101-200
El Monte Plating Co, Darrel Jensen	4119	Yes	11409 Stewart St	El Monte	91731	No	Residence	≤25
Alco Cad-Nickel Plating Corp	4346	No	1400 Long Beach Ave	Los Angeles	90021	No	Residence	51-75
Accu Chrome Plating Co Inc	5137	No	115 W 154Th St	Gardena	90248	No	Residence	501-1000
Chromal Plating Co	6616	No	1748 N Workman St	Los Angeles	90031	No	Residence	≤25
Angelus Plating Wks	6842	Yes	1713 W 134Th St	Gardena	90249	No	Residence	201-300
Anodyne Inc	7011	No	2226-223 S Susan St	Santa Ana	92704	No	School	>1000
Electrolizing Inc	7978	No	1947 Hooper Ave	Los Angeles	90011	No	Residence	26-50
Verne'S Chrome Plaitng Inc	8172	No	1559 W El Segundo Blvd	Gardena	90249	No	Residence	≤25
Omni Metal Finishing Inc	8408	Yes	11665 Coley River Cir	Fountain Valley	92708	No	Residence	101-200
Reuland Electric Co, H. Britton Lees	8820	No	17969 Railroad St	City Of Industry	91748	No	N/A	>1000
Cal Electroplating Inc	9120	Yes	3517 E Olympic Blvd	Los Angeles	90023	No	Residence	≤25
South West Plating Co	9489	No	1344 W Slauson Ave	Los Angeles	90044	No	Residence	26-50
Electronic Chrome Grinding Co Inc	10005	No	9128-32 Dice Rd	Santa Fe Springs	90670	No	Residence	76-100
Bronzeway Plating Corp	11174	No	3432 E 15Th St	Los Angeles	90023	No	Residence	201-300
Hixson Metal Finishing	11818	Yes	829 Production Pl	Newport Beach	92663	No	Residence	26-50
All American Manufacturing Co	11997	No	2201 E 51St St	Los Angeles	90058	No	School	501-1000
Size Control Plating Co Inc	12213	No	13349 E Temple Ave	La Puente	91746	No	School	101-200
Lmdd Enter. Inc., Dixon Hard Chrome, Dba	12748	No	11645 Pendleton St	Sun Valley	91352	Yes	Daycare Center	51-75
Hartwell Corp	12841	Yes	9810 6Th St	Rancho Cucamonga	91730	Yes	Residence	201-300
Barry Ave Plating Co Inc	13618	No	2210 Barry Ave	Los Angeles	90064	No	Residence	51-75
Chromplate Company	13844	No	1127 W Hillcrest Blvd	Inglewood	90301	Yes	School	201-300
Van Nuys Plating Inc	13945	No	6109 Vesper Ave	Van Nuys	91411	No	Daycare Center	< 25
S & K Plating Inc	15021	No	2727 N Compton Ave	Compton	90222	No	Residence	26-50
Anaplex Corp	16951	No	15547 Garfield Ave	Paramount	90723	No	Residence	301-500
Steve'S Plating Corporation	17098	No	3101-111 N San Fernando Blvd	Burbank	91504	Yes	Residence	N/A
Kryler Corp	17168	No	1217 E Ash Ave	Fullerton	92831	No	Residence	301-500
A-H Plating Inc	17812	Yes	1837 N Victory Blvd	Burbank	91504	Yes	Residence	201-300
Techplate Engineering Co	18118	No	1571 S Sunkist St	Anaheim	92806	No	Residence	301-500
Orange County Plating Co Inc	18414	Yes	940-70 N Parker St	Orange	92867	No	Residence	301-500
Christensen Plating Wks Inc	18460	No	2455 E 52Nd St	Vernon	90058	No	School	501-1000
Stutzman Plating Co	18845	No	5045 Exposition Blvd	Los Angeles	90016	No	Residence	110-150
Bowman Plating Co Inc	18989	No	2631 E 126Th St	Compton	90222	No	Residence	51-75
Pemaco Metal Processing Corp	19234	No	2125 Lemon St	Alhambra	91803	No	Residence	101-200
Metal Surfaces Inc	20280	No	6048-60 Shull St	Bell Gardens	90201	No	Residence	51-75
Aircraft X-Ray Labs Inc	21321	No	5216 Pacific Blvd	Huntington Park	90255	No	Residence	26-50
Coast Plating Inc 1	21593	Yes	128 W 154Th St	Gardena	90248	No	Residence	501-1000
Domar Precision Inc	23594	No	5250 E Southern Ave	South Gate	90280	No	Residence	≤25
Pennoyer-Dodge Co	24129	No	6634 San Fernando Rd	Glendale	91201	No	Residence	≤25
Serv Plating Co Inc	24240	No	1855 E 62Nd St	Los Angeles	90001	No	Residence	26-50

