

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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

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## PREFACE

This document constitutes the Revised Final Environmental Assessment (EA) for Proposed Amended Rule (PAR) 1469 - Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations. A Draft EA was released for a 32-day public review and comment period from February 16, 2018 to March 20, 2018. 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. Two comment letters were received during the public comment period on the analysis presented in the Draft EA and responses to individual comments were included in Appendix E of the Final EA (dated August 2018) which was released as part of the Governing Board package for the September 7, 2018 public hearing which can be accessed on SCAQMD's website here: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-sep7-031.pdf>. At the public hearing, the Governing Board directed staff to return to Stationary Source Committee before returning to the Governing Board in December. Staff recommended that PAR 1469 be heard by the Governing Board in November 2018 and the Stationary Source Committee concurred.

Subsequent to release of the Draft EA for public review and comment, modifications were made to PAR 1469 and some of the revisions were made in response to verbal and written comments received during the rule development process. To facilitate identification, modifications reflected in the Final EA are included as single underlined text and text removed from the document is indicated by ~~single strikethrough~~. Further, subsequent to the release of the Final EA, some modifications were made to PAR 1469 in response to comments received. To facilitate identification of these additional changes, modifications made in the Revised Final EA (dated October 2018) are included as double underlined text and text removed from the document is indicated by ~~double strikethrough~~. To avoid confusion, minor formatting changes are not shown in underline or strikethrough.

Staff has reviewed all of the modifications to PAR 1469 and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or 3) provide new information of substantial importance relative to the draft document. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the document pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, this document now constitutes the Revised Final EA for PAR 1469.

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## **CHAPTER 1**

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### **PROJECT DESCRIPTION**

**Introduction**

**California Environmental Quality Act**

**Project Location**

**Project Background**

**Project Description**

## INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD or District) in 1977<sup>1</sup> 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<sup>2</sup>. Furthermore, SCAQMD must adopt rules and regulations that carry out the AQMP<sup>3</sup>. The AQMP is a regional blueprint for how SCAQMD will achieve air quality standards and healthful air and the 2016 AQMP<sup>4</sup> 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<sup>5</sup> can cause hexavalent chromium emissions from ~~the tanks~~ depending on the concentration of hexavalent chromium in the 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. These requirements include ~~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.

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<sup>1</sup> The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch. 324 (codified at Health and Safety Code Section 40400-40540).

<sup>2</sup> Health and Safety Code Section 40460(a).

<sup>3</sup> Health and Safety Code Section 40440(a).

<sup>4</sup> 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>

<sup>5</sup> 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<sup>6</sup> 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. PAR 1469 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<sup>7</sup>. 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.

<sup>6</sup> The CEQA Guidelines are codified at Title 14 California Code of Regulations Section 15000 *et seq.*

<sup>7</sup> CEQA Guidelines Section 15378

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 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 ~~was is being~~ released for a 32-day public review and comment period from February 16, 2018 to March 20, 2018 and two comment letters were received from the public regarding the analysis in the Draft EA. The ~~All~~ Any comments letters received during the public comment period on the analysis presented in this Draft EA and responses to individual comments were included in Appendix E of the Final EA (dated August 2018) ~~have will been responded to and are included in Appendix E to this Final EA~~ which was released as part of the Governing Board package for the September 7, 2018 public hearing. The August 2018 Final EA can be accessed from SCAQMD's website here: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-sep7-031.pdf>. At the public hearing, the Governing Board directed staff to return to Stationary Source Committee before returning to the Governing Board in December. At the Stationary Source Committee meeting, staff recommended that PAR 1469 be heard by the Governing Board in November 2018.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469, some of which were made in response to verbal and written comments received during the rule development process. The following modifications were included in the Final EA: minor changes for rule clarification, including additions of and revisions to definitions and the reorganization of various components throughout the rule. To facilitate identification, additions to the Final EA were included as single underlined text and deletions were indicated by single strikethrough. To avoid confusion, minor formatting changes were not shown in underline or strikethrough.

Further, subsequent to the release of the Final EA, two modifications were made to PAR 1469 in response to comments received. Paragraph (e)(3) was modified to increase the the distance of a sensitive receptor relative to the building enclosure openings facing the sensitive receptor from 100 feet to 1,000 feet and a provision was added to Appendix 10 that does not require add-on pollution control devices for small, low-use tanks that meet specific conditions to ensure these tanks will meet the same maximum potential emission limits as Tier III tanks with add-on pollution control devices. To facilitate the identification of this additional change, additions in the Revised Final EA are included as double underlined text and deletions are indicated by ~~double~~ strikethrough.

SCAQMD staff reviewed all of the modifications to PAR 1469 and concluded that none of the modifications constitute: 1) significant new information; or 2) a substantial increase in the severity of an environmental impact; 3) or provide new information of substantial importance relative to the draft document. In addition, the Draft EA, the Final EA, and this Revised Final EA, all concluded no significant adverse environmental impacts and the revisions to PAR 1469 in response

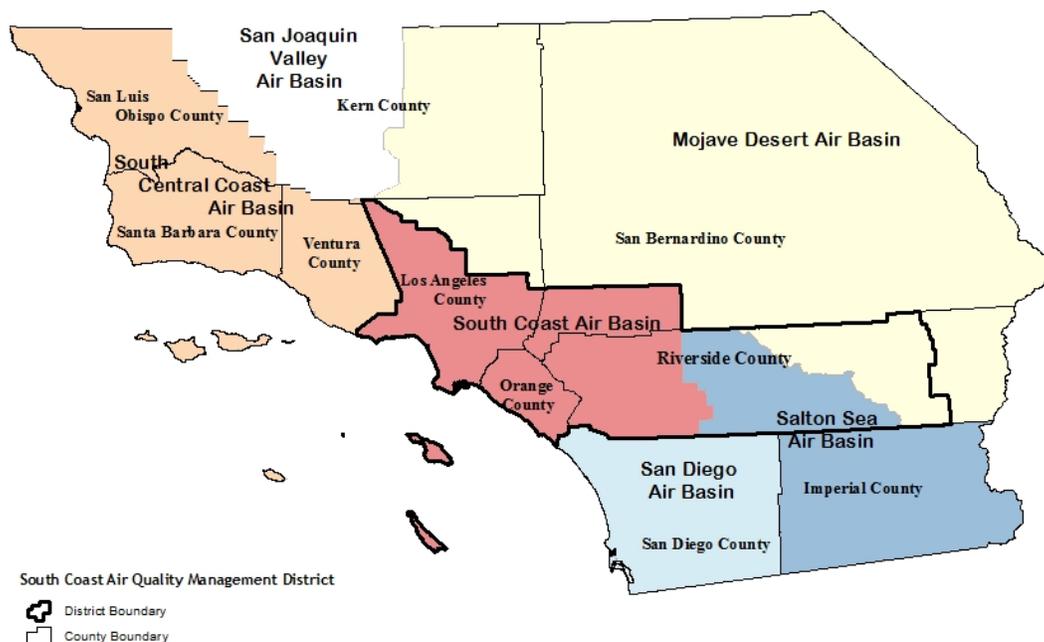
to verbal or written comments would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft EA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Thus, the Draft Final EA has been revised to reflect the aforementioned modifications such that it is now the Revised Final EA.

Prior to making a decision on the adoption of PAR 1469, the SCAQMD Governing Board must review and certify the Revised Final EA, including responses to comments, 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 Revised Final 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 cease operating their tanks

~~containing chromium solutions 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<sup>3</sup>). 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/m<sup>3</sup> 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)<sup>8</sup> 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 of 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)
- ASSOCIATED PROCESS TANK (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)

<sup>8</sup> 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>

- ~~HIGH EFFICIENCY PARTICULATE ARRESTOR (HEPA) VACUUM~~ (new)
- LOW PRESSURE SPRAY NOZZLE (new)
- MECHANICAL FUME SUPPRESSANT (modified)
- METAL REMOVAL FLUID (new)
- PERFLUROOCTANE SULFONIC ACID (PFOS) BASED FUME SUPPRESSANT (new)
- PERMANENT TOTAL ENCLOSURE (new)
- SCHOOL (modified)
- STALAGMOMETER (modified)
- TANK PROCESS AREA (new)
- TENSIMETER (modified)
- TIER I HEXAVALENT CHROMIUM-CONTAINING TANK (new)
- TIER II HEXAVALENT CHROMIUM TANK (new)
- TIER III HEXAVALENT CHROMIUM TANK (new)
- WEEKLY (modified)

The new definitions for Tier I, ~~and Tier II,~~ and Tier III 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 because it is consistent with the federal NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks that are required to meet specific housekeeping practices.

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 HEXAVALENT CHROMIUM CONTAINING TANK~~ Tier II or Tier III Hexavalent Chromium 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 (°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 that is operated or permitted to operate by SCAQMD within the range and a corresponding hexavalent chromium concentration containing hexavalent chromium that meets any of the following with the corresponding hexavalent chromium concentrations in specified in Table 1-1:

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

Temperature (° F)	Tier II Tank Concentration (ppm)
≥ 140 to <145	≥ 5,200 to < 10,400
≥ 145 to <150	≥ 2,700 to < 5,500
≥ 150 to <155	≥ 1,400 to < 2,900
≥ 155 to <160	≥ 700 to < 1,600
≥ 160 to <165	≥ 400 to < 800
≥ 165 to <170	≥ 180 to < 400
≥170	≥ 100 to < 200

- TIER III HEXAVALENT CHROMIUM TANK means a tank that is operated or permitted to operate by the SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified in Table 1-2; or
  - Contains a hexavalent chromium concentration greater than 1,000 ppm, and uses air sparging as an agitation method or is electrolytic; or
  - Is a hexavalent chromium electroplating or chromic acid anodizing tank.

Table 1-2  
Tier III Hexavalent Chromium-Containing Tank Parameters

Temperature (° F)	Tier III Tank Concentration (ppm)
≥ 140 to <145	≥ 10,400
≥ 145 to <150	≥ 5,500
≥ 150 to <155	≥ 2,900
≥ 155 to <160	≥ 1,600
≥ 160 to <165	≥ 800
≥ 165 to <170	≥ 400
≥170	≥ 200

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

<b>Tank Condition</b>	<b>Hexavalent Chromium Concentration</b>
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)**

Subdivision (d) contains the core requirements of PAR 1469. Paragraph (d)(1) has been revised to change the requirement for a separate meter to be hardwired for each hexavalent chromium electroplating or chromic acid anodizing 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, or Tier III~~ Hexavalent Chromium-Containing Tank, or any associated process tank to be operated within a building enclosure beginning 90 days after the date of rule adoption. In particular, Tier I, Tier II, or Tier III Hexavalent Chromium Tanks will be required to operate within a building enclosure that meets the definition of “Building Enclosure” which is a permanent building or physical structure, or portion of a 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. A room within a building enclosure that is completely enclosed with a floor, walls, and a roof would also meet this definition. ~~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.~~

Paragraph (d)(5) has been added to require any Tier II or Tier III Hexavalent Chromium Tank to be operated within a building enclosure that meets the requirements of subdivision (e). Under this provision, a Tier I Hexavalent Chromium Tanks would not be required to operate within a building

enclosure that meets the additional requirements under subdivision (e) such as limitations on enclosure openings.

**Requirements for Building Enclosures for Tier II or Tier III Hexavalent Chromium Tanks – subdivision (e)**

New subdivision (e) has been added to establish requirements for operating any Tier II or Tier III Hexavalent Chromium-Containing Tanks and associated process tanks within a building enclosure that meets specific requirements under paragraphs (e)(1) through (e)(9) beginning 90 180 days after date of rule adoption. While Tier I Hexavalent Chromium Tanks are required to operate within a building enclosure, the building enclosure where a Tier I Hexavalent Chromium Tank is operated is not required to meet the additional requirements in subdivision (e) provided there is no Tier II or Tier III Hexavalent Chromium Tank tank in the same building enclosure. The following summarizes the requirements for building enclosures for Tier II and III Hexavalent Chromium Tanks. Building enclosures shall meet the following requirements:

- New paragraph (e)(1) establishes the requirements for enclosure openings that are allowed for a building enclosure. Under this paragraph, ~~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~~ 3.5% 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. This requirement is based on U.S. EPA's Method 204 for Permanent Total Enclosures; however, unlike Method 204, building enclosures under PAR 1469 are not required to operate under negative air conditions. As such, even though the size allowance as required by Method 204 for openings in the building enclosure is 5%, to compensate for the absence of venting a building enclosure to an add-on air pollution control device, PAR 1469 proposes a size allowance of 3.5% instead. Information on calculations for the building enclosure envelope, including locations and dimensions of openings counted toward the ~~three percent~~ 3.5% allowance are required to be provided in the compliance status reports pursuant to paragraphs (p)(2) and (p)(3) (see description under subdivision (p)).

PAR 1469 identifies the type of methods that can be used in determining what comprises a building's opening and the amount that should be counted towards the 3.5% enclosure opening allowance. As specified in paragraph (e)(1), openings that close or use one or more of the following methods for the enclosure opening shall not be counted toward the combined area of all enclosure openings:

- ✓ Door that automatically closes;
- ✓ Overlapping plastic strip curtains;
- ✓ Vestibule;
- ✓ Airlock system; or
- ✓ Alternate 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. This provision allows the owner or operator to develop other low-cost methods that were not identified during the rulemaking.

