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

SUBJECT: **NOTICE OF COMPLETION OF A DRAFT ENVIRONMENTAL ASSESSMENT AND OPPORTUNITY FOR PUBLIC COMMENT**

PROJECT TITLE: **PROPOSED AMENDED RULE 1407 – CONTROL OF EMISSIONS OF ARSENIC, CADMIUM, AND NICKEL FROM NON-CHROMIUM METAL MELTING OPERATIONS**

In accordance with the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (South Coast AQMD) is the Lead Agency and has prepared a Draft Environmental Assessment (EA) to analyze environmental impacts from the project identified above pursuant to its certified regulatory program (Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and South Coast AQMD Rule 110). The Draft EA includes a project description and analysis of potential adverse environmental impacts that could be generated from the proposed project. The purpose of this letter, the attached Notice of Completion (NOC), and the Draft EA, is to allow public agencies and the public the opportunity to review and comment on the environmental analysis.

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

Comments focusing on your area of expertise, your agency's area of jurisdiction, if applicable, or issues relative to the environmental analysis for the proposed project will be accepted during a 32-day public review and comment period beginning Friday, June 28, 2019 and ending at 5:00 p.m. on Tuesday, July 30, 2019. **Please send any comments relative to the CEQA analysis in the Draft EA to Mr. Luke Eisenhardt (c/o CEQA) at the address shown above.** Comments can also be sent via facsimile to (909) 396-3982 or email to leisenhardt@aqmd.gov. Please include the name and phone number of the contact person for your organization. Questions regarding the proposed amended rule language should be directed to Mr. Michael Morris at (909) 396-3282 or by email to mmorris@aqmd.gov.

The Public Hearing for the proposed amended rule is scheduled for September 6, 2019. (Note: Public meeting dates are subject to change).

Date: June 27, 2019 **Signature:**

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

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

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

NOTICE OF COMPLETION OF A DRAFT ENVIRONMENTAL ASSESSMENT AND OPPORTUNITY FOR PUBLIC COMMENT

Project Title:
Draft Environmental Assessment (EA) for Proposed Amended Rule (PAR) 1407 – Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations

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

Description of Nature, Purpose, and Beneficiaries of Project: Proposed amendments to Rule 1407 would apply to metal melting operations such as smelting, tinning, galvanizing, and other miscellaneous processes where non-chromium, instead of non-ferrous, metals such as aluminum, brass, bronze, carbon steel, and zinc are processed in molten form. PAR 1407 revises emission standards, establishes monitoring provisions for air pollution control equipment, adds building enclosure provisions to limit fugitive emissions, and updates housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. The Draft EA indicated that while the project may further reduce fugitive emissions of arsenic, cadmium and nickel, complying with PAR 1407 may also create secondary adverse environmental impacts that would not result in significant adverse impacts to any environmental topic areas. Some facilities affected by PAR 1407 may be identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5.

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

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

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

☑ Los Angeles Times (June 28, 2019)
☑ South Coast AQMD Website
☑ South Coast AQMD Mailing List & Interested Parties
☑ South Coast AQMD Public Information Center

Draft EA Review Period (32 days): June 28, 2019 – July 30, 2019

Scheduled Public Meeting Date(s) (subject to change):
South Coast AQMD Governing Board Hearing: September 6, 2019 9:00 a.m.; South Coast AQMD Headquarters – Auditorium

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

Send CEQA Comments to:	**Phone:**	**Email:**	**Fax:**
Mr. Luke Eisenhardt	(909) 396-2324	leisenhardt@aqmd.gov	(909) 396-3982
Direct Questions on PAR 1407 to:	**Phone:**	**Email:**	**Fax:**
Mr. Michael Morris	(909) 396-3282	mmorris@aqmd.gov	(909) 396-3982

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Environmental Assessment for Proposed Amended Rule 1407 – Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations

June 2019

South Coast AQMD Number: 06282019LE
State Clearinghouse Number: To Be Determined

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EXECUTIVE OFFICER:
WAYNE NASTRI

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PROJECT DESCRIPTION

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (South Coast AQMD) in 1977[1] as the agency responsible for developing and enforcing emission control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin and Mojave Desert Air Basin. By statute, South Coast AQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the areas under South Coast AQMD's jurisdiction[2]. Furthermore, South Coast AQMD must adopt rules and regulations that carry out the AQMP[3]. The AQMP is a regional blueprint for how South Coast AQMD will achieve air quality standards and healthful air and the 2016 AQMP[4] contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP includes control measure TXM-06: Control of Toxic Emissions from Metal Melting Facilities, which seeks to further reduce arsenic, cadmium, nickel, other toxic metals, and particulates from foundry operations.

Emissions of arsenic, cadmium, and nickel are currently regulated by South Coast AQMD Rule 1407 – Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Ferrous Metal Melting Operations, which was adopted in July 1994. Since its adoption, South Coast AQMD staff was tasked with exploring reducing emissions from ferrous metal melting facilities and to further reduce arsenic, cadmium, and nickel from non-ferrous metal melting operations. South Coast AQMD staff discovered that a majority of facilities process very large quantities of metals containing arsenic, cadmium, and/or nickel but are currently exempt from most of the requirements in Rule 1407 under the "metal or alloy purity" exemption. In addition, Rule 1407 also exempts "clean aluminum scrap" without limiting the content of arsenic, cadmium, or nickel contained in the scrap. Because these overly broad exemptions have had the inadvertent effect of allowing facilities to have emissions that pose a risk to the surrounding community, South Coast AQMD staff is proposing amendments to Rule 1407 that would impose stricter criteria for a facility to qualify for an exemption.

Also, since the type of toxic air contaminants emitted from non-ferrous and ferrous metal melting operations are different and approaches to controlling these varying toxic air contaminant emissions would also differ depending on the potency of the toxic air contaminant, South Coast AQMD staff decided to pivot from combining requirements for ferrous and non-ferrous metal melting operations into one rule (e.g., Rule 1407). In particular, because certain ferrous alloys do not contain chromium and some non-ferrous alloys contain chromium, South Coast AQMD staff decided to address non-chromium melting operations by amending Rule 1407 and revising the rule's title to "Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations" accordingly. Chromium melting operations will be addressed by a separate rule development effort under Proposed Rule 1407.1 - Emissions of Toxic Air Contaminants from Chromium Alloy Melting Operations.

Proposed Amended Rule 1407 – Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations (PAR 1407) proposes to establish additional emission control requirements to reduce arsenic, cadmium, and nickel emissions from metal melting

[1] The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch. 324 (codified at Health and Safety Code Section 40400-40540).
[2] Health and Safety Code Section 40460(a).
[3] Health and Safety Code Section 40440(a).
[4] South Coast AQMD, 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

operations. PAR 1407 applies to facilities that are melting metals that contain no more than 0.5 percent chromium content, including, but not limited to aluminum, brass, bronze, carbon steel, and zinc. Potential metal melting operations include smelting, tinning, galvanizing, and other miscellaneous processes where metals are processed in molten form, since these operations have the potential to emit such metal emissions in the form of toxic air contaminants and particulate matter. PAR 1407 also establishes new requirements for conducting housekeeping, building enclosures, keeping records, conducting source tests, monitoring emission control devices, qualifying for an exemption, and demonstrating capture efficiency for emission collection systems.

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 1407 is a South Coast AQMD-proposed amended rule, the South Coast AQMD 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[5] 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 1407 (the proposed project) 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. The South Coast AQMD's regulatory program was certified by the Secretary of Resources Agency on March 1, 1989 per CEQA Guidelines Section 15251(l), and has been adopted as South Coast AQMD Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment.

PAR 1407 will further reduce arsenic, cadmium, and nickel emissions from metal melting facilities. Because PAR 1407 requires discretionary approval by a public agency, it is a "project" as defined by CEQA[6]. The proposed project will further reduce public health impacts by reducing exposure to arsenic, cadmium, and nickel, and will provide an overall environmental benefit to air quality. However, South Coast AQMD's review of the proposed project also shows activities that facility operators may undertake to comply with PAR 1407 may also create secondary adverse environmental impacts that would not result in significant impacts for any environmental topic area. 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 with no significant impacts (CEQA Guidelines Section 15252), pursuant to the South Coast AQMD's Certified Regulatory Program. [Public Resources Code Section 21080.5; CEQA Guidelines Section 15251(l); and South Coast AQMD Rule 110]. The EA is also a public

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

[6] CEQA Guidelines Section 15378

disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental impacts of the proposed project; and, 2) be used as a tool by decision makers to facilitate decision making on the proposed project.

Thus, the South Coast AQMD, 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 1407 is implemented. Because PAR 1407 will have no statewide, regional or areawide significance, no CEQA scoping meeting is required to be held for the proposed project pursuant to Public Resources Code Section 21083.9(a)(2). Further, pursuant to CEQA Guidelines Section 15252, since no significant adverse impacts were identified, no alternatives or mitigation measures are required.

The Draft EA is being released for a 32-day public review and comment period from June 28, 2019 to July 30, 2019. All comments received during the public comment period on the analysis presented in the Draft EA will be responded to and included in an appendix to the Final EA.

Prior to making a decision on the adoption of PAR 1407, the South Coast AQMD Governing Board must review and certify the Final EA as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PAR 1407.

PROJECT LOCATION

PAR 1407 applies to any owner or operator of non-chromium metal melting operations, including, but not limited to, smelters, foundries, die-casters, coasting processes, and other miscellaneous processes such as dip soldering, brazing and aluminum powder production. The South Coast AQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Basin) (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Basin, which is a subarea of South Coast AQMD'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 non-attainment 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).

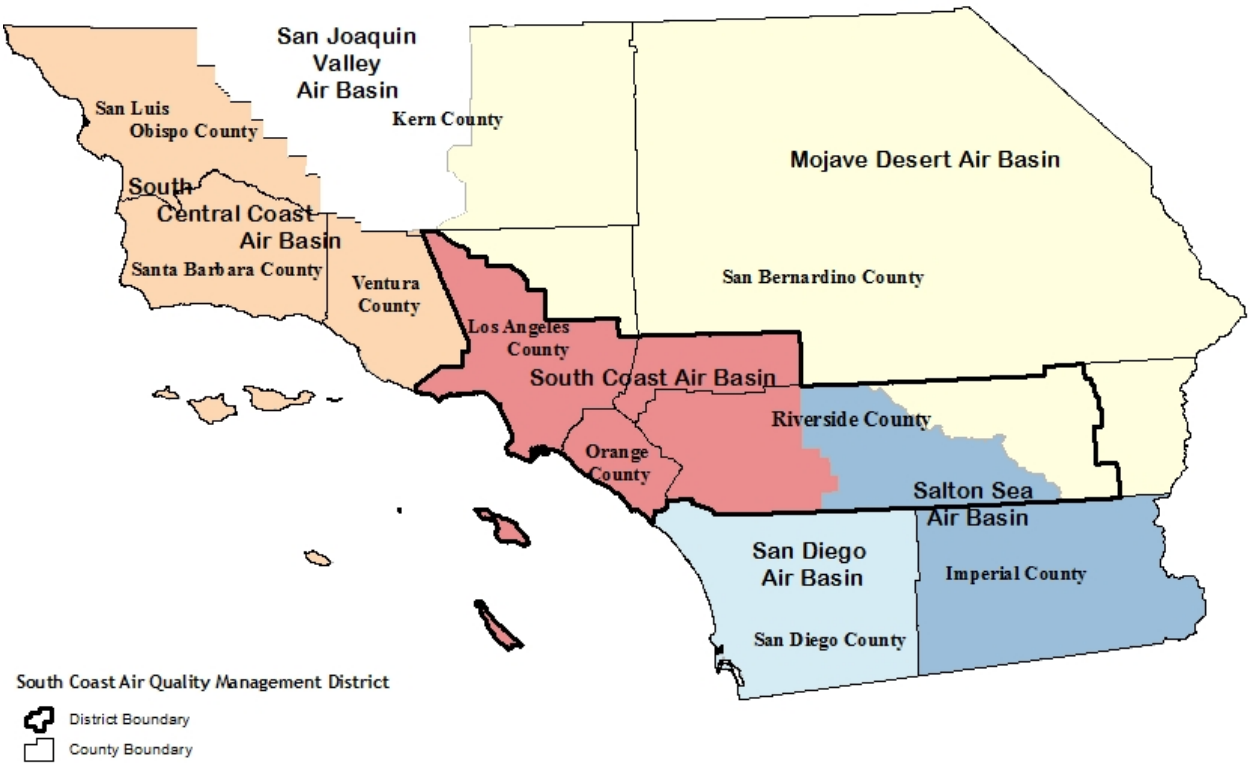


Figure 1-1
Southern California Air Basins

PROJECT BACKGROUND

In 1983, the California Legislature established Assembly Bill 1807, a two-step process to identify toxic air contaminants and to propose air toxic control measures (ATCMs) for the identified toxic air contaminants from specific sources. In January 1993, the California Air Resources Board (CARB) adopted the non-ferrous metal melting ATCM[7] and established January 6, 1994 as the effective date of the ATCM. The South Coast AQMD was given a May 9, 1994 deadline to implement and enforce the ATCM or to propose regulations implementing the ATCM. On July 8, 1994, the South Coast AQMD adopted Rule 1407 – Control of Emissions of Arsenic, Cadmium and Nickel from Non-Ferrous Metal Melting Operations, to reduce emissions of arsenic, cadmium, and nickel from non-ferrous metal melting operations by requiring air pollution control equipment to be installed on affected equipment, and requiring parametric monitoring and housekeeping to be conducted. At the time of its rule development and subsequent adoption, Rule 1407 focused on non-ferrous metal melting operations because arsenic and cadmium, both toxic metals, were associated with this source category.

Rule concepts from three lead emission reduction rule development efforts were relied upon to craft PAR 1407. For example, during the rule development process for South Coast AQMD Rule 1420.1 – Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-Acid

[7] California Air Resources Board, Non-Ferrous Metal Melting ATCM, December 30, 1998. https://arb.ca.gov/toxics/atcm/metaatcm.htm

Battery Recycling Facilities[8], fugitive emissions were determined to be a contributing factor to ambient lead concentrations. Further, feasibility studies concluded that emission control equipment achieving greater than 99 percent emission reductions would not be expected to achieve additional reductions in ambient lead levels. For this reason, Rule 1420.1 was designed to require facility owners/operators to conduct comprehensive housekeeping and to employ building enclosures to reduce fugitive lead emissions from these facilities. Other South Coast AQMD rules that regulate lead emissions, Rule 1420 – Emissions Standard for Lead, and Rule 1420.2 – Emissions Standards for Lead from Metal Melting Facilities, also contain similar housekeeping and building enclosure requirements.

Early considerations as to whether to amend Rule 1407 originally examined whether hexavalent chromium emissions should be included in the rule's applicability because ambient air monitoring that was conducted by South Coast AQMD staff in 2013 in response to burning metallic odor and metal particulate complaints[9] identified two metals of concern: hexavalent chromium and nickel. In 2016, South Coast AQMD staff deployed monitors which identified elevated levels of hexavalent chromium. Also, the 2016 AQMP includes control measure TXM-06: Control of Toxic Emissions from Metal Melting Facilities, which seeks to further reduce arsenic, cadmium, nickel, other toxic metals, and particulates from foundry operations.

In accordance with control measure TXM-06, South Coast AQMD staff was tasked initiating rule development for amending Rule 1407 to explore reducing emissions from ferrous metal melting facilities and to further reduce arsenic, cadmium, and nickel from non-ferrous metal melting operations. South Coast AQMD staff discovered that a majority of facilities process very large quantities of metals containing arsenic, cadmium, and/or nickel but are currently exempt from most of the requirements in Rule 1407 under the "metal or alloy purity" exemption. In addition, Rule 1407 also exempts "clean aluminum scrap" without limiting the content of arsenic, cadmium, or nickel contained in the scrap. Because these overly broad exemptions have had the inadvertent effect of allowing facilities to have emissions that pose a risk to the surrounding community, South Coast AQMD staff is proposing amendments to Rule 1407 that would impose stricter criteria for a facility to qualify for an exemption.

Also, since the type of toxic air contaminants emitted from non-ferrous and ferrous metal melting operations are different and approaches to controlling these varying toxic air contaminant emissions would also differ depending on the potency of the toxic air contaminant, South Coast AQMD staff decided to pivot from combining requirements for ferrous and non-ferrous metal melting operations into one rule (e.g., Rule 1407). In particular, because certain ferrous alloys do not contain chromium and some non-ferrous alloys contain chromium, South Coast AQMD staff decided to address non-chromium melting operations by amending Rule 1407 and revising the rule's title to "Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations" accordingly. Chromium melting operations will be addressed by a separate rule development effort under Proposed Rule 1407.1 - Emissions of Toxic Air Contaminants from Chromium Alloy Melting Operations.

[8] South Coast AQMD, Final Staff Report for Proposed Amended Rule 1420.1 – Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-Acid Battery Recycling Facilities, , February 2015. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-mar6-028.pdf

[9] South Coast AQMD, Paramount – Ongoing Air Monitoring Activities, Accessed June 2019. http://www.aqmd.gov/home/news-events/community-investigations/air-monitoring-activities

TECHNOLOGY OVERVIEW

The following discussion provides a general overview of the most likely emission control options that will be employed to comply with PAR 1407.

Building Enclosure

A building enclosure, as defined in PAR 1407, is a structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation or wind), with limited openings to allow access and egress for people, vehicles, equipment, or parts. Cross-draft conditions of a building enclosure shall be minimized by not allowing openings on opposite ends of the building to be open simultaneously. Minimizing cross-draft conditions will help prevent a loss in the efficiency of an emission collection system. Openings are vents, windows, passages, doorways, bay doors. Methods to close openings, include use of automatic doors, installation of overlapping plastic strip curtains, vestibules, and airlock systems. Barriers, such as large pieces of equipment may also be used to block openings. Under PAR 1407, a minimum of two walls on adjacent sides of a metal melting operation would satisfy the building enclosure requirements. Alternatively, an enclosure could consist of a smaller structure within a building that provides containment of emissions from metal melting operations.

Baghouse

A baghouse is an air filtration control device designed to remove particulate matter (PM) from an exhaust gas stream using filter bags, cartridge-type filters, or envelope-type filters. A baghouse consists of the following components: filter medium and housing for the filter, filter cleaning device, collection hopper, shell, and fan. Most baghouse designs in the United States consist of long cylindrical tubes (bags) made of fabric which acts as the filter medium. A baghouse functions like a vacuum cleaner with a fan either blowing air from the grinding source through (positive pressure) the filter or drawing air into (negative pressure) the filter. When PM laden air flows to the inlet of a baghouse, the PM is captured in the filter bags inside the baghouse and filtered air flows from the outlet of the baghouse. Dust layers (dust cakes) deposit on the surface of the bags which need to be cleaned periodically to ensure proper baghouse function.

Effective performance of a baghouse is determined by pressure drop which is a measurement of the difference in air pressure between the clean and dirty sides of the filter. Static pressure gauges can be installed at the inlet and outlet of the fabric filter to determine the pressure drop across the filter. In addition, baghouses can be equipped with a bag leak detection system (BLDS) to continuously monitor the performance of the baghouse functions by detecting early bag leak or malfunction. A BLDS consists of a stainless steel probe that is energized with a direct current (DC) electrical voltage. When the particles flow near the probe placed in the PM laden exhaust gas stream, the small current changes (called triboelectric current) in its electric field are measured.

Pressure drop monitoring is a useful indicator of baghouse performance since pressure drop measurements can help determine if the filter media is being properly cleaned and whether the baghouse is operating in accordance with manufacturer specifications. For example, during operation of the baghouse, an increased pressure drop signals that the filter media is becoming clogged and needs to be cleaned. Similarly, a low pressure drop may indicate that there are holes in the filter media or a mechanical failure of baghouse components. In either case, there will be a reduction in the baghouse's ability to efficiently capture and control PM emissions. For these reasons, the filter media need to be cleaned periodically to prevent excessive increases in pressure drop, leaking bag, and improper baghouse function.

Baghouses are typically cleaned in sections, with jets of counter-flowing air used to blow dust build-up off of the filter and into a hopper. For many baghouse installations, the baghouse follows a routine cycle with the pressure drop increasing as the bag becomes coated with dust, and dropping back to a baseline value after it is cleaned. Common types of baghouses include reverse-air, pulse-jet and cartridge type baghouse. A reverse air-type baghouse uses a low pressure flow of air to break the dust cake and clean the bags of material build-up. Cleaning air is supplied by a separate fan which is normally smaller than the main stream fan, since only one compartment is cleaned at a time. A pulse jet-type baghouse uses a high pressure jet of compressed air to back-flush the bags. Cleaning is performed while the baghouse remains in operation. Cartridge (cylindrical) type filters have pleated, non-woven filter media supported on a perforated metal cartridge. Due to its pleated design, total filtering area is greater than in a conventional bag of the same diameter, resulting in reduced air-to-cloth ratio, pressure drop, and overall collector size. Too heavily loaded cartridges can either be cleaned by a pulse jet compressed air or replaced with new cartridges. Cartridge type filters have high particle collection efficiency of, at a minimum, 99.9 percent, and are usually used for industrial process handing exhaust gas flow rates less than 50,000 cubic feet per minute (cfm).

The National Fire Protection Association has special designations for deflagrations (e.g., explosion prevention) from metal dust. Therefore, operators of metal grinding activities that require baghouse emission control technologies will also need to select reliable, economical and effective means of explosion control such as baghouse explosion suppression, containment and venting. Additional information pertaining to these types of protective measures is available in Chapter 8 of the *Industrial Ventilation, A Manual for Recommended Practice for Design* 28th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2013.

PROJECT DESCRIPTION

The purpose of PAR 1407 is to reduce point and fugitive emissions of arsenic, cadmium, and nickel, thereby minimizing public health impacts by reducing exposure to toxic air contaminants. To accomplish this goal, PAR 1407 proposes emission control requirements to reduce arsenic, cadmium, and nickel emissions from metal melting operations. PAR 1407 applies to facilities that melt metals that contain no more than 0.5 percent chromium content, including, but not limited to aluminum, brass, bronze, carbon steel, and zinc. Potential metal melting operations include smelting, tinning, galvanizing, and other miscellaneous processes where metals are processed in molten form, since these operations have the potential to emit such metal emissions in the form of toxic air contaminants and PM. PAR 1407 also revises emission standards, establishes monitoring provisions for air pollution control equipment, adds building enclosure provisions to limit fugitive emissions, and updates housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements.

South Coast AQMD staff identified facilities subject to PAR 1407 by reviewing South Coast AQMD permits for metal melting furnaces, reviewing South Coast AQMD inspection reports for metal melting facilities, conducting internet searches for facilities that offer metal melting services, and conducting site visits. Internet searches were utilized in order to locate facilities with furnaces that are currently exempt from South Coast AQMD permitting requirements. Facilities that conduct heat treating or other metalworking operations but do not melt metal were excluded from PAR 1407. Additionally, facilities that melt metals containing chromium were excluded from PAR 1407 because they will be subject to Proposed Rule 1407.1 which is undergoing a separate rule development process. Likewise, facilities that melt metals containing lead were excluded from PAR 1407 because they are subject to South Coast AQMD's other rules for lead (e.g., Rule 1420,

Rule 1420.1, and/or Rule 1420.2). Staff visited 30 facilities with a variety of metal melting operations. During these site visits, staff gathered information and data related to facility operations, the metal melting furnaces and any associated emissions control equipment, and the types and amounts of alloys melted.

Based on South Coast AQMD staff analysis, approximately 54 facilities within the South Coast AQMD jurisdiction were identified as meeting the applicability requirements of PAR 1407 because they melt aluminum, brass, bronze, copper, and zinc. These facilities also operate secondary smelters, foundries, and die-casters, and conduct galvanizing and tinning coating operations, and other miscellaneous processes such as dip soldering, brazing and aluminum powder coating production. If PAR 1407 is adopted, all 54 facilities will be required to comply with the requirements to conduct housekeeping, construct building enclosures, and maintain records. In addition, in order to comply with PAR 1407:

- 19 facilities would need to complete minor building upgrades such as installing roll-up doors or plastic strips;
- Four facilities would need to construct two walls each to satisfy the building enclosure requirements;
- 13 facilities would need to complete 21 source tests every 60 months;
- Four facilities would need to install 10 emission control devices;
- Eight facilities would need to install eight anemometers, 19 total pressure gauges, 19 data acquisition systems; and
- Eight facilities would be required to perform 19 smoke tests once every six months.

While implementation of PAR 1407 would be expected to reduce public health impacts from point and fugitive emissions, South Coast AQMD has not quantified the emission reductions at each point source per affected facility.