Aaa Plating & Inspection Inc	25087	Yes	424 Dixon St	Compton	90222	No	Residence	≤25
Universal Metal Plating & Polishing	39156	No	1526 W 1St St	Azusa	91702	No	School	>1000
Hawker Pacific Aerospace	40829	No	11240 Sherman Way	Sun Valley	91352	Yes	School	101-200
Lubeco Inc	41229	Yes	6859 Downey Ave	Long Beach	90805	No	Residence	76-100
Brite Plating Co Inc	42645	No	1313 Mirasol St	Los Angeles	90023	No	Residence	101-200
Neutron Plating Inc	42712	Yes	2993 E Blue Star St	Anaheim	92806	No	Residence	501-1000
Brothers Plating	44584	No	334 S Motor Ave	Azusa	91702	No	School	>1000
E.M.E. Inc/Electro Machine & Engineering	45938	No	431 E Oaks St	Compton	90222	No	Residence	51-75
Fine Quality Metal Finishing	47329	No	1640 Daisy Ave.	Long Beach	90813	No	Residence	90
All Metals Processing Of Orange Co Inc	47835	No	8401 Standustrial Ave	Stanton	90680	No	Residence	≤25
Yolandas Plating	52142	No	3419 Union Pacific Ave	Los Angeles	90023	No	Residence	101-200
Quaker City Plating & Silversmith Ltd	52525	No	11729 E Washington Blvd	Whittier	90606	No	Convalescent Home	76-100
Carter Plating Inc	53447	No	1842 N Keystone St	Burbank	91504	Yes	Residence	201-300
Artistic Silver Plating	55661	No	2344 Orange Ave	Signal Hill	90806	Yes	Residence	26-50
Maxima Enterprises, Inc.	62731	No	23920 S Vermont	Harbor City	90710	No	Residence	76-100
Crown Chrome Plating Inc	70220	No	14660 Arminta St	Van Nuys	91402	No	Residence	201-300
Aerodynamics Plating Co Inc	74131	No	13620 S St Andrews Pl	Gardena	90815	No	Residence	101-200
Ponam Ltd, Inc	78083	No	6618 San Fernando Rd	Glendale	91201	No	Residence	≤25
Palm Springs Plating	80799	No	345 Del Sol Rd	Palm Springs	92262	Yes	Residence	101-200
Dnr Industries, Inc.	82730	No	1558- S Anaheim Blvd	Anaheim	92805	No	Residence	301-500
Roto-Die Company Inc	92753	No	712 N Valley St	Anaheim	92801	Yes	Residence	101-200
Decore Plating	98554	Yes	434 W 164Th St	Carson	90248	No	Residence	≤25
Moog, Inc (Hard, Ano)	102334	No	20263 S Western Ave	Torrance	90501	No	N/A	>1000
Hightower Plating & Manufacturing Co	103703	No	2090 N Glassell Blvd	Orange	92865	No	Residence	501-1000
Valley-Todeco, Inc	106838	No	12975 Bradley Ave	Sylmar	91342	No	Residence	501-1000
Markland Manufacturing Inc	107149	No	1111 E Mcfadden Ave	Santa Ana	92705	No	Residence	51-75
Cppg, Inc	107644	No	3911 E Miraloma Ave	Anaheim	92806	No	Residence	201-300
Mjb Chrome Plating & Polishing	108315	No	236 S Riverside Ave	Rialto	92376	No	Residence	101-200
Valley Plating Works Inc	109562	Yes	5900 E Sheila St	Commerce	90040	No	Residence	201-300
Chrometech Inc	111005	No	2309 W 2Nd St & 2310 Cape Code	Santa Ana	92703	No	Residence	201-300
Coast Plating Inc 2	112968	No	417 W 164 Th St	Carson	90248	No	Residence	26-50
Alloy Processing	117435	No	1900 W Walnut	Compton	90220	No	Residence	400
Product Engineering Corporation	117804	No	2645 Maricopa St	Torrance	90503	No	Residence	101-200
Bowman Field, Inc, Chrome Nickel Platin	118602	No	2820 E Martin L King Jr Blvd	Lynwood	90262	No	Residence	26-50
Dynamic Plating	120704	Yes	952 W 9Th St	Upland	91786	No	Residence	201-300
Barken'S Hardchrome, Inc	121215	Yes	239 E Greenleaf Blvd	Compton	90220	No	Residence	≤25
Metal Finishing Marketers Inc	122365	No	1401 Mirasol St	Los Angeles	90023	No	Residence	101-200
Supreme Plaitng & Coating, L De La Rosa	122432	No	330 E Beach Ave	Inglewood	90302	No	Residence	≤25
Superior Plating And Bumpers	124325	No	1044 E 2 Nd St	Pomona	91763	No	Residence	≤25
Santec, Inc	125806	No	3501 Challenger St	Torrance	90503	No	Residence	N/A
Allen Industrial & Machine	129216		P. O. Box 776	Banning	92220		Residence	101-200
Multichrome/Microplate Co., Inc	129249	No	1013 W Hillcrest Blvd	Inglewood	90301	Yes	Daycare Center	301-500
Mcdonnell Douglas/Boeing Company	131232	No	15400 Graham Ave	Huntington Beach	92647	No	Residence	501-1000
Whiting Enterprises, Inc	131266	No	10140 Romandel Ave	Santa Fe Springs	90670	No	N/A	>1000
Rtr Industries Llc/Grant Piston Ring Co	132074	No	1360 Jefferson St	Anaheim	92807	No	Residence	301-500
Lm Chrome Corp	132333	No	654 E Young St	Santa Ana	92704	Yes	Residence	>1000
Hydroform Usa	133930	No	2848 E. 208Th St.	Carson	90810	No		301-500