- New paragraph (e)(2) establishes requirements for eliminating or minimizing cross-draft that can occur when openings at opposite ends of building enclosure are open. Under this paragraph, the owner or operator are required to 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, not to exceed two hours, by either closing or using one or more of the methods for the enclosure opening(s) on one of the opposite ends of the building enclosure specified in subparagraphs (e)(1)(A) through (e)(1)(E). To meet this requirement, the use of a barrier, such as large piece of equipment, a wall, or any other type of barrier that restricts air movement from passing through the building enclosure would also be allowed, 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) establishes additional requirements for enclosure openings that are facing a sensitive receptor or school. Except for the movement of vehicles, equipment or people, this paragraph requires any building enclosure opening to be closed or minimized by using any of the methods listed under paragraph (e)(1), (or use any of the methods listed above) that directly opens towards at the nearest: 1) sensitive receptor, with the exception of a school, or early education center that is located within ~~400~~1,000 feet, as measured from the property line of the sensitive receptor, school, or early education center to the building enclosure opening; and 2) school that is located within 1,000 feet, as measured from the property line of the school or to the building enclosure opening. Further, if there are multiple sensitive receptors that are located within 1,000 feet of an enclosure opening, only the nearest enclosure opening would be required to be closed. Similarly, if there are multiple schools that are located within 1,000 feet of an enclosure opening, only the nearest enclosure opening to the school would be required to be closed. The maximum enclosure openings that would be required to be closed under this paragraph would be two.
- New paragraph (e)(4) establishes requirements for enclosure openings in a roof. Specifically, the owner or operator is required to ensure that all roof openings that are located within 15 feet from the edge of any Tier II or Tier III 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, or roof openings that are equipped with a HEPA filter or other air pollution control device. It should be noted that the proposed definition of enclosure opening in paragraph (c)(22) does not include stacks, ducts, and openings to accommodate stacks and ducts.

- ~~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)(5) establishes requirements when there is a breach in a building enclosure that is located near a Tier II or Tier III Hexavalent Chromium tank. A breach can be a break, rupture, crack, hole, large gap in the building enclosure. Under this paragraph, the owner or operator is required to repair any breaks or deterioration breach in a building that is located within 15 feet of the edge of any Tier II or III tank 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. The provision establishes who to call and the procedures for a time extension to repair the breach, if needed.
- ~~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)(6) establishes requirements for notifying the Executive Officer and submitting a building enclosure compliance plan in the event that the owner or operator is unable to modify a building enclosure to comply with the requirements in paragraphs (e)(1) through (e)(4) because of conflicts with safety or local building requirements such as Cal-OSHA/Federal OSHA's requirements, or other municipal codes or agency requirements related directly to worker safety subject to Executive Officer approval.
- New paragraph (e)(7) establishes the procedures for the notification of approval or disapproval of and subsequent revisions to the Building Enclosure Compliance Plan submitted pursuant to paragraph (e)(6).~~New paragraph (e)(9): Under new paragraph (e)(8) ¶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)(45).~~
- New paragraph (e)(9) proposes to allow an owner or operator that has submitted an application to install an add-on air pollution control device to control either a Tier II or Tier III Hexavalent Chromium Tank(s) to be exempt from paragraphs (e)(1) through (e)(4) until such time that the add-on air pollution control device is installed.

**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 as defined in paragraph (c)(6) for conducting cleaning. Paragraph (f)(3) also clarifies that a drip tray or other containment device can be used to capture any liquid or solid material containing hexavalent chromium.
- Revised paragraph (f)(4) clarifies that approved cleaning method should be used when cleaning surfaces within certain areas and modifies the frequency of conducting cleaning to occur weekly instead of “at least once every seven days.”~~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 holding chromium or chromium-containing waste material shall be kept closed at all times except when filling or emptying.
- Paragraph (f)(6) ~~requires that on each day when buffing, grinding, or polishing activities occur, the owner or operator shall clean floors within 20 feet of a buffing, grinding, or polishing workstation within one hour of the end of the last operating shift of when buffing, grinding, or polishing are conducted. The requirements of this paragraph shall not apply to owner or operators that utilize a metal removal fluid to control to buffing, grinding, or polishing operations.~~ 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. Examples of acceptable flooring material are wooden floor boards and other solid material that can be cleaned and maintained.
- New paragraph (f)(8) has been added to require owners or operators to prevent the generation of fugitive emissions chromium prior to and during the cutting of roof surfaces by implementing the following requirements ~~the installation, modification, or removal of any add-on air pollution control device:~~
  - Prior to being ~~disturbed~~ cut, roof surfaces shall be cleaned by using a HEPA vacuum; and
  - To minimize fugitive emissions during cutting activities, method(s) such as a temporary enclosure and/or HEPA vacuuming shall be used; and

- ~~○ 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.~~
- New paragraph (f)(9) requires that if a HEPA vacuum is used to comply with housekeeping provisions of subdivision (f), that the HEPA filter is 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.

Previous requirements pertaining to establishing a physical barrier between buffing, grinding, or polishing and where chromium electroplating or chromic acid anodizing have been moved from subparagraph (c)(4)(F) to subdivision (g) - Best Management Practices. Previous requirements pertaining to compressed air cleaning in subparagraph (c)(4)(G) have also been moved to subdivision (g) - Best Management Practices.

#### **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) clarifies the requirements for minimizing drag-out for automated and non-automated lines. 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, containment equipment other than drip trays may be utilized to prevent hexavalent chromium-containing liquid from falling through the space between tanks. Additional requirements additionally to clean the residue on the drip tray or other equipment devices used for containment are also included. For facilities without automated lines, paragraph (g)(1) clarifies that parts need to be handled in a manner that does not cause hexavalent chromium-containing liquid to drip drop on the floor outside of the tank unless the liquid is captured by a drip tray or other containment device.

New paragraph (g)(2) prohibits owners or operators from spray rinsing parts or equipment that were previously in a Tier II or Tier III Hexavalent Chromium Tank, unless the part or equipment are fully lowered inside a tank where the overspray and all of the liquid is captured inside the tank. The requirements in paragraph (g)(2) will go into effect 90 days after date of adoption, 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 manner that water flows off of the part or equipment.

Effective 60 days after the date of adoption, 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, and designation of whether it is a Tier I, Tier II, or Tier III Hexavalent Chromium Tank. Tank labeling will help operators as well as SCAQMD inspectors identify Tier I, Tier II, and Tier III Hexavalent Chromium Tanks and to ensure the appropriate operating conditions are maintained.

~~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.~~

Effective 90 days after the date of adoption, new Paragraph (g)(54) requires all buffing, grinding, and polishing operations to take place within a building enclosure.

New paragraph (g)(5) requires the relocation of existing requirement to have a barrier that separates the buffing, grinding, or polishing area within a facility from the chromium electroplating or chromic acid anodizing operation. ~~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)(76) prohibits compressed air cleaning or drying within 15 feet of all Tier II or Tier III Hexavalent Chromium Tank(s) ~~any chromium electroplating or chromic acid anodizing operation~~ unless a barrier separates those areas from compressed air cleaning or drying operations, or the compressed air cleaning or drying is conducted in a permanent total enclosure. A tank wall may function as a barrier as long as parts are compressed air cleaned or dried below the lip of the tank.

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

PAR 1469 creates a new subdivision (h) which contains requirements regarding add-on air pollution control devices and emission standards.

Paragraph (h)(1) contains an existing prohibition for removing air pollution control equipment unless it is replaced with an air pollution control technique that meets the requirements in PAR 1469, Table 1 – Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks.

Subparagraph (h)(2)(A) 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 1-3. 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 1-3**  
**Hexavalent Chromium Emission Limits for Existing Tanks**

Facility Type	Distance to Sensitive Receptor (meters/feet)	Annual Permitted Amp-Hrs	Emission Limit (mg/amp-hr)	Required Air Pollution Control Technique
Existing Facility	$\leq 330^1$ $\leq 100$	$\leq 20,000$	0.01	Use of Certified <u>Chemical Fume Suppressant</u> at or below the certified surface tension <sup>3</sup> . <del>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.</del>
Existing Facility	$\leq 330^1$ $\leq 100$	$> 20,000$	0.0015 <sup>2</sup>	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Existing Facility	$\leq 330^1$ $\geq 100$	$\leq 50,000$	0.01	Use of Certified <u>Cemical Fume Suppressant</u> at or below the certified surface tension <sup>3</sup> . <del>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.</del>
Existing Facility	$\leq 330^1$ $\geq 100$	$> 50,000$ and $\leq 500,000$	0.0015 <sup>2</sup>	Use of an air pollution control technique <u>that controls hexavalent chromium. approved by the Executive Officer.</u>
Existing Facility	$\leq 330^1$ $\geq 100$	$> 500,000$	0.0015 <sup>2</sup>	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Modified Facility	Any	Any	0.0015 <sup>2</sup>	Using an add-on air pollution control device(s), or an approved alternative method pursuant to subdivision (i), <del>to control hexavalent chromium emissions.</del>
New Facility	Any	Any	0.0011 <sup>2</sup>	Using a HEPA add-on air pollution control device, or an approved alternative method pursuant to subdivision (i), <del>to control hexavalent chromium emissions.</del>

<sup>1</sup> Distance shall be measured, rounded to the nearest foot, from the edge of the chromium electroplating or chromic acid 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. The symbol  $\leq$  means less than or equal to. The symbol  $>$  means greater than.

<sup>2</sup> As demonstrated by source test requirements under subdivision (k).

<sup>3</sup> 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 as demonstrated through source test requirements under subdivision (k).

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 AB 2588 (Rule 1402).

Paragraph (h)(3) applies to decorative chromium electroplating processes using a trivalent chromium bath. PAR 1469 ~~removes~~ revises the requirement to utilize a certified CFS chemical fume suppressant to remove the word "certified," as certification at the ~~federal and state level~~ is only require this of for hexavalent chromium electroplating and chromic acid anodizing operations. However, paragraph (h)(3) 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 III Hexavalent Chromium-Containing Tanks***

Paragraph (h)(4) adds new requirements for Tier III 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 or an approved alternative compliance method pursuant to subdivision (i). These tanks must comply with the following specific hexavalent chromium emission limits and must meet the following standards:

- For existing or modified facilities, 0.0015 mg/amp-hr, if any tank(s) that are vented to an air pollution control device are electrolytic; or
- For new facilities, 0.0011 mg/amp-hr, if any tank(s) that are vented to an air pollution control device are electrolytic; or
- 0.20 mg/hr, if all tanks that are vented to an 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
- 0.004 mg/hr-ft<sup>2</sup>, with the applicable surface area based on the tank surface area of all Tier III Hexavalent Chromium-~~Containing~~ Tank(s) and other tanks required to be vented to an add-on air pollution control device with a SCAQMD Permit to Operate, provided all tanks are not electrolytic, if the ventilation system has a maximum exhaust rate of greater than 5,000 cfm; or
- ~~0.004 mg/hr-ft<sup>2</sup>, 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 III tanks that are electrolytic, the emission standard is consistent with the emission limits in Table 1-3, 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 of the tanks as found by ~~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 III tanks can meet an emission limit of 0.20 mg/hr.

Subparagraph (h)(4)(B) establishes the compliance schedule for submitting permit applications for add-on pollution control devices for Tier III Tanks. For Tier III 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 1-4.

**Table 1-4**  
**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. A source test is required to be conducted prior to the issuance of a SCAQMD Permit to Operate the add-on air pollution controls. Also, 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.~~

Subparagraph (h)(4)(C) establishes the compliance dates that an owner or operator a facility is required to install an add-on air pollution control device, implement an alternative compliance method or Hexavalent Chromium Phase-Out Plan to meet the hexavalent chromium emission limits specified in subparagraph (h)(4)(A). The owner or operator of a facility is required to install an add-on air pollution control device to meet the requirements under subparagraph (h)(4)(A) no later than 12 months after a Permit to Construct for the add-on air pollution control device has been issued by the Executive Officer. If an owner or operator elects to meet the requirements of (h)(4)(A) by implementing an approved alternative compliance method the owner or operator shall comply with the timeframe specified in the approved alternative compliance method. Further, if an owner or operator elects to phase out the use of hexavalent chromium in a chromium

electroplating or chromic acid anodizing tank the approved Hexavalent Chromium Phase-Out Plan shall be implemented no later than two years after it is approved by the Executive Officer.

Under subparagraph (h)(4)(D), Owners or operators shall not be subject to the requirements of venting a Tier III Hexavalent Chromium-Containing Tank to an add-on air pollution control device if the uncontrolled hexavalent chromium emission rate is less than 0.2 mg/hr—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.*

Effective 90 days after the date of rule adoption, new paragraph (h)(5) requires Tier II Hexavalent Chromium Tanks to utilize a tank cover, mechanical fume suppressant, or other method approved by the Executive Officer. Alternatively, the owner or operator may meet the emission reduction requirements of a Tier III Hexavalent Chromium Tank specified in subparagraphs (h)(4)(A) and (h)(4)(B).

Paragraph (h)(56) requires facilities to operate add-on air pollution control devices 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)**

Subdivision (i) retains the option for affected equipment to operate under an alternative compliance method to meet the emission limits specified in paragraphs (h)(2) and (h)(4). The alternative compliance option is available for existing, modified, and new 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 compliance with the emission limits of specified in paragraphs (h)(2) and (h)(4). An owner or operator that elects to use an alternative method must submit an SCAQMD permit application that includes information specified in PAR 1469, Appendix 7 - Information Demonstrating an Alternative Method(s) of Compliance Pursuant to 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 – Maximum Installed Controls
- 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)**

~~Training and certification requirements were previously located in paragraph (c)(7). 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 subdivision (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.~~

The current version of Rule 1469 only requires an initial source test. Paragraph (k)(1) clarifies the source test requirements for an initial source test and establishes additional requirements to conduct subsequent source tests. Periodic source testing is needed to ensure that add-on pollution control devices are operating properly and achieving the required emission limit. Subparagraph (k)(1)(A) establishes the schedule for conducting initial and subsequent source tests to meet the emission limits in paragraphs (h)(2) and (h)(4) (see PAR 1469, Table 3: Source Tests Schedule). In general, facilities with greater than 1,000,000 permitted annual amp-hours are required to source test no later than 60 months from the day of the most recent source test that demonstrates compliance with all applicable requirements and facilities with less than or equal to 1,000,000 permitted annual amp-hours are required to source test no later than 84 months from the day of the most recent source test that demonstrates compliance with all applicable requirements.