The following is a detailed summary of the key elements contained in PAR 1407. A draft of PAR 1407 can be found in Appendix A.

Purpose – subdivision (a)

Subdivision (a) proposes to change the purpose of the rule from reducing emissions of arsenic, cadmium, and nickel from non-chromium metal melting operations instead of non-ferrous metal melting operations.

Applicability – subdivision (b)

Subdivision (b) proposes to change the applicability of the rule to all persons who own or operate non-chromium metal melting operations, instead of non-ferrous melting operations.

Definitions – subdivision (c)

The following new definitions are proposed to be added: Approved Cleaning Methods, Bag Leak Detection System; Building Enclosure; Capture Velocity; Emission Control Device; Enclosure Opening; Foundry; Functionally Similar Furnace; Low Pressure Spray; Metal Cutting; Metal Grinding; Metal Removal Fluid; and Non-Chromium Metal.

The following definitions are proposed to be revised in order to clarify the meaning of terms used throughout the rule: Emission Collection System; Facility; Fugitive Metal Dust Emissions; Metal Melting Furnace; and Rerun Scrap.

The following definitions are proposed to be deleted: District; Emission Point; Fine Particulate Matter; Fugitive Emissions Control; Good Operating Practices; Hard Lead; Non-Ferrous Metal; Particulate Matter; Particulate Matter Control System; Person; Process Emission Control; Pure Lead; and Type Metal.

Emissions Control– subdivision (d)

The following changes to subdivision (d) are proposed:

Original paragraphs (d)(1) (d)(4), and (d)(5) are proposed for deletion.

Interim Emission Limits: Updates to paragraphs (d)(1) and (d)(2) are proposed that would maintain current emission and gas temperature requirements until the new rule requirements in paragraph (d)(3) take effect.

Mass Emission Limits: Modifications to paragraph (d)(3) are proposed that would require, effective January 1, 2021, emissions from each metal melting point source to be vented to an emission control device to reduce the total mass or arsenic, cadmium, and nickel by a minimum of 99 percent, or alternatively under new paragraph (d)(4), meet the following annual mass outlet limits: arsenic – 0.0953 pounds, cadmium – 0.74 pounds, and nickel – 12.2 pounds.

Temperature of Gas Stream: Modifications to paragraph (d)(5) are proposed that would clarify that the temperature requirement of 360 degrees Fahrenheit applies to the gas stream entering any device used to control emissions generated by a non-chromium metal melting operation until compliance with paragraph (d)(3) or (d)(4) is achieved.

Fugitive Emission Control: Previous requirements originally in paragraph (e)(1) are proposed to be renumbered as paragraph (d)(6). In addition, the phrase "non-ferrous" is proposed to be changed to "non-chromium" and the spelling of Ringelmann Chart is proposed to be corrected.

Housekeeping Requirements – subdivision (e)

New subdivision (e) proposes to delete existing paragraph (e)(4), and to establish housekeeping requirements to control fugitive dust emissions, which will go into effect no later than 30 days after the date of rule adoption, unless otherwise specified:

Housekeeping Requirements Effective upon Rule Adoption: Changes to paragraph (e)(1) propose to incorporate existing paragraphs (e)(2) and (e)(3), and clarify requirements for enclosed storage of dust-forming metal-containing material, such as dross, ash, or feed materials to include trash or debris. In addition to an enclosed storage area, this paragraph proposes to allow dust-forming metal-containing material to be stored in a building enclosure or within covered containers provided that the covered containers are free of liquid and dust leaks and are only opened when material is actively being deposited. This paragraph also proposed two new housekeeping measures that will go into effective upon rule adoption: 1) clean, on a weekly basis using an approved cleaning method, all areas where furnace and casting operations occur and waste generated from housekeeping

activities is stored, disposed of, recovered, or recycled; and 2) clean all areas where furnace and casting operations occur without using dry sweeping and compressed air cleaning.

Housekeeping Requirements Effective 30 days after Rule Adoption: Paragraph (e)(2) proposes to establish the following housekeeping requirements, that will go into effect within 30 days of rule adoption:

- Conduct quarterly inspections, and cleaning if necessary, of collection vents, openings, and ducting of emission control devices to prevent dust building up and clogging;
- Remove weather caps that restrict the flow of exhaust on any stack that is a source of emissions from non-chromium metal melting operations;
- Transport slag and waste materials, which are at a temperature less than or equal to 500 degrees Fahrenheit and which are generated during housekeeping and building enclosure construction and maintenance, within closed conveyor systems or in covered containers, unless conducted within a building enclosure or an enclosed storage area;
- Conduct weekly cleaning using an approved cleaning method in areas near work stations, openings of building enclosures, and transfer points of emission control devices utilized for metal cutting or metal grinding operations not conducted under a continuous flood of metal removal fluid;
- Store dust-forming metal-containing materials generated from housekeeping, construction, or maintenance in an enclosed storage area, in a covered container, or in a building enclosure; and
- Clean by an approved cleaning method within one hour of construction or maintenance that results in the deposition of fugitive metal dust emissions.

Building Enclosures – subdivision (f)

New subdivision (f) proposes to establish the following requirements for building enclosures:

Cross Draft Minimization: Paragraphs (f)(1) and (f)(2) propose to require the owner or operator of a non-chromium metal melting operation to conduct operations within a building enclosure that minimizes cross draft conditions by July 1, 2020. The enclosure may consist of a structure within a building that encloses metal melting, casting, or metal cutting and grinding not conducted under a continuous flood of metal removal fluid operations. The intent of these requirements is to provide containment, impede cross-drafts, and minimize fugitive emissions generated in areas where metal melting operations occur. Except during the passage of vehicles, equipment, or people, at least one end of the building enclosure must be closed using one or more of the following:

- Automatically closing doors;
- Overlapping plastic strip curtains;
- Vestibule;
- Airlock system;
- Use of a Barrier, such as a large piece of equipment that restricts air from moving
- through the building enclosure; or

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

Building Enclosure Compliance Plan: Paragraph (f)(3) proposes to require a Building Enclosure Compliance Plan within 60 days of rule adoption in the event that an owner or operator cannot comply with the requirements of paragraphs (f)(1) and (f)(2) due to conflicts with federal Occupational Safety and Health Administration (OSHA), California Division of Occupational Safety and Health Administration (CAL/OSHA), or other municipal codes or agency requirements directly related to worker safety. The Building Enclosure Compliance Plan shall be submitted no later than 90 days after rule adoption for existing facilities and prior to initial start-up for all other operations and shall include the explanation for the conflict and the alternative measures that will be implemented to minimize the release of fugitive emissions to the outside of the building enclosure. This plan will be subject to Rule 306 – Plan Fees.

Paragraph (f)(4) proposes to establish procedures for resubmittal and appeal of disapproved Building Enclosure Compliance Plans. If the Building Enclosure Compliance Plan is disapproved, a revised Building Enclosure Compliance Plan must be resubmitted within 30 days of the notification of disapproval. Alternatively, the owner or operator may appeal the disapproval to the Hearing Board in accordance with the requirements in Rule 216 – Appeals, and Rule 221 – Plans. The Executive Officer will either approve the revised and resubmitted Building Enclosure Compliance Plan or will modify the plan and approve it as modified. The Executive Officer-modified and approved Building Enclosure Compliance Plan can be appealed per Rules 216 and 221.

Once the Building Enclosure Compliance Plan is approved, the plan must be implemented within 90 days of approval for facilities existing prior to rule adoption and prior to initial start-up for all other facilities pursuant to paragraph (f)(5).

Recordkeeping– subdivision (g)

New subdivision (g) proposes to establish the following recordkeeping requirements for owners or operators on a non-chromium metal metaling operation.

Monthly Quantities: New paragraph (g)(1) proposes to require records to be kept of monthly quantities of raw materials processed, including ingots, scrap and internal and external reruns and the purchase records to verify these quantities where applicable.

Monthly Analyses: New paragraph (g)(2) proposes to require monthly analyses to determine the weighted average percentage of arsenic, cadmium and nickel contained in metals and alloys using one of the following:

- A US EPA-approved method or methods;
- Applicable method or methods pursuant to subdivision (i);
- Metallurgical assay or;
- An alternative method approved by the Executive Officer.

Additional Record Maintenance: New paragraphs (g)(3) through (g)(8) propose to require the maintenance of the following additional records:

- Quarterly analyses to determine the weight percentage of arsenic, cadmium, chromium, and nickel contained in bulk samples of baghouse catches;
- Source test data as required by subdivision (h) and paragraph (j)(3);
- Housekeeping activities completed as required by subdivision (e);
- Data files, inspection and maintenance of emission collection devices as required by subdivision (j), including the name of the person conducting the activity and the dates and times at which specific activities were completed;
- Anemometer data collected, including capture velocities, dates of measurement, and calibration documentation as required by paragraph (j)(6); and
- Smoke test documentation as required in Attachment B – Smoke Test to Demonstrate Capture Efficiency for Emission Collection Systems of an Emission Control Device Pursuant to Paragraph (j)(5).

Record Retention: Subdivision (g) will also require the maintenance of all records for three years, with at least the two most recent years kept onsite and made available to the South Coast AQMD upon request.

Source Testing – subdivision (h)

New subdivision (h) proposes to establish the following source testing requirements:

Source Test Protocol: New paragraph (h)(1) proposes to require a source test protocol to be submitted to the Executive Officer for approval at least 60 days prior to conducting a source test pursuant to paragraphs (h)(2) through (h)(4). The source test protocol will be required to include the source test criteria of the end user, all assumptions, required data, calculated targets for testing, and the following:

- Target arsenic, cadmium and nickel mass emission standards;
- Planned sampling parameters;
- Information on equipment, logistics, personnel, and other resources necessary for an efficient and coordinated source test; and
- Evaluation of the emission collection system.

Initial Source Test: New paragraph (h)(2) proposes to require the owner or operator of a non-chromium metal melting operation l to conduct a source test for all non-chromium melting furnaces no later than January 1, 2021.

Source Testing of Point Sources: New paragraph (h)(3) proposes to require source testing to be conducted for all non-chromium metal melting point sources once every 60 months, after the initial source test to demonstrate compliance with the facility mass emissions standards specified in paragraph (d)(1). If the source test demonstrates compliance with paragraph (d)(3), then the next source test must be completed within 84 months after the date of the most recent source test.

Uncontrolled Furnace Testing: New paragraph (h)(4) proposes to allow a facility to source test an uncontrolled furnace and apply the emission rate source test results proportionately to all similar uncontrolled furnaces at that facility.

Source Testing for Scrap Melting: For new or modified emission control devices that start after the adoption of PAR 1407, paragraph (h)(5) proposes to require the submittal of a source test protocol within 90 days after the Permit to Construct is issued and to conduct the initial source test within 120 days after the approval of the source test protocol.

Source Testing Notification: New paragraph (h)(6) proposes to require the notification of the Executive Office, writing, of the intent to conduct source testing, one week prior to conducting source testing pursuant to paragraphs (h)(2) through (h)(5).

Notification for Source Test Results: New paragraph (h)(7) proposes to require the owner or operator of a non-chromium metal melting operation to notify the Executive Officer within five calendar days of when the facility knew or should have known of any source test results that exceed any of the emission standards specified in subdivision (d). Notifications will be required to be made to 1-800-CUT-SMOG and followed up in writing to the Executive Officer with the results of the source tests within 10 calendar days of notification.

Minimum Operating Capacity for Source Test: New paragraph (h)(8) proposes to require source tests to be conducted while operating at a minimum of 80 percent of the equipment's permitted capacity and in accordance with CARB Method 436 – Determination of Multiple Metal Emissions from Stationary Sources.

Alternative Source Test Methods: New paragraph (h)(9) proposes to allow alternative or equivalent source test methods as defined in U.S. EPA 40 CFR Part 60 Section 60.2, if approved in writing by the Executive Officer, in addition to the CARB, or the U.S. EPA, as applicable.

Laboratory Approval: New paragraph (h)(10) proposes to require the use of a test laboratory approved under the South Coast AQMD Laboratory Approval Program for the source test methods cited in subdivision (h). If there is no approved laboratory, then approval of the testing procedures used by the laboratory can be granted by the Executive Officer on a case-by-case basis based on South Coast AQMD protocols and procedures.

Multiple Source Test Methods: New paragraph (h)(11) proposes to clarify that when there is more than one possible source test method, the source test method selected must be approved by the Executive Officer. In addition, a violation established by any one of the specified source test methods or set of source test methods will constitute a violation of the rule.

Existing Source Test: New paragraph (h)(12) proposes to allow an existing source test conducted on or after January 1, 2016 for a non-chromium metal melting operation emission control device existing before the date of rule adoption to be used as the initial source test specified in paragraph (h)(1) to demonstrate compliance with the metal emission control standards of subdivision (d). The source test will be required to meet, at a minimum, the following criteria:

- The source test is the most recent conducted since January 1, 2016;

- The source test demonstrated compliance with the control requirements in subdivision (d);
- The source test is representative of a method used to test emissions from control devices currently in use; and
- The source test was conducted using applicable and approved test methods specified in paragraphs (h)(6) through (h)(8).

Submittal of Source Test Reports: New paragraph (h)(13) proposes to require reports from source tests that were conducted pursuant to subdivision (h) to be submitted to the South Coast AQMD within 90 days of completion of source testing.

Applicable Material Testing Methods – subdivision (i)

Subdivision (i) proposes minor editorial revisions for consistency and clarity.

Emission Control Device Monitoring – subdivision (j)

New subdivision (j) proposed to establish the following requirements for conducting source tests:

Bag Leak Detection System: Effective January 1, 2019, paragraph (j)(1) proposes to require the owner or operator of a non-chromium metal melting operation to apply for a permit to install, operate, calibrate, and to maintain a bag leak detection system for baghouses subject to the requirements of South Coast AQMD Rule 1155 – Particulate Matter (PM) Control Devices.

Pressure Monitoring: Effective January 1, 2019, paragraph (j)(2) proposes to require the owner or operator of a non-chromium metal melting operation to continuously monitor the pressure drop across the filter of an emission control device used to control metal emissions with a gauge. The location of the gauge will need to be located so that it is easily visible and in clear sight of the owner or operator or maintenance personnel. For the purposes of this requirement, the owner or operator shall ensure that the monitoring device:

- Is equipped with ports to allow for periodic calibration in accordance with manufacturer's specifications;
- Is calibrated according to manufacturer's specifications at least once every calendar year;
- Is equipped with a continuous data acquisition system (DAS) capable of recording the data output from the monitoring device at a frequency of at least once every 60 minutes;
- Generates a data file from the computer system interfaced with each DAS each calendar day saved in Microsoft Excel (xls or xlsx) format or other format as approved by the Executive Officer. The file shall contain a table with the chronological date and time and the corresponding data output value from the monitoring device in units of inches of water column. The operator shall prepare a separate data file each day showing the 4-hour average pressure readings recorded by this device each calendar day; and
- Is maintained in accordance with manufacturer's specifications.

Source Test after Deficient Filter Pressure: Paragraph (j)(3) proposes to require a source test pursuant to subdivision (h), if the pressure across the filter is not maintained within the range specified by the manufacturer or according to conditions of the Permit to Operate for the emission control device as determined by hourly or more frequent recordings by the DAS for the following averaging periods, no later than 30 days after the discrepancy is detected:

- A 4-hour time period on three or more separate days over 60 continuous days; or
- Any consecutive 24-hour period.

Minimum Collection Induced Capture Velocity: Effective January 1, 2019, paragraph (j)(4) proposes to require operation of the emission collection system associated with the emission control device at a minimum collection induced capture velocity specified in the most current edition of the Industrial Ventilation, A Manual of Recommended Practice for Design, published by the American Conference of Governmental Industrial Hygienists, at the time a permit application is deemed complete with the South Coast AQMD.

Periodic Smoke Test: Effective January 1, 2019, paragraph (j)(5) proposes to require a periodic smoke test to be conducted during source testing, pursuant to paragraph (h)(1) and at least once every six months thereafter, using the procedure set forth in Attachment B of this rule. The smoke test will not be required if is demonstrated to the Executive Officer that it presents an unreasonable risk.

Anemometer: Effective January 1, 2019, paragraph (j)(6) proposes to require the use of a calibrated anemometer to measure the capture velocity of each emission collection system at least once monthly, based on its location within a non-chromium metal melting operation and its design configuration as follows:

- *Emissions collection system designed with a hood or enclosure*: maintain a capture velocity of at least 200 feet per minute as measured at the face of the enclosure or the minimum slot velocity measured in the most recent source test that verifies 100 percent collection efficiency.
- *Emission collection system without an enclosing hood that is designed with collection slots*: maintain a capture velocity of at least 2,000 feet per minute, or the minimum slot velocity measured in the most recent source test that verifies 100 percent collection efficiency.

Exemptions – subdivision (k)

Exemptions that were previously in subdivision (i), are proposed to be moved to new subdivision (k) and updated to establish new exemptions and remove other exemptions which no longer apply.

Small Quantity Exemptions: New paragraph (k)(1) proposes to allow the owner or operator of a non-chromium metal melting operation that processes no more than one ton per year of all non-chromium metals to only be subject to the recordkeeping provisions of the rule, pursuant to subdivision (g).

Low Throughput, Clean Aluminum Scrap, and Aluminum Scrap Furnaces: The exemptions originally in paragraphs (i)(1), (i)(3), and (i)(4) are proposed to be renumbered as paragraphs (k)(2), (k)(4), and (k)(5), and revised to remain in effect until January 1, 2021.

Metal or Alloy Purity Exemption: Updates to paragraph (k)(3) are proposed that would exempt equipment and operations that melt less than 8,400 tons per year of raw materials in furnaces which do not melt more than one percent scrap except rerun scrap, and which melt a metal or alloy which is shown by laboratory analysis to contain less than 0.002 percent of arsenic and less than 0.004 percent cadmium by weight based on a monthly weighted average, from all

provisions of the rule except the emission control requirements, source testing requirements, and emission control device monitoring requirements in subdivisions (d), (h), and (j), respectively..

Aluminum Pouring Exemption: Updates to paragraph (k)(6) are proposed for consistency, and to clarify that ladles, launders or other equipment used to convey aluminum from a melting or holding furnace to casting equipment will only be subject to the requirements of subdivisions (e) and (g) of this rule.

Rules 1420, 1420.1 and 1420.2: New paragraph (k)(7) proposes to exempt equipment and operations subject to Rule 1420 – Emissions Standard for Lead, Rule 1420.1 – Emission Standards for Lead and Other Toxic Contaminants from Large Lead-Acid Battery Facilities, or Rule 1420.2 – Emissions Standards for Lead from Metal Melting Facilities from the requirements of this rule.

Metal Grinding and Cutting with Metal Removal Fluids: New paragraph (k)(8) proposes to exempt metal grinding or cutting conducted under a continuous flood of metal removal fluid from the building enclosure requirements.

Repair and Maintenance: New paragraph (k)(9) proposes to exempt metal grinding or cutting operations conducted for repair or maintenance purposes from the requirements of this rule.

Smoke Test to Demonstrate Capture Efficiency for Ventilation Systems of an Emission Control Device Pursuant to Paragraph (j)(5) (Attachment B)

New Attachment B specifies the method for conducting periodic smoke tests to demonstrate maintenance of 100 percent capture efficiency for the emission collection system of an emission control device pursuant to paragraph (j)(5). A smoke test is conducted by placing a smoke generator within the area where collection of emissions by the emission collection system occurs reveals the capture efficiency. The smoke test shall be conducted while the emission collection system and the emission control device are in normal operation and under typical draft conditions representative of the facility's non-chromium metal melting operations. An acceptable smoke test shall demonstrate a direct stream to the collection location(s) of the emission collection system without meanderings out of this direct path. If performing such a test presents an unreasonable risk to safety, a facility owner or operator will not be required to conduct a periodic smoke test. An example of what would qualify as unreasonable risk to safety would be having to conduct a smoke test at collection sites that would be extremely dangerous, if not deadly, for somebody to work in that collection zone.

SUMMARY OF AFFECTED FACILITIES

Approximately 54 facilities are expected to be subject to PAR 1407. All of the affected facilities are considered foundries or metal casting businesses as generally classified pursuant to the North American Industry Classification System (NAICS) code 331XXX, as follows:

- 3312XX – Steel Product Manufacturing from Purchased Steel;
- 3313XX – Alumina and Aluminum Production and Processing; and
- 3315XX – Foundries.

Table 1-1 identifies the number and type of affected facilities according to the NAICS code.

Table 1-1
Number of Affected Facilities per Industry Type Subject to PAR 1407

NAICS Code	Industry Type	Number of Facilities
331524	Aluminum Foundries (except Die-Casting)	24
331523	Nonferrous Metal Die-Casting Foundries	12
331314	Secondary Smelting and Alloying of Aluminum	5
331511	Iron Foundries	5
331222	Steel Wire Drawing	3
331529	Other Nonferrous Metal Foundries (except Die-Casting)	2
331221	Rolled Steel Shape Manufacturing	1
332111	Iron and Steel Forging	1
331513	Steel Foundries (except Investment)	1
	TOTAL	**54**

CHAPTER 2

ENVIRONMENTAL CHECKLIST

INTRODUCTION

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

GENERAL INFORMATION

Project Title:	Draft Environmental Assessment for Proposed Amended Rule 1407 – Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Mr. Luke Eisenhardt, (909) 396-2324
PAR 1407 Contact Person:	Mr. Michael Morris, (909) 396-3282
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 1407 applies to metal melting operations such as smelting, tinning, galvanizing, and other miscellaneous processes where non-chromium, instead of non-ferrous, metals such as aluminum, brass, bronze, carbon steel, and zinc are processed in molten form. PAR 1407 revises emission standards, establishes monitoring provisions for air pollution control equipment, adds building enclosure provisions to limit fugitive emissions, and updates housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Some sites affected by PAR 1407 may be identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5. The analysis of PAR 1407 in the Draft EA did not result in the identification of any environmental topic areas that would be significantly adversely affected.
Surrounding Land Uses and Setting:	Various
Other Public Agencies Whose Approval is Required:	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION

On the basis of this initial evaluation:

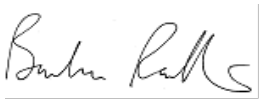
☑ I find the proposed project, in accordance with those findings made pursuant to CEQA Guidelines Section 15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.

☐ 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: June 27, 2019 **Signature:** 

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

ENVIRONMENTAL CHECKLIST AND DISCUSSION

PAR 1407 proposes to establish requirements to reduce arsenic, cadmium, and nickel emissions from metal melting operations. Applicability extends to facilities that melt metals that contain no more than 0.5% chromium content, including, but not limited to aluminum, brass, bronze, copper, and zinc. These facilities include secondary smelters, foundries, die-casters, galvanizing and tinning coating operations, and other miscellaneous processes such as dip soldering, brazing and aluminum powder coating production. PAR 1407 is estimated to be applicable to 54 metal melting facilities.

As explained in Chapter 1, the main focus of PAR 1407 is to reduce point and fugitive emissions of arsenic, cadmium, and nickel, and in turn minimize public health impacts by reducing exposure to toxic air contaminants. PAR 1407 also proposes to revise emission standards, establish monitoring provisions for air pollution control equipment, add building enclosure provisions to limit fugitive emissions, and update housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Implementing PAR 1407 would be expected to result in some facilities making building improvements to meet the enclosure requirement and the activities associated with making these physical changes may also create secondary adverse environmental impacts. Similarly, activities associated with conducting source tests and smoke tests, and implementing housekeeping requirements may also create secondary adverse environmental impacts.

While there are other requirements in PAR 1407 that are necessary to support compliance with the rule, the following components of PAR 1407 are administrative or procedural in nature and as such, would not be expected to cause any physical changes: revising, adding, or deleting definitions; clarifying applicability; adding test methods; conducting monitoring of emission collection systems and emission control devices; keeping records; applying for permit applications; and preparing and submitting source testing protocols. As such, these components of PAR 1407 would not be expected to create any secondary adverse environmental impacts.

For these reasons, the analysis in this Draft EA focuses on the potential secondary adverse environmental impacts associated with physical activities associated with constructing building enclosures and installing emission control devices, conducting source tests and smoke tests, and implementing housekeeping requirements. The key components of PAR 1407 that are expected to involve physical activities, the number facilities affected by each provision are summarized in Table 2-1.