Morrell'S Electro Plating, Inc	136913	No	432 E Euclid Ave	Compton	90222	No	Residence	>100
La Habra Plating Company	140017	No	900 S Cypress St	La Habra	90631	No	Residence	51-75
Ducommun Aerostructures Inc	140811	No	801 Royal Oak Dr	Monrovia	91016	No	Residence	101-200
Electrode Tech Inc, Reid Metal Finishing	143630	Yes	3110 W Harvard St	Santa Ana	92704	No	School	101-200
C&M Gold Plating, Adalberto Coldivar C	144272	No	948 W Industrial St	Azusa	91702	No	N/A	>1000
Andres Technical Plating	144438	No	1055 Ortega Way	Placentia	92870	No	School	101-200
Beo-Mag Plating Inc	146448	No	3315 W Harvard St	Santa Ana	92704	No	School	301-500
Aviation Repair Solutions Inc	147364	No	1480 Canal Ave	Long Beach	90813	No	Residence	501-1000
Fullerton Custom Works Inc	148373	No	1163 E Elm St	Fullerton	92831	No	Residence	301-500
Magma Finishing Corp.	148451	No	2294 N Batavia St D	Orange	92865	No		
Rebilt Metalizing Co	150363	No	2229 E 38Th St	Vernon	90058	No	Hospital	501-1000
South Bay Chrome	152888	No	2041 S Grand Ave	Santa Ana	92705	No	School	>1000
Tool & Jig Plating Company, A. Williams	153762	No	7635 S. Baldwin Place	Whittier	90602	No	Residence	N/A
A & Z Grinding, Inc	154758	No	1543 Nadeau St	Los Angeles	90001	No	Residence	≤25
Gardena Specialized Processing Inc	158699	No	16520 S Figueroa St	Gardena	90248	No	Residence	26-50
Ceo-To-Go/Ride Wright Wheels	166355	No	3080 E. La Jolla St	Anaheim	92806	No		301-500
Pacific Chrome Services	173247	No	603 E. Alton Ave.	Santa Ana	92705	No		501-1000
Triumph-Embee	173913	No	2136-68 S Hathaway St	Santa Ana	92705	No	Residence	101-200
Shimadzu Precision Instruments, Inc.	177256	No	3645 N. Lakewood Blvd.	Long Beach	90808	Yes		
Platinum Surface Coating	177440	No	1179 N. Fountain Way	Anaheim	92806	No		201-300
Allfast Fastening Sys Inc	178908	No	15200 Don Julian Rd	City Of Industry	91745	No	School	501-1000
Nasmyth Tmf, Inc.	179008	No	3401 Pacific Ave	Burbank	91505	Yes	School	26-50
Chromadora	180575	Yes	2515 S. Birch St.	Santa Ana	92707	No		301-500
V&M Aerospace Llc	180918	Yes	14024 S Avalon Blvd	Los Angeles	90061	No	Residence	201-300
Sunvair, Inc.	181234	No	29145 The Old Road	Valencia	91355	No		
Triumph Processing Inc	800267	No	2588-2605 Industry Way	Lynwood	90262	No	Daycare Center	101-200

Total = 115 facilities

NAICS codes for PAR 1469 affected facilities

Industry	NAICS Code	# of Facilities
Fabricated Metal Manufacturing	**332**	**93**
Metal Crown, Closure, and Other Metal Stamping (except Automotive)	332119	1
Saw Blade and Handtool Manufacturing	332216	1
Machine Shops	332710	3
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	332722	2
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	332812	2
Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	82
Plumbing Fixture Fitting and Trim Manufacturing	332913	2
Other Manufacutring	**333-337**	**12**
Other Industrial Machinery Manufacturing	333249	1
Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	333514	1
Cutting Tool and Machine Tool Accessory Manufacturing	333515	1
Other Measuring and Controlling Device Manufacturing	334519	2
Motor and Generator Manufacturing	335312	1
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	336310	1
Other Motor Vehicle Parts Manufacturing	336390	1
Aircraft Manufacturing	336411	1
Other Aircraft Parts and Auxiliary Equipment Manufacturing	336413	2
Showcase, Partition, Shelving, and Locker Manufacturing	337215	1
Wholesale and Retail Trade	**42, 44**	**2**
Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	423860	1
Motorcycle, ATV, and All Other Motor Vehicle Dealers	441228	1
Professional, Scientific, and Technical and Other Services	**54, 56**	**5**
All Other Professional, Scientific, and Technical Services	541990	1
All Other Support Services	561990	4
Repair and Maintenance	**811**	**3**
Automotive Body, Paint, and Interior Repair and Maintenance	811121	1
Other Electronic and Precision Equipment Repair and Maintenance	811219	1
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	1
Total		**115**