Subparagraph (k)(1)(B) allows an owner or operator to submit a written request for additional time to conduct the initial source test. This subparagraph specifies the procedures of when the Executive Officer must be notified, the information that must be included in the notification, and the timing for approval to allow use of this provision.

Subparagraph (k)(1)(C) establishes provisions that allow an owner or operator to use an existing source test that was conducted after January 1, 2015 for compliance with provision for the initial

source test provided the applicable emission limits in subdivision (h) are demonstrated, operating conditions during the source test are representative of current operating conditions, and the appropriate test methods were used.

Subparagraph (k)(1)(D) establishes provisions for when a source test was conducted after January 1, 2015, but the source test was not approved. Under this subparagraph, provided the owner or operator submits the source test to the Executive Officer for approval no later than 30 days after date of adoption, the Executive Officer will review the source test to verify if it can be used and meets the same criteria subparagraph (k)(1)(C).

Subparagraph (k)(1)(E) establishes provisions that require an owner or operator that is relying on a source test conducted after January 1, 2015 under subparagraph (k)(1)(C) to conduct the first subsequent source test no later than January 1, 2024 and then follow the source testing schedule for subsequent source tests as specified in PAR 1469, Table 3: Source Tests Schedule.

Subparagraph (k)(1)(F) clarifies that an owner or operator that elects to meet an emission limit specified in a paragraph (h)(2) using a certified wetting agent chemical fume suppressant or a approved alternative to a wetting agent chemical fume suppressant shall not be subject to the requirements in subparagraph (k)(1)(A).

Paragraph (k)(2) clarifies requirements for approved test methods, test methods for add-on non-ventilated air pollution control devices, and methods to measure surface tension. Emissions testing for add-on non-ventilated air pollution control devices shall be conducted in accordance with PAR 1469, Appendix 5 – Smoke Test for Add-on Non-Ventilated Air Pollution Control Device.

Paragraph (k)(3) proposes to allow the use of emissions screening tests in lieu of conducting a source test to comply with the *subsequent* source test requirements. Subparagraph (k)(3)(A) will allow the owner or operator to conduct an emission screening of hexavalent chromium provided that the emissions screening test shall:

- consist of one run to evaluate the capture and control of hexavalent chromium emissions;
- follow a source test protocol approved by Executive Officer; and
- be representative of the operating conditions during the most recent source test.

Subparagraph (k)(3)(B) proposes to allow an owner or operator with a SCAQMD approved source test conducted after January 1, 2009 to conduct an emission screening to satisfy the requirements of conducting the *initial* source provided the subject source test met the criteria stated above. This subparagraph includes provisions to allow an operator to submit a source test that was conducted after January 1, 2009 for approval.

Within 30 days of receiving the results of the emissions screen test, subparagraph (k)(3)(C) requires the owner or operator to submit the results to the Executive Officer. Under subparagraph (k)(3)(D), the owner or operator will be required to conduct a source test using an approved method within 60 days of conducting an emission screening test that fails the capture efficiency test(s) specified in the source test protocol, exceeds an emission limit specified in the SCAQMD Permit to Operate, or exceeds an emission limit in subdivision (h).

Paragraph (k)(4) defines the information content requirements for source test protocols and includes procedures for when a previously approved source test protocol can be used for conducting subsequent source tests.

~~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**

<b>Permitted Air Pollution Control Technique</b>	<b>Facility Permitted Annual Ampere-Hours</b>	<b>Due Date of Initial Source Test Protocol</b>	<b>Due Date of Subsequent Source Test Protocol</b>
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
	$\leq 20,000,000$ and $> 1,000,000$	No later than [365 Days After Date of Rule Adoption]	180 Days Prior to Due Date of Subsequent Source Test
	$\leq 1,000,000$	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.

Paragraph (k)(6) clarifies the requirements for demonstrating that each add-on pollution control device meets the design criteria and ventilation velocities specified in *A Manual of Recommended Practice for Design* authored by the American Conference of Governmental Industrial Hygienists or alternative design criteria and ventilation velocities approved by the Executive Officer.

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**

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

~~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.~~

Paragraph (k)(7) clarifies the methods that are required to be used for conducting a smoke test for add-on air pollution control devices (see Appendix 5 in PAR 1469) and add-on non-ventilated air pollution control devices (see Appendix 8 – Smoke Test to Demonstrate Capture Efficiency for an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (k)(6) in PAR 1469).

**Certification of Wetting Agent Chemical Fume Suppressant – Subdivision (I)**

Paragraph (I)(1) modifies the existing requirements by prohibiting the addition of PFOS-based CFS to any chromium electroplating or chromic acid anodizing bath. Paragraph (I)(2) establishes the criteria for using a wetting agent chemical fume suppressant to lower 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 which bans the use of PFOS in chemical fume suppressants. The certification list will be updated periodically based on the certification process conducted by the SCAQMD and the California Air Resources Board (CARB). Paragraph (1)(3) establishes a requirement for the Owner or operators to use a certified wetting agent chemical fume suppressant in accordance with the certification and the applicable manufacturer specifications.

Paragraph (1)(4) includes PAR 1469 adds a new requirement that no later than July-January 1, 2020, the Executive Officer shall notify the owner or operator of the availability of a wetting agent chemical fume suppressant CFS that meets the requirements by July 1, 2022 and the certification status of any potential wetting agent chemical fume suppressant CFS going through the certification process conducted by SCAQMD and CARB.

Beginning July 1, ~~2022~~2021, the owners or operators of a facility shall only add a wetting agent chemical fume suppressant CFS to a Tier III Hexavalent Chromium electroplating or chromic acid anodizing ~~Containing~~ Tank that meets the requirement of (1)(4) based on a certification process conducted by SCAQMD and CARB.

~~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.~~

Paragraph (1)(5) specifies that if the notification indicates that a wetting agent chemical fume suppressant CFS that meets the certification requirements will not be available by July 1, 2021, then the owner or operator of a facility shall install and only add a chemical fume suppressant to a chromium electroplating or a chromic acid anodizing tank based on the information in the notice implement an air pollution control technique to meet the specified in paragraph (1)(4)(2) no later than July 1, 2021/2022.

If the notice indicates that a chemical fume suppressant that meets the certification requirements will not be available by July 1, 2021, the owner or operator shall meet the emission limits specified in paragraph (h)(2) no later than July 1, 2021 or implement an alternative to a wetting agent chemical fume suppressant that meets the requirements in paragraphs (1)(7) and (1)(8). If an owner or operator of a facility elects to meet the requirements of paragraph (1)(5) by implementing an alternative to a wetting agent chemical fume suppressant the owner or operator would be required to submit a permit application for the chromium electroplating or chromic acid anodizing tank(s) that includes the alternative and any conditions specified in the approval of the alternative in paragraph (1)(8).

Also, an owner or operator of a facility may elect to meet the requirements of paragraph (1)(5) by phasing-out the use of hexavalent chromium in a chromium electroplating or chromic acid anodizing tank that uses a wetting agent chemical fume suppressant. If the owner or operator of a facility elects to phase out the use of hexavalent chromium the phase-out shall occur on or before 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.~~

Paragraph (l)(6) includes an option for the owner or operator of a facility to 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 wetting agent chemical fume suppressant CFS by July 1, 20232022, in lieu of complying with paragraph (l)(5). This commitment shall be signed by the owner or operator of the facility. The owner or operator may continue to use a wetting agent chemical fume suppressant CFS certified pursuant to paragraph (l)(1) until July 1, 20232022.

Paragraph (l)(8) of PAR 1469 adds a new provision that in the event the Executive Officer notifies facilities by January 1, 2020 that no wetting agent chemical fume suppressants will be available by July 1, 2021, the Executive Officer may identify one or more alternatives to a wetting agent chemical fume suppressant that meet the 0.01 milligrams per ampere-hour (mg/ampere-hour) limit. During the previous rule development of Rule 1469, wetting agent chemical fume suppressants were identified as an effective and low cost air pollution control technique to reduce hexavalent chromium emissions for facilities permitted less than or equal to 50,000 ampere-hours per year. The alternative to a wetting agent chemical fume suppressant will identify air pollution control technique(s) that must be used in combination to meet an equivalent emission rate of 0.01 mg/ampere-hour.

Paragraph (l)(10) requires the owner or operator that fails to phase-out the use of hexavalent chromium by July 1, 20232022 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)**

Modifications to this subdivision are necessary to revise existing and add new parameter monitoring requirements for add-on air pollution control devices and add-on non-ventilated air pollution control devices.

In particular, subparagraph (m)(1)(A) clarifies the pressure and air flow requirements for monitoring the operation of an add-on air pollution control device. Specifics regarding installation, maintenance, and labeling are detailed in PAR 1469, Table 4 - Pressure and Air Flow Measurement Parameters. Similarly, the requirements for maintaining the mechanical gauges are detailed in PAR 1469, Appendix 4 - Summary and Inspection of Maintenance Requirements. As required in Table 4 of PAR 1469, the owner or operator using an add-on air pollution control device shall demonstrate that emissions are captured by measuring collection slot velocity and the push air manifold pressure. The demonstration shall be made during any source test. Beginning 60 days after the completion of the initial source test, the owner or operator shall conduct additional parameter monitoring at least once every 180 days. An adequate collection slot velocity is required

to ensure the collection of hexavalent chromium emissions is at the level measured during the source test.

Subparagraph (m)(1)(B) establishes new requirements for the velocity of collection slots. In particular, Table 5 Add-on Air Pollution Control Device Parameter Monitoring, specifies the collection slot velocities and push air manifold pressure conditions that must be met for three categories: Acceptable Measurement, Repairable Measurement, and Failing Measurement.

Subparagraph (m)(1)(C) establishes new requirements for an owner or operator of a facility with an add-on air pollution control device demonstrating a repairable measurement to correct the measurement in a timely manner as specified in Table 5.

Subparagraph (m)(1)(D) establishes requirements for shutting down a tank controlled by an add-on air pollution control device until the collection slot velocity and/or push air manifold pressure are within the acceptable measurement range in the event there is a failure to correct a repairable measurement or if the measurement is in the “failing measurement” range.

Subparagraph (m)(1)(E) establishes requirements for conducting a smoke test once every 180 days in accordance with the methods described in Appendices 5 or 8 in PAR 1469, or some other method approved by the Executive Officer. The smoke test shall be conducted within 30 days of start-up for new and modified add-on air pollution control devices or add-on non-ventilated air pollution control devices.

Subparagraph (m)(1)(F) establishes requirements for when there is a failure of a smoke test. In the event an acceptable smoke test is not conducted in accordance with the requirements in subparagraph (m)(1)(E), the owner or operator of a facility shall immediately shutdown all Tier II and Tier III Hexavalent Chromium Tanks associated with the add-on air pollution control device or add-on non-ventilated air pollution control device until an acceptable smoke test is conducted.

#### ***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 –subparagraph (m)(1)(G)***

Subparagraph (m)(1)(G) establishes parameter monitoring for HEPA filters. Beginning 60 days after the completion of the initial source test, 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) – paragraph (m)(2)**

The original requirement in subparagraph (m) (2)(A) to measure surface tension weekly after 20 daily measurements of surface tension with no violation has been modified to occur every third operating day, but not less than once a weekly frequency and relocated to subparagraph (m)(2)(B). The required non-PFOS chemical fume suppressant 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 chemical fume suppressant CFS are being used to comply with the surface tension limits specified in the rule and permit conditions. New sSubparagraph (m)(2)(C) requires daily surface tension measurements to be conducted for 20 consecutive operating days if the surface tension as required by subparagraph (m)(2)(A) is not maintained. The owner or operator can resume monitoring every third operating after successfully measuring the surface tension daily for 20 consecutive operating days.

**Fume Suppressants Forming a Foam Blanket – paragraph (m)(3)**

When fume suppressants forming a foam blanket are used, paragraph (m)(3) requires thickness of the foam blanket across the surface of the chromium electroplating or chromic acid anodizing tank to be measured and maintained as established during the most recently approved source test to demonstrate compliance with the emission limit specified in paragraphs (h)(2) or (h)(4). In the event the foam blanket thickness is not maintained, subparagraph (m)(3)(C) requires hourly thickness measurements to be conducted for 15 consecutive operating days and then daily thickness measurements afterwards.

**Polyballs or Similar Mechanical Fume Suppressants – paragraph (m)(4)**

When polyballs or similar mechanical fume suppressants are used, paragraph (m)(4) requires a visually inspection for coverage comparable to the coverage during the source test each operating day. The paragraph has been modified to specify include Tier II and Tier III Hexavalent Chromium-Containing Tanks.

**Inspection, Operation, and Maintenance Requirements & Operation and Maintenance Plan – Subdivision (n)**

Subdivision (n) establishes inspection, operation, and maintenance requirements for when add-on air pollution control devices or add-on non-ventilated air pollution control devices are in use. The original table previously identified as Table 4 has been moved to Appendix 4, and renumbered as Table 4-1 and incorporates the newly added parameter monitoring requirements of subdivision (l). Tier II Hexavalent Chromium Tanks not controlled by an add-on air pollution control device shall

comply with the applicable inspection and maintenance requirements in Appendix 4, Table 4-4. The existing requirements for facilities using CFS or mechanical fume suppressants has also been moved to Appendix 4, Table 4-24. PAR 1469 also combines the existing requirements for the operation and maintenance plan into this subdivision.

Also, Tier II Hexavalent Chromium Tanks not controlled by an add-on air pollution control device and Tier I, Tier II, and Tier III Hexavalent Chromium Tanks are required to comply with new inspection and maintenance requirements within 90 days after the date of rule adoption.

Effective 90 days after the date of rule adoption, paragraphs (n)(3) and (n)(4) require the owner or operator of a facility to comply with the additional inspection and maintenance requirements in Appendix 4.

Also, effective 90 days after date of the rule adoption, paragraph (n)(9) requires the owner or operator to revise the facility's operation and maintenance plan to incorporate the inspection and maintenance requirements for a device or monitoring equipment that is identified in Tables 4-2 and 4-3 of Appendix 4.