Table 2-1
Key Components of PAR 1407 with Physical Effects on Affected Facilities

PAR 1407 Category	Number of Affected Facilities	Potential Physical Effects on Affected Facilities
Subdivision (d): Emission Control Requirements	4	10 emission control devices (e.g., baghouses) will need to be installed at four facilities.
Subdivision (e): Housekeeping Requirements	54	While nearly all facilities currently conduct some housekeeping, PAR 1407 contains new housekeeping requirements, as follows: 1. Conduct weekly cleaning for areas where furnace and casting operations occur and waste generated from housekeeping activities is stored, disposed of, recovered, or recycled; 2. Conduct weekly cleaning of locations where cutting and grinding occur; 3. Conduct quarterly cleaning and inspect equipment at all facilities that currently operate or will operate emission control devices; 4. Clean, using an approved method, the areas containing deposition of fugitive metal dust emissions within one hour of an event that results in the dust emissions; 5. Remove weather caps that restrict the flow of exhaust on any stack that is a source of emissions from non-chromium metal melting operations; 6. Store and transport slag, housekeeping waste, and building enclosure construction and maintenance materials within closed conveyer systems, in covered containers, or within a building enclosure; and 7. Clean all areas where furnace, casting, metal cutting and metal grinding operations occur without using dry cleaning or compressed air cleaning.
Subdivision (f): Building Enclosure Requirements	19	Overlapping plastic stripping at entryways or roll-up doors to minimize cross drafts will need to be installed in order to comply with building enclosure requirements.
	4	Two new walls per facility will need to be constructed to satisfy enclosure requirements.
Subdivision (f): Emission Control Device Monitoring	8	Monitoring equipment and anemometers for 8 emission control devices will be need to be installed. In addition, 19 pressure gauges with 19 data acquisition systems will need to be installed.
Subdivision (h): Source Testing	13	21 initial source tests will need to be conducted for 21 equipment units by January 1, 2021, with additional source testing required every 60 months thereafter.
Attachment B: Smoke Test	19	Smoke tests will need to be conducted at each facility once every six months to determine effective emission control device operation.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point(s).) If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?	☐	☐	☐	☑
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑

Significance Criteria

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

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

I. a), b), c) & d) No Impact. To reduce fugitive arsenic, cadmium, and nickel missions from affected facilities, four facilities would need to make install two walls and 19 facilities would need

to make minor improvements to comply with building enclosure requirements, and four facilities would need to install baghouses to comply with the emission limits in PAR 1407. The use of heavy-duty construction equipment such as forklifts, tractors/loaders/backhoes, and cement mixers will be needed to make these physical changes at the affected facilities. The construction equipment is expected to be low in height and not substantially visible to the surrounding area due to construction occurring within each existing facility's property line, existing fencing along property lines, and existing structures currently within each facility's boundaries that may buffer the views of the construction activities.

Since the affected facilities are located in existing industrial areas, the construction equipment is not expected to be substantially discernable from other off-road equipment that 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 construction equipment and activities are expected to occur within the confines of each existing 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 each affected facility. In addition, the construction activities are expected to be temporary in nature and will cease following the completion of the building enclosures and baghouse installations. Once construction is completed, all construction equipment will be removed from each facility. Construction is expected to be completed by January 1, 2021. Once construction of the building enclosures and installation of the baghouses is completed, these changes would be expected to reduce particulate emissions and minimize cross-draft conditions, thus serving to prevent visible emissions from non-chromium metal melting operations at the affected facilities.

Construction of the building enclosure modifications, installation of baghouses, and the removal of weather caps will result in slight changes to the appearance of the affected facilities. However, due to the nature of the modifications and baghouse installations, any altered appearances will be minor and will not substantially alter the visual character of the existing facilities.

Since none of the 54 affected facilities are located within the views of a scenic vista or state scenic highway, implementation of PAR 1407 would have no substantial adverse effect on scenic vistas or other scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Also, all 54 of the affected facilities are located in urbanized areas, and any changes to the buildings or structures will require approvals from the local city or county planning departments. Therefore, PAR 1407 would not be expected to conflict with applicable zoning or other regulations governing scenic quality.

PAR 1407 also contains requirements for conducting housekeeping, maintenance and source tests. These activities would be low-profile would be expected to blend in with routine day-to-day activities within the fenceline of each affected facility. Therefore, housekeeping, maintenance and source testing will not be expected to cause any discernable aesthetic impacts.

PAR 1407 does not include any components 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. However, if facility operators determine that the construction schedule requires nighttime activities, temporary lighting may be required. Nonetheless, since construction activities would be completely located within the boundaries of each affected facility, additional temporary lighting is not expected to be discernable from the

existing permanent night lighting. For these reasons, the proposed project would not 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 1407. Since no significant aesthetics impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Project-related impacts on agriculture and forest 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 §12220(g)), timberland (as defined in Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §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 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

II. a), b), c), d), & e) No Impact. The affected facilities and their immediately surrounding areas are not located on or near areas zoned for agricultural use, 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. Therefore, the proposed project would not result in any construction of new buildings or other structures that would require converting farmland to non-agricultural use or conflict with zoning for agriculture use or a Williamson Act contract. The construction and operation activities would be expected to occur within the confines of existing industrial facilities, thus the proposed project is not expected to result in converting farmland to non-agricultural use; conflict with existing zoning for agricultural use, or a Williamson Act Control.

All of the facilities are located in industrial use areas in the urban portion of the Basin that is not near forest land. Therefore, the proposed project is not expected to 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)) 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 1407. Since no significant agriculture and forestry resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) 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?	☐	☐	☑	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
d) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐
e) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☑	☐
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
g) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

Significance Criteria

To determine whether or not air quality and greenhouse gas impacts from implementing PAR 1407 are significant, impacts will be evaluated and compared to the criteria in Table 2-2. PAR 1407 will be considered to have significant adverse impacts if any one of the thresholds in Table 2-2 are equaled or exceeded.

Table 2-2
South Coast AQMD Air Quality Significance Thresholds

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

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

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

Revision: April 2019

Discussion
PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

III. a) No Impact. The South Coast AQMD 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 South Coast AQMD'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 South Coast AQMD 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 South Coast AQMD will achieve air quality standards and healthful air is outlined in the 2016 AQMP[10] which contains multiple goals of promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP contains control measure TXM-06: Control of Toxic Emissions from Metal Melting Facilities, which will reduce nickel, arsenic, and cadmium emissions through the implementation of PAR 1407. PAR 1407 will reduce these emissions by setting stricter emission controls and housekeeping and enclosure requirements at non-chromium metal melting facilities.

PAR 1407 is not expected to obstruct or conflict with the implementation of the 2016 AQMP because the emission reductions from implementing PAR 1407 are in accordance with the emission reduction goals in the 2016 AQMP. PAR 1407 would reduce arsenic, cadmium, and nickel emissions and therefore, be consistent with the goals of the 2016 AQMP. Thus, implementing PAR 1407 would not conflict with or obstruct implementation of the applicable air quality plans.

III. b) and e) Less Than Significant Impact. While PAR 1407 is designed to reduce arsenic, cadmium, and nickel emissions, secondary air quality impacts are expected from its implementation due to physical activities that may need to occur. For example, the requirements in PAR 1407 to install building enclosures and emission control devices would be expected to result in construction impacts from building new walls and installing baghouses at affected facilities. Further, secondary air quality impacts are also expected to occur as a result of facilities conducting source tests on baghouses.

[10] South Coast AQMD, 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

Table 2-3 summarizes the key requirements in PAR 1407 that may result in secondary adverse air quality and greenhouse gas (GHG) impacts during construction and operation.

Table 2-3
Sources of Potential Secondary Adverse Air Quality and GHG Impacts During Construction and Operation

Key Requirements in PAR 1407	Physical Effects Anticipated During:	
	Construction	**Operation**
Emission Control Requirements	Emissions from vehicle trips and construction equipment to install 10 baghouses at 4 facilities	1. Vehicle emissions from transporting increased amounts of baghouse waste for disposal and/or recycling 2. Electricity to power baghouse
Housekeeping Requirements	Emissions from construction equipment to remove weather caps	No change from existing setting since cleaning and other housekeeping activities can be performed by existing staff
Enclosures	Emissions from vehicle trips and construction equipment to: 1. Construct 2 walls at each of the 4 facilities; and 2. Install roll-up doors or plastic stripping at 19 facilities.	No operational impacts
Emission Control Device Monitoring Equipment	Emissions from vehicle trips to deliver and install equipment	No operational impacts
Source and Smoke Testing	None	Emissions from vehicle trips to perform periodic tests

For the purpose of conducting a worst-case CEQA analysis for the 54 facilities that will be subject to PAR 1407, the following assumptions have been made:

Housekeeping

- All 54 facilities will be required to perform housekeeping. The majority of housekeeping requirements are expected to be completed by existing staff such that no new vehicle trips would be needed and no new air quality impacts will occur. Because each affected facility currently has periodic waste collection activities occurring as part of the existing setting, no additional waste or hauling trips are anticipated to be necessary as a result of conducting routine housekeeping activities required by PAR 1407.

- All facilities will be required to remove weather caps that restrict the flow of exhaust on any stack that is a source of emissions from non-chromium metal melting operations. The number of existing weather caps to be removed is not known. Removal of weather caps can be accomplished within a short amount of time with the use of electric or manual hand tools, ladders, and a minimal number of on-site workers (e.g., one to two employees).. The analysis assumes no gasoline or diesel-fueled construction equipment or additional vehicle trips will be necessary to accomplish this task.

Emission Control Device Monitoring Equipment

- Eight facilities will be required to install anemometers (e.g., one anemometer per facility). Additionally, at these eight facilities, 19 pressure gauges and data acquisition systems will need to be installed. The installation of anemometers, pressure gauges, and data acquisition systems can be accomplished within a relatively short amount of time with the use of electric or manual hand tools, ladders, and a minimal number of construction workers. The analysis assumes that two construction workers will commute approximately 30 miles round trip each day by driving gasoline-fueled vehicles with an average fuel economy of 21 miles per gallon (mpg) and one worker will drive a vendor truck 15 miles round trip with an average fuel economy of 6.6 mpg .

Source Testing and Smoke Tests

- 21 source tests for 21 equipment units will need to be conducted at 13 facilities, with the initial source tests to be completed by January 1, 2021 and additional source testing required every 60 months thereafter, at each facility. Owners/operators of affected facilities would be expected to hire a source testing company to do the work. This analysis assumes that one light duty source testing truck with a fuel economy averaging 21 mpg and one medium duty maintenance truck with a fuel economy averaging 10 mpg will each drive approximately 40 miles round trip to conduct the source tests at each facility.

- 19 facilities will be required to conduct smoke tests every six months. This analysis assumes that one light duty testing truck with a fuel economy averaging 21 mpg will drive approximately 40 miles round trip to conduct the required smoke tests at each facility.

Enclosures

- 23 facilities will need to make the following physical modifications in order to comply with the building enclosure requirements in PAR 1407:

    - Four facilities will need to construct two new walls per facility. Construction is assumed to require one crane, one forklift, and one welder at each of the four facilities. Each piece of equipment is assumed to be operated for four hours per day, for five days. Three construction workers per facility are assumed to commute approximately 30 miles round trip each day driving vehicles with an average fuel economy of 21 mpg. In addition, the analysis assumes that one worker will drive a vendor delivery truck and one worker will drive a heavy duty hauling truck each with an average fuel economy of 6.6 mpg for a distance of 15 miles and 40 miles round trip, respectively per facility.

- 19 facilities will need to either install overlapping plastic stripping on entryways or roll-up doors to minimize cross drafts. These installations are assumed to be accomplished within a relatively short amount of time with electric or manual hand tools, ladders, and a minimal number of construction workers. Two workers are assumed to commute approximately 30 miles round trip each day driving vehicles with an average fuel economy of 21 mpg. In addition, the analysis assumes that one worker will drive a vendor truck with an average fuel economy of 6.6 mpg approximately 15 miles round trip per facility.

Emission Control Devices (Baghouses)

- Four facilities will need to install 10 emission control devices to comply with PAR 1407 and the analysis assumes that baghouses will be the technology selected for installation. Each baghouse is assumed to contain 4,000 square feet of fabric. Each baghouse is expected to require approximately 24 watts of electric power to operate.

- Installation of one baghouse will require one aerial lift, air compressor, forklift, and welder, operating four hours per day for five days. For each baghouse installation, five workers are assumed to commute approximately 30 miles round trip each day driving vehicles with an average fuel economy of 21 mpg, and one worker will drive a vendor truck with an average fuel economy of 6.6 mpg a distance of 15 miles round trip per affected facility.

- Baghouses will generate approximately one additional drum (0.25 cubic yard) of waste per every three months per baghouse. The analysis assumes that the additional waste will be collected and hauled away once every three months per facility by a medium-duty truck with an average fuel economy of 10 mpg, traveling 40 miles round trip.

- The analysis assumes that one additional employee may be hired to operate and maintain the new baghouses to be installed at four facilities.

Timing of Construction and Operation Activities

PAR 1407 will require building enclosures to be constructed by July 1, 2020. In addition, implementation of housekeeping requirements, installation of baghouses and monitoring equipment, completion of source testing and smoke testing are required to be completed by January 1, 2021. Therefore, the analysis assumes that construction activities to implement the aforementioned requirements will overlap with each other, and that some construction activities may overlap with the conducting of initial source tests.

The construction impact analysis assumes that construction will take five days to complete two walls to satisfy enclosure requirements, and five days to install a baghouse to satisfy emission control device requirements. Because some facilities will need to install multiple baghouses, is the analysis assumes that the installations will occur in series, with no more than one installation at a time per facility. PAR 1407 requires building enclosures to be completed six months before the emission control devices and monitoring equipment need to be installed. However, it is possible that some or all of the affected facilities may choose to comply early with all PAR 1407 requirements (e.g., before July 1, 2020). While the potential for all construction activities would overlap at the same time is unlikely, as a worst-case scenario, the analysis assumes that two enclosures (construction of two walls), four enclosure improvements (roll-up doors or plastic

strips), four baghouses and four sets of emission control device monitoring equipment will be installed on the same day.

Operational impacts will result from vehicle trips associated with contractors hired to perform source tests and smoke tests, hauling trips to deliver supplies and/or remove waste from baghouses, and electricity usage from operating baghouses. The analysis assumes that two source tests, two smoke tests, and one supply or waste hauling trip will occur on a peak day. A peak day will occur after rule adoption but prior to January 1, 2021 (e.g., the period of time when all 21 initial source tests are required to be conducted).

Additionally, because of the aforementioned timing associated with the construction schedules, it is possible, though extremely unlikely, that a peak construction day and peak operational day could occur on the same day. The peak operational impacts are expected to occur during the initial source testing period (e.g., between rule adoption and July 1, 2020). Similarly, this same period of time is when all of the construction impacts are expected to occur. Therefore, a peak day during the construction and operational overlap phase is comprised of the construction of two building enclosures (construction of two walls), four enclosure improvements (roll-up doors or plastic strips), four baghouses and four sets of emission control device monitoring equipment, two source tests, two smoke tests, and one supply delivery or waste hauling trip will occur on a peak day.

Construction and Operational Impacts

Criteria pollutant emissions were calculated for all off-road construction equipment and on-road vehicles transporting workers, vendors, and material removal and delivery during construction using the California Emissions Estimator Model12® (CalEEMod), version 2016.3.2. The detailed output reports for the CalEEMod[11] runs are included in Appendix B. The following tables present the results of the construction air quality analysis by phase. Appendix B also contains the spreadsheets with the results and assumptions used for this analysis.

Total operational emissions were estimated using emission factors for on-road vehicles from CARB's EMFAC2017[12] for the following mobile sources: heavy-duty diesel fueled trucks used to haul baghouse waste, medium-duty diesel fueled trucks used to deliver equipment and supplies and provide source testing support; light duty gasoline-fueled passenger vehicles used for transporting workers to facilities in order to install equipment or building enclosures, as well as conduct source tests and smoke tests. Table 2-4 summarizes the peak daily emissions associated with construction activities occurring at all affected facilities.

[11] 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 GHG emissions associated with both construction and operations from a variety of land use projects.

[12] The EMFAC emissions model is developed and used by CARB to assess emissions from on-road vehicles including cars, trucks, and buses in California. It should be noted that EMFAC2017 has not yet been approved by U.S. EPA but does provide the latest emission factors available. https://www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles

Table 2-4
Peak Daily Construction Emissions by Pollutant (lb/day)

Construction Activity	VOC	NOx	CO	SOx	PM10	PM2.5
Install 1 Baghouse	0.50	3.17	3.53	0.01	0.26	0.21
Construct 1 Building Enclosure (2 Walls)	0.46	4.57	2.95	0.01	0.27	0.23
One Medium-Duty Vendor Truck Trip to Deliver Emission Control Device Monitoring Equipment or Roll-up Doors or Plastic Strips	0.01	0.00	0.05	0.00	0.00	0.00
One Light-Duty Auto Worker Trip to Install Emission Control Device Monitoring Equipment or Roll-up Doors or Plastic Strips	0.02	0.19	0.10	0.00	0.02	0.01
Subtotal: Construct One Enclosure, Install One Baghouse, One Vendor Trip, and One Worker Trip	0.96	7.74	6.47	0.01	0.54	0.44
Significance Threshold for Construction	75	100	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Install 4 Baghouses	1.99	12.68	14.11	0.02	1.05	0.85
Construct 2 Enclosures (4 Walls)	0.92	9.15	5.89	0.01	0.54	0.46
8 Medium-Duty Vendor Truck Trips to Deliver Emission Control Device Monitoring Equipment (4), and Rollup Doors or Plastic Strips (4)	0.14	1.50	0.78	0.01	0.12	0.08
16 Light-Duty Auto Worker Trips to Install (4) Emission Control Device Monitoring Equipment and (4) Roll-up Doors or Plastic Strips	0.28	3.00	1.55	0.01	0.25	0.16
Total: 4 Baghouses, 2 Enclosures (4 Walls), 8 Vendor Deliveries, and 16 Worker Trips	**3.34**	**26.32**	**22.34**	**0.05**	**1.97**	**1.54**
Significance Threshold for Construction	75	100	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Assumptions: Installation of emission control device monitoring equipment requires 2 workers. A peak day will involve four baghouse installations, construction of two enclosures (two walls), four minor enclosure improvements and installation of emission control device monitoring equipment (anemometers, pressure gauges, data acquisition systems) at four facilities. Delivery of emission control device monitoring equipment or roll-up doors or plastic trips is assumed to require one vendor trip, and installation is assumed to require two worker trips each. See Appendix B for additional assumptions and calculations.

The air quality analysis indicates that the peak daily emissions do not exceed the South Coast AQMD's air quality significance thresholds for any pollutant during construction; thus, the

analysis concludes that the air quality impacts during construction are expected to be less than significant.

Operational Impacts

Table 2-5 summarizes the peak daily emissions associated with operation. A peak day of operation is assumed to consist of two source tests, two smoke tests, and one waste hauling trip occurring on the same day. Additional details of the assumptions and calculations can be found in Appendix B.

Table 2-5
Peak Daily Operation Emissions by Pollutant (lb/day)

Operation Activity	VOC	NOx	CO	SOx	PM10	PM2.5
1 Light-Duty Auto Worker Trip to Conduct Source Testing	0.02	0.19	0.10	0.00	0.02	0.01
1 Medium-Duty Truck Trip to Conduct Source Testing	0.02	0.01	0.15	0.00	0.00	0.00
Subtotal: 1 Source Test	**0.03**	**0.20**	**0.24**	**0.00**	**0.02**	**0.01**
Significance Threshold for Operation	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
1 Light-Duty Auto Worker Trip to Conduct Smoke Testing	0.02	0.19	0.10	0.00	0.02	0.01
Subtotal: 1 Smoke Test	**0.02**	**0.19**	**0.10**	**0.00**	**0.02**	**0.01**
Significance Threshold for Operation	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
1 Heavy-Duty Waste Truck Trip to Collect Baghouse Waste	0.02	0.48	0.10	0.00	0.02	0.01
Subtotal: 1 Waste Haul Trip	**0.02**	**0.48**	**0.10**	**0.00**	**0.02**	**0.01**
Significance Threshold for Operation	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Total: 2 Source Tests, 2 Smoke Tests and 1 Waste Haul Trip	**0.12**	**1.25**	**0.78**	**0.00**	**0.09**	**0.05**
Significance Threshold for Operation	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Assumptions: Though unlikely, a peak day is assumed to include two source tests, two smoke tests, and one waste haul trip. See Appendix B for additional assumptions and calculations.

The air quality analysis indicates that the peak daily emissions do not exceed the South Coast AQMD's air quality significance thresholds for any pollutant during operation; thus, the analysis concludes that the air quality impacts during operation are expected to be less than significant.

Construction and Operation Overlap Impact

Table 2-6 summarizes the peak daily emissions from overlapping construction and operation activities. A peak day is assumed to consist of the peak construction (construction of two enclosures (two walls each), four enclosure improvements (roll-up doors and plastic strips), four baghouses, and four sets of emission control device monitoring equipment) and operation activities (two source tests, two smoke tests, and one waste hauling trip) occurring on the same peak day. Additional details of the assumptions and calculations can be found in Appendix B. According to South Coast AQMD policy, in the event that there is an overlap of construction and operation phases, the peak daily emissions from overlapping construction and operation activities should be summed and compared to the South Coast AQMD's air quality significance thresholds for operation because they are more stringent than the construction air quality significance thresholds.

Table 2-6
Peak Daily Construction and Operation Overlap Emissions (lb/day)

Activity	VOC	NOx	CO	SOx	PM10	PM2.5
2 Smoke Tests (2 Light-Duty Autos)	0.04	0.37	0.19	0.00	0.03	0.02
2 Source Tests (2 Light-Duty Autos and 2 Medium-Duty Trucks)	0.07	0.40	0.49	0.00	0.04	0.02
1 Heavy-Duty Waste Truck Trip to Collect Baghouse Waste	0.02	0.48	0.10	0.00	0.02	0.01
Install 4 Baghouses	1.99	12.68	14.11	0.02	1.05	0.85
Construct 2 Enclosures (4 Walls)	0.92	9.15	5.89	0.01	0.54	0.46
8 Medium-Duty Vendor Truck Trips to Deliver Emission Control Device Monitoring Equipment (4), and Rollup Doors or Plastic Strips (4)	0.14	1.50	0.78	0.01	0.12	0.08
16 Light-Duty Auto Worker Trips to Install (4) Emission Control Device Monitoring Equipment and (4) Roll-up Doors or Plastic Strips	0.28	3.00	1.55	0.01	0.25	0.16
Total	**3.46**	**27.57**	**23.11**	**0.06**	**2.06**	**1.59**
Significance Threshold for Operation[a]	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

[a]When construction and operation phases overlap, the operational air quality significance thresholds are applied.

None of the emissions during construction only, operation only, or construction and operation overlap exceed the South Coast AQMD's air quality significance thresholds. Therefore, the air quality impacts during construction only, operation only, or construction and operation overlap are all considered to be less than significant. The proposed project is not expected to result in significant adverse air quality impacts. Since no significant air quality impacts were identified, no mitigation measures are necessary or required.

Cumulatively Considerable Impacts

Based on the foregoing analysis, since criteria pollutant project-specific air quality impacts from implementing PAR 1407 would not be expected to exceed any of the air quality significance thresholds in Table 2-2, cumulative air quality impacts are also expected to be less than significant. South Coast AQMD cumulative air quality significance thresholds are the same as project-specific air quality significance thresholds. Therefore, potential adverse impacts from implementing PAR 1407 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 South Coast AQMD's guidance on addressing cumulative impacts for air quality is as follows: "As Lead Agency, the South Coast AQMD 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 South Coast AQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."[13]

This approach was upheld by the Court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the South Coast Air Quality Management District's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines Section 15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although the project will contribute additional air pollutants to an existing non-attainment 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*, here the South Coast AQMD has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established South Coast AQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. Here again the court upheld the South Coast AQMD's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively

[13] South Coast AQMD 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

considerable. Thus, it may be concluded that the proposed project will not contribute to a significant unavoidable cumulative air quality impact. Since no cumulatively significant air quality impacts were identified, no mitigation measures are necessary or required.

III. c) Less Than Significant Impact.

Toxic Air Contaminants (TACs) During Construction and Operation

Diesel powered vehicles and equipment would be utilized during construction activities. Diesel PM is considered a carcinogenic and chronic TAC. The construction activities will be completed within six months at all of the eight affected facilities, thus a Health Risk Assessment (HRA) was not conducted, which is consistent with the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual (2015)[14]. The analysis in Section III b) and e) concluded that the quantity of pollutants that may be generated from implementing the proposed project would be less than significant during construction only, operation only, and the construction and operation overlap period. Because the emissions from all activities that may occur as part of implementing PAR1407 are at less than significant levels, the emissions that may be generated from implementing the proposed project would not be substantial, regardless of whether sensitive receptors are located near the affected facilities. Furthermore, through implementation of PAR 1407, conducting housekeeping activities, constructing building enclosures, and installing emission control devices will decrease emissions of arsenic, cadmium, and nickel from non-chromium metal melting facilities. Overall, the implementation of PAR 1407 will reduce TACs, an air quality benefit. Therefore, PAR 1407 is not expected to generate significant adverse TAC impacts from construction or expose sensitive receptors to substantial pollutant concentrations. Since no significant air quality impacts were identified for TACs, no mitigation measures are necessary or required.

III. d) Less Than Significant Impact.

Odor Impacts

Odor problems depend on individual circumstances. For example, individuals can differ quite markedly from the populated average in their sensitivity to odor due to any variety of innate, chronic or acute physiological conditions. This includes olfactory adaptation or smell fatigue (i.e., continuing exposure to an odor usually results in a gradual diminution or even disappearance of the small sensation).

During both construction and operation, diesel-fueled equipment and vehicles will be operated. Diesel fuel is required to have a low sulfur content (e.g., 15 ppm by weight or less) in accordance with South Coast AQMD Rule 431.2 – Sulfur Content of Liquid Fuels[15]; thus, the fuel is expected to have minimal odor. The operation of construction equipment will occur within the confines of existing affected facilities. It would be expected sufficient dispersion of diesel emissions over distance generally occurs such that odors associated with diesel emissions may not be discernable to off-site receptors, depending on the location of the equipment and its distance relative to the nearest off-site receptor. The diesel trucks and equipment that will be operated on-site as a part of

[14] OEHHA, Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, March 6, 2015. https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

[15] South Coast AQMD, Rule 431.2 – Sulfur Content of Liquid Fuels, September 15, 2000. http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-431-2.pdf

construction activities will not be allowed to idle longer than five minutes per any one location in accordance with the CARB idling regulation[16], so lingering odors from idling vehicles would not be expected. In addition, construction activities for constructing building enclosures and installing emission control devices would be temporary (completed by July 1, 2020 and January 1, 2021, respectively). Operation within the building enclosures and having equipment within the buildings vented to baghouses would be expected to reduce any odors from facilities. The use of trucks as part of conducting source tests, smoke tests, replacing baghouse filters, hauling waste, etc.) would be intermittent and occur over a relatively short period of time; therefore, the proposed project would not be expected to generate diesel exhaust odor greater than what is already typically present at the affected facilities. Thus, PAR 1407 is not expected to create significant adverse objectionable odors during construction or operation. Since no significant air quality impacts were identified for odors, no mitigation measures for odors are necessary or required.

III. f) and g) Less Than Significant Impacts.

Greenhouse Gas (GHG) Impacts

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

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health impacts of CO2 "domes" that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects[17].

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

[16] CARB, Multi-Regulation Summary (MRS) Requirements for Diesel Truck and Equipment Owners, https://www.arb.ca.gov/msprog/onrdiesel/documents/multirule.pdf

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

day (i.e., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate effects.

The South Coast AQMD convened a "Greenhouse Gas CEQA Significance Threshold Working Group" to consider a variety of benchmarks and potential significant thresholds to evaluate GHG impacts. On December 5, 2008, the South Coast AQMD adopted an interim CEQA GHG Significance Threshold for projects where the South Coast AQMD is the lead agency (South Coast AQMD 2008). This GHG interim threshold is set at 10,000 metric tons (MT) of CO2 equivalent emissions (CO2eq) per year. Projects with incremental increases below this threshold will not be cumulatively considerable. GHG impacts from the implementation of PAR 1407 were calculated at the project-specific level during construction and operation activities.

Table 2-7 summarizes the GHG analysis which shows that PAR 1407 may result in the generation of 2,096 MT per year of CO2eq, which is less than the South Coast AQMD's air quality significance threshold for GHGs. The detailed calculations of project GHG emissions can be found in Appendix B.

Table 2-7
Summary of GHG Emissions from Affected Facilities

Phase	Activity	CO2eq Emissions (MT/yr)
Construction	Enclosure Construction	0.19
	Baghouse Installation	0.40
	Medium Duty Vendor Truck Trips to Deliver Emission Control Device Monitoring Equipment, and Rollup Doors or Plastic Strips	0.01
	Light Duty Auto Worker Trips to Install Emission Control Device Monitoring Equipment and Roll-up Doors or Plastic Strips	0.02
	Construction Subtotal	**0.61**
Operation	Smoke Test Trips	0.55
	Source Test Trips	0.21
	Baghouse Waste Hauling	0.77
	Baghouse Operation (Electricity)	0.68
	Operation Subtotal	**2.20**
	Total Emissions	**2.81**
	Significance Threshold	10,000
	Significant?	**No**

Note: 1 metric ton = 2,205 pounds. GHGs from short-term construction activities are amortized over 30 years.

As shown in Table 2-7, the South Coast AQMD air quality significance threshold for GHGs would not be exceeded. For this reason, implementing the proposed project would not be expected to generate significant adverse cumulative GHG air quality impacts. Further, as noted in Section III. a), implementation of PAR 1407 would not be expected to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing criteria pollutants and the same is true for GHG emissions since GHG emissions would not be impacted in any way by PAR 1407. Therefore, GHG impacts are not considered significant. Since no significant air quality impacts were identified for GHGs, no mitigation measures are necessary or required.

Conclusion

Based upon these considerations, significant air quality and GHG emissions impacts are not expected from implementing PAR 1407. Since no significant air quality and GHG emissions impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

IV. a), b), c), & d) No Impact. Implementation of PAR 1407 would occur at existing affected facilities, which are located in industrial areas. Thus, PAR 1407 is not expected to adversely affect in any way habitats that support riparian habitat, federally protected wetlands, or migratory corridors. Similarly, 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 affected facilities. Therefore, PAR 1407 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely. PAR 1407 does not require the acquisition of additional land or further conversions of riparian habitats or sensitive natural communities where endangered or sensitive species may be found. In addition, any construction from the implementation of 1407 would take place at the existing facilities and would not be built on or near a wetland or in the path of migratory species.

IV. e) & f) No Impact. The proposed project is not expected to conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans, because land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by implementation of PAR 1407. Additionally, PAR 1407 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 compliance with PAR 1407 would occur at existing facilities in previously disturbed areas which are not typically subject to Habitat or Natural Community Conservation Plans.

Conclusion

Based upon these considerations, significant biological resource impacts are not expected from implementing PAR 1407. Since no significant biological resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL AND TRIBAL CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☑
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☑
d)	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074, as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is either:				
	• Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k)?	☐	☐	☐	☑
	• A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code §5024.1(c)? (In applying the criteria set forth in Public Resources Code §5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.)	☐	☐	☐	☑

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 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 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

V. a) 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 represent the work of an important creative individual, or possesses high artistic values;
- Has yielded or may likely to yield information important in prehistory or history (CEQA Guidelines Section 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. Buildings or structures that may be affected by PAR 1407 are used for industrial purposes and would generally not be considered to be 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 1407 is not expected to cause any impacts to significant historic cultural resources.

V. b), c), & d) No Impact. Construction-related activities are expected to be confined within the affected existing industrial facilities with the implementation of PAR 1407. Thus, PAR 1407 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 1407 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 to disturb any human remains, including those interred outside formal cemeteries. Implementing PAR 1407 is, therefore, not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources.

PAR 1407 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 1407 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. Similarly PAR 1407 is not expected to result in a physical change to a resource determined by the South Coast AQMD to be significant to any tribe. For these reasons, PAR 1407 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 South Coast AQMD 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 South Coast AQMD 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 1407. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI.	**ENERGY.** Would the project:				
a)	Conflict with or obstruct adopted energy conservation plans, a state or local plan for renewable energy, or energy efficiency?	☐	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☑	☐
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☑	☐
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☑	☐
e)	Comply with existing energy standards?	☐	☐	☐	☑
f)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☑
g)	Require or result in the relocation or construction of new or expanded electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☑

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 energy resources in a wasteful and/or inefficient manner.

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air

pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

VI. a), e) & f) No Impact. PAR 1407 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 1407 is implemented. The implementation of PAR 1407 will apply to existing facilities; however, it will also apply to any new non-chromium metal melting facilities in the future. South Coast AQMD staff is not aware of any new 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. Any energy resources that may be necessary to install building enclosures, baghouses, and monitoring equipment, and conduct source tests and smoke tests would be used to achieve reductions in arsenic, cadmium, and nickel; and therefore, would not be using non-renewable resources in a wasteful manner. For these reasons, PAR 1407 is not expected to conflict with energy conservation plans or existing energy standards, or use non-renewable resources in a wasteful manner.

VI. b), c), d), & g) Less Than Significant Impact. Implementation of PAR 1497 will result in the construction of baghouses and building enclosures, and the installation of emission control device monitoring equipment. Once baghouses are operational, electricity will be used to power blowers to draw exhaust fumes through the baghouses. The increased electricity to power 10 new baghouses will not result in a need for new or substantially altered power systems, because the baghouses will be served by existing power supplies. The projected increased electricity demands that may result from PAR 1407 are presented in Table 2-8.

Table 2-8
Increases in Electricity Demand For Operating Baghouses

Equipment	Energy Demand (GWhr)[c]
Baghouse[a]	0.002
South Coast AQMD Jurisdiction Electricity End Use Consumption[b]	120,210
Total Increase Above Baseline	**0.000002%**
Significance Threshold	**1%**
Significant?	**No**

Notes:
a) This analysis assumes baghouse blowers operate at 75 kilowatts, 24 hours per day, 365 days per year
b) South Coast AQMD, 2016 Air Quality Management Plan, Chapter 10 (https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/chapter10.pdf?sfvrsn=4)
c) One GWhr (Gigawatt-hour) = 10^9 watt-hours

Implementing PAR 1407 would not require utilities providing additional electricity to the affected facilities to substantially alter their power systems because any additional energy needed can be provided from existing supplies. Further, since natural gas would not be needed to implement any of the physical changes that may occur as part of implementing PAR 1407, no change to existing natural gas supplies and usage would be expected to occur. In addition, because PAR 1407 will not require new facilities to be constructed and because new energy demands can be satisfied from existing power systems, implementation PAR 1407 would not result in the relocation or construction of new or expanded electric power, natural gas or telecommunication facilities.

Fuel Usage during Construction

During construction, portable construction equipment (e.g., welders, cranes, etc.) used to construct building enclosures and install baghouses will consume diesel fuel, as will vendor trucks that provide deliveries of equipment and building materials. Gasoline will be required to operate workers' vehicles as they commute to the construction sites as well.

To estimate "worst-case" energy impacts associated with construction activities, South Coast AQMD staff estimated the total gasoline and diesel fuel consumption for each affected facility during construction and operation based on CARB's OFFROAD2011 model.

CalEEMod version 2016.3.2 was used to calculate construction emissions for baghouse installation and building enclosure construction (two walls per facility) which was determined from the default trip lengths for construction worker commute trips (e.g., 30 miles per worker round trip to/from the construction site per day) and vendor trips (e.g., 15 miles per vendor round trip to/from the construction site per day). Additional worker trips and vendor trips were modeled to account for additional minor enclosure improvements at 19 facilities and emission control device monitoring equipment installation at eight facilities. Worker trips were assumed to occur in gasoline vehicles, getting a fuel economy rate of approximately 21 mpg, and vendor truck trips were assumed to be fueled by diesel, getting approximately 10 mpg. Table 2-9 summarizes the projected fuel use impacts associated with construction activities. Detailed fuel use calculations can be found in Appendix B.

Table 2-9
Annual Total Projected Fuel Usage for Construction Activities

	Diesel	**Gasoline**
Projected Operational Energy Use (gal/yr)[a]	158	520
Year 2017 South Coast AQMD Jurisdiction Estimated Fuel Demand (gal/yr)[b]	775,000,000	7,086,000,000
Total Increase Above Baseline	**0.00002%**	**0.000007%**
Significance Threshold	**1%**	**1%**
Significant?	**No**	**No**

Notes:

a) Estimated peak fuel usage from construction activities. Diesel usage estimates are based on the vendor trips and off-road equipment. Gasoline usage estimates are derived from worker trips.

b) California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets, 2017 California Energy Commission (http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html). [Accessed June 21, 2019.]

The 2017 California Annual Retail Fuel Outlet Report Results from the California Energy Commission (CEC) show that 775 million gallons of diesel and 7,086 million gallons of gasoline were consumed in 2017 in the Basin. Thus, even if an additional 158 gallons of diesel and 520 gallons of gasoline are consumed during construction, the fuel usages are 0.00002% and 0.00007% above the 2017 baseline for diesel and gasoline, respectively, and both projected increases are well below the South Coast AQMD's significance threshold for fuel supply. Thus, no significant adverse impact on fuel supplies would be expected during construction.

Fuel Usage during Operation

Once construction is completed, waste generated from 10 baghouses at four facilities will need to be collected and hauled away at least once every three months by diesel trucks. Further, diesel-fueled source testing support trucks and gasoline-fueled source testing worker vehicles will travel to 13 facilities to conduct 21 source tests, once every five years. In addition, gasoline-fueled vehicles will be used to transport technicians to perform smoke tests at 19 facilities every six months. The analysis assumes that each source testing, smoke test and waste hauling trip will be 40 miles round trip. The analysis assumes an average fuel economy of 21 mpg for gasoline-fueled passenger vehicles, 10 mpg for diesel-fueled source testing trucks, and 6.6 mpg for diesel-fueled hauling trucks. The projected fuel demand during operation is presented in Table 2-10.

Table 2-10
Annual Total Projected Fuel Usage for Operation Activities

	Diesel	**Gasoline**
Projected Operational Energy Use (gal/yr)[a]	157	112
Year 2017 South Coast AQMD Jurisdiction Estimated Fuel Demand (gal/yr)[b]	775,000,000	7,086,000,000
Total Increase Above Baseline	0.00002%	0.000002%
Significance Threshold	1%	1%
Significant?	**No**	**No**

Notes:

a) Estimated peak fuel usage from construction activities. Diesel usage estimates are based on source test and hauling trips. Gasoline usage estimates are derived from source test and smoke test trips.

b) California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets, 2017 California Energy Commission (http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html). [Accessed June 21, 2019.]

Operational gasoline truck usage is only expected to consume about 112 gallons of gasoline, approximately 0.000002% of the annual gasoline supply. Diesel operated heavy duty truck usage could consume 157 gallons of diesel, which is only 0.00002% of the annual diesel supply. The projected increased use of gasoline and diesel fuels as a result of implementing PAR 1407 are well below the South Coast AQMD significance threshold for fuel supply. Thus, no significant adverse impact on fuel supplies would be expected during operation.

Based on the foregoing analyses, the construction and operation-related activities associated with the implementation of PAR 1407 would not use energy in a wasteful manner and would not result in substantial depletion of existing energy resource supplies, create a significant demand of energy when compared to existing supplies. Thus, there are no significant adverse energy impacts associated with the implementation of PAR 1407.

Conclusion

Based upon these considerations, significant adverse energy impacts are not expected from implementing PAR 1407. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

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

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.
- Unique paleontological resources or sites or unique geologic features are present that could be directly or indirectly destroyed by the proposed project.

Discussion
PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

VII. a) No Impact. PAR 1407 would result in construction activities at existing affected facilities located in developed industrial settings. Affected facilities are expected to make building improvements on existing structures to construct building enclosures and install emission control devices, such that only minor site preparation is anticipated. Further, the proposed project does not cause or require a new facility to be constructed. Therefore, PAR 1407 is not expected to adversely affect geophysical conditions in the District.

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. The modification of existing structures at existing facilities to complete minor upgrades to comply with enclosure requirements and the construction of new building enclosures and baghouses would be 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 Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. Thus, PAR 1407 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.

VII. b) Less than Significant Impact. Since PAR 1407 would require the modification of existing buildings to satisfy the requirements to construct building enclosure and install emission control devices, construction activities such as minor grading may be necessary to prepare a level foundation in the affected areas. As such, temporary erosion resulting from grading activities could occur if any areas need to be graded. However, grading activities and any associated temporary erosion that may occur are expected to be relatively minimal since the existing facilities are generally flat and have previously been graded and paved. In addition, only four facilities would require the addition of two walls per facility to be constructed on four existing partial enclosures, and each existing partial enclosure would be expected to already be on a relatively level foundation. For this reason, no unstable earth conditions or changes in geologic substructures are expected to result from implementing PAR 1407. Therefore, impacts to the loss of topsoil and soil erosion are less than significant.

VII. c) No Impact. Since PAR 1407 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 construction for building improvements are expected to occur at affected facilities. 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. Thus, the proposed project would not be expected to increase or exacerbate any existing risks at the affected facility locations. Implementation of PAR 1407 would not involve re-locating facilities on a geologic unit or soil that is unstable or that would become unstable as a result of the project; therefore, it would not be expected to potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. No impacts are anticipated.

VII. d) & e) No Impact. The implementation of PAR 1407 involves facilities making building improvements such as constructing building enclosures, installing emission control devices, conducting source tests and smoke tests, installing monitoring equipment on and maintaining emission control devices, and conducting housekeeping activities. All of these activities are expected to be confined within the property lines of each affected facility. Further, PAR 1407 would not require the installation of septic tanks or other alternative wastewater disposal systems since each affected facility would be expected to have an existing sanitary system that is connected to the local sewer system. Therefore, no persons or property will be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal. Thus, the implementation of PAR 1407 will not adversely affect soils associated with a installing a new septic system or alternative wastewater disposal system or modifying an existing sewer.

VII. f) No Impact. PAR 1407 would result in construction activities at existing affected facilities located in developed industrial settings. Affected facilities are expected to make building improvements on existing structures to construct building enclosures and install emission control devices, such that only minor site preparation is anticipated. Further, the proposed project does not cause or require a new facility to be constructed. No previously undisturbed land that may contain

a unique paleontological resource or site or unique geological feature will be affected. Therefore, PAR 1407 is not expected to directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Conclusion

Based upon these considerations, significant adverse geology and soils impacts are not expected from the implementation of PAR 1407. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

VIII. a) & b) Less than Significant Impact. PAR 1407 has been developed to reduce public health impacts and exposure to nickel, arsenic, and cadmium. Facilities are expected to install emission control devices, construct building enclosures and take actions to minimize cross-draft conditions, thereby reducing fugitive emissions. Additionally, facilities will be required to comply with the new housekeeping requirements in PAR 1407 that will also have the effect of preventing fugitive emissions and consequently reducing the potential for the public and the environment to be exposed to nickel, arsenic, and cadmium.

Facilities with existing air pollution control equipment currently recycle or haul away hazardous waste or materials off-site to a hazardous waste landfill. There are new requirements in PAR 1407 that would require dust emitting waste to be transported in sealed containers. This will decrease the risk of hazardous waste exposure to the public and environment by limiting its potential release. Thus, no new significant hazards are expected to the public or environment through the continued routine transport, disposal or recycling of arsenic, cadmium, and nickel waste generated at metal melting facilities. Therefore, PAR 1407 is not expected to create a new 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. Of the 54 facilities subject to PAR 1407, there are five facilities located within one-quarter mile of a school. However, four of the five facilities will construct building enclosures, install roll-up doors or plastic strips on enclosure openings; one facility already has a full building enclosure in place so no additional construction will be needed at this facility. Source testing will be required at three of the five facilities. Nonetheless, the construction activities are expected to be minor and any required source testing after construction is complete is not expected to generate additional hazards at the affected facilities. Rather,

housekeeping requirements and improvements to complete building enclosures will minimize fugitive emissions. These facilities and the names of the schools and their proximities are identified in Appendix C.

Further, PAR 1407 does not include new requirements or alter existing requirements for hazardous waste disposal. For this reason, all 54 facilities, including the five 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.

VIII. d) No Impact. Government Code Section 65962.5 refers to hazardous waste handling practices at facilities subject to the Resources Conservation and Recovery Act (RCRA). Nine of the 54 facilities, presented in Appendix C are identified on lists of California Department of Toxics Substances Control hazardous waste facilities per Government Code Section 65962.5. Implementation of PAR 1407 will limit the exposure to nickel, arsenic, and cadmium and reduce public health impacts from exposure to fugitive and point sources by requiring facilities to construct building enclosures, install emission control devices, implement housekeeping requirements, conduct source tests and smoke tests, install monitoring equipment, and maintain emission control equipment. Further, PAR 1407 would require metal waste to be stored in covered containers while awaiting transport, which decreases the risk of emissions and contact with hazardous waste. PAR 1407 is not expected to interfere with existing hazardous waste management programs since facilities handling hazardous waste would be expected to continue to manage any and all hazardous materials and hazardous waste, in accordance with applicable federal, state, and local rules and regulations. Therefore, compliance with PAR 1407 would not create a new significant hazard to the public or environment.

VIII. e) No Impact. Federal Aviation Administration regulation, 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).

Four of the 54 facilities identified in Appendix C are located within two miles of an airport. However, construction at these facilities will consist of installation of building enclosures, emission control devices, roll-up doors or plastic strips on enclosure openings, and all of these installations will be limited to the existing height of the facilities, well below the 200 feet limit specified in 14 CFR Part 77. Therefore, implementation of PAR 1407 is not expected to increase or create any new safety hazards to peoples working or residing in the vicinity of public/private airports.

VIII. f) No Impact. Health and Safety Code Section 25506 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 minimum 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 the implementation of, or physically interfere with any adopted emergency response plans or emergency evacuation plans that may be in place at existing facilities. The building improvements necessary at 14 existing facilities to comply with PAR 1407 enclosure requirements and the installation of emission control devices at four facilities may require an update of each affected facility's existing emergency response plan to reflect the building modifications; however, the act of modifying an emergency response plan to reflect these anticipated building modifications will not create any environmental impacts. Therefore, PAR 1407 is not expected to impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

VIII. g) 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 1407 would not change the existing requirements and permit conditions for the proper handling of flammable materials. Further, PAR 1407 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) when using materials that may be explosive. Therefore, operators of metal melting facilities that may install new baghouses to meet emission control requirements are expected to comply with National Fire Protection requirements for explosion control. Additional information pertaining to these types of protective measures is available in Chapter 8 of the *Industrial Ventilation, A Manual for Recommended Practice for Design*, 28th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2013.

Conclusion

Based upon these considerations, significant adverse hazards and hazardous materials impacts are not expected from implementing PAR 1407. Since no significant hazards and hazardous materials impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards, waste discharge requirements, or otherwise substantially degrade surface or ground water quality?	☐	☐	☑	☐
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	• Result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☑
	• Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☑
	• 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?	☐	☐	☐	☑
	• Impede or redirect flood flows?	☐	☐	☐	☑
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☑
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, facilities or new storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☑	☐
g)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☑	☐
h)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☑	☐

Significance Criteria

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

Water Demand:

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

Water Quality:

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

Discussion
PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

IX. a) Less than Significant Impact. PAR 1407 would require facilities to make building improvements to comply with enclosure requirements and emission control device requirements, assumed to be baghouses, if needed. Neither enclosures nor baghouses will not generate wastewater during their operation. Thus PAR 1407 would not be expected to generate wastewater from operating emission control devices or enclosures.

However, PAR 1407 contains housekeeping requirements that require all affected facilities to conduct cleaning of floors within 20 feet of a work station or entrance or exit point of a storage area or building enclosure where metal grinding or cutting operations without the use of a working fluid is conducted, and within 10 feet of transfer points of an emission control device dedicated to the metal grinding or metal cutting operations without the use of a metal working fluid. PAR 1407 also will require weekly cleaning for all areas where furnace and casting operations occur and waste generated from housekeeping activities are stored, disposed of, recovered, or recycled. All facilities would be required to conduct quarterly cleaning of collection vents, ducting, and openings of each metal melting operation emission control device. Approved methods for cleaning include high efficiency particulate arrestor (HEPA) vacuum, wet wash, wet mop, damp cloth, and low pressure spray which may result in increased water usage and wastewater generation that may require treatment or cleaning prior to disposal.

Any facility that conducts 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 materials and these facilities would be required to comply with applicable hazardous waste disposal regulations. Thus, the collected dirty water at these facilities would not be allowed to be discharged as wastewater. Any facility that conducts wet cleaning and has a wastewater discharge permit would be expected to comply with the permitted effluent discharge concentration and flow limits which means the wastewater generated from wet cleaning would likely need to be treated prior to discharge. For these reasons, implementing PAR 1407 would not be expected to 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.