Paragraph (n)(10) requires the owner or operator to photograph the ampere-hour reading of the ampere-hour being replaced and the new ampere-hour meter immediately after installation.

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

Paragraph (o)(1) 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. Inspection and maintenance requirements have been moved to Appendix 4.

As part of the ongoing compliance status and emission reports (specified in Appendix 3 – Content of Ongoing Compliance Status and Emission Reports), 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 3.5% allowance.

Paragraph (p)(4) PAR 1469 revises “Reports of Breakdowns” to “Notification of Incident”. As background, SCAQMD Rule 430 provides breakdown coverage, where the facility ~~may~~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~~four hours of the incident or within ~~one~~four hour of the time the owner or ~~operator~~operator was notified ~~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 (r)**

Due to the new requirements for Tier I and Tier 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.

PAR 1469 adds a new exemption from the requirements of paragraphs (f)(6), (g)(4), and (g)(5) provided that the buffing, grinding or polishing operations are conducted under a continuous flood of metal removal fluid.

### **Title V Permit Requirements (removed)**

PAR 1469 removes ~~the~~ previous subdivision (o) 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 previous subdivision (q) which contained requirements for chromium electroplating or chromic acid anodizing kits as this existing language was originally 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)**

Paragraph (t)(1) requires the owner or operator of a facility to install a permanent total enclosure for a Tier III Hexavalent Chromium Tank with a that does not exceed 3.5% for all enclosure openings as specified in paragraph (e)(1)-~~if~~ for a Tier III Hexavalent Chromium Tank:

- That results in ~~M~~more than one non-passing source test as required in paragraph (k)(1) occurring~~ed~~ within a consecutive 48-month period; or
- Not immediately shut down pursuant to clause (m)(1)(C)(iii) or subparagraph (m)(1)(D) or subparagraph (m)(1)(F) and the facility is more than 1,000 feet from a sensitive receptor, and~~More than one failure of the owner or operator failed to cease operating an electroplating or anodizing line associated with tank that is controlled by an add-on air pollution control device or add-on non-ventilated air pollution control device more than once within a consecutive 48-month period due to a failed measurement of the collection system of an add-on air pollution control device, or a failed smoke test as required in paragraph (k)(6); or of an add-on air pollution control device or add-on non-ventilated air pollution control device within a consecutive 48-month period.~~
- Not immediately shut down pursuant to clause (m)(1)(C)(iii), subparagraph (m)(1)(D) or subparagraph (m)(1)(F) and the facility is 1,000 feet or less from a sensitive receptor, and the owner or operator failed to cease operating a tank controlled by an add-on air pollution control device or add-on non-ventilated air pollution control device.

The distance of a sensitive receptor or a school to the facility shall be measured from the property line of the sensitive receptor or school to the nearest property line of the facility.

Paragraph (t)(2) allows the owner or operator to contest the requirement in paragraph (t)(1) 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 incidents of non-compliance did not occur; or
- The owner or operator resolved the specified incidents of non-compliance specified in paragraph (t)(1) in a timely manner; or
- 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.

Paragraph (t)(4) requires ~~P~~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.

Paragraph (t)(5) requires a Permit application for a permanent total enclosure to 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 Plan – Subdivision (u)**

Paragraph (u)(1) provides Owners and operators of any facilities with an existing Tier III Hexavalent Chromium Tank that plans 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.

Paragraph (u)(2) requires the Hexavalent Chromium Phase-Out Plan to be subject to the fees specified in Rule 306 – Plan Fees.

Paragraph (u)(4) requires the owner or operator to submit a progress report to the Executive Officer by the first day of each calendar quarter indicating the performance to meet the increments of progress for the previous quarter or submit according to an alternative schedule as specified in the approved plan.

~~Facilities must also submit a progress report to the Executive Officer by the 5<sup>th</sup> 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.~~

Paragraph (u)(5) requires owners or operators to submit complete SCAQMD permit applications to comply with subdivision (h) if:

- The owner or operator does not eliminate or reduce hexavalent chromium by the final completion date in the Hexavalent Chromium Phase-Out Plan;
- The Executive Officer denies a resubmitted Hexavalent Chromium Phase-Out Plan; or
- The owner or operator fails to resubmit the Hexavalent Chromium Phase-Out Plan.

Paragraph (u)(6) requires the owner or operator to install the add-on air pollution control device no later than 180 days after a Permit to Construct is issued.

#### **Time Extensions – Subdivision (v)**

Paragraph (v)(1) allows an owner or operator of a facility to submit a request to the Executive Officer for a one-time extension for up to 12 months to:

- Complete installation of an add-on air pollution control device, implement an approved alternative compliance method, or implement an approved Hexavalent Chromium Phase-Out Plan to meet the requirements under subparagraph (h)(4)(C); or
- Meet the hexavalent chromium emission limit, phase-out the use of hexavalent chromium, or implement an alternative to a wetting agent chemical fume suppressant required under paragraph (l)(5).

Paragraph (v)(2) requires an owner or operator of a facility that requests a time extension under paragraph (v)(1) to submit the request no later than 90 days before the compliance deadline specified in subparagraph (h)(4)(C) or paragraph (l)(5) and provide:

- The facility name, SCAQMD facility identification number, and the name and phone number of a contact person;
- A description of the chromium electroplating or chromic acid anodizing tank and the SCAQMD Permit to Operate and tank number;
- A description of the emission reduction approach that is being implemented;
- The specific provision under subparagraph (h)(4)(C) or paragraph (l)(5) for which a compliance extension is being requested;
- The reason(s) a time extension is needed;

- Progress in meeting the provisions in subparagraph (h)(4)(C) or paragraph (l)(5) including but not limited to date permit application was submitted to the SCAQMD, date permit to construct was approved, purchase order of equipment, date of service of contractors or consultants to install equipment; and
- The length of time requested, up to 12 months.

Paragraph (v)(3) sets-forth criteria for the Executive Officer to review and approve the time extension requested by an owner or operator. Specifically, the owner or operator would be required to demonstrate that there are specific circumstances beyond the control of the owner or operator that necessitate additional time to meet the compliance dates specified under subparagraph (h)(4)(C) and paragraph (l)(5). Further, the demonstration would be required to be substantiated with information that includes, but is not limited to detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility.

### **Appendices**

All additions and amendments to the following appendices have been made in order to provide clarity and information on PAR 1469.

#### Appendix 1 – Content of Source Test Reports (revised)

- Items 9-11 have been added to require applicable industrial ventilation limits; collection slot velocities (if applicable); and measured static, differential, or volumetric flow rate at the push manifold; across each stage of the control device; and exhaust stack (if applicable).

#### Appendix 4 – Notification of Construction Reports (deleted)

- Removed because information required for future construction of equipment at new or existing facilities is submitted with a Permit to Construction.

#### Appendix 4 – Summary of Inspection Requirements (new)

- 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) previously in Table 4 has been added.
- Table 4-2: Additional Inspection and Maintenance Requirements for Tier I, II, and III Hexavalent Chromium Tank(s) has been added.
- Table 4-3: Summary of Inspection and Maintenance Requirements for Sources Not Using Add-on Air Pollution Control Device to Control Tier II Hexavalent Chromium Tank(s) has been added.
- Table 4-4: Summary of Inspection and Maintenance Requirements for Sources Using Chemical or Mechanical Fume Suppressants previously in Table 5 has been added.

#### Appendix 5 – Smoke Test for Add-on Non-Ventilated Air Pollution Control Device (revised)

Appendix 7 – Distance Adjusted Ampere-Hour and Annual Emissions Limits for Facilities Located More Than 25 Meters from a Residence or Sensitive Receptor (deleted)

- This appendix was deleted because the tables originally included in this appendix were applicable to requirements in Rule 1469 that were removed.

Appendix 7 – Information Demonstrating an Alternative Method(s) of Compliance Pursuant to Subdivision (i) (revised)

- Item 5 has been added to require an owner or operator to demonstrate that the facility is at least 75 feet from a sensitive receptor. Facilities that are within 75 feet from sensitive receptors are ineligible to utilize an alternative method and are required to use an add-on air pollution control device.

Appendix 8 – Smoke Test to Demonstrate Capture Efficiency for an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (k)(6) (revised)

- The reference to “Model #15 049 Tel-Tru T-T Smoke Sticks from E. Vernon Hill Incorporated” was removed from Item 2.1.

Appendix 10 – Tier II and Tier III Hexavalent Chromium Tank Thresholds (new)

- Item 4 has been added, which includes a provision for small tanks with a surface area less than four square feet that have a hexavalent chromium concentration less than 10,000 ppm with a temperature less than 200 degrees Fahrenheit. Staff calculated the emissions from these tanks and if the operator is operating the tank between 170 and 200 degrees Fahrenheit for four hours per week or less, hexavalent chromium emissions from these tanks would be less than tanks controlled to 0.2 mg/hour. Although no add-on pollution controls would be required for these small tanks, the operator must cover the tank when not actively moving parts in or out of the tank and would need to maintain a data logger pursuant to paragraph (n)(3), to log the time and temperature of tank to demonstrate the temperature of the tank is between 170 and 200 degrees Fahrenheit for no more than 4 hours per week.

## **CHAPTER 2**

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### **ENVIRONMENTAL CHECKLIST**

**Introduction**

**General Information**

**Environmental Factors Potentially Affected**

**Determination**

**Environmental Checklist and Discussion**

## 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 Mr. Darren Ha, (909) 396-2548
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 III 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; <del>5) maintaining minimum freeboard height on certain tanks;</del> <u>5</u> 6) conducting additional housekeeping and implementing best management practices for all hexavalent chromium containing tanks; <del>6</del> <u>7</u> ) permanent total enclosures to be vented to air pollution control equipment in the event of non-compliance with specific source testing or monitoring requirements; <del>7</del> <u>8</u> ) reducing allowable surface tension limits; <del>8</del> <u>9</u> ) prohibiting the use of chemical fume suppressants that contain perfluorooctane sulfonic acid (PFOS); and <del>9</del> <u>10</u> ) 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 Revised Final 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.

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Aesthetics                               | <input type="checkbox"/> Geology and Soils               | <input type="checkbox"/> Population and Housing             |
| <input type="checkbox"/> Agriculture and Forestry Resources       | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Air Quality and Greenhouse Gas Emissions | <input type="checkbox"/> Hydrology and Water Quality     | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Biological Resources                     | <input type="checkbox"/> Land Use and Planning           | <input type="checkbox"/> Solid and Hazardous Waste          |
| <input type="checkbox"/> Cultural Resources                       | <input type="checkbox"/> Mineral Resources               | <input type="checkbox"/> Transportation and Traffic         |
| <input type="checkbox"/> Energy                                   | <input type="checkbox"/> Noise                           | <input type="checkbox"/> 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 III 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, ~~constructing~~ installing building enclosures ~~constructions~~, and installing APCDs are treated as construction impacts while conducting source tests and implementing housekeeping are considered operational impacts. Thus, the analysis in this ~~Revised Final 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:

- ~~55~~ 64 facilities have ~~448-103~~ Tier III tanks that would be required to have ~~448-103~~ 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 need to plan for and install the APCDs prior to this date. The construction schedule for installing these APCDs is estimated to occur over a 10-month period from 5/1/2021—7/1/2021 ~~October 2020 to July 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 the 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 the proximity of the tanks relative to the location of the APCD;
  - Some facilities may be able to either vent a Tier III 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 III 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 III 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 maximum three and a half percent (3.5%) building opening of the building envelope 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 3.5% three and a half percent of the building envelope. Therefore, the environmental impacts associated with the building improvement activities that may be employed to comply with the 3.5% three and a half percent building enclosure requirement are considered to be negligible and are not evaluated further.
  - For the “worst-case” peak construction day, the analysis in the Draft EA assumed that 12 APCDs are assumed to would be constructed on a given day. SCAQMD staff used the total numbers of APCD divided by 12 months which was is a very conservative assumption and approach at that time. To adjust the analysis to reflect the revisions to PAR 1469 that occurred after the release of the Draft EA for public review and comment, The construction for two additional permanent total enclosures (PTEs) would also need to be constructed on a peak construction day. For the purpose of this analysis, the construction of two PTEs is are equivalent to the construction of two APCDs. Thus, the analysis has been revised to conservative approach is to assume that 14 APCDs would to be constructed on a peak day.
  - 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 require 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.
- Tier II Hexavalent Chromium Tanks have the potential to emit hexavalent chromium emissions at a rate between 0.20 mg/hr to 0.40 mg/hr and controls such as mechanical fume suppressants or tank covers can be utilized to reduce hexavalent chromium emissions to below 0.20 mg/hr. For this reason, no construction activities are assumed for Tier II Hexavalent Chromium Tanks to comply with PAR 1469.

### **Operation:**

- Up to 89 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 III 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 emissionsource test limits in PAR 1469 after a non-passing source test re-testing will be subject to requirements to install a permanent total enclosure with negative air pressure 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 a negative air control system will have associated electricity use. The electricity use is are-considered anas operational impacts.
- No additional employees are expected to be hired as a result of PAR 1469.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that are described in the Project Description section in Chapter 1 and these changes are also reflected in the above assumptions. Staff has reviewed these modifications and concluded that overall, no new impacts to any environmental topic area are anticipated to result from these modifications. Further, the impacts previously evaluated in the Draft EA would not be made substantially worse and the conclusions reached in the Draft EA remain unchanged in both the Final EA and the Revised Final EA with respect to the latest version of PAR 1469. Thus, staff has concluded that none of the modifications constitute significant new information of substantial

importance relative to the Draft EA. In addition, revisions to PAR 1469 in response to verbal or written comments would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the document pursuant to CEQA Guidelines Sections 15073.5 and 15088.5.