IX. b) & e) No Impact. As previously explained in Section IX. a), water is not needed to operate the building enclosures or operate emission control devices. However, PAR 1407 allows for wet cleaning to be conducted using water as an option for complying with the housekeeping requirements. The additional water for conducting wet cleaning, is expected to be supplied by each facility's current water supplier. The quality of water that would likely be supplied at each affected facility would 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 facility have a groundwater well onsite with groundwater pumping rights, the facility would likely not use groundwater for wet cleaning purposes, because groundwater contains sand and other particles or debris which is not suitable for wet cleaning. Therefore, implementing PAR 1407 would not be expected to cause facilities to utilize groundwater for conducting wet cleaning, substantially deplete groundwater supplies, or interfere substantially with groundwater recharge. Additionally, the implementation of PAR 1407 will not result in any changes to the release of pollutants into ground or surface water, nor will it affect the ground or surface water located in the vicinity of the affected facilities in any way. For these reasons, PAR 1407 will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

IX. c) No Impact. Implementation of PAR 1407 would not be expected to substantially alter the existing drainage pattern of the site or area beyond what currently exists at existing facilities. No streams or rivers are expected to run through existing facilities, because these facilities operate in urban industrial areas. Thus, PAR 1407 would not cause an alteration of the course of a stream or river. Building improvements to construct building enclosure or install emission control devices may require some minor earthwork to prepare affected areas at the affected facility. Any construction activities, however, would not be expected to permanently create unpaved areas that would be vulnerable to surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site. In addition, PAR 1407 would not create new or contribute to existing runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, because PAR 1407 does not contain any requirements that would change existing drainage patterns or the procedures for how surface runoff is handled.

IX. d) No Impact. As previously explained in Section IV – Biological Resources, PAR 1407 would not require new development to occur in undeveloped areas. Construction at affected facilities would be short-term and take place within existing facility settings. Therefore, PAR 1407 would not be expected to expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow because any flood event of this nature would be part of the existing setting or topography that is present for reasons unrelated to PAR 1407. Similarly, there is no risk of release of pollutants due to inundation as a result of PAR 1407.

IX. f), g), & h) Less than Significant Impact. Affected facilities would be required to conduct housekeeping, such as weekly wet cleaning of floors, ducting, vents, and emission control device openings, as outlined in PAR 1407. The analysis assumes that a basic 35-quart capacity (~nine gallons) commercial mop bucket would be used for wet cleaning. If on a peak day, all 54 facilities decided to conduct wet cleaning, a total of 486 additional gallons of water would be used and result in the same amount of wastewater. This is below the significance threshold of 262,820 gallons per day of potable water and 5,000,000 gallons per day of total water.

However, wet cleaning is not the only option. PAR 1407 also would allow dry HEPA vacuuming to occur. Because each facility will have the option to choose wet or dry cleaning to satisfy the housekeeping requirements, the decision to conduct wet cleaning will largely depend on what equipment is available. Also, based on the facility owner/operator, in past rules, indicating preferences to use dry HEPA vacuuming, the estimated use of water and the corresponding generation of wastewater on a peak day may be less than estimated. Because the water demand

and wastewater generation is minor when compared to the significance thresholds for water usage, and expected to be well within the facilities supporting infrastructure to handle these quantities of water and wastewater, PAR 1407 would not be expected to require the construction or relocation of new water or wastewater treatment facilities or new storm water drainage facilities, or cause the expansion of existing facilities. Similarly, because existing water supplies will be sufficient to support the implementation of housekeeping activities, the availability of sufficient water supplies to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years is not expected to be significantly impacted by PAR 1407. Further, because wet cleaning will not result in substantial wastewater generation, PAR 1407 will not result in a determination by the wastewater treatment provider which serves the affected facilities that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Conclusion

Based upon these considerations, significant adverse hydrology and water quality impacts are not expected from implementing PAR 1407. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

X. a) & b) No Impact. PAR 1407 does not require the construction of new facilities and the physical effects that will result from PAR 1407 will occur at existing facilities located industrial areas and would not be expected to go beyond existing boundaries. For this reason, implementation of PAR 1407 is not expected to physically divide an established community. Therefore, no impacts are anticipated.

Further, land use and other planning considerations are determined by local governments and PAR 1407 does not alter any land use or planning requirements. Compliance with PAR 1407 would take place within existing facilities. Thus, it would not be expected to affect or 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.

Conclusion

Based upon these considerations, significant adverse land use and planning impacts are not expected from implementing PAR 1407. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XI. a) & b) No Impact. There are no provisions in PAR 1407 that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plant or other land use plant. Some examples of mineral resources are gravel, asphalt, bauxite, and gypsum, which are commonly used for construction activities or industrial processes. The proposed project would require building modifications to comply with enclosure requirements and the installation of emission control devices, implementation of housekeeping and maintenance activity requirements, source testing and smoke testing, all of which would have no effects on the use of minerals, such as those described above. Therefore, no new demand on mineral resources

is expected to occur and significant adverse mineral resources impacts from implementing PAR 1407 are not anticipated.

Conclusion

Based upon these considerations, significant adverse mineral resource impacts are not expected from implementing PAR 1407. Since no significant mineral resource impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐

Significance Criteria

Noise impact will be considered significant if:

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XII. a) & b) Less than Significant Impact. The facilities affected by PAR 1407 are located in urbanized industrial 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 existing facility premises. Large, potentially noise-intensive construction equipment would be needed temporarily to modify existing enclosures or install emission control devices as part of implementing PAR 1407. 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 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. In addition, once building enclosure construction is completed at the affected facilities, the overall noise profile would be expected to lessen when compared to baseline noise levels from day-to-day operations at these facilities because the noise generating activities will occur inside existing buildings. Further, Occupational Safety and Health Administration (OSHA) and California-OSHA have established noise standards to protect worker health both indoors and outdoors. Furthermore, compliance with local noise ordinances typically limit the hours of construction to reduce the temporary noise impacts from construction to sensitive and offsite receptors. These potential noise increases would only be temporary until construction is completed and would be expected to be within the allowable noise levels established by the local noise ordinances for industrial areas; thus, impacts are expected to be less than significant.

XII. c) No Impact. As stated in Section VIII e), four of the 54 facilities identified in Appendix C are located within two miles of an airport. The existing noise environment at each of these facilities is dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and exiting facility premises. Thus, any new noise impacts would from construction activities to construct building enclosures, install emission control device monitoring equipment would be temporary and likely to generate noise that is indistinguishable from the background levels at the property line. Further, none of the four facilities within two miles of an airport are expected to install new emission control devices, because they qualify for exemptions from the emission control device requirements. Thus, PAR 1407 is not expected to expose persons residing or working within two miles of a public airport or private airstrip to excessive noise levels.

Conclusion

Based upon these considerations, significant adverse noise impacts are not expected from the implementing PAR 1407. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XIII. a) No Impact. The construction activities associated with PAR 1407 are not expected to involve the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population. Only a handful workers per facility may be needed to perform construction activities to comply with PAR 1407 and these workers can be supplied from the existing labor pool in the local Southern California area. Housekeeping and maintenance activities resulting from PAR 1407 would also not be expected to result in the need for a substantial number of additional employees because facilities have existing personnel who perform similar day-to-day operations. It is possible that new employees may be needed to operate new emission control devices that are expected to be installed at four facilities. 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 per facility. Regardless of implementing PAR 1407, human population within the jurisdiction of the South Coast AQMD. As such, PAR 1407 is not anticipated

to not result in changes in population densities, population distribution, or induce significant growth in population.

XIII. b) No Impact. PAR 1407 would result in construction activities that are expected to occur within the confines of existing facilities. Additional housekeeping and maintenance requirements would not be expected to substantially alter existing operations at non-chromium metal melting facilities. Consequently, PAR 1407 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of persons or housing elsewhere within the South Coast AQMD's jurisdiction.

Conclusion
Based upon these considerations, significant adverse population and housing impacts are not expected from implementing PAR 1407. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XIV. a) & b) Less Than Significant Impact. Implementation of PAR 1407 is expected to require minor modifications to building enclosures at 19 existing facilities, construction of two walls to complete building enclosures at four facilities, and the installation of emission control devices at four facilities, all while continuing current operations at the affected facilities. In order to construct the building enclosures, each facility may be required to obtain a building permit from the local city or county with jurisdiction over the construction. As each step in the construction process

progresses, a building inspector will periodically check in with each facility to verify that construction conforms to the specifications in the building permit. Because applications for building permits typically undergo a thorough "plan check" process before a permit to build is issued, new safety hazards are not expected to occur during construction. Further, PAR 1407 does not require the use or handling of hazardous materials, so no special circumstances with handling sensitive materials during construction would be expected. For these reasons, implementation of PAR 1407 is not expected to substantially alter or increase the need or demand for additional public services (e.g., fire and police departments and related emergency services, etc.) above current levels, so no significant impact to these existing services is anticipated.

XIV. c), d), & e) No Impact. As explained in Section XIII. a), 1407 is not anticipated to generate any significant effects, either direct or indirect, on the population or population distribution within South Coast AQMD's jurisdiction as no additional workers are anticipated to be required to comply with PAR 1407. Because PAR 1407 is not expected to induce substantial population growth in any way, and because the local labor pool (e.g., workforce) would remain the same since PAR 1407 would not trigger changes to current usage practices, no additional schools would need to be constructed as a result of implementing PAR 1407. Any construction activities would be temporary. Although four additional emission control devices are expected to be installed as a result of implementing PAR 1407, and trained personnel may be needed in order to maintain the new emission control devices at existing facilities, an increase in the labor force of one job per affected facility is assumed in this analysis. Therefore, since no substantial increase in local population would be anticipated as a result of implementing PAR 1407, there would be no corresponding impacts to local schools or parks and there would be no corresponding need for new or physically altered public facilities in order to maintain acceptable service ratios, response times, or other performance objectives. Therefore, no impacts would be expected to schools, parks or other public facilities.

Conclusion

Based upon these considerations, significant adverse public services impacts are not expected from implementing PAR 1407. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Impacts to recreation will be considered significant if:

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XV. a) & b) No Impact. As previously explained in Section XIII – Population and Housing, PAR 1407 is not expected to affect population growth or distribution within the South Coast AQMD's jurisdiction because workers needed to conduct construction activities to comply with PAR 1407 can be supplied by the existing labor pool in the local Southern California area and, at most, one employee may be needed to operate and maintain emission control devices at four facilities. As such, PAR 1407 is not anticipated to generate any significant adverse effects, either indirectly or directly on population growth within the South Coast AQMD's jurisdiction or population distribution, thus no additional demand for recreational facilities would be expected. No further requirements in PAR 1407 would be expected to affect recreation in any way. Therefore, PAR 1407 would not increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or expansion of existing recreational

facilities that might have an adverse physical effect on the environment because it would not directly or indirectly increase or redistribute population.

Conclusion

Based upon these considerations, significant adverse recreation impacts are not expected from implementing PAR 1407. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XVI. a) Less Than Significant Impact. PAR 1407 will cause construction activities to occur at affected facilities, and these activities may result in the generation of some solid construction waste that may need to be disposed of in a landfill. However, because PAR 1407 does not specifically require demolition to occur, beyond the requirement for facilities to remove weather caps from rooftop ventilation points, no significant amount of construction waste is expected to be generated. Additionally, the operation of baghouses will result in the generation of hazardous waste collected by the emission control device. Facility operators will remove the baghouse waste and store it in 50-gallon drums, and send the waste to a certified hazardous waste landfill or recycling center for proper disposal or recycling. Each baghouse is expected to be emptied once every three months, producing one drum (0.25 cubic yard) of waste per baghouse. Total waste generation from 14 baghouses installed at four facilities is estimated not to exceed 3.5 cubic yards every three months. For comparison, the smallest available commercial dumpster has a capacity of three cubic yards. Similar dumpsters are regularly filled and emptied weekly by small businesses, while it would take nearly three months for all 14 baghouses at the four affected facilities to produce one full dumpster load of waste. Thus, solid and hazardous waste generation is not expected to significantly impact existing permitted landfill capacity, and all affected facilities will be able to be served by a landfill with sufficient permitted capacity to accommodate to project's solid disposal needs.

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 1407 does not contain any provisions that would weaken current practices. While PAR 1407 would require dust emitting metal waste to be transported in sealed containers, this requirement strengthens waste handling practices, and reduces risk of exposure to hazardous waste during its transport. Thus, implementation of PAR 1407 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 1407. Since no significant solid and hazardous waste impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:					
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☑	☐
b)	Conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b)?	☐	☐	☑	☐
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
d)	Result in inadequate emergency access?	☐	☐	☐	☑

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 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XVII. a) & b) Less than Significant Impact. As previously discussed in Section III – Air Quality and Greenhouse Gas Emissions, compliance with PAR 1407 would require construction activities to construct building enclosures, improve building enclosures, and install baghouses and emission control device monitoring equipment. In addition, emissions will occur from vehicles dispatched to facilities for the purpose of conducting source tests and smoke tests, as well as delivering supplies and disposing of waste. Table 2-11 presents the vehicle trips that may occur on a peak day of construction and operational overlap.

Table 2-11
Peak Day Vehicle Trips

Activity	Vehicle Trips
2 Smoke Tests	2 Passenger Autos
2 Source Tests	2 Passenger Autos 2 Support Trucks
1 Haul Trip	1 Haul Truck
4 Minor Enclosure Improvements	4 Delivery Trucks 8 Passenger Autos
4 Emission Control Device Monitoring Equipment Installations	4 Delivery Trucks 8 Passenger Autos
4 Building Enclosures (2 walls)	12 Passenger Autos 4 Delivery Trips 4 Cranes 4 Forklifts
4 Baghouse Installations	20 Passenger Autos 4 Delivery Trucks 4 Forklifts 4 Aerial Lifts
Total	**87 Vehicle Trips**

52 passenger vehicles, 18 medium-duty trucks, one heavy-duty haul truck, four cranes, four aerial lifts, and eight forklifts would be used on a peak day, for a total of 87 additional vehicle trips, which is below the significance threshold of 350 round trips. Further, forklifts, aerial lifts, and cranes are expected to remain on the job site, and not contribute to on-road traffic.

In accordance with the promulgation of SB 743 which requires analyses of transportation impacts in CEQA documents to consider a project's vehicle miles traveled (VMT) in lieu of applying a LOS metric when determining significance for transportation impacts, CEQA Guidelines Section 15064.3(b)(4) gives a lead agency to use discretion to choose the most appropriate methodology to evaluate a project's VMT, allowing the metric to be expressed as a change in absolute terms, per capita, per household, or in any other measure.

Nonetheless, the CalEEMod modeling of the impacts from PAR 1407 was able to quantify the VMT from the project. The total VMT quantified represents a worst-case year of construction and operation. During the first year when all source tests and smoke tests will be completed and construction impacts will occur, these activities are estimated to result in 16,055 total VMT. South Coast AQMD has not established a significance threshold for evaluating VMT as of the writing of this Draft EA because the requirement to apply a VMT metric to determine significant transportation impacts does not go into effect until July 1, 2020. As such, a VMT-based significance determination is not currently a required component of this analysis. However, for perspective, an additional 16,055 VMT is equivalent to adding one or two vehicles to the road over the period of one year. Because the implementation of PAR 1407 will not exceed the significance threshold for vehicle trips on a peak day or any of the significance criteria outlined in this section, traffic and transportation impacts during construction and operation are not expected to cause a significant adverse impact. Therefore, PAR 1407 will not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b). Further, because implementation of PAR 1407 will not alter any transportation plans, PAR 1407 will not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

XVII. c) & d) No Impact. PAR 1407 does not involve or require the construction of new roadways, because the focus of PAR 1407 is to control arsenic, cadmium, and nickel emissions from non-chromium metal melting facilities. Thus, there will be no change to current public roadway designs including a geometric design feature that could increase traffic hazards. Further, PAR 1407 is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the facilities. Construction-related activities are expected to be temporary and is expected to involve short-term construction activities such as delivery truck trips which would 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 the 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. Further, impacts to existing emergency access at the affected facilities would also not be affected because PAR 1407 does not contain any requirements specific to emergency access points and each facility would be expected to continue to maintain their existing emergency access. As a result, PAR 1407 is not expected to result in inadequate emergency access.

Conclusion

Based upon these considerations, significant adverse transportation and traffic impacts are not expected from implementing PAR 1407. Since no significant transportation and traffic impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☑
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☑
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☑
e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildfires?	☐	☐	☐	☑

Significance Criteria

A project's ability to contribute to a wildfire will be considered significant if the project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and any of the following conditions are met:

- The project would substantially impair an adopted emergency response plan or emergency evacuation plan.
- The project may exacerbate wildfire risks by exposing the project's occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors.
- The project may exacerbate wildfire risks or may result in temporary or ongoing impacts to the environment because the installation or maintenance of associated infrastructure

(such as roads, fuel breaks, emergency water sources, power lines, or other utilities) are required.

- The project would expose people or structures to significant risks such as downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.
- The project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildfires.

Discussion
PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XVIII. a), b), c), d), & e) No Impact. The implementation of PAR 1407 will not require the construction of any new facilities. It will not result in the construction of any occupied buildings, or structures beyond the current facility boundaries. Thus, PAR 1407 is not expected to substantially impair an adopted emergency response plan or emergency evacuation plan. Further, the existing facilities which are subject to PAR 1407 are located in industrial areas, and not near wildlands. In the event of a wildfire, no exacerbation of wildfire risks, and no consequential exposure of the project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, or other factors would be expected to occur. Similarly, the existing facilities which are subject to PAR 1407 are located in industrial areas and no new facilities are required to be constructed. Thus, PAR 1407 would neither expose people or structures to new significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, nor would it expose people or structures, either directly or indirectly, to a new significant risk of loss, injury or death involving wildfires. Finally, because PAR 1407 does not require any construction beyond existing facility boundaries, the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment are not required.

Conclusion
Based upon these considerations, significant adverse wildfire risks are not expected from implementing PAR 1407. Since no significant wildfire risks were identified, no mitigation measures are necessary or required

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

Discussion

PAR 1407 will reduce emissions of arsenic, cadmium and nickel from non-chromium metal melting operations by revising emission standards, establishing monitoring provisions for air pollution control equipment, adding building enclosure provisions to limit fugitive emissions, and updating housekeeping, source testing, and monitoring, recordkeeping, and reporting requirements. Of the 54 facilities in South Coast AQMD's jurisdiction that are subject to PAR 1407, all 54 facilities would be required to conduct housekeeping, four facilities would need to install emission control devices (e.g., baghouses), four facilities would need to construct building enclosures, 19 facilities would need to make minor improvements, 19 facilities would be required to conduct periodic smoke tests, eight facilities would need to install emission control device monitoring equipment, and 13 facilities would be required to conduct periodic source testing.

XIX. a) No Impact. As explained in Section IV - Biological Resources, PAR 1407 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 1407 is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past.

XIX. b) Less Than Significant Impact. Based on the foregoing analyses, PAR 1407 would not result in significant adverse project-specific environmental impacts. Potential adverse impacts from implementing PAR 1407 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. South Coast AQMD cumulative significant thresholds are the same as project-specific significance thresholds.

Therefore, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by PAR 1407 for any environmental topic.

XIX. c) Less Than Significant Impact. Based on the foregoing analyses, PAR 1407 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) energy impacts were determined to be less than significant as analyzed in Section VI – Energy; 3) geological and soil impacts were determined to be less than significant as analyzed in VII – Geology and Soils; 4) the hazards and hazardous materials impacts were determined to be less than significant as analyzed in Section VIII – Hazards and Hazardous Materials; 5) the increased water usage and wastewater was determined to be less than significant as analyzed in Section IX – Hydrology and Water Quality; 6) the noise impacts were determined to be less than significant as analyzed in Section XII – Noise; 7) public services such as fire protection and police protection were determined to be less than the significance thresholds as analyzed in Section XIV – Public Services; 8) solid and hazardous waste impacts were determined to be less than significant as analyzed in Section XVI – Solid and Hazardous Waste; and 9) transportation and traffic impacts were determined to be less than the significant as analyzed in Section XVII – 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 and tribal cultural resources, land use and planning, mineral resources, population and housing, recreation, solid and hazardous waste, and wildfire.

Conclusion

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

APPENDICES

APPENDIX A

Proposed Amended Rule 1407 – Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations

(Adopted July 8, 1994)

v061119

PROPOSED AMENDED RULE 1407. CONTROL OF EMISSIONS OF ARSENIC, CADMIUM, AND NICKEL FROM NON-~~FERROUS~~CHROMIUM METAL MELTING OPERATIONS

(a) Purpose

The purpose of this rule is to reduce emissions of arsenic, cadmium, and nickel from non-~~ferrous~~chromium metal melting operations.

(b) Applicability

This rule applies to ~~all persons who own or operate~~ an owner or operator of a facility conducting non-~~ferrous~~chromium metal melting operation(s), including but not limited to, smelters (primary and secondary), foundries, die-casters, coating processes (galvanizing and tinning), and other miscellaneous processes such as dip soldering, brazing, and aluminum powder production.

(c) Definitions

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

(1) ALUMINUM AND ALUMINUM-BASED ALLOY is any metal that ~~is~~ contains at least 80 percent aluminum by weight.

(2) APPROVED CLEANING METHODS are techniques to clean while minimizing fugitive dust emissions consisting of wet wash, wet mop, damp cloth, low pressure spray, or vacuum equipped with filter(s) rated by the manufacturer to achieve a 99.97% control efficiency for 0.3 micron particles.

(3) BAG LEAK DETECTION SYSTEM is a system that monitors electrical charge transfer based on triboelectric or electrostatic induction to continuously monitor bag leakage and similar failures by detecting changes in particle mass loading in the exhaust.

(4) BUILDING ENCLOSURE is a 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 or wind), with limited enclosure openings to allow access for people, vehicles, equipment, or parts such that openings to the exterior and on opposite ends of the building enclosure where air can pass through are not simultaneously open.

(5) CAPTURE VELOCITY is the minimum hood induced air velocity necessary to capture and convey air contaminants into an emission collection system.

(~~2~~6) CLEAN ALUMINUM SCRAP is any scrap that is composed solely of aluminum or aluminum alloys (including anodized aluminum) and that is free of paints, oils, greases, coatings, rubber, or plastics.

(~~3~~7) COPPER OR COPPER BASED ALLOY~~S~~ is any metal that ~~is~~ contains more than 50 percent copper by weight, including, but not limited to, brass and bronze.

~~(4) DISTRICT is the South Coast Air Quality Management District.~~

(~~5~~8) DUST FORMING MATERIAL is any material containing more than 15 percent by weight of particulate matter less than 0.84 millimeter (mm) equivalent diameter as determined by ASTM C136-84a "Standards for Sieve Analysis of Fine and Coarse Aggregates" using a Number 20 U.S. Bureau of Standards sieve with 0.84 mm square openings or an alternate method deemed acceptable by the Executive Officer ~~or his designee~~.

(~~6~~9) EMISSION COLLECTION SYSTEM is any equipment installed for the purpose of directing, taking in, confining, and conveying an air contaminant, and which conforms to design and operation specifications given in the most current edition of ~~Industrial Ventilation, Guidelines and Recommended Practices~~*Industrial Ventilation: A Manual of Recommended Practice for Design*, published by the American Conference of Governmental ~~and~~ Industrial Hygienists ~~(20th Edition or thereafter)~~ at the time the ~~a complete~~ permit application is deemed complete by the South Coast AQMD~~is on file with the District~~.

(10) EMISSION CONTROL DEVICE is any equipment installed in the ventilation system of a non-chromium metal melting furnace or after the emission collection system for the purpose of collecting and reducing metal emissions.

~~(7) EMISSION POINT is any location where molten metal is or can be exposed to air, including, but not limited to, furnaces, crucibles, refining kettles, ladles, tap holes, pouring spouts, and slag channels. A mold or die in which metal is cooling is not considered an emission point.~~

(~~8~~11) ENCLOSED STORAGE AREA is any space used to contain materials that has a wall or partition on at least three sides or three-quarters of its circumference and that screens the materials stored therein to prevent emissions of the material to the air.

(12) ENCLOSURE OPENING is any permanent opening that is designed to be part of a building enclosure, such as passages, doorways, bay doors, roof openings, and

windows. Stacks, ducts, and openings to accommodate stacks and ducts are not considered enclosure openings.

(~~9~~13) FACILITY is a source at which non-chromium metal melting operations are conducted, and ~~is any real or personal property which~~ is located on one or more contiguous or adjacent parcels of property in actual contact or separated solely by a public roadway or other public right-of-way and is owned or operated by the same person or person(s), corporation, government agency, public district, public officer, association, joint venture, partnership, or any combination of such entities.

(14) FOUNDRY is any facility, operation, or process where a metal or a metal alloy is melted and casted.