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

**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.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>II. AGRICULTURE AND FORESTRY RESOURCES.</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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 resulting from the that would occur as a result of implementation of 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 affecting 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
<b>III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS.</b>				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**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**

<b>Mass Daily Thresholds <sup>a</sup></b>		
<b>Pollutant</b>	<b>Construction <sup>b</sup></b>	<b>Operation <sup>c</sup></b>
<b>NO<sub>x</sub></b>	100 lbs/day	55 lbs/day
<b>VOC</b>	75 lbs/day	55 lbs/day
<b>PM<sub>10</sub></b>	150 lbs/day	150 lbs/day
<b>PM<sub>2.5</sub></b>	55 lbs/day	55 lbs/day
<b>SO<sub>x</sub></b>	150 lbs/day	150 lbs/day
<b>CO</b>	550 lbs/day	550 lbs/day
<b>Lead</b>	3 lbs/day	3 lbs/day
<b>Toxic Air Contaminants (TACs), Odor, and GHG Thresholds</b>		
<b>TACs</b> (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq$ 10 in 1 million Cancer Burden $>$ 0.5 excess cancer cases (in areas $\geq$ 1 in 1 million) Chronic & Acute Hazard Index $\geq$ 1.0 (project increment)	
<b>Odor</b>	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
<b>GHG</b>	10,000 MT/yr CO <sub>2</sub> eq for industrial facilities	
<b>Ambient Air Quality Standards for Criteria Pollutants <sup>d</sup></b>		
<b>NO<sub>2</sub></b> 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)	
<b>PM<sub>10</sub></b> 24-hour average annual average	10.4 $\mu\text{g}/\text{m}^3$ (construction) <sup>e</sup> & 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$	
<b>PM<sub>2.5</sub></b> 24-hour average	10.4 $\mu\text{g}/\text{m}^3$ (construction) <sup>e</sup> & 2.5 $\mu\text{g}/\text{m}^3$ (operation)	
<b>SO<sub>2</sub></b> 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99 <sup>th</sup> percentile) 0.04 ppm (state)	
<b>Sulfate</b> 24-hour average	25 $\mu\text{g}/\text{m}^3$ (state)	
<b>CO</b> 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)	
<b>Lead</b> 30-day Average Rolling 3-month average	1.5 $\mu\text{g}/\text{m}^3$ (state) 0.15 $\mu\text{g}/\text{m}^3$ (federal)	

<sup>a</sup> Source: SCAQMD CEQA Handbook (SCAQMD, 1993)

<sup>b</sup> Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).

<sup>c</sup> For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

<sup>d</sup> Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.

<sup>e</sup> Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day    ppm = parts per million     $\mu\text{g}/\text{m}^3$  = microgram per cubic meter     $\geq$  = greater than or equal to  
MT/yr CO<sub>2</sub>eq = metric tons per year of CO<sub>2</sub> 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<sup>9</sup> 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 and improving building enclosures or buildings 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 ~~of 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 accordance

<sup>9</sup> 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>

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 plan. Since no significant impacts were identified for this issue, no mitigation measures are necessary or required.

**III. b) and f) Less Than Significant Impact.** The determination of whether a project will conflict with or obstruct implementation of the SCAQMD's 2016 AQMP and/or diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutants is dependent on construction and operational activities associated with the proposed project. While PAR 1469 does not contain any requirements for facilities to build new chromium electroplating and chromic acid anodizing operations, some requirements in PAR 1469 may be expected to cause existing facilities to make physical modifications that may require some construction activities as well as operational changes, once construction is completed.

It is important to note that 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 (e.g. physical modifications requiring construction or operational changes) 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	<ol style="list-style-type: none"> <li>1. Close the doors, windows, and other openings</li> <li>2. Install roll-up doors or plastic strip curtains</li> </ol>	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	<ol style="list-style-type: none"> <li>1. Air pollution control equipment (e.g., HEPA) operation</li> <li>2. Vehicle trips due to filter replacement, waste disposal, and filter leak detection</li> </ol>
Subdivision (k): Source test	None	Vehicle trips due to additional periodic source testing
Subdivision (t): <u>Installation of Permanent Total Enclosures (PTE)</u>	<u>Construction and Installation of PTEs for Tier III tanks</u>	<u>None</u>

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:

- ~~55-61~~ facilities have ~~103-118~~ Tier III tanks that would be required to have ~~103-118~~ 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**

<b>Type of facilities</b>	<b>Estimated number of APCDs to be installed at the time of Draft EA</b>	<b><u>Estimated number of APCDs to be installed at the time of Final EA*</u></b>	<b>Estimated construction schedule at the time Draft EA</b>	<b><u>Estimated construction schedule at the time of Final EA*</u></b>
Chromic Acid Anodizing	63	<u>71</u>	4/1/2019 – 4/1/2020	<u>9/2019 – 9/2020</u>
Hard Plating	21	<u>21</u>	10/1/2019 – 10/1/2020	<u>3/2020 – 3/2021</u>
Decorative Plating	34	<u>11</u>	4/1/2020 – 4/1/2021	<u>9/2020 – 9/2021</u>

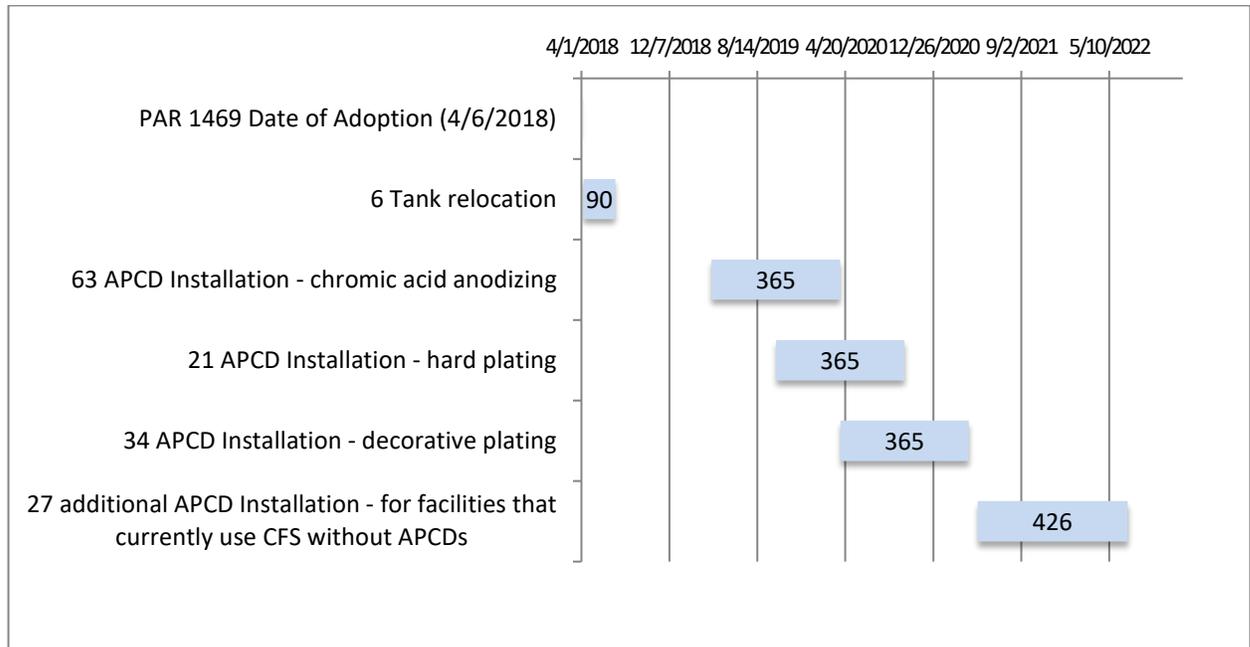
\* At the time of both the Final EA and Revised Final EA.

- 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 need to 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~~10/2020 – ~~7/1/2021~~7/2021;
- 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 III 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 III 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 III 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~~ 3.5% 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 3.5% ~~three percent~~ building enclosure requirement are considered to be negligible and are not included in this analysis.
- The timing of when PTEs are expected to be constructed is dependent on criteria outlined in subdivision (t). For example, a PTE installation will be required for any facility that has consistently shown the equipment cannot meet the point source emission requirement or if operators fail to adhere to the requirements to shut down a tank that fails specific parameter monitoring provisions. Also, a PTE would be required in the event of not passing a source test or operating a tanks without the proper add-on air pollution control device. This analysis assumes that two facilities will trigger the requirement to install a total of two PTEs. A total of two PTEs are assumed to be installed over a four-month between March 2020 and July 2021.
- Figure 2-1 illustrates the estimated construction days and schedule per requirement and tank types at the time the Draft EA was released for public review and comment.
- Figure 2-2 illustrates the revised estimated construction days and schedule per requirement and tank types to reflect the latest version of PAR 1469 that is addressed in at the time of this Final EA<sup>10</sup>.

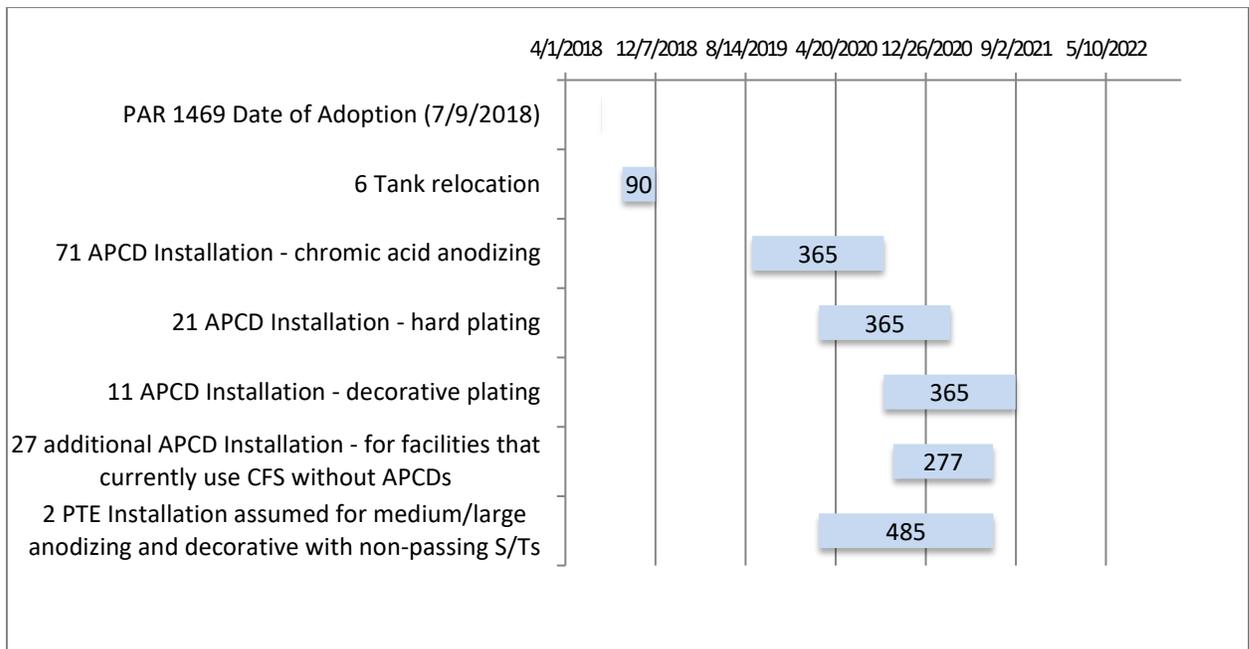
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<sup>10</sup> At the time of both the August 2018 Final EA and October 2018 Revised Final EA.



Key: APCD = Air Pollution Control Device; and CFS = chemical fume suppressant

**Figure 2-1**  
**Estimated Construction Days and Schedule by Different Rule Requirements And Tank Types as presented in the Draft EA**



Key: S/T = Source Test; APCD = Air Pollution Control Device; and CFS = chemical fume suppressant

**Figure 2-2**  
**Revised Estimated Construction Days and Schedule by Different Rule Requirements And Tank Types as presented in the Final EA<sup>11</sup>**

<sup>11</sup> At the time of both the Final EA and Revised Final EA.

- According to the construction schedule in Table 2-3 and Figure 2-42, a total of 130 APCDs and two PTEs will be installed. For the “worst-case” peak construction day, the analysis in the Draft EA assumed that 12 APCDs would be constructed on a given day. To adjust the analysis to reflect the revisions to PAR 1469 that occurred after the release of the Draft EA for public review and comment, the analysis has been revised to assume that 12 APCDs plus two PTEs would be constructed on a peak day. For the purpose of this analysis, the construction needed to build two PTEs is equivalent to constructing two APCDs over a five-month period from March 2020 to September 2020. ~~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 require 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 ~~89~~ 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 III 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 pressure control system will have associated electricity use. The electricity use is ~~are~~ considered an 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<sup>12</sup>). To install APCDs and to relocate tanks to the inside of the buildings, the use of the following construction off-road equipment was assumed: air compressor, welder, forklift, and aerial lift<sup>13</sup>. 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 Revised Final 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<sup>a, b, c, & d</sup>**

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
<b>Total Peak Daily Construction Emissions</b>	1.13	5.43	6.30	0.01	0.75	0.45
<b>SIGNIFICANCE THRESHOLD FOR CONSTRUCTION</b>	75	100	550	150	150	55
<b>SIGNIFICANT?</b>	NO	NO	NO	NO	NO	NO

- The emissions are estimated using CalEEMod version 2016.3.2.
- 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.
- Appendix C contains the detailed calculations.
- Subsequent to the release of the Draft EA, modifications were made to PAR 1469. However, the calculations in the Draft EA for construction activities relative to relocations were not affected by the modifications made to PAR 1469. Thus, the calculations in this table remain unchanged from the Draft EA and demonstrate that no significant adverse air quality impacts during tank relocation construction activities would be expected to occur.

<sup>12</sup> 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.