(~~10~~15) FUGITIVE METAL DUST EMISSIONS are metal emissions from non-chromium metal melting operations ~~sources~~ that enter the atmosphere without passing through a stack or vent designed to direct or control their flow ~~or that escape from a properly designed and operated emission collection systems~~. ~~Fugitive emissions broadly include emissions from process or open sources. Process sources include, but are not limited to, emissions from storage and handling of materials such as baghouse dust. Open sources include, but are not limited to, emissions from entrainment of solid particulates by the forces of wind or machinery acting on exposed sources such as dust settled from charging and tapping of metallurgical furnaces.~~

~~(11) FUGITIVE EMISSIONS CONTROL is any equipment, activity, or process that is utilized to reduce fugitive emissions.~~

~~(12) GOOD OPERATING PRACTICES are any specific activities necessary to maintain the collection and control efficiencies as designed and permitted for. These activities include, but are not limited to, verifying operating specifications such as production throughput, temperature control, cleaning cycles, air flow and velocity, and inspecting equipment, such as filter cartridges or bags in a baghouse, pressure gauges, duct work, blowers and components of the control equipment, through a general maintenance and inspection program.~~

~~(13) HARD LEAD is an alloy containing at least 90 percent lead and more than 0.001 percent arsenic by weight or 0.001 percent cadmium by weight.~~

~~(14) MOLTEN METAL is metal or metal alloy in a liquid state, in which a cohesive mass of metal will flow under atmospheric pressure and take the shape of a container in which it is placed.~~

(16) FUNCTIONALLY SIMILAR FURNACE is a furnace used for metal melting that is the same type of furnace (electric, induction, cupola, reverberatory, etc.) used at a facility to melt the same alloys.

(17) LOW PRESSURE SPRAY is a liquid stream with a pressure of 35 pounds per square inch or less.

(18) METAL CUTTING is a process used to abrasively cut ingot, log, billet stock, castings, or formed parts not conducted under a continuous flood of metal removal fluid.

(19) METAL GRINDING is a process used to grind ingot, log, billet stock, castings, or formed parts not conducted under a continuous flood of metal removal fluid.

(~~15~~20) METAL MELTING FURNACE is any apparatus in which metal is brought to a liquid state including, but not limited to, blast, crucible, cupola, direct arc, electric arc, hearth, induction, pot, and sweat furnaces, and refining kettles, regardless of the heating mechanism. ~~METAL MELTING FURNACE does not include any apparatus in which metal is heated but does not reach a molten state, such as a sintering furnace or an annealing furnace.~~

(21) MOLTEN METAL is metal or metal alloy in a liquid state, in which a cohesive mass of metal will flow under atmospheric pressure and take the shape of a container in which it is placed.

(22) METAL REMOVAL FLUID is a fluid used at the tool and workpiece interface to facilitate the removal of metal from the part, cool the part and tool, extend the life of the tool, or to flush away metal chips and debris, but does not include minimum quantity lubrication fluids used to coat the tool workpiece interface with a thin film of lubricant and minimize heat buildup through friction reduction. Minimum quantity lubrication fluids are applied by pre-coating the tool in the lubricant, or by direct application at the tool workpiece interface with a fine mist.

(~~14~~23) NEW SAND is any sand not exposed to the casting process.

(24) NON-CHROMIUM METAL is any metal that contains less than 0.5 percent by weight total chromium content as determined on a monthly weighted average.

~~(17) NON-FERROUS METAL is any metal that contains aluminum, arsenic, cadmium, copper, lead, zinc or their alloys.~~

~~(18) PARTICULATE MATTER OR PM is any material, except uncombined water, which exists in a finely divided form at standard conditions of temperature and pressure (293 ^{0} K and 760 mm mercury).~~

~~(19) FINE PARTICULATE MATTER OR PM_{10} is any material, except uncombined water, which exists in a finely divided form at standard conditions of temperature and pressure (293 ^{0} K and 760 mm mercury).~~

~~(20) PARTICULATE MATTER CONTROL SYSTEM is any device or series of devices designed and operated in a manner intended to remove or reduce fine particulate matter (<10 µm) from an air or gas stream.~~

~~(21) PERSON is any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee or other capacity, including any governmental entity or charitable organization as defined in Health and Safety Code Section 39047.~~

~~(22) PROCESS EMISSION CONTROL is any equipment installed and operated to control emissions of toxic metals from an emission point.~~

~~(23) PURE LEAD is any alloy that is at least 90 percent lead and contains no more than 0.001 percent cadmium by weight and no more than 0.001 percent arsenic by weight.~~

(~~24~~25) RERUN SCRAP is any material that includes sprues, gates, risers, foundry returns, and similar material intended for remelting that has been generated at the facility as a consequence of a casting or forming process but has not been coated or surfaced with any other material.

(~~25~~26) ~~RINGLEMANN~~ RINGELMANN CHART is the ~~Ringlemann~~ Ringelmann Chart published in the United States review of Mine Information Circular No. 1C8333, (May 1967), as specified in the Health and Safety Code Section 41701 (b).

~~(25) RERUN SCRAP is any material that includes sprues, gates, risers, foundry returns, and similar material intended for remelting that has been generated at the facility as a consequence of casting or forming process but has not been coated or surfaced with any material containing cadmium, arsenic, or nickel.~~

(~~26~~27) SCRAP is any metal or metal-containing material that has been discarded or removed from the use for which it was produced or manufactured and which is intended for reprocessing. This does not include rerun scrap.

(~~27~~28) SOLDER is any metal in which the sum of the lead and tin content is greater than 50 percent by weight and which is used to join two metals or join a metal and to any other metal.

~~(28) TYPE METAL is any lead-based alloy used for Linotype machines.~~

(d) Emission Control Requirements

~~Any person who owns or operates a non-ferrous melting facility shall be in compliance with all the requirements specified in subdivisions (d) and (e), no later than July 6, 1996.~~

(1) Until compliance with the provisions pursuant to paragraphs (d)(3) or (d)(4), an owner or operator of a non-chromium melting operation shall vent ~~All~~ all emission

points ~~shall be vented~~ to an emission collection system designed and operated in accordance with the manufacturer specifications, which was submitted in the permit application to the ~~District~~South Coast AQMD, and the conditions specified in the issued permit.

(2) Until compliance with the provisions pursuant to paragraphs (d)(3) or (d)(4), an owner or operator of a non-chromium metal melting operation shall vent ~~The~~ the gas stream from any emission collection system ~~shall be ducted~~ to a control device which shall reduce the particulate emissions by 99 percent or more by weight.

(3) No later than January 1, 2021, an owner or operator of a non-chromium metal melting operation shall reduce emissions from a non-chromium metal melting furnace by a minimum of 99 percent, as demonstrated through a source test pursuant to subdivision (h), of:

(A) Arsenic;

(B) Cadmium; and

(C) Nickel.

(4) As an alternative to paragraph (d)(3), an owner or operator of a non-chromium metal melting operation may elect to demonstrate facility-wide mass emission limits for each of the specific pollutants above from all non-chromium metal melting furnaces and associated emission control devices by demonstrating through a source test pursuant to subdivision (h), achievement of the following limits:

(A) Arsenic: less than 0.095 pounds per calendar year, in lieu of the emission limit in subparagraph (d)(3)(A);

(B) Cadmium: less than 0.74 pounds per calendar year, in lieu of the emission limit in subparagraph (d)(3)(B); or

(C) Nickel: less than 12.2 pounds per calendar year, in lieu of the emission limit in subparagraph (d)(3)(C).

(~~3~~5) Until compliance with the provisions pursuant to paragraphs (d)(3) or (d)(4),~~The~~ an owner or operator of a non-chromium metal melting operation shall not allow the temperature of the gas stream entering any particulate matter control device that is part of the emission collection system ~~shall not~~to exceed 360 degrees Fahrenheit, unless it can be demonstrated and is approved in writing by the ~~District~~ Executive Officer, that a control efficiency of 99 percent or more for arsenic and cadmium, as demonstrated through a source test pursuant to subdivision (h), will be achieved at a higher temperature.

~~(4) The control efficiency of the particulate control device shall be determined by a source test conducted in accordance with SCAQMD Method 5.2 – Determination~~

~~of Particulate Matter Emissions from Stationary Sources Using Heated Probe and Filter. An alternate test method to Method 5.2 may be used if it is approved by the Executive Officer or his designee of the California Air Resources Board. The control efficiency shall be calculated using the following equation:~~

$$\frac{C_{in} - C_{out}}{C_{in}} \times 100 = \text{\% emission reduction}$$

~~Where: C_{in} = mass of particulate matter at the inlet to the control device~~

~~C_{out} = mass of particulate matter at the outlet of the control device~~

~~Mass = sum of the filter catch, probe catch, impinge catch, and solvent extract~~

~~The Executive Officer or his designee may require additional source testing periodically to verify continued compliance or when the process is changed.~~

~~(5)~~ ~~Good operating practices shall be used by the facility, and demonstrated through a maintenance program and the use measuring devices, or other procedures approved by the District, to maintain air movement and emission collection efficiency by the system consistent with the design criteria for the system:~~

~~(A)~~ ~~Maintenance Program~~

~~The maintenance program shall specify at a minimum the following:~~

~~(i)~~ ~~Maximum allowable variation from designed values of operating parameters, such as air velocity in the hood and ducts and pressure drop across the control device.~~

~~(ii)~~ ~~Areas to be visually inspected, such as the clean side of the baghouse and ducts operating under positive pressure, and the required frequency of such inspections.~~

~~(iii)~~ ~~Methods of documenting compliance with these requirements, such as a log of such inspections and records of observations and measurements.~~

~~(B)~~ ~~Measuring Devices~~

~~(i)~~ ~~Flow Meter~~

~~Flow meter (s) shall be installed in the collection system to indicate the air velocity in the duct leading to or from the control device~~

~~(ii) Pressure Gauge~~

~~A magnehelic or a light sensitive gauge shall be installed to indicate the pressure drop. This gauge should have a high and low setting for the pressure drop and should trigger an alarm system when the high or low set points are exceeded or the cleaning cycle when the high set point is reached.~~

~~(iii) Broken Bag Detector~~

~~A broken bag detector with an alarm system shall be installed in the dry filter control device to sound an alarm, if there are broken or damaged filter media or leaks in the baghouse.~~

~~(iv) Temperature Gauge~~

~~A thermocouple and a temperature controller to monitor the temperature to the inlet of the control device shall be installed.~~

~~(e) Fugitive Emission Control~~

(~~1~~6) No activity associated with non-~~ferrous~~chromium metal melting at a facility, including furnace operation, casting, emission control system operation, and the storage, handling, or transfer of any materials (except new sand) shall discharge into the air any air contaminant, other than uncombined water vapor, for a period aggregating more than three minutes in any one hour which is:

(A) Half as dark or darker in shade as that designed as Number 1 on the ~~Ringlemann~~Ringelmann Chart, as published by the United States Bureau of Mines~~,~~; or

(B) Of such opacity so as to obscure an observer's view to a degree equal to or greater than smoke as described in subparagraph ~~(e)(1)(A)~~(d)(6)(A) or 10 percent opacity.

(e) Housekeeping Requirements

(1) An owner or operator of a non-chromium metal melting operation shall control fugitive metal dust emissions by conducting the following housekeeping requirements:

(~~2~~A) Dust-forming metal-containing material including, but not limited to, dross, ash, ~~or~~ feed material, trash, or debris, shall be stored in an enclosed storage area, a building enclosure, or ~~stored in a manner which meets the requirements of paragraph (e)(1).~~ covered containers to prevent any metal dust emissions. Containers shall remain covered at all times, except when

material is actively deposited into a receptacle, and shall be free of liquid and dust leaks;

(~~3~~B) Material collected by an ~~particulate matter~~emission control ~~system~~ device shall be discharged into closed containers or an enclosed system that is completely sealed to prevent any metal dust emissions~~.~~;

(C) All areas where furnace and casting operations occur and waste generated from housekeeping activities is stored, disposed of, recovered, or recycled shall be cleaned at least weekly using an approved cleaning method; and

(D) All areas where furnace, casting, metal cutting, and metal grinding operations occur shall not be cleaned using dry cleaning or compressed air cleaning.

~~(4) Surfaces that are subjected to vehicular or foot traffic shall be vacuumed, wet mopped, or otherwise maintained in accordance with a District approved housekeeping plan, which shall be submitted as part of the compliance plan.~~

(2) Effective *[30 days after Date of Adoption]*, an owner or operator of a non-chromium metal melting operation shall control fugitive metal dust emissions by conducting the following housekeeping requirements:

(A) Collection vents, openings, and ducting of each non-chromium metal melting operation emission control device shall be inspected quarterly and if necessary, cleaned using an approved cleaning method;

(B) Any stack that is a source of emissions associated with non-chromium metal melting operations shall not utilize a weather cap that restricts the flow of exhaust air;

(C) Unless located within a building enclosure or an enclosed storage area, slag and any waste generated from the housekeeping requirements of this subdivision and the construction or maintenance activities of subdivision (f), shall be transported within closed conveyor systems or in covered containers to prevent any fugitive metal dust emissions. This subparagraph shall not be applicable to the transport of high temperature materials exceeding 500 degrees Fahrenheit;

(D) The following locations shall be cleaned, at a minimum, weekly using an approved cleaning method:

(i) Floors within 20 feet of a work station or work stations dedicated to metal grinding or metal cutting operations not conducted under a continuous flood of metal removal fluid;

(ii) Floors within 20 feet of any entrance/exit point of an enclosed storage area or building enclosure that houses the grinding or cutting operations not conducted under a continuous flood of metal removal fluid; and

(iii) Floors within 10 feet of the transfer points of an emission control device dedicated to the metal grinding or metal cutting operations not conducted under a continuous flood of metal removal fluid;

(E) Dust-forming metal-containing material including slag or materials generated from housekeeping, construction, or maintenance requirements of this subdivision, shall be stored in an enclosed storage area, a building enclosure, or covered containers to prevent any metal dust emissions. Containers shall remain covered at all times, except when material is actively deposited into a receptacle, and shall be free of liquid and dust leaks; and

(F) After any construction or maintenance activity or event, including, but not limited to, accidents, process upsets, or equipment malfunction that results in the deposition of fugitive metal dust emissions, the area where the construction or maintenance activity occurred shall be cleaned within an hour using an approved cleaning method.

(f) ~~Compliance Schedule~~Building Enclosure Requirements

~~(1) All facilities subject to this rule, including those seeking an exemption pursuant to paragraph (i)(1) and/or (i)(2), shall submit a compliance plan no later than January 6, 1995, to show how they will comply with all the applicable provisions of the rule or to demonstrate proof of exemption.~~

~~The compliance plan shall, at a minimum, contain the following information:~~

~~(A) how the exemption (i)(1) and (i)(2) may apply;~~

~~(B) How the control measure or proposed alternate control measure, (h), will meet the requirements of (d)(1) through (d)(4);~~

~~(C) How the maintenance program measures for the control device will ensure continuous compliance; and,~~

~~(D) How the housekeeping measures will minimize fugitive emissions.~~

~~Those seeking exemptions pursuant to (i)(3) through (i)(6), may submit in writing a letter, instead of a compliance plan, to the District, providing proof of exemption.~~

~~(2) Facilities required to install or modify control equipment pursuant to this rule shall submit permit to construct application(s) by no later than July 6, 10995, and shall comply with the rule no later than July 6, 1996.~~

(1) No later than July 1, 2020, an owner or operator of a non-chromium metal melting operation shall conduct all metal melting, metal grinding, and metal cutting operations, in a building enclosure.

(2) No later than July 1, 2020, an owner or operator of a non-chromium metal melting operation shall conduct all metal melting, metal grinding, and metal cutting operations in a building enclosure. If the building enclosure contains enclosure openings to the exterior that are on opposite ends of the building enclosure where air can pass through any space where non-chromium metal melting, metal grinding, or metal cutting operations occur, an owner or operator of a non-chromium metal melting operation shall close at least one end of the building enclosure, except during the passage of vehicles, equipment, or people, by using one or more of the following:

(A) Door that automatically closes;

(B) Overlapping plastic strip curtains;

(C) Vestibule;

(D) Airlock system;

(E) Barrier, such as a large piece of equipment that restricts air from moving through the building enclosure; or

(F) Alternative method to minimize the release of dust-forming metal-containing fugitive emissions from the building enclosure that an owner or operator of a facility can demonstrate to the Executive Officer is an equivalent or more effective method(s) to prevent dust-forming metal-containing fugitive emissions escaping a building enclosure.

(3) No later than [*60 days after Date of Adoption*], an owner or operator of a non-chromium metal melting operation shall notify the Executive Officer if any of the requirements specified in paragraphs (f)(1) and (f)(2) cannot be complied with due to conflicting requirements set forth by the United States Department of Labor Occupational Safety and Health Administration (OSHA), California Division of Occupational Safety and Health (Cal/OSHA), or other municipal codes or agency requirements directly related to worker safety. A Building Enclosure Compliance Plan shall be submitted to the Executive Officer for review and approval no later than [*90 days after Date of Adoption*] for facilities existing before [*Date of Adoption*], and prior to initial start-up for all other operations. The Building

Enclosure Compliance Plan shall be subject to plan fees specified in Rule 306 – Plan Fees and include:

(A) An explanation as to why any of the provisions specified in paragraphs (f)(1) and (f)(2) are in conflict with the requirements set forth by OSHA, Cal/OSHA, or other municipal codes or agency requirements directly related to worker safety; and

(B) Alternative compliance measure(s) that will be implemented to minimize the release of dust-forming metal-containing fugitive emissions to the outside of the building enclosure.

(4) The Executive Officer shall notify an owner or operator of a non-chromium metal melting operation in writing whether the Building Enclosure Compliance Plan is approved or disapproved.

(A) If the Building Enclosure Compliance Plan is disapproved, an owner or operator shall resubmit the Building Enclosure Compliance Plan within 30 calendar days after notification of disapproval of the Building Enclosure Compliance Plan. The resubmitted Building Enclosure Compliance Plan shall include any information to address deficiencies identified in the disapproval letter. In the alternative, an owner or operator may appeal the Building Enclosure Compliance Plan disapproved by the Executive Officer to the Hearing Board pursuant to Rule 216 – Appeals and Rule 221 – Plans.

(B) The Executive Officer will either approve the revised and resubmitted Building Enclosure Compliance Plan or modify the Building Enclosure Compliance Plan and approve it as modified. An owner or operator may appeal the Building Enclosure Compliance Plan modified by the Executive Officer to the Hearing Board pursuant to Rule 216 – Appeals and Rule 221 – Plans.

(5) An owner or operator of a non-chromium metal melting operation shall implement the Building Enclosure Compliance Plan, as approved by the Executive Officer, no later than 90 days after receiving notification of approval for facilities existing before [*Date of Adoption*], and prior to initial start-up for all other facilities. Compliance with the approved alternative compliance measures shall constitute compliance with the applicable provisions of paragraphs (f)(1) and (f)(2).

(g) Recordkeeping

An owner or operator of a non-chromium metal melting operation shall maintain records of the following:

(1) Monthly quantities of raw materials processed, including ingots, scrap, and reruns and the purchase records to verify these quantities;

(2) Monthly analyses to determine the weighted average percentage of arsenic, cadmium, chromium, and nickel contained in metals and alloys using one of the following:

(A) United States Environmental Protection Agency (U.S. EPA)-approved method(s);

(B) Applicable method(s) pursuant to subdivision (i);

(C) Metallurgical assay; or

(D) An alternative method approved by the Executive Officer;

(3) Quarterly analyses to determine the weight percentage of arsenic, cadmium, chromium, and nickel contained in bulk samples of baghouse catches;

(4) Source test data as required by subdivision (h) and paragraph (j)(3);

(5) Housekeeping activities conducted as required by subdivision (e);

(6) Data files, inspection, calibration documentation, and maintenance of emission control devices as required by subdivision (j), including the name of the person conducting the activity and the dates and times at which specific activities were completed;

(7) Anemometer data collected, including capture velocities, dates of measurement, and calibration documentation as required by paragraph (j)(6); and

(8) Smoke test documentation as required in Attachment B – Smoke Test to Demonstrate Capture Efficiency for Emission Collection Systems of an Emission Control Device Pursuant to Paragraph (j)(5).

An owner or operator shall maintain all records for three years, with at least the two most recent years kept onsite, and made available to the South Coast AQMD upon request.

~~(1) Facilities subject to subdivision (d) shall maintain on site for a period of two years, and make available to the District upon request, a record of the results of any source testing required by the District to demonstrate that the particulate matter control device(s) are operating as required by paragraph (d)(2).~~

~~(2) Facilities seeking an exemption under paragraphs (i)(1) and/or (ik)(2) or (i)(3) shall maintain for twothree years records of the amount and type of metal processed in those furnaces including results of analyses as required to support exemptions under paragraph (ik)(2). These records shall be made available to the District upon request.~~

~~(h) Alternative Emissions Control~~

~~The District may approve an alternative emission control measure proposed by a facility if the facility operator can demonstrate to the satisfaction of the Executive Officer or his designee that the alternative control measure is enforceable, achieves equivalent or greater reductions in emissions and risk, and achieves the reduction within the same time period as required by this rule. The Executive Officer or his designee shall revoke this approval if the facility operator fails to adequately implement the alternative approach or the alternative approach does not reduce emissions as required.~~

(h) Source Testing

(1) At least 60 calendar days prior to conducting a source test pursuant to paragraphs (h)(2) through (h)(4), an owner or operator of a non-chromium metal melting operation shall submit a source test protocol to the Executive Officer for approval. The source test protocol shall include the following:

(A) The source test criteria, all assumptions, and required data;

(B) Calculated target arsenic, cadmium, and nickel concentrations or mass emission standards;

(C) Planned sampling parameters;

(D) Information on equipment, logistics, personnel, and other resources necessary to conduct an efficient and coordinated source test; and

(E) Evaluation of the capture efficiency of the emission collection system.

(2) No later than January 1, 2021, an owner or operator of a non-chromium metal melting operation shall conduct an initial source test of all non-chromium metal melting furnaces to determine compliance with the emission limits for arsenic, cadmium, and nickel pursuant to paragraphs (d)(3) and (d)(4).

(3) An owner or operator of a non-chromium metal melting operation shall conduct a source test of all non-chromium metal melting furnaces once every 60 months after the initial source test to demonstrate compliance with the emissions limits for arsenic, cadmium, and nickel pursuant to paragraphs (d)(3) and (d)(4).

(4) An owner or operator of a non-chromium metal melting operation may source test an uncontrolled furnace and apply the emission rate established by the source test results proportionately to all uncontrolled functionally similar furnaces at the facility.

(5) An owner or operator with a new or modified non-chromium metal melting furnace or emission control device for a non-chromium metal melting furnace installed on or after [*Date of Adoption*], shall submit a source test protocol pursuant to

subparagraphs (h)(1)(A) through (h)(1)(E) within 90 days after its Permit to Construct is issued by the Executive Officer and conduct the initial source test for the emission control device no later than 120 days after the approval of the source test protocol.

(6) An owner or operator of a non-chromium metal melting operation shall notify the Executive Officer, in writing, of the intent to conduct source testing, one week prior to conducting any source test required by paragraphs (h)(2) through (h)(5). A change in the source test date shall be reported to the Executive Officer, in writing, at least twenty four hours prior to cancelling or rescheduling.

(7) An owner or operator of a non-chromium metal melting operation shall notify the Executive Officer within five calendar days of when the facility knew or should have known of any source test result(s) that exceeded any of the emission standards specified in subdivision (d). Notifications shall be made to 1-800-CUT-SMOG and followed up in writing to the Executive Officer with the results of the source tests within 10 calendar days of notification.

(8) An owner or operator shall conduct source tests while operating at a minimum of 80 percent of the equipment's permitted capacity and in accordance with California Air Resources Board (CARB) Method 436 – *Determination of Multiple Metal Emissions from Stationary Sources.*

(9) An owner or operator of a non-chromium metal melting operation may use alternative or equivalent source test methods as defined in U.S. EPA 40 CFR Part 60, Section 60.2, if approved in writing by the Executive Officer, in addition to the CARB, or the U.S. EPA, as applicable.

(10) An owner or operator of a non-chromium metal melting operation shall use a test laboratory approved under the South Coast AQMD Laboratory Approval Program for the source test methods cited in this subdivision. If there is no approved laboratory, then approval of the testing procedures used by the laboratory may be granted by the Executive Officer on a case-by-case basis based on South Coast AQMD protocols and procedures.

(11) When more than one source test method or set of source test methods are specified for any testing, the application of these source test methods to a specific set of test conditions is subject to approval by the Executive Officer. In addition, a violation established by any one of the specified source test methods or set of source test methods shall constitute a violation of the rule.

(12) An existing source test conducted on or after January 1, 2016 for a non-chromium metal melting furnace or emission control device for a non-chromium metal melting

furnace existing before [*Date of Adoption*] may be used as the initial source test specified in paragraph (h)(2) to demonstrate compliance with the emission limits of subdivision (d) so long as the source test meets the following criteria:

(A) The source test conducted is the most recent since January 1, 2016;

(B) The source test demonstrated compliance with the emission limit requirements of subdivision (d); and

(C) The source test was conducted using applicable and approved test methods and test laboratories specified in paragraphs (h)(8) through (h)(10).