<sup>13</sup> 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 and PTE Installations<sup>a, b, c, & d</sup>**

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
<u>2 PTE installations occurring on a peak day</u>	<u>1.20</u>	<u>7.00</u>	<u>7.80</u>	<u>0.01</u>	<u>0.72</u>	<u>0.52</u>
<b>Total Peak Daily Construction Emissions</b>	<u>8.37</u> <del>7.17</del>	<u>49.02</u> <del>42.02</del>	<u>54.40</u> <del>46.60</del>	<u>0.09</u> <del>0.08</del>	<u>5.02</u> <del>4.30</del>	<u>3.65</u> <del>3.13</del>
<b>SIGNIFICANCE THRESHOLD FOR CONSTRUCTION</b>	75	100	550	150	150	55
<b>SIGNIFICANT?</b>	NO	NO	NO	NO	NO	NO

- The emissions are estimated using CalEEMod version 2016.3.2.
- APCD installation is expected to occur one year after the rule is adopted and therefore, ~~these activities have~~ no overlap with tank relocation construction work presented in Table 2-4. ~~It is conservatively assumed that on a in the peak day, there will be 12 APCD and two PTE installations work among PAR1469 affected facilities. For the purpose of this analysis, the construction needed to build two PTEs is equivalent to constructing 2 APCDs.~~
- Appendix C contains the detailed calculations.
- Subsequent to the release of the Draft EA, modifications were made to PAR 1469 and the calculations were revised to include construction emissions from two PTEs. Nonetheless, even with the additional emissions occurring on a peak day during construction, no significant air quality impacts during construction would be expected to occur.

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 over a five-month period from 10/1/2019 March 2020 to 4/1/2020 September 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 and two PTE installations occurring on a peak day. Installation of the APCDs and PTEs 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 Tables 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<sup>14</sup> 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, ~~the PM must~~ the PM must ~~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 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 ~~89 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 ~~89 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.

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<sup>14</sup> 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](https://www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles)

**Table 2-6**  
**Peak Daily Operational Emissions<sup>a, b, c, d, e, & f</sup>**

<b>Key Activities During Operation</b>	<b>VOC (lb/day)</b>	<b>NOx (lb/day)</b>	<b>CO (lb/day)</b>	<b>SOx (lb/day)</b>	<b>PM10 (lb/day)</b>	<b>PM2.5 (lb/day)</b>
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
<b>Total Peak Daily Operational Emissions</b>	0.02	0.06	0.48	0.00	0.20	0.75
<b>SIGNIFICANCE THRESHOLD FOR DURING OPERATION</b>	55	55	550	150	150	55
<b>SIGNIFICANT?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

- 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.
- It is conservatively assumed in the peak year, there will be an additional ~~89~~ 98 source test vehicles (LDA) and ~~89~~ 98 maintenance trucks (MDT) to all PAR 1469 affected facilities.
- The increased medium duty truck is for the additional waste disposal truck, filter replacement, filter leak inspection and other maintenance work for the APCDs.
- Each LDA and each MDV is assumed to travel a round trip distance of 40 miles.
- See Appendix C for detailed calculations.
- Subsequent to the release of the Draft EA, modifications were made to PAR 1469. However, the calculations in the Draft EA for operation were not affected by the modifications made to PAR 1469. Thus, the calculations in this table remain unchanged from the Draft EA and demonstrate that no significant adverse air quality impacts during operation activities would be expected to occur.

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 September 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 Tables 2-4 and 2-5 and the peak daily operational emissions from Table 2-6 and compares the total to the operational emission significance thresholds which are lower than the significance 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<sup>a, b, & c</sup>**

<b>Construction and Operation Overlap Phase</b>	<b>VOC (lb/day)</b>	<b>NOx (lb/day)</b>	<b>CO (lb/day)</b>	<b>SOx (lb/day)</b>	<b>PM10 (lb/day)</b>	<b>PM2.5 (lb/day)</b>
Peak Construction Emissions	<u>8.37</u> 7.17	<u>49.02</u> 42.02	<u>54.40</u> 46.60	<u>0.09</u> 0.08	<u>5.02</u> 4.30	<u>3.65</u> 3.13
Peak Operational Emissions	0.02	0.06	0.48	0.00	0.20	0.75
<b>Total Emissions</b>	<u>8.39</u> 7.19	<u>49.08</u> 42.08	<u>54.88</u> 47.08	<u>0.09</u> 0.08	<u>5.22</u> 4.50	<u>4.40</u> 3.88
<b>SIGNIFICANCE THRESHOLD FOR OPERATION</b>	55	55	550	150	150	55
<b>SIGNIFICANT?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

- The maximum construction impact during the overlap phase is conservatively assumed to be the peak daily construction emissions from Table 2-3.
- The maximum operational impact during the overlap phase is conservatively assumed to be the peak daily operational emissions from Table 2-4.
- Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the peak daily construction emissions presented in Table 2-5. Even with the revised construction calculations, the overlapping construction and operation activities demonstrates that no significant adverse air quality impacts would be expected to occur.

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 and these allocations are generally sufficient to cover the EGFs current customer usage and projected future growth. ~~However,~~ While 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), the projected minimal increase in NOx and SOx emissions would be expected to fall within the range of the EGF's annual allocations for these pollutants. If the annual allocations are not sufficient, any new potential NOx and SOx emission increases at the EGFs beyond the annual allocations 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 less than significant, because they were either previously evaluated and offset or will be evaluated under the New Source Review and additional offsets would be applied.

### III. c) Less Than Significant Impact.

#### *Cumulatively Considerable Impacts*

Based on the foregoing analysis, since project-specific criteria pollutant 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.”<sup>15</sup>

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. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. As in *Chula Vista* and *Rialto Citizens for Responsible Growth*, here the SCAQMD has demonstrated, when using accurate and~~

<sup>15</sup> 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>.

appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. Thus, it may be 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 III tanks outside of a building and requires all affected facilities to conduct operations of ~~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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>) (Health and Safety Code Section 38505(g)). The most common GHG that results from human activity is CO<sub>2</sub>, followed by CH<sub>4</sub> and N<sub>2</sub>O.

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 CO<sub>2</sub> “domes” that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects<sup>16</sup>.

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 CO<sub>2</sub> is approximately 100 years, for example, the effects of GHGs occur over a longer term. They affect the global climate over a relatively long timeframe. 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<sub>2</sub> 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<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year (MT/yr). Projects with incremental increases below this threshold will not be cumulatively significant-considerable.

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<sup>16</sup> Jacobsen, Mark Z. “Enhancement of Local Air Pollution by Urban CO<sub>2</sub> 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 ~~6.216.81~~ amortized<sup>17</sup> MT/yr of CO<sub>2</sub>e emissions during construction and 3.29 MT/yr of CO<sub>2</sub>e emissions from mobile sources and 82.90 MT/yr of CO<sub>2</sub>e emissions from electricity usage during operation from all the affected facilities for a total of 93.00 MT/yr of CO<sub>2</sub>e emissions, which is less than the SCAQMD significance threshold of 10,000 MT/yr of CO<sub>2</sub>e. The detailed calculations of project GHG emissions can be found in Appendix C.

**Table 2-8**  
**GHG Emissions From ~~89~~ 98-Affected Facilities<sup>18</sup>**

Activity	CO <sub>2</sub> e (MT/year <sup>a</sup> )
Construction <sup>b</sup>	<del>6.81</del> 6.21
Operation – mobile sources	3.29
Operation – electricity usage	82.90
<b>Total Project Emissions</b>	93.00
<b>SIGNIFICANCE THRESHOLD</b>	<b>10,000</b>
<b>SIGNIFICANT?</b>	<b>NO</b>

<sup>a</sup> 1 metric ton = 2,205 pounds

<sup>b</sup> 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.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that caused some of the calculations in this section to be revised. Staff has reviewed the modifications to PAR 1469 and the revised calculations and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft EA. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects.

<sup>17</sup> 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<sub>2</sub>e emissions during construction are calculated and then divided by 30.

<sup>18</sup> Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the peak daily construction GHG emissions. Even with the revised construction GHG calculations, and the overlap of construction and operation activities, no significant adverse GHG impacts are expected to occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES.</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 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 construction on green land 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 disturb habitat, or 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.

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

**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.

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

**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<sup>19</sup>**

<b>Fuel Type</b>	<b>Year 2016 Estimated Basin Fuel Demand<sup>a</sup> (mmgal/yr)</b>	<b>Fuel Usage<sup>b</sup> (mmgal)</b>	<b>Total % Above Baseline</b>	<b>Exceed Significance Thresholds?<sup>c</sup></b>
Diesel	749	<del>0.0085</del> 0.0093	<del>0.0011</del> 0.0012	No
Gasoline	6,997	0.0012	0.00002	No

<sup>a</sup> 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](http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html)). [Accessed February 6, 2018.]

<sup>b</sup> 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.

<sup>c</sup> 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 ~~132~~ 145 additional blowers would be needed to operate the APCD at ~~89~~ 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 1469 Additional Electricity Consumption from Operation<sup>20</sup>**

<b>Energy Use</b>	<b>Consumption (GW-h)</b>
APCD: Blowers and Filtration System (100 bhp @ 0.001788 GW-h) x <del>132</del> 145	<del>0.236</del> 0.259
SCAQMD Basin Electricity End Use Consumption <sup>a,b</sup>	120,210
<b>Total Impact % of Capacity</b>	<b>0.0002</b>
<b>SIGNIFICANT?<sup>c,b</sup></b>	<b>NO</b>

<sup>a</sup> 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>)

<sup>b</sup> It is assumed the energy supply is equal to energy consumption.

<sup>c</sup> SCAQMD's energy threshold for electricity is 1% of supply.

<sup>19</sup> Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the peak daily fuel use during construction. Even with the revised fuel use calculation, the analysis demonstrates that no significant adverse fuel impacts would be expected to occur.

<sup>20</sup> Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the projected electricity consumption. Even with the revised electricity calculation, the analysis demonstrates that no significant adverse electricity impacts would be expected to occur.

### **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 MDT. As previously explained in Section III - Air Quality and Greenhouse Gases, by assuming that each affected 89\_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 89\_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<sup>21</sup>**

Type of Equipment	Gasoline
	(gal/yr)
LDA/LDT	178
	496
MDT	356
	392
<b>Total:</b>	534
	588
<b>Year 2016 Estimated Basin Fuel Demand (gal/yr) <sup>a</sup></b>	6,997,000,000
<b>Total % Above Baseline</b>	0.00001
<b>SIGNIFICANT?<sup>b</sup></b>	<b>NO</b>

<sup>a</sup> 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](http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html)). [Accessed February 6, 2018.]

<sup>b</sup> 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.

<sup>21</sup> Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the fuel use during operation. Even with the revised fuel use calculation, the analysis demonstrates that no significant adverse fuel impacts would be expected to occur.

**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.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that caused some of the calculations in this section to be revised. Staff has reviewed the modifications to PAR 1469 and the revised calculations and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft EA. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>VII. GEOLOGY AND SOILS.</b> Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 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.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS.</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Significantly increased fire hazard in areas with flammable materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 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*, 28<sup>th</sup> 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.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY.</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 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 III 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**

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

Therefore, since the estimated potable water demand and total water demand would be less than the 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
<b>X. LAND USE AND PLANNING.</b>				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XI. MINERAL RESOURCES.</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XII. NOISE.</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**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.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING.</b>				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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 ~~8472~~ workers may be needed to perform construction activities to comply with PAR 1469 at all ~~89~~ ~~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.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XIV. PUBLIC SERVICES.</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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*, 28<sup>th</sup> 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 8472 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
<b>XV. RECREATION.</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XVI. SOLID AND HAZARDOUS WASTE.</b> Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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 ~~130~~ ~~145~~ APCDs will be installed in all ~~89~~ ~~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 be recycled, instead of being sent to a landfill. 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 ~~27,733~~ ~~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<sup>22</sup>**

Control Type	Potential Number of Affected Units	Total Waste Generated Per Year (cubic yards)
Disposal of Torn Bags and Spent Filters	<del>130</del> <del>145</del> ( <del>103</del> <del>118</del> + 27)	640 (each) <del>27,733</del> <del>30,933</del> (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 to all 89 facilities 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 its ~~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 its ~~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 ~~27,733~~ ~~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.

<sup>22</sup> Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the total solid waste generation. Even with the revised number of potential affected units, the analysis demonstrates that no significant adverse solid waste generation impacts would be expected to occur.

For example, 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.

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.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that caused some of the calculations in this section to be revised. Staff has reviewed the modifications to PAR 1469 and the revised calculations and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft EA. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XVII. TRANSPORTATION AND TRAFFIC.</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 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 ~~7060~~ construction worker trips (round

trips) and ~~1412~~ vendor truck trips (round trips) for a total of ~~8472~~ construction round trips are assumed to be needed on a peak construction day for 12 APCD and two PTE 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 ~~8472~~ 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 number 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)<sup>23</sup>**

Phase	Worker Vehicles	Vendor Trucks
<b>Construction</b> <sup>a</sup>	7060 per day	1412 per day
<b>Operation</b>	Up to 4 additional vehicles (LDA) for source test and 4 additional APCD maintenance truck (MDV) from all 89 98 affected facilities per day <sup>b</sup>	

<sup>a</sup> The worst-case analysis for construction is based on a maximum of 5 worker vehicles plus 1 vendor trucks per day for 12 APCD and 2 PTE installations during a peak day to account for overlapping construction.

<sup>b</sup> 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 89 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 Regulations, Title 14 CFR 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 be 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 PTEs 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.

<sup>23</sup> Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the total number of affected facilities. Even with the revised number of potential affected facilities, the analysis demonstrates that no significant adverse transportation and traffic impacts would be expected to occur.

**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.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that caused some of the calculations in this section to be revised. Staff has reviewed the modifications to PAR 1469 and the revised calculations and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft EA. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects.

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	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
<b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**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. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. 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. 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**

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**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 E: Comment Letters Received on the Draft EA and Responses to Comments**

## **APPENDIX A**

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

In order to save space and avoid repetition, please refer to the latest version of Proposed Amended Rule 1469 located elsewhere in the Governing Board Package. The version of Proposed Amended Rule 1469 that was circulated with the Draft EA and released on February 16, 2018 for a 32-day public review and comment period ending on March 20, 2018 was identified as “Preliminary Draft Rule Language – January 19, 2018”.

Original hard copies of the Draft EA, which include the draft version of the proposed amended rule listed above, can be obtained through the SCAQMD Public Information Center at the Diamond Bar headquarters or by contacting Fabian Wesson, Public Advisor at the SCAQMD’s Public Information Center by phone at (909) 396-2039 or by email at [PICrequests@aqmd.gov](mailto:PICrequests@aqmd.gov).

## **APPENDIX B**

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### **CalEEMod Files And Assumptions**

## **APPENDIX B**

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### **CalEEMod Files And Assumptions**

- **1 tank relocation (annual run)**

PAR1469\_construction tank relocation - South Coast AQMD Air District, Annual

**PAR1469\_construction tank relocation**  
**South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

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**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**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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

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PAR1469\_construction tank relocation - South Coast AQMD Air District, Annual

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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

PAR1469\_construction tank relocation - South Coast AQMD Air District, Annual

**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

	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
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**

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**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**

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**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
<b>Total</b>	<b>7.7000e-004</b>	<b>4.0700e-003</b>	<b>3.8400e-003</b>	<b>1.0000e-005</b>		<b>3.0000e-004</b>	<b>3.0000e-004</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.4097</b>	<b>0.4097</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.4122</b>

**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
<b>Total</b>	<b>1.5000e-004</b>	<b>4.6000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.2000e-004</b>	<b>8.0000e-005</b>	<b>1.0000e-005</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3459</b>	<b>0.3459</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3461</b>

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**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
<b>Total</b>	<b>7.7000e-004</b>	<b>4.0700e-003</b>	<b>3.8400e-003</b>	<b>1.0000e-005</b>		<b>3.0000e-004</b>	<b>3.0000e-004</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.4097</b>	<b>0.4097</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.4122</b>

**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
<b>Total</b>	<b>1.5000e-004</b>	<b>4.6000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.2000e-004</b>	<b>8.0000e-005</b>	<b>1.0000e-005</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3459</b>	<b>0.3459</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3461</b>

**4.0 Operational Detail - Mobile**

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**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**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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**

Land Use	Miles			Trip %			Trip Purpose %		
	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

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**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



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**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

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**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

PAR1469\_construction tank relocation - South Coast AQMD Air District, Annual

	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

PAR1469\_construction tank relocation - South Coast AQMD Air District, Annual

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**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

PAR1469\_construction tank relocation - South Coast AQMD Air District, Annual

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## PAR1469\_construction tank relocation - South Coast AQMD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## **APPENDIX B**

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### **CalEEMod Files And Assumptions**

- **1 tank relocation (Summer run)**

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

**PAR1469\_construction tank relocation**  
**South Coast AQMD Air District, Summer**

**1.0 Project Characteristics**

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**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**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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

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PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

## PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

	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
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

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#### 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

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

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
<b>Total</b>	<b>0.3100</b>	<b>1.6282</b>	<b>1.5351</b>	<b>2.0400e-003</b>		<b>0.1196</b>	<b>0.1196</b>		<b>0.1146</b>	<b>0.1146</b>		<b>180.6327</b>	<b>180.6327</b>	<b>0.0438</b>		<b>181.7285</b>

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

**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
<b>Total</b>	<b>0.0622</b>	<b>0.1740</b>	<b>0.5664</b>	<b>1.5800e-003</b>	<b>0.1253</b>	<b>3.5200e-003</b>	<b>0.1288</b>	<b>0.0337</b>	<b>3.3400e-003</b>	<b>0.0370</b>		<b>158.4558</b>	<b>158.4558</b>	<b>4.9200e-003</b>		<b>158.5787</b>

**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
<b>Total</b>	<b>0.3100</b>	<b>1.6282</b>	<b>1.5351</b>	<b>2.0400e-003</b>		<b>0.1196</b>	<b>0.1196</b>		<b>0.1146</b>	<b>0.1146</b>	<b>0.0000</b>	<b>180.6327</b>	<b>180.6327</b>	<b>0.0438</b>		<b>181.7285</b>

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

**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
<b>Total</b>	<b>0.0622</b>	<b>0.1740</b>	<b>0.5664</b>	<b>1.5800e-003</b>	<b>0.1253</b>	<b>3.5200e-003</b>	<b>0.1288</b>	<b>0.0337</b>	<b>3.3400e-003</b>	<b>0.0370</b>		<b>158.4558</b>	<b>158.4558</b>	<b>4.9200e-003</b>		<b>158.5787</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

	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

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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

Land Use	Miles			Trip %			Trip Purpose %		
	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

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail**

PAR1469\_construction tank relocation - South Coast AQMD Air District, Summer

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## 7.1 Mitigation Measures Water

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## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

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## 9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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### Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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### User Defined Equipment

Equipment Type	Number
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## 11.0 Vegetation

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## **APPENDIX B**

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### **CalEEMod Files And Assumptions**

- **1 tank relocation (Winter run)**

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

**PAR1469\_construction tank relocation**  
**South Coast AQMD Air District, Winter**

## 1.0 Project Characteristics

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### 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

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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, Winter

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

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PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

## PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

	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
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

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#### 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

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

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
<b>Total</b>	<b>0.3100</b>	<b>1.6282</b>	<b>1.5351</b>	<b>2.0400e-003</b>		<b>0.1196</b>	<b>0.1196</b>		<b>0.1146</b>	<b>0.1146</b>		<b>180.6327</b>	<b>180.6327</b>	<b>0.0438</b>		<b>181.7285</b>

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

**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
<b>Total</b>	<b>0.0672</b>	<b>0.1812</b>	<b>0.5221</b>	<b>1.5000e-003</b>	<b>0.1253</b>	<b>3.5300e-003</b>	<b>0.1288</b>	<b>0.0337</b>	<b>3.3400e-003</b>	<b>0.0370</b>		<b>150.5017</b>	<b>150.5017</b>	<b>4.6700e-003</b>		<b>150.6185</b>

**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
<b>Total</b>	<b>0.3100</b>	<b>1.6282</b>	<b>1.5351</b>	<b>2.0400e-003</b>		<b>0.1196</b>	<b>0.1196</b>		<b>0.1146</b>	<b>0.1146</b>	<b>0.0000</b>	<b>180.6327</b>	<b>180.6327</b>	<b>0.0438</b>		<b>181.7285</b>

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

**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
<b>Total</b>	<b>0.0672</b>	<b>0.1812</b>	<b>0.5221</b>	<b>1.5000e-003</b>	<b>0.1253</b>	<b>3.5300e-003</b>	<b>0.1288</b>	<b>0.0337</b>	<b>3.3400e-003</b>	<b>0.0370</b>		<b>150.5017</b>	<b>150.5017</b>	<b>4.6700e-003</b>		<b>150.6185</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

	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

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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

Land Use	Miles			Trip %			Trip Purpose %		
	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

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail**

PAR1469\_construction tank relocation - South Coast AQMD Air District, Winter

**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
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

## **APPENDIX B**

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### **CalEEMod Files And Assumptions**

- **APCD installation (annual run)**

PAR1469\_20180126\_construction - South Coast AQMD Air District, Annual

**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**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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, 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	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

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PAR1469\_20180126\_construction - South Coast AQMD Air District, Annual

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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

PAR1469\_20180126\_construction - South Coast AQMD Air District, Annual

**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

	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
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**

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**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**

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**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
<b>Total</b>	<b>0.0159</b>	<b>0.0996</b>	<b>0.0995</b>	<b>1.5000e-004</b>		<b>6.8900e-003</b>	<b>6.8900e-003</b>		<b>6.7200e-003</b>	<b>6.7200e-003</b>	<b>0.0000</b>	<b>12.3215</b>	<b>12.3215</b>	<b>2.3900e-003</b>	<b>0.0000</b>	<b>12.3813</b>

**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
<b>Total</b>	<b>1.8400e-003</b>	<b>5.5200e-003</b>	<b>0.0160</b>	<b>4.0000e-005</b>	<b>3.6900e-003</b>	<b>1.1000e-004</b>	<b>3.8000e-003</b>	<b>9.9000e-004</b>	<b>1.0000e-004</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>4.1505</b>	<b>4.1505</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.1537</b>

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**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
<b>Total</b>	<b>0.0159</b>	<b>0.0996</b>	<b>0.0995</b>	<b>1.5000e-004</b>		<b>6.8900e-003</b>	<b>6.8900e-003</b>		<b>6.7200e-003</b>	<b>6.7200e-003</b>	<b>0.0000</b>	<b>12.3215</b>	<b>12.3215</b>	<b>2.3900e-003</b>	<b>0.0000</b>	<b>12.3813</b>

**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
<b>Total</b>	<b>1.8400e-003</b>	<b>5.5200e-003</b>	<b>0.0160</b>	<b>4.0000e-005</b>	<b>3.6900e-003</b>	<b>1.1000e-004</b>	<b>3.8000e-003</b>	<b>9.9000e-004</b>	<b>1.0000e-004</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>4.1505</b>	<b>4.1505</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.1537</b>

**4.0 Operational Detail - Mobile**

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**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**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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**

Land Use	Miles			Trip %			Trip Purpose %		
	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

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**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



### 5.3 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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

#### 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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

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	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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

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**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**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

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**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Stationary Equipment

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### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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### Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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### User Defined Equipment

Equipment Type	Number
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## 11.0 Vegetation

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## **APPENDIX B**

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### **CalEEMod Files And Assumptions**

- **APCD installation (Summer run)**

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

**PAR1469\_20180126\_construction**  
**South Coast AQMD Air District, Summer**

**1.0 Project Characteristics**

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**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**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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

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PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

## PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

	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
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

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#### 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

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

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
<b>Total</b>	<b>6.3604</b>	<b>39.8495</b>	<b>39.8001</b>	<b>0.0584</b>		<b>2.7575</b>	<b>2.7575</b>		<b>2.6878</b>	<b>2.6878</b>		<b>5,432.8440</b>	<b>5,432.8440</b>	<b>1.0555</b>		<b>5,459.2324</b>

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

**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
<b>Total</b>	<b>0.7467</b>	<b>2.0879</b>	<b>6.7970</b>	<b>0.0189</b>	<b>1.5035</b>	<b>0.0423</b>	<b>1.5458</b>	<b>0.4044</b>	<b>0.0401</b>	<b>0.4445</b>		<b>1,901.4695</b>	<b>1,901.4695</b>	<b>0.0590</b>		<b>1,902.9448</b>

**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
<b>Total</b>	<b>6.3604</b>	<b>39.8495</b>	<b>39.8001</b>	<b>0.0584</b>		<b>2.7575</b>	<b>2.7575</b>		<b>2.6878</b>	<b>2.6878</b>	<b>0.0000</b>	<b>5,432.8439</b>	<b>5,432.8439</b>	<b>1.0555</b>		<b>5,459.2324</b>

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

**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
<b>Total</b>	<b>0.7467</b>	<b>2.0879</b>	<b>6.7970</b>	<b>0.0189</b>	<b>1.5035</b>	<b>0.0423</b>	<b>1.5458</b>	<b>0.4044</b>	<b>0.0401</b>	<b>0.4445</b>		<b>1,901.4695</b>	<b>1,901.4695</b>	<b>0.0590</b>		<b>1,902.9448</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

	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

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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

Land Use	Miles			Trip %			Trip Purpose %		
	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

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail**

PAR1469\_20180126\_construction - South Coast AQMD Air District, Summer

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## **APPENDIX B**

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### **CalEEMod Files And Assumptions**

- **APCD installation (Winter run)**

PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

**PAR1469\_20180126\_construction**  
**South Coast AQMD Air District, Winter**

**1.0 Project Characteristics**

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**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**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2018
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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, Winter

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

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PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

## PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

	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
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

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#### 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

PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

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
<b>Total</b>	<b>6.3604</b>	<b>39.8495</b>	<b>39.8001</b>	<b>0.0584</b>		<b>2.7575</b>	<b>2.7575</b>		<b>2.6878</b>	<b>2.6878</b>		<b>5,432.8440</b>	<b>5,432.8440</b>	<b>1.0555</b>		<b>5,459.2324</b>

PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

**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
<b>Total</b>	<b>0.8059</b>	<b>2.1739</b>	<b>6.2646</b>	<b>0.0180</b>	<b>1.5035</b>	<b>0.0424</b>	<b>1.5459</b>	<b>0.4044</b>	<b>0.0402</b>	<b>0.4446</b>		<b>1,806.0203</b>	<b>1,806.0203</b>	<b>0.0561</b>		<b>1,807.4220</b>

**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
<b>Total</b>	<b>6.3604</b>	<b>39.8495</b>	<b>39.8001</b>	<b>0.0584</b>		<b>2.7575</b>	<b>2.7575</b>		<b>2.6878</b>	<b>2.6878</b>	<b>0.0000</b>	<b>5,432.8439</b>	<b>5,432.8439</b>	<b>1.0555</b>		<b>5,459.2324</b>

PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

**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
<b>Total</b>	<b>0.8059</b>	<b>2.1739</b>	<b>6.2646</b>	<b>0.0180</b>	<b>1.5035</b>	<b>0.0424</b>	<b>1.5459</b>	<b>0.4044</b>	<b>0.0402</b>	<b>0.4446</b>		<b>1,806.0203</b>	<b>1,806.0203</b>	<b>0.0561</b>		<b>1,807.4220</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

	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

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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

Land Use	Miles			Trip %			Trip Purpose %		
	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

PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

**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	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

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**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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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

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**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**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
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail**

PAR1469\_20180126\_construction - South Coast AQMD Air District, Winter

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## 7.1 Mitigation Measures Water

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## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

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## 9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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### Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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### User Defined Equipment

Equipment Type	Number
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## 11.0 Vegetation

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## **APPENDIX C**

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### **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
<b>Peak Day - 3 tank relocation on the same day</b>	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
<b>Peak Day - 12 APCD Installations on the same day</b>	7.17	42.02	46.60	0.08	4.30	3.13
<b>Daily Peak Construction Emissions</b>	7.17	42.02	46.60	0.08	4.30	3.13
<b>SIGNIFICANCE THRESHOLD FOR CONSTRUCTION</b>	75.00	100.00	550.00	150.00	150.00	55.00