(13) Reports from source testing conducted pursuant to subdivision (h) and paragraph (j)(3) shall be submitted to the South Coast AQMD within 90 days of completion of source testing.

~~(i) Exemptions~~

~~(1) Small Quantity Exemptions.~~

~~A facility shall be exempt from subdivisions (d) and (e), if they meet either one of the following conditions:~~

~~(A) The facility melts a total of no more than one ton per year of all non-ferrous metals,~~

~~or~~

~~(B) For facilities melting solely metals listed in Table I, [not including any metal or alloy that meets the purity exemption of paragraph (i)(2)], the eligibility for exemption shall be determined using the following formula:~~

~~$A/A_0 + B/B_0 + C/C_0 + ... <= 1$~~

~~Where A, B, C, ..., are quantities of Table I metals melted and A_0, B_0, C_0, ..., are the exemption limits listed in Table I.~~

~~(i) For each metal listed in Table I, divide the quantity melted by the specific exemption limit listed.~~

~~(ii) Sum the resulting fractions for all the metals.~~

~~(iii) If the sum does not exceed 1.0, the facility qualifies for exemption under paragraph (i)(1).~~

~~**Table I**~~

~~Exemption Limits For Metal Melted~~

~~Metal~~	~~Exemption Limit~~

	~~(tons per year)~~
~~Pure Lead~~	~~400~~
~~Hard Lead~~	~~200~~
~~Aluminum Scrap~~	~~125~~
~~Aluminum Ingot containing more than 0.004 percent cadmium or 0.002 percent arsenic by weight~~	~~125~~
~~Solder~~	~~100~~
~~Zinc Scrap~~	~~30~~
~~Copper or copper-based alloys (except scrap) containing more than 0.004 percent cadmium or 0.002 percent arsenic by weight~~	~~30~~
~~Type Metal~~	~~25~~

~~(2) Metal or Alloy Purity Exemption~~

~~Facilities or furnaces which do not melt scrap except clean aluminum scrap or rerun scrap and which melt a metal or alloy (other than metals listed in Table I) which is shown by laboratory analysis to have less than 0.004 percent of cadmium and less than 0.002 percent of arsenic by weight are exempt from subdivisions (d) and (e).~~

~~(3) Clean Aluminum Scrap~~

~~Furnaces used exclusively to process clean aluminum scrap or a mixture of clean aluminum scrap and aluminum ingot to produce extrusion billet are exempt from paragraphs (d)(1) through (d)(5).~~

~~(4) Aluminum Scrap Furnaces~~

~~The combustion chamber in a reverberatory furnace is exempt from the requirements of paragraphs (d)(1) through (d)(5) if the furnace meets the following conditions:~~

~~(A) The furnace is used solely to melt aluminum and aluminum based alloys; and,~~

~~(B) The furnace is constructed with a charging well or similar device in which feed is added to molten metal in a separate chamber.~~

~~(5) Aluminum Pouring Exemption~~

~~Ladles, launders or other equipment used to convey aluminum from a melting or holding furnace to casting equipment is exempt from the requirements of paragraphs (d)(1) through (d)(5).~~

~~(6) Rule 1420 - Emissions of Lead~~

~~Facilities that emit lead and who have demonstrated 99 percent or greater control efficiency for particulate matter or 98 percent or greater for lead pursuant to the requirement of Rule 1420 paragraph (e)(2), shall be exempt from the requirement of paragraph (d)(2) provided:~~

~~(A) The source test method used meets the requirement of paragraph (d)(4) for particulate matter or SCAQMD Method 12.1 for lead; and,~~

~~(B) The inlet temperature to the control device meets the requirement of paragraph (d)(3).~~

~~(7) Control Devices for Fugitive Emissions~~

~~Devices used solely to control fugitive emissions are exempt from the requirements of (d)(1) through (d)(5).~~

(~~j~~i) Applicable Material Testing Methods

An owner or operator of a non-chromium metal melting operation shall use ~~One~~ one of the following methods as identified in paragraphs (~~j~~i)(1) through (~~j~~i)(~~7~~6) or an alternate method ~~deemed acceptable~~approved by the Executive Officer ~~or his designee shall be used~~. Sampling for these methods shall comply with ASTM E 88-58 (1986), "Standard Practice for Sampling Nonferrous Metals and Alloys in Cast Form for Determination of Chemical Composition."

(1) To determine the composition of alloys defined in paragraph (c)–(1) and to determine the cadmium content of aluminum alloys to evaluate eligibility for exemption under paragraphs (~~j~~k)-(2) and (k)(3), one of the following methods shall be used:

(A) ASTM E 227-67 (1982), "Standard Method for Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys by the Point-to-Plane Technique~~.~~;"

(B) ASTM E 607-90, "Standard Method for Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys by the Point-to-Plane Technique, Nitrogen Atmosphere;" or

(C) ASTM E 1251-88, "Standard Method for Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys by the Argon Atmosphere, Point-to-Plane Unipolar Self-Initiating Capacitor Discharge."

~~(2) To determine alloy composition as defined in paragraphs (c)(13) and (c)(23), ASTM E 117-64 (1985) "Standard Method for Spectrographic Analysis of Pig Lead by the Point-to-Plane Technique" shall be used.~~

(~~3~~2) To determine alloy composition as defined in paragraph (c)(~~26~~28), ASTM E 46-87 "Test Method for Chemical Analysis of Lead and Tin-Base Solder" shall be used.

(~~4~~3) To determine cadmium concentration in zinc and zinc alloys to evaluate eligibility for exemption under paragraph (~~i~~k)(~~2~~3), ASTM E 536-84 (1988), "Standard Test Method for Chemical Analysis of Zinc and Zinc Alloys" shall be used.

(~~5~~4) To determine cadmium concentration in copper and copper based alloys to evaluate eligibility for exemption under paragraph (~~i~~k)(~~2~~3), ASTM E 53-86a "Standard Test Method for Chemical Analysis of Copper" shall be used.

(~~6~~5) To determine arsenic concentration in copper and copper based alloys to evaluate eligibility for exemption under paragraph (~~i~~k)(~~2~~3), ASTM E 62-89, "Standard Test Method for Chemical Analysis of Copper and Copper Alloys" shall be used.

(~~7~~6) To determine arsenic content in aluminum or zinc (or any other alloy in which determination or arsenic by spectrochemical methods is compromised by interference) to evaluate eligibility for exemption under paragraph (~~i~~k)(~~2~~3), U.S.~~-~~ EPA Method 7061 (Revision 1, December , 1987), "Arsenic (Atomic Absorption, Gaseous Hydride)," U.S. EPA Test Methods for Evaluating Solid Waste Physical and Chemical Methods, First Update (3rd Edition), January, 1988; EPA/530/SW-846.3-1; PB 89-14876 shall be used. For aluminum alloys, ~~sample digestion shall employ the hydroxide digestion technique~~Method 1 listed in Attachment A – Digestion of Metal Aluminum Sample for Determining Arsenic shall be employed.

(j) Emission Control Device Monitoring

(1) Bag Leak Detection System

Effective January 1, 2021, an owner or operator of a non-chromium metal melting operation shall operate, calibrate, and maintain a Bag Leak Detection System for baghouses subject to the requirements of Rule 1155 – Particulate Matter (PM) Control Devices.

(2) Effective January 1, 2021, for each emission control device, an owner or operator of a non-chromium metal melting operation shall use a gauge to continuously monitor the pressure drop across the filter. The gauge shall be located so that it is easily visible and in clear sight of an owner or operator or maintenance personnel. For the purposes of this requirement, an owner or operator shall ensure that the monitoring device:

(A) Is equipped with ports to allow for periodic calibration in accordance with manufacturer's specifications;

(B) Is calibrated according to manufacturer's specifications at least once every calendar year;

(C) Is equipped with a continuous data acquisition system (DAS). The DAS shall record the data output from the monitoring device at a frequency of at least once every 60 minutes;

(D) Generates a data file from the computer system interfaced with each DAS each calendar day saved in Microsoft Excel (xls or xlsx) format or other format as approved by the Executive Officer. The file shall contain a table of chronological date and time and the corresponding data output value from the monitoring device in inches of water column. The operator shall prepare a separate data file each day showing the four-hour average pressure readings recorded by this device each calendar day; and

(E) Is maintained in accordance with manufacturer's specifications.

(3) An owner or operator of a non-chromium metal melting operation emission control device shall be required to conduct a source test pursuant to subdivision (h), if the pressure across the filter is not maintained within the range specified by the manufacturer or according to conditions of the Permit to Operate for the emission control device as determined by hourly or more frequent recordings by the DAS for the averaging periods below, no later than 30 days after the discrepancy is detected:

(A) A four-hour time period on three or more separate days over 60 consecutive days; or

(B) Any consecutive 24-hour period.

(4) Effective January 1, 2021, an owner or operator of a non-chromium metal melting operation shall operate the emission collection system associated with an emission control device at a minimum capture velocity specified in the most current edition of the *Industrial Ventilation: A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists, at the time a permit application is deemed complete with the South Coast AQMD.

(5) Effective January 1, 2021, for each emission collection system subject to this subdivision, an owner or operator of a non-chromium metal melting operation shall conduct a smoke test during source testing, pursuant to paragraphs (h)(2) through (h)(5) and at least once every six months thereafter, using the procedure set forth in Attachment B – Smoke Test to Demonstrate Capture Efficiency for Emission Collection Systems of an Emission Control Device Pursuant to Paragraph (j)(5) of this rule. The smoke test does not need to be performed if conducting the smoke

test can be demonstrated to the Executive Officer that the smoke test would create an unreasonable risk.

(6) Effective January 1, 2021, for each emission collection system, an owner or operator of a non-chromium metal melting operation shall use a calibrated anemometer to measure the slot velocity of each slot and pressure at each push air manifold at least once every six months, based on its location within a non-chromium metal melting operation and its design configuration.

(A) An emission collection system designed with a hood or enclosure shall maintain a capture velocity of at least 200 feet per minute as measured at the face of the enclosure or maintain at least the minimum slot velocity that verifies 100 percent collection efficiency measured in the most recent source test or smoke test.

(B) An emission collection system without an enclosing hood that is designed with collection slots shall maintain a capture velocity of at least 2,000 feet per minute or maintain at least the minimum slot velocity that verifies 100 percent collection efficiency measured in the most recent source test or smoke test.

(~~i~~k) Exemptions

(1) An owner or operator of a non-chromium metal melting operation that melts no more than one ton per year of all non-chromium metals shall only be subject to the recordkeeping provisions of the rule, pursuant to subdivision (g).

(2) Until January 1, 2021, for facilities melting solely metals listed in Table I – Exemption Limits for Metal Melted, [not including any metal or alloy which is shown by laboratory analysis to have less than 0.004 percent of cadmium and less than 0.002 percent of arsenic by weight], the eligibility for exemption from subdivisions (d) and (j) shall be determined using the formula:

$$A/A_0 + B/B_0 + C/C_0 + \ldots\ldots <= 1$$

Where A, B, C, …, are quantities of Table I metals melted and A_0, B_0, C_0, …., are the exemption limits listed in Table I.

(A) For each metal listed in Table I, divide the quantity melted by the specific exemption limit listed.

(B) Sum the resulting fractions for all the metals.

(C) If the sum does not exceed 1.0, the facility qualifies for exemption under paragraph (k)(2).

Table I

Exemption Limits for Metal Melted

Metal	Exemption Limit (tons per year)
Pure Lead[1]	400
Hard Lead[2]	200
Aluminum Scrap	125
Aluminum Ingot containing more than 0.004 percent cadmium or 0.002 percent arsenic by weight	125
Solder	100
Zinc Scrap	30
Copper or copper-based alloys (except scrap) containing more than 0.004 percent cadmium or 0.002 percent arsenic by weight	30
Type Metal[3]	25

1: Pure Lead is any alloy that contains at least 90 percent lead and contains no more than 0.001 percent cadmium by weight and no more than 0.001 percent arsenic by weight.

2: Hard Lead is an alloy containing at least 90 percent lead and more than 0.001 percent arsenic by weight or 0.001 percent cadmium by weight.

3: Type Metal is any lead-based alloy used for Linotype machines.

(3) Metal or Alloy Purity Exemption

Facilities that melt less than 8,400 tons per year of non-chromium metal in furnaces which do not melt more than one percent scrap except rerun scrap and which melt a metal or alloy which is shown by laboratory analysis to have less than 0.004 percent cadmium and less than 0.002 percent arsenic by weight on a monthly weighted average are exempt from subdivisions (d), (h), and (j).

(4) Clean Aluminum Scrap

Until January 1, 2021, furnaces used exclusively to process clean aluminum scrap or a mixture of clean aluminum scrap and aluminum ingot to produce extrusion billet are exempt from subdivisions (d), (h), and (j).

(5) Aluminum Scrap Furnaces

Until January 1, 2021, the combustion chamber in a reverberatory furnace is exempt from the requirements in subdivisions (d), (h), and (j) if the furnace meets the following conditions:

(A) The furnace is used solely to melt aluminum and aluminum based alloys; and

(B) The furnace is constructed with a charging well or similar device in which feed is added to molten metal in a separate chamber.

(6) Aluminum Pouring Exemption

Ladles, launders, or other equipment used to convey aluminum from a melting or holding furnace to casting equipment shall only be subject to the requirements in subdivisions (e), (f), and (g) of this rule.

(7) Rules 1420, 1420.1, and 1420.2

Equipment and operations subject to the requirements of Rule 1420 – Emissions Standard for Lead, Rule 1420.1 – Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-Acid Battery Facilities, or Rule 1420.2 – Emissions Standards for Lead from Metal Melting Facilities, shall be exempt from the requirements of this rule.

(8) Metal grinding or metal cutting operations conducted under a continuous flood of metal removal fluid are exempt from paragraphs (f)(1) and (f)(2).

(9) Metal grinding or metal cutting operations conducted during repair or maintenance activities are exempt from the requirements of this rule.

ATTACHMENT A

Digestion of Metal Aluminum Sample for Determining Arsenic

1. Introduction:

Metal aluminum cannot react with nitric acid (HNO_3) or concentrated sulfuric acid (H_2SO_4). It can dissolve in dilute sulfuric acid or hydrochloric acid (HCl). Active hydrogen, generated during the acid digestion process, will reduce arsenic to arsine (AsH_3), which will escape from solution, resulting in a low or negative arsenic value. The proposed method sets up a protocol to dissolve metal alumina without loss of arsenic.

2 Reagent:

3M Sodium Hydroxide (NaOH), 10% Mercury Sulfate ($HgSO_4$) Solution, 30% Hydrogen Peroxide (H_2O_2),

———1:1 H_2SO_4, Concentrated HNO_3, and Tiling Copper.

3 Procedure:

3.1. Dissolve

3.1.1 Dissolve using NaOH (Method 1).

Weigh 0.5 g of metal aluminum sample to a 125 milliliter (ml) Erlenmeyer flask, add 15 ml of 3M NaOH solution, allow to react and dissolve about 20 minutes. Again add 10 ml of 3M NaOH, continue reaction until no gas bubbles are present and the sample is dissolved completely.

3.1.2 Dissolve using HgSO4 (Method 2).

Weigh 0.5 g of metal aluminum sample to a 125 ml Erlenmeyer flask, add 10 ml of 10% $HgSO_4$ solution and 5 ml of 30% H_2O_2. After 20 minutes, add appropriate amount of $HgSO_4$. Allow reaction to continue until no gas bubbles are present. Add metal copper strips (large surface area) into the sample solution. After 10 minutes, withdraw the copper strips and add new copper strips. Repeat until the surface of the copper strips in sample solution do not change to a silver color. Withdraw all copper strips from sample solution.

3.2. Digestion

Add 3 ml of concentrated HNO_3, 5 ml of 1:1 H_2SO_4 into the sample solution obtained from 3.1.1 or 3.1.2. Heat slowly and evaporate the sample solution until sulfur trioxide (SO_3) fumes are present for 5 minutes. Cool and dilute the sample to 50.0 ml. Determine Arsenic by Atomic Absorption method.

ATTACHMENT B

Smoke Test to Demonstrate Capture Efficiency for Emission Collection Systems of an Emission Control Device Pursuant to Paragraph (j)(5)

1. Applicability and Principle:

   1.1 Applicability

   This method is applicable to all furnaces where an emission control device is used to capture and control emissions from non-chromium metal melting operations.

   1.2 Principle

   Collection of emissions from a non-chromium metal melting operation is achieved by the emission collection system associated with the emission control device for the non-chromium metal melting operation. Emission control efficiency at the exhaust of an emission control device is related to capture efficiency at the inlet of the emission collection system. For this reason, 100 percent capture efficiency shall be maintained. A smoke generator placed within the area where collection of emissions by the emission collection system occurs reveals this capture efficiency.

2. Apparatus:

   2.1 Smoke Generator

   The smoke generator shall be adequate to produce a persistent stream of visible smoke (e.g. Model S102 Regin Smoke Emitter Cartridges). The smoke generator shall not provide excessive momentum to the smoke stream that may create a bias in the determination of collection efficiency. If the smoke generator provides slight momentum to the smoke stream, it shall be released perpendicular to the direction of the collection velocity.

3. Testing Conditions:

   3.1 Equipment Operation

   Any equipment to be smoke tested that is capable of generating heat as part of normal operation shall be smoke tested under those normal operating conditions. Operating parameters of the equipment during the smoke test shall be recorded. The smoke test shall be conducted while the emission collection system and the emission control device are in normal operation. The position of any adjustable dampers that can affect air flow shall be documented. Precautions shall be taken by the facility to evaluate any potential physical hazards to ensure the smoke test is conducted in a safe manner.

3.2 Cross-Draft

The smoke test shall be conducted while the emission collection system and emission control device are in normal operation and under typical draft conditions representative of the facility's non-chromium metal melting operations. This includes cooling fans and enclosure openings affecting draft conditions including, but not limited to, vents, windows, doorways, bay doors, and roll-ups, as well as the operation of other work stations and traffic. The smoke generator shall be at full generation during the entire test and operated according to manufacturer's suggested use.

4. Procedure:

4.1 Collection Slots

For work stations equipped with collection slots or hoods, the smoke shall be released at points where emissions from non-chromium metal melting operations are generated (e.g. the point where melting occurs). Observe the collection of the smoke to the collection location(s) of the emission collection system. An acceptable smoke test shall demonstrate a direct stream to the collection location(s) of the emission collection system without meanderings out of this direct path. Smoke shall be released at points not to exceed 12 inches apart across ventilated work areas. Record these observations at each of the points providing a qualitative assessment of the collection of smoke to the emission collection system.

4.2 Equipment Enclosures

Equipment enclosures include equipment where emissions are generated inside the equipment, and the equipment is intended to have inward air flow through openings to prevent the escape of process emissions. The smoke shall be released at points outside of the plane of the opening of the equipment, over an evenly spaced matrix across all openings with points not to exceed 12 inches apart. Observe the inward movement of the smoke to the collection location(s) of the emission collection system. An acceptable smoke test shall demonstrate a direct stream into the equipment without meanderings out of this direct path. Record these observations at each of the points providing a qualitative assessment of the collection of smoke to the emission collection system.

5. Documentation:

The smoke test shall be documented by photographs or video at each point that clearly show the path of the smoke. Documentation shall also include a list of equipment tested and any repairs that were performed in order to pass the smoke test. As previously discussed, the documentation shall include the position of adjustable dampers, cross-draft conditions, and

the heat input of the equipment, if applicable. The documentation shall be signed and dated by the person performing the test.

APPENDIX B

CalEEMod Files, Assumptions, and Calculations

APPENDIX B-1

CalEEMod Files and Assumptions – Building Enclosure Construction

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Winter

1407 Enclosure Improvement 2 Walls

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - assumption: 100x100 ft building, construct 2 walls = 40% = 4,000 sf

Construction Phase - assumptions: 5 days construction

Off-road Equipment - default hp, and LF. Equipment type and hr/day are from the previous EA for R1155 assumptions. Double the unit amount since two baghouses will be installed at the same time (worst case)

Off-road Equipment - assumptions: 4hrs per day, equipment based on PAR 1420 enclosure construction

Trips and VMT - assumptions 1 hauling trips, 3 workers/day

Demolition -

Grading -

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	5.00
tblOffRoadEquipment	HorsePower	46.00	97.00
tblOffRoadEquipment	LoadFactor	0.45	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	2.00	3.00

2.0 Emissions Summary

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.4625	4.5750	2.9387	6.2700e-003	0.0434	0.2288	0.2722	0.0117	0.2160	0.2277	0.0000	608.4946	608.4946	0.1312	0.0000	611.7751
Maximum	**0.4625**	**4.5750**	**2.9387**	**6.2700e-003**	**0.0434**	**0.2288**	**0.2722**	**0.0117**	**0.2160**	**0.2277**	**0.0000**	**608.4946**	**608.4946**	**0.1312**	**0.0000**	**611.7751**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.4625	4.5750	2.9387	6.2700e-003	0.0434	0.2288	0.2722	0.0117	0.2160	0.2277	0.0000	608.4946	608.4946	0.1312	0.0000	611.7751
Maximum	**0.4625**	**4.5750**	**2.9387**	**6.2700e-003**	**0.0434**	**0.2288**	**0.2722**	**0.0117**	**0.2160**	**0.2277**	**0.0000**	**608.4946**	**608.4946**	**0.1312**	**0.0000**	**611.7751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1407 Enclosure Improvement 2 Walls - 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	0.0894	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Energy	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
Mobile	0.0144	0.0815	0.2070	7.4000e-004	0.0612	7.6000e-004	0.0620	0.0164	7.1000e-004	0.0171		74.8301	74.8301	3.7800e-003		74.9245
Total	**0.1039**	**0.0824**	**0.2082**	**7.5000e-004**	**0.0612**	**8.3000e-004**	**0.0621**	**0.0164**	**7.8000e-004**	**0.0172**		**75.9527**	**75.9527**	**3.8000e-003**	**2.0000e-005**	**76.0538**

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	0.0894	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Energy	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
Mobile	0.0144	0.0815	0.2070	7.4000e-004	0.0612	7.6000e-004	0.0620	0.0164	7.1000e-004	0.0171		74.8301	74.8301	3.7800e-003		74.9245
Total	**0.1039**	**0.0824**	**0.2082**	**7.5000e-004**	**0.0612**	**8.3000e-004**	**0.0621**	**0.0164**	**7.8000e-004**	**0.0172**		**75.9527**	**75.9527**	**3.8000e-003**	**2.0000e-005**	**76.0538**

1407 Enclosure Improvement 2 Walls - 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Enclosure Construction	Building Construction	1/1/2020	1/7/2020	5	5	

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
Enclosure Construction	Cranes	1	4.00	231	0.29
Enclosure Construction	Forklifts	1	4.00	89	0.20
Enclosure Construction	Welders	1	4.00	97	0.37

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
Enclosure Construction	3	3.00	1.00	1.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Winter

3.1 Mitigation Measures Construction

3.2 Enclosure Construction - 2020

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	0.4427	4.4051	2.7888	5.5500e-003		0.2278	0.2278		0.2151	0.2151		533.2744	533.2744	0.1273		536.4563
Total	**0.4427**	**4.4051**	**2.7888**	**5.5500e-003**		**0.2278**	**0.2278**		**0.2151**	**0.2151**		**533.2744**	**533.2744**	**0.1273**		**536.4563**

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	1.5600e-003	0.0551	0.0117	1.5000e-004	3.4900e-003	1.8000e-004	3.6700e-003	9.6000e-004	1.7000e-004	1.1300e-003		16.4580	16.4580	1.1700e-003		16.4873
Vendor	3.4400e-003	0.1048	0.0279	2.5000e-004	6.4000e-003	5.3000e-004	6.9300e-003	1.8400e-003	5.0000e-004	2.3500e-003		26.6513	26.6513	1.8500e-003		26.6976
Worker	0.0148	9.9900e-003	0.1104	3.2000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1300e-003		32.1110	32.1110	9.2000e-004		32.1340
Total	**0.0198**	**0.1700**	**0.1500**	**7.2000e-004**	**0.0434**	**9.6000e-004**	**0.0444**	**0.0117**	**9.0000e-004**	**0.0126**		**75.2202**	**75.2202**	**3.9400e-003**		**75.3188**

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Winter

3.2 Enclosure Construction - 2020

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	0.4427	4.4051	2.7888	5.5500e-003		0.2278	0.2278		0.2151	0.2151	0.0000	533.2744	533.2744	0.1273		536.4563
Total	**0.4427**	**4.4051**	**2.7888**	**5.5500e-003**		**0.2278**	**0.2278**		**0.2151**	**0.2151**	**0.0000**	**533.2744**	**533.2744**	**0.1273**		**536.4563**