Note:

- The emissions are estimated using CalEEMod.
- 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.
- 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 installation 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
<b>Total Emissions During Construction</b>	203.57	0.03	-	204.35

6.81 amortized over 30 years

**Gasoline Fuel Usage Estimations**

Category	EPANHTSA Fuel Consumption				gallon fuel consumed per year due to PAR 1469
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg	
LDA/LDT1/LDT2				20.00	1,051
MDT				10.00	197

Reference:

- National Highway Traffic Safety Administration (NHTSA) vocational vehicle standards, [https://www.dieselnet.com/standards/us/fe\\_hd.php](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](http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html)

mmgal  
 Baseline - Year  
 2016 Estimated  
 Basin Fuel  
 Demand (mmgal/yr)  
 Total % Above  
 Baseline  
 1,248 0.0012 6,997 0.00002% gasoline

**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
Increased source test vehicles (LDA)	0.39	0.03	0.07	0.72	0.01	0.00	1.30	-	-	1.30
Increased maintenance truck (MDT)	0.10	0.03	0.13	0.04	0.01	0.00	0.08	-	-	1.99
<b>Total</b>	<b>0.48</b>	<b>0.06</b>	<b>0.20</b>	<b>0.75</b>	<b>0.02</b>	<b>0.00</b>	<b>1.38</b>	<b>-</b>	<b>-</b>	<b>3.29</b>

All sites	
Max. # used/day	Max. # day used/yr
4	98
4	98

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
g/mile (RUNEX, PMBW, PMTW, Fugitive)	0.26	0.08	0.37	0.10	0.02	0.00	505.00			505.00
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

VMT, mile/day
40.0

EF: from EMFAC2014, EPA AP-42

**Light-Duty Automobiles (LDA) - each**

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e
g/mile (RUNEX, PMBW, PMTW, Fugitive)	1.10	0.10	0.20	2.03	0.03	0.00	330.83			330.83
lb/day, MT/day for GHG	0.10	0.01	0.02	0.18	0.00	0.00	0.01	-	-	0.01

VMT, mile/day
40.0

EF: from EMFAC2014, EPA AP-42

**ENERGY CALS**

Category	EPA/NHTSA Fuel Consumption					gallon fuel consumed per year due to PAR 1469	Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)	Total % Above Baseline
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg				
Increased source test vehicles (LDA)				20.00		196		
Increased maintenance truck (MDT)				10.00		392		
<b>Total</b>						<b>588</b>	<b>6,997</b>	<b>0.00001% gasoline</b>

**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](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](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 C -  
CEQA Construction Impact Evaluations - Assumptions and Calculations (Final EA)

Appendix C (Final EA)  
CEQA Construction Impact Evaluations - Assumptions and Calculations

**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
<b>Peak Day - 3 tank relocation on the same day</b>	<b>1.13</b>	<b>5.43</b>	<b>6.30</b>	<b>0.01</b>	<b>0.75</b>	<b>0.45</b>
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
<b>Peak Day - 12 APCD Installations on the same day</b>	<b>7.17</b>	<b>42.02</b>	<b>46.60</b>	<b>0.08</b>	<b>4.30</b>	<b>3.13</b>
<b>Daily Peak Construction Emissions</b>	<b>7.17</b>	<b>42.02</b>	<b>46.60</b>	<b>0.08</b>	<b>4.30</b>	<b>3.13</b>
<b>SIGNIFICANCE THRESHOLD FOR CONSTRUCTION</b>	<b>75.00</b>	<b>100.00</b>	<b>550.00</b>	<b>150.00</b>	<b>150.00</b>	<b>55.00</b>

Note:

- The emissions are estimated using CalEEMod.
- 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.
- 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 installation 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
132 APCD Installations	181.19	0.03	-	181.89
<b>Total Emissions During Construction</b>	<b>185.72</b>	<b>0.03</b>	<b>-</b>	<b>186.43</b>

6.21 amortized over 30 years

**Gasoline Fuel Usage Estimations**

Category	EPA/NHTSA Fuel Consumption				gallon fuel consumed per year due to PAR 1469
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg	
LDA/LDT1/LDT2				20.00	1,014
MDT				10.00	190

mmgal  
 Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)      Total % Above Baseline  
 1,205      0.0012      6,997      0.00002% gasoline

Reference:

- National Highway Traffic Safety Administration (NHTSA) vocational vehicle standards, [https://www.dieselnet.com/standards/us/fe\\_hd.php](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](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 Construction Impact Evaluations - Assumptions and Calculations (Final EA)

Appendix C (Final EA)  
CEQA Operational Impact Evaluations - Assumptions and Calculations

**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
Increased source test vehicles (LDA)	0.39	0.03	0.07	0.02	0.01	0.00	1.30	-	-	1.30
Increased maintenance truck (MDT)	0.10	0.03	0.13	0.04	0.01	0.00	0.08	-	-	1.99
<b>Total</b>	<b>0.48</b>	<b>0.06</b>	<b>0.20</b>	<b>0.06</b>	<b>0.02</b>	<b>0.00</b>	<b>1.38</b>	<b>-</b>	<b>-</b>	<b>3.29</b>

All sites	
Max. # used/day	Max. # day used/yr
4	98
4	98

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
g/mile (RUNEX, PMBW, PMTW, Fugitive)	0.26	0.08	0.37	0.10	0.02	0.00	505.00			505.00
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

VMT, mile/day
40.0

EF: from EMFAC2014, EPA AP-42

**Light-Duty Automobiles (LDA) - each**

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e
g/mile (RUNEX, PMBW, PMTW, Fugitive)	1.10	0.10	0.20	0.06	0.03	0.00	330.83			330.83
lb/day, MT/day for GHG	0.10	0.01	0.02	0.01	0.00	0.00	0.01	-	-	0.01

VMT, mile/day
40.0

EF: from EMFAC2014, EPA AP-42

Appendix C -  
CEQA Construction Impact Evaluations - Assumptions and Calculations (Final EA)

ENERGY CALS

Category	EPA/NHTSA Fuel Consumption					gallon fuel consumed per year due to PAR 1469	Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)	Total % Above Baseline
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg				
Increased source test vehicles (LDA)				20.00		196		
Increased maintenance truck (MDT)				10.00		392		
<b>Total</b>						<b>588</b>	<b>6,997</b>	<b>0.00001% gasoline</b>

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](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](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	75.20	0.00	0.00	75.47

Max. # of blowers (HEPA filter and blower)	Max. Total Energy Consumption (MWh/yr)
132	236.016

## **APPENDIX D**

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### **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 Plating 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, Db	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 I	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

Appendix D -  
PAR 1469 List of Affected Facilities

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
Cpbg, 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 Plating & 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

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PAR 1469 List of Affected Facilities

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
<b>Fabricated Metal Manufacturing</b>	<b>332</b>	<b>93</b>
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
<b>Other Manufacutring</b>	<b>333-337</b>	<b>12</b>
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
<b>Wholesale and Retail Trade</b>	<b>42, 44</b>	<b>2</b>
Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	423860	1
Motorcycle, ATV, and All Other Motor Vehicle Dealers	441228	1
<b>Professional, Scientific, and Technical and Other Services</b>	<b>54, 56</b>	<b>5</b>
All Other Professional, Scientific, and Technical Services	541990	1
All Other Support Services	561990	4
<b>Repair and Maintenance</b>	<b>811</b>	<b>3</b>
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
<b>Total</b>		<b>115</b>

## **APPENDIX E**

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### **PAR 1469 Comment Letters Received on the Draft EA and Responses to Comments**

## Comment Letter #1

**From:** [Sam Wang](#)  
**To:** [Neil Fujiwara](#); [Eugene Kang](#); [Robert Gottschalk](#); [Barbara Radlein](#); [Daphne Hsu](#); [Shah Dabirian](#)  
**Cc:** [Susan Nakamura](#); [Jillian Wong](#); [Michael Krause](#)  
**Subject:** FW: Comments from CHEMEON Surface Technology for CEQA Public Review re: PAR 1469 Hexavalent Chromium Emissions  
**Date:** Friday, March 16, 2018 12:11:39 PM  
**Attachments:** [12239-CHEM-18-Seal-Ad-Resize-for-Client-ho1.pdf](#)  
[CHEMEON TCP-HF NP as an Anodic Seal Study-email.pdf](#)  
[Naval Power and Force Protection Article CHEMEON SCAOMD Hex Chrome Emissions July 17.pdf](#)

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FYI, CHEMEON's written comments for PAR1469

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**From:** Ted Ventresca [<mailto:tventresca@chemeon.com>]  
**Sent:** Thursday, March 15, 2018 6:24 PM  
**To:**  
**Subject:** Comments from CHEMEON Surface Technology for CEQA Public Review re: PAR 1469 Hexavalent Chromium Emissions

Good Afternoon Mr. Wang.

As per the February 15th notice provided by Ms. Radlein, the following comments are submitted to the CEQA within the 32 public review period by CHEMEON Surface Technology:

Viable MIL-SPEC alternatives to replace hexavalent chromium (a.k.a. sodium dichromate/dilute chrome) exist, such as CHEMEON TCP-HF (Hexavalent Free) and TCP-NP (No Prep) that wholly remove the substances being regulated in PAR 1469 (dichromate seals in particular). There is ample 3rd part evidence that these chemistries can be used in lieu of hexavalent chromium, thus reducing the health risks as well as the financial burden of increased regulation and the potential of associated penalties for lack of compliance to PAR 1469.

CHEMEON has just released the attached report (CHEMEON TCP-HF and CHEMEON TCP-NP as an Anodic Seal.pdf) which provides in-depth detail and third party validation surrounding CHEMEON TCP-HF (Hexavalent Free) and TCP-NP (No-Prep) as an Anodic Seal.

The report validates and reconfirms that CHEMEON TCP-HF and NP are a safe, non carcinogenic and cost/energy saving anodic seal solutions while eliminating carcinogenic Cr(VI) emissions, potential fines and plant/shop closures.

These findings were presented at the Florida Finishing Association Conference in early February and the presentation received quite positive response/interest.

We anticipate that these findings, coupled with the technical expertise provided by CHEMEON will:

1. Aid a process shop in obtaining a variance from a Prime Contractor or OEM to allow CHEMEON TCP-HF or CHEMEON TCP-NP as a direct replacement for specified or currently used sodium dichromate seal chemistry.

and/or

2. Provide the Prime Contractor or OEM specification custodians and Quality Control stakeholders the data and validation necessary to change their-existing specifications to allow CHEMEON TCP-HF or CHEMON TCP-NP on the part being processed, as an anodic seal.
3. Allow for CEQA/SCAQMD recognition and possible recommendation of CHEMEON as a safe and proven alternative to the existing practice and use of hexavalent chrome (Cr(VI), (sodium dichromate /dilute chrome.)

Key aspects of the report are as follows:

- Third Party validation that CHEMEON TCP-HF (Hexavalent Free) and NP (No Prep) meet and exceed MIL SPEC performance as a room temperature anodic seal
- TCP-HF and TCP-NP applied as anodic seal demonstrated corrosion performance that greatly exceeds the specification requirements.
- After sealing with TCP-HF and TCP-NP, the anodize coating passed paint adhesion for both Type II and Type IIB on 2024 and 7075 alloys.
- Corrosion NSS (Neutral Salt Spray) testing revealed that both forms of TCP prevented corrosion on Type II anodize extremely well: no pits were seen after 2,000 hours of testing.
- The TCP seals on thinner Type IIB anodize show some pits visible after 1,648 hours of testing. However, this corrosion did not advance into salt spray failure during the 2,000 hours of neutral salt spray testing.
- Even with thin anodized coatings, TCP seals provide corrosion protection which far surpasses the 336 hour requirement.

We have also provided one sheet overview of the attributes of CHEMEON TCP-HF as an Anodic Seal. In addition, the recent Naval Power and Force Projection Magazine Article is attached (pdf) that details the “top priority” status California and SCAQMD has given to the removal/reduction of hexavalent chromium emissions and the proven safe solution that CHEMEON provides.

If you would like to discuss this report and its finding further, or learn how CHEMEON can aid prime contractors and process shops in their efforts to replace hexavalent chrome, please feel free to contact me. I plan to attend the Friday March 16th meeting in Diamond Bar and look forward to meeting at that time.

Respectfully,

*Ted Ventresca*

President & Chief Operating Officer  
Direct: 775.301.5733 | [tvventresca@chemeon.com](mailto:tvventresca@chemeon.com)

## **Response to Comment Letter #1 - CHEMEON**

Thank you for your letter. This email does not appear to raise any CEQA issues relative to the analysis in Draft EA or the PAR 1469 rule language. Therefore, no further response is required.

## Comment Letter #2



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March 20, 2018

NCL-2018-011

Sam Wang  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

**Subject:** Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Dear Mr. Wang:

The County of Orange has reviewed the Draft Environmental Assessment to the Proposed Amended Rule 1469 and has no comments at this time. We would like to be advised of any further developments on the project. Please continue to keep us on the distribution list for future notifications related to the project.

If you have any questions, please contact Ashley Brodtkin in OC Development Services at (714) 667-8854.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Richard Vuong', is written over a circular stamp.

Richard Vuong, Manager, Planning Division  
OC Public Works Service Area/OC Development Services  
300 North Flower Street  
Santa Ana, California 92702-4048  
Richard.Vuong@ocpw.ocgov.com

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300 N. Flower Street, Santa Ana, CA 92703  
P.O. Box 4048, Santa Ana, CA 92702-4048

www.ocpublicworks.com  
714.667.8800 | Info@OCPW.ocgov.com

**Response to Comment Letter #2 – Orange County Public Works**

Thank you for your email. Your comments do not appear to raise any CEQA issues relative to the analysis in Draft EA or the PAR 1469 rule language. Therefore, no further response is required.