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	1.5600e-003	0.0551	0.0117	1.5000e-004	3.4900e-003	1.8000e-004	3.6700e-003	9.6000e-004	1.7000e-004	1.1300e-003		16.4580	16.4580	1.1700e-003		16.4873
Vendor	3.4400e-003	0.1048	0.0279	2.5000e-004	6.4000e-003	5.3000e-004	6.9300e-003	1.8400e-003	5.0000e-004	2.3500e-003		26.6513	26.6513	1.8500e-003		26.6976
Worker	0.0148	9.9900e-003	0.1104	3.2000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1300e-003		32.1110	32.1110	9.2000e-004		32.1340
Total	**0.0198**	**0.1700**	**0.1500**	**7.2000e-004**	**0.0434**	**9.6000e-004**	**0.0444**	**0.0117**	**9.0000e-004**	**0.0126**		**75.2202**	**75.2202**	**3.9400e-003**		**75.3188**

4.0 Operational Detail - Mobile

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0144	0.0815	0.2070	7.4000e-004	0.0612	7.6000e-004	0.0620	0.0164	7.1000e-004	0.0171		74.8301	74.8301	3.7800e-003		74.9245
Unmitigated	0.0144	0.0815	0.2070	7.4000e-004	0.0612	7.6000e-004	0.0620	0.0164	7.1000e-004	0.0171		74.8301	74.8301	3.7800e-003		74.9245

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	6.72	6.72	6.72	28,800	28,800
Total	6.72	6.72	6.72	28,800	28,800

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
NaturalGas Unmitigated	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283

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					
Unrefrigerated Warehouse-No Rail	9.53425	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
Total		**1.0000e-004**	**9.3000e-004**	**7.9000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**1.1217**	**1.1217**	**2.0000e-005**	**2.0000e-005**	**1.1283**

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					
Unrefrigerated Warehouse-No Rail	0.00953425	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
Total		**1.0000e-004**	**9.3000e-004**	**7.9000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**1.1217**	**1.1217**	**2.0000e-005**	**2.0000e-005**	**1.1283**

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	lb/day										lb/day					
Mitigated	0.0894	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Unmitigated	0.0894	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Total	**0.0894**	**0.0000**	**4.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**8.8000e-004**	**8.8000e-004**	**0.0000**		**9.3000e-004**

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Winter

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	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Total	**0.0894**	**0.0000**	**4.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**8.8000e-004**	**8.8000e-004**	**0.0000**		**9.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Summer

1407 Enclosure Improvement 2 Walls

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - assumption: 100x100 ft building, construct 2 walls = 40% = 4,000 sf

Construction Phase - assumptions: 5 days construction

Off-road Equipment - default hp, and LF. Equipment type and hr/day are from the previous EA for R1155 assumptions. Double the unit amount since two baghouses will be installed at the same time (worst case)

Off-road Equipment - assumptions: 4hrs per day, equipment based on PAR 1420 enclosure construction

Trips and VMT - assumptions 1 hauling trips, 3 workers/day

Demolition -

Grading -

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	5.00
tblOffRoadEquipment	HorsePower	46.00	97.00
tblOffRoadEquipment	LoadFactor	0.45	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	2.00	3.00

2.0 Emissions Summary

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.4611	4.5736	2.9473	6.3100e-003	0.0434	0.2288	0.2722	0.0117	0.2160	0.2277	0.0000	611.8183	611.8183	0.1311	0.0000	615.0961
Maximum	**0.4611**	**4.5736**	**2.9473**	**6.3100e-003**	**0.0434**	**0.2288**	**0.2722**	**0.0117**	**0.2160**	**0.2277**	**0.0000**	**611.8183**	**611.8183**	**0.1311**	**0.0000**	**615.0961**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.4611	4.5736	2.9473	6.3100e-003	0.0434	0.2288	0.2722	0.0117	0.2160	0.2277	0.0000	611.8183	611.8183	0.1311	0.0000	615.0961
Maximum	**0.4611**	**4.5736**	**2.9473**	**6.3100e-003**	**0.0434**	**0.2288**	**0.2722**	**0.0117**	**0.2160**	**0.2277**	**0.0000**	**611.8183**	**611.8183**	**0.1311**	**0.0000**	**615.0961**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1407 Enclosure Improvement 2 Walls - 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	0.0894	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Energy	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
Mobile	0.0151	0.0793	0.2230	7.8000e-004	0.0612	7.6000e-004	0.0620	0.0164	7.1000e-004	0.0171		79.0023	79.0023	3.8100e-003		79.0975
Total	**0.1046**	**0.0802**	**0.2242**	**7.9000e-004**	**0.0612**	**8.3000e-004**	**0.0621**	**0.0164**	**7.8000e-004**	**0.0172**		**80.1249**	**80.1249**	**3.8300e-003**	**2.0000e-005**	**80.2268**

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	0.0894	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Energy	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
Mobile	0.0151	0.0793	0.2230	7.8000e-004	0.0612	7.6000e-004	0.0620	0.0164	7.1000e-004	0.0171		79.0023	79.0023	3.8100e-003		79.0975
Total	**0.1046**	**0.0802**	**0.2242**	**7.9000e-004**	**0.0612**	**8.3000e-004**	**0.0621**	**0.0164**	**7.8000e-004**	**0.0172**		**80.1249**	**80.1249**	**3.8300e-003**	**2.0000e-005**	**80.2268**

1407 Enclosure Improvement 2 Walls - 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Enclosure Construction	Building Construction	1/1/2020	1/7/2020	5	5	

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
Enclosure Construction	Cranes	1	4.00	231	0.29
Enclosure Construction	Forklifts	1	4.00	89	0.20
Enclosure Construction	Welders	1	4.00	97	0.37

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
Enclosure Construction	3	3.00	1.00	1.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Summer

3.1 Mitigation Measures Construction

3.2 Enclosure Construction - 2020

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	0.4427	4.4051	2.7888	5.5500e-003		0.2278	0.2278		0.2151	0.2151		533.2744	533.2744	0.1273		536.4563
Total	**0.4427**	**4.4051**	**2.7888**	**5.5500e-003**		**0.2278**	**0.2278**		**0.2151**	**0.2151**		**533.2744**	**533.2744**	**0.1273**		**536.4563**

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	1.5200e-003	0.0544	0.0108	1.6000e-004	3.4900e-003	1.8000e-004	3.6700e-003	9.6000e-004	1.7000e-004	1.1300e-003		16.7666	16.7666	1.1300e-003		16.7947
Vendor	3.2800e-003	0.1049	0.0250	2.6000e-004	6.4000e-003	5.2000e-004	6.9200e-003	1.8400e-003	5.0000e-004	2.3400e-003		27.4449	27.4449	1.7200e-003		27.4879
Worker	0.0136	9.1200e-003	0.1227	3.4000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1300e-003		34.3325	34.3325	9.9000e-004		34.3572
Total	**0.0184**	**0.1685**	**0.1585**	**7.6000e-004**	**0.0434**	**9.5000e-004**	**0.0444**	**0.0117**	**9.0000e-004**	**0.0126**		**78.5440**	**78.5440**	**3.8400e-003**		**78.6398**

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Summer

3.2 Enclosure Construction - 2020

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	0.4427	4.4051	2.7888	5.5500e-003		0.2278	0.2278		0.2151	0.2151	0.0000	533.2744	533.2744	0.1273		536.4563
Total	**0.4427**	**4.4051**	**2.7888**	**5.5500e-003**		**0.2278**	**0.2278**		**0.2151**	**0.2151**	**0.0000**	**533.2744**	**533.2744**	**0.1273**		**536.4563**

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	1.5200e-003	0.0544	0.0108	1.6000e-004	3.4900e-003	1.8000e-004	3.6700e-003	9.6000e-004	1.7000e-004	1.1300e-003		16.7666	16.7666	1.1300e-003		16.7947
Vendor	3.2800e-003	0.1049	0.0250	2.6000e-004	6.4000e-003	5.2000e-004	6.9200e-003	1.8400e-003	5.0000e-004	2.3400e-003		27.4449	27.4449	1.7200e-003		27.4879
Worker	0.0136	9.1200e-003	0.1227	3.4000e-004	0.0335	2.5000e-004	0.0338	8.8900e-003	2.3000e-004	9.1300e-003		34.3325	34.3325	9.9000e-004		34.3572
Total	**0.0184**	**0.1685**	**0.1585**	**7.6000e-004**	**0.0434**	**9.5000e-004**	**0.0444**	**0.0117**	**9.0000e-004**	**0.0126**		**78.5440**	**78.5440**	**3.8400e-003**		**78.6398**

4.0 Operational Detail - Mobile

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0151	0.0793	0.2230	7.8000e-004	0.0612	7.6000e-004	0.0620	0.0164	7.1000e-004	0.0171		79.0023	79.0023	3.8100e-003		79.0975
Unmitigated	0.0151	0.0793	0.2230	7.8000e-004	0.0612	7.6000e-004	0.0620	0.0164	7.1000e-004	0.0171		79.0023	79.0023	3.8100e-003		79.0975

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	6.72	6.72	6.72	28,800	28,800
Total	6.72	6.72	6.72	28,800	28,800

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

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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	lb/day										lb/day					
NaturalGas Mitigated	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
NaturalGas Unmitigated	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283

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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					
Unrefrigerated Warehouse-No Rail	9.53425	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
Total		**1.0000e-004**	**9.3000e-004**	**7.9000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**1.1217**	**1.1217**	**2.0000e-005**	**2.0000e-005**	**1.1283**

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					
Unrefrigerated Warehouse-No Rail	0.00953425	1.0000e-004	9.3000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		1.1217	1.1217	2.0000e-005	2.0000e-005	1.1283
Total		**1.0000e-004**	**9.3000e-004**	**7.9000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**1.1217**	**1.1217**	**2.0000e-005**	**2.0000e-005**	**1.1283**

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	lb/day										lb/day					
Mitigated	0.0894	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Unmitigated	0.0894	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Total	**0.0894**	**0.0000**	**4.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**8.8000e-004**	**8.8000e-004**	**0.0000**		**9.3000e-004**

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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	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.3000e-004
Total	**0.0894**	**0.0000**	**4.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**8.8000e-004**	**8.8000e-004**	**0.0000**		**9.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - assumption: 100x100 ft building, construct 2 walls = 40% = 4,000 sf

Construction Phase - assumptions: 5 days construction

Off-road Equipment - default hp, and LF. Equipment type and hr/day are from the previous EA for R1155 assumptions. Double the unit amount since two baghouses will be installed at the same time (worst case)

Off-road Equipment - assumptions: 4hrs per day, equipment based on PAR 1420 enclosure construction

Trips and VMT - assumptions 1 hauling trips, 3 workers/day

Demolition -

Grading -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	5.00
tblOffRoadEquipment	HorsePower	46.00	97.00
tblOffRoadEquipment	LoadFactor	0.45	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	2.00	3.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.1500e-003	0.0115	7.3500e-003	2.0000e-005	1.1000e-004	5.7000e-004	6.8000e-004	3.0000e-005	5.4000e-004	5.7000e-004	0.0000	1.3827	1.3827	3.0000e-004	0.0000	1.3902
Maximum	**1.1500e-003**	**0.0115**	**7.3500e-003**	**2.0000e-005**	**1.1000e-004**	**5.7000e-004**	**6.8000e-004**	**3.0000e-005**	**5.4000e-004**	**5.7000e-004**	**0.0000**	**1.3827**	**1.3827**	**3.0000e-004**	**0.0000**	**1.3902**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.1500e-003	0.0115	7.3500e-003	2.0000e-005	1.1000e-004	5.7000e-004	6.8000e-004	3.0000e-005	5.4000e-004	5.7000e-004	0.0000	1.3827	1.3827	3.0000e-004	0.0000	1.3902
Maximum	**1.1500e-003**	**0.0115**	**7.3500e-003**	**2.0000e-005**	**1.1000e-004**	**5.7000e-004**	**6.8000e-004**	**3.0000e-005**	**5.4000e-004**	**5.7000e-004**	**0.0000**	**1.3827**	**1.3827**	**3.0000e-004**	**0.0000**	**1.3902**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	0.0126	0.0126
		Highest	0.0126	0.0126

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	0.0163	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
Energy	2.0000e-005	1.7000e-004	1.4000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1562	5.1562	2.1000e-004	5.0000e-005	5.1751
Mobile	2.5800e-003	0.0151	0.0384	1.4000e-004	0.0109	1.4000e-004	0.0111	2.9300e-003	1.3000e-004	3.0600e-003	0.0000	12.5292	12.5292	6.2000e-004	0.0000	12.5448
Waste						0.0000	0.0000		0.0000	0.0000	0.7633	0.0000	0.7633	0.0451	0.0000	1.8909
Water						0.0000	0.0000		0.0000	0.0000	0.2935	3.8376	4.1311	0.0303	7.4000e-004	5.1104
Total	**0.0189**	**0.0153**	**0.0386**	**1.4000e-004**	**0.0109**	**1.5000e-004**	**0.0111**	**2.9300e-003**	**1.4000e-004**	**3.0700e-003**	**1.0567**	**21.5232**	**22.5799**	**0.0762**	**7.9000e-004**	**24.7213**

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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	0.0163	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
Energy	2.0000e-005	1.7000e-004	1.4000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1562	5.1562	2.1000e-004	5.0000e-005	5.1751
Mobile	2.5800e-003	0.0151	0.0384	1.4000e-004	0.0109	1.4000e-004	0.0111	2.9300e-003	1.3000e-004	3.0600e-003	0.0000	12.5292	12.5292	6.2000e-004	0.0000	12.5448
Waste						0.0000	0.0000		0.0000	0.0000	0.7633	0.0000	0.7633	0.0451	0.0000	1.8909
Water						0.0000	0.0000		0.0000	0.0000	0.2935	3.8376	4.1311	0.0303	7.4000e-004	5.1104
Total	**0.0189**	**0.0153**	**0.0386**	**1.4000e-004**	**0.0109**	**1.5000e-004**	**0.0111**	**2.9300e-003**	**1.4000e-004**	**3.0700e-003**	**1.0567**	**21.5232**	**22.5799**	**0.0762**	**7.9000e-004**	**24.7213**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Enclosure Construction	Building Construction	1/1/2020	1/7/2020	5	5	

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
Enclosure Construction	Cranes	1	4.00	231	0.29
Enclosure Construction	Forklifts	1	4.00	89	0.20
Enclosure Construction	Welders	1	4.00	97	0.37

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
Enclosure Construction	3	3.00	1.00	1.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Enclosure Construction - 2020

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	1.1100e-003	0.0110	6.9700e-003	1.0000e-005		5.7000e-004	5.7000e-004		5.4000e-004	5.4000e-004	0.0000	1.2095	1.2095	2.9000e-004	0.0000	1.2167
Total	**1.1100e-003**	**0.0110**	**6.9700e-003**	**1.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**1.2095**	**1.2095**	**2.9000e-004**	**0.0000**	**1.2167**

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	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0377	0.0377	0.0000	0.0000	0.0378
Vendor	1.0000e-005	2.7000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0615	0.0615	0.0000	0.0000	0.0616
Worker	3.0000e-005	3.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0741	0.0741	0.0000	0.0000	0.0741
Total	**4.0000e-005**	**4.4000e-004**	**3.8000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1733**	**0.1733**	**0.0000**	**0.0000**	**0.1735**

3.2 Enclosure Construction - 2020

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	1.1100e-003	0.0110	6.9700e-003	1.0000e-005		5.7000e-004	5.7000e-004		5.4000e-004	5.4000e-004	0.0000	1.2094	1.2094	2.9000e-004	0.0000	1.2167
Total	**1.1100e-003**	**0.0110**	**6.9700e-003**	**1.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.4000e-004**	**5.4000e-004**	**0.0000**	**1.2094**	**1.2094**	**2.9000e-004**	**0.0000**	**1.2167**

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	1.4000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0377	0.0377	0.0000	0.0000	0.0378
Vendor	1.0000e-005	2.7000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0615	0.0615	0.0000	0.0000	0.0616
Worker	3.0000e-005	3.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0741	0.0741	0.0000	0.0000	0.0741
Total	**4.0000e-005**	**4.4000e-004**	**3.8000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1733**	**0.1733**	**0.0000**	**0.0000**	**0.1735**

4.0 Operational Detail - Mobile

1407 Enclosure Improvement 2 Walls - South Coast AQMD Air District, Annual

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	2.5800e-003	0.0151	0.0384	1.4000e-004	0.0109	1.4000e-004	0.0111	2.9300e-003	1.3000e-004	3.0600e-003	0.0000	12.5292	12.5292	6.2000e-004	0.0000	12.5448
Unmitigated	2.5800e-003	0.0151	0.0384	1.4000e-004	0.0109	1.4000e-004	0.0111	2.9300e-003	1.3000e-004	3.0600e-003	0.0000	12.5292	12.5292	6.2000e-004	0.0000	12.5448

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	6.72	6.72	6.72	28,800	28,800
Total	6.72	6.72	6.72	28,800	28,800

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

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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	4.9705	4.9705	2.1000e-004	4.0000e-005	4.9883
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4.9705	4.9705	2.1000e-004	4.0000e-005	4.9883
NaturalGas Mitigated	2.0000e-005	1.7000e-004	1.4000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1857	0.1857	0.0000	0.0000	0.1868
NaturalGas Unmitigated	2.0000e-005	1.7000e-004	1.4000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1857	0.1857	0.0000	0.0000	0.1868

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	3480	2.0000e-005	1.7000e-004	1.4000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1857	0.1857	0.0000	0.0000	0.1868
Total		**2.0000e-005**	**1.7000e-004**	**1.4000e-004**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.1857**	**0.1857**	**0.0000**	**0.0000**	**0.1868**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	3480	2.0000e-005	1.7000e-004	1.4000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1857	0.1857	0.0000	0.0000	0.1868
Total		**2.0000e-005**	**1.7000e-004**	**1.4000e-004**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.1857**	**0.1857**	**0.0000**	**0.0000**	**0.1868**

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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			
Unrefrigerated Warehouse-No Rail	15600	4.9705	2.1000e-004	4.0000e-005	4.9883
Total		**4.9705**	**2.1000e-004**	**4.0000e-005**	**4.9883**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	15600	4.9705	2.1000e-004	4.0000e-005	4.9883
Total		**4.9705**	**2.1000e-004**	**4.0000e-005**	**4.9883**

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	0.0163	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
Unmitigated	0.0163	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0145					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	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
Total	**0.0163**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.0000**	**1.1000e-004**

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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	1.8500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0145					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	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
Total	**0.0163**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.0000**	**1.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.1311	0.0303	7.4000e-004	5.1104
Unmitigated	4.1311	0.0303	7.4000e-004	5.1104

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	0.925 / 0	4.1311	0.0303	7.4000e-004	5.1104
Total		**4.1311**	**0.0303**	**7.4000e-004**	**5.1104**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	0.925 / 0	4.1311	0.0303	7.4000e-004	5.1104
Total		**4.1311**	**0.0303**	**7.4000e-004**	**5.1104**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.7633	0.0451	0.0000	1.8909
Unmitigated	0.7633	0.0451	0.0000	1.8909

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	3.76	0.7633	0.0451	0.0000	1.8909
Total		**0.7633**	**0.0451**	**0.0000**	**1.8909**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	3.76	0.7633	0.0451	0.0000	1.8909
Total		**0.7633**	**0.0451**	**0.0000**	**1.8909**

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B-2

CalEEMod Files and Assumptions – Baghouse Construction

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Winter

PAR1407_baghouse_construction_06.13.2019

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 5 Days to install

Off-road Equipment - worst-case construction day: 1 APCDs installation per facility (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

Vehicle Emission Factors -

Fleet Mix -

Vehicle Emission Factors -

Vehicle Emission Factors -

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	5.00

2.0 Emissions Summary

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.5009	3.1724	3.5071	5.5800e-003	0.0627	0.2009	0.2635	0.0169	0.1957	0.2126	0.0000	523.4810	523.4810	0.0855	0.0000	525.6183
Maximum	**0.5009**	**3.1724**	**3.5071**	**5.5800e-003**	**0.0627**	**0.2009**	**0.2635**	**0.0169**	**0.1957**	**0.2126**	**0.0000**	**523.4810**	**523.4810**	**0.0855**	**0.0000**	**525.6183**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.5009	3.1724	3.5071	5.5800e-003	0.0627	0.2009	0.2635	0.0169	0.1957	0.2126	0.0000	523.4810	523.4810	0.0855	0.0000	525.6183
Maximum	**0.5009**	**3.1724**	**3.5071**	**5.5800e-003**	**0.0627**	**0.2009**	**0.2635**	**0.0169**	**0.1957**	**0.2126**	**0.0000**	**523.4810**	**523.4810**	**0.0855**	**0.0000**	**525.6183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

PAR1407_baghouse_construction_06.13.2019 - 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
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

PAR1407_baghouse_construction_06.13.2019 - 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	6/13/2019	6/19/2019	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	1	4.00	63	0.31
Building Construction	Air Compressors	1	4.00	78	0.48
Building Construction	Forklifts	1	4.00	89	0.20
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	4	5.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Winter

3.1 Mitigation Measures Construction

3.2 Building Construction - 2019

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	0.4706	3.0903	3.2746	4.8600e-003		0.1994	0.1994		0.1943	0.1943		450.1479	450.1479	0.0834		452.2335
Total	**0.4706**	**3.0903**	**3.2746**	**4.8600e-003**		**0.1994**	**0.1994**		**0.1943**	**0.1943**		**450.1479**	**450.1479**	**0.0834**		**452.2335**

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Winter

3.2 Building Construction - 2019

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	3.7200e-003	0.0635	0.0298	1.7000e-004	6.7600e-003	1.1100e-003	7.8600e-003	2.0300e-003	1.0600e-003	3.0900e-003		18.1003	18.1003	3.4000e-004		18.1089
Worker	0.0267	0.0187	0.2027	5.5000e-004	0.0559	4.3000e-004	0.0563	0.0148	4.0000e-004	0.0152		55.2328	55.2328	1.7300e-003		55.2759
Total	**0.0304**	**0.0821**	**0.2325**	**7.2000e-004**	**0.0627**	**1.5400e-003**	**0.0642**	**0.0169**	**1.4600e-003**	**0.0183**		**73.3331**	**73.3331**	**2.0700e-003**		**73.3848**

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	0.4706	3.0903	3.2746	4.8600e-003		0.1994	0.1994		0.1943	0.1943	0.0000	450.1479	450.1479	0.0834		452.2335
Total	**0.4706**	**3.0903**	**3.2746**	**4.8600e-003**		**0.1994**	**0.1994**		**0.1943**	**0.1943**	**0.0000**	**450.1479**	**450.1479**	**0.0834**		**452.2335**

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Winter

3.2 Building Construction - 2019

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	3.7200e-003	0.0635	0.0298	1.7000e-004	6.7600e-003	1.1100e-003	7.8600e-003	2.0300e-003	1.0600e-003	3.0900e-003		18.1003	18.1003	3.4000e-004		18.1089
Worker	0.0267	0.0187	0.2027	5.5000e-004	0.0559	4.3000e-004	0.0563	0.0148	4.0000e-004	0.0152		55.2328	55.2328	1.7300e-003		55.2759
Total	**0.0304**	**0.0821**	**0.2325**	**7.2000e-004**	**0.0627**	**1.5400e-003**	**0.0642**	**0.0169**	**1.4600e-003**	**0.0183**		**73.3331**	**73.3331**	**2.0700e-003**		**73.3848**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

PAR1407_baghouse_construction_06.13.2019 - 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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

5.0 Energy Detail

Historical Energy Use: N

PAR1407_baghouse_construction_06.13.2019 - 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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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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
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Summer

PAR1407_baghouse_construction_06.13.2019

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 5 Days to install

Off-road Equipment - worst-case construction day: 1 APCDs installation per facility (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

Vehicle Emission Factors -

Fleet Mix -

Vehicle Emission Factors -

Vehicle Emission Factors -

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	5.00

2.0 Emissions Summary

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.4987	3.1693	3.5276	5.6200e-003	0.0627	0.2009	0.2635	0.0169	0.1957	0.2126	0.0000	527.3416	527.3416	0.0856	0.0000	529.4817
Maximum	**0.4987**	**3.1693**	**3.5276**	**5.6200e-003**	**0.0627**	**0.2009**	**0.2635**	**0.0169**	**0.1957**	**0.2126**	**0.0000**	**527.3416**	**527.3416**	**0.0856**	**0.0000**	**529.4817**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.4987	3.1693	3.5276	5.6200e-003	0.0627	0.2009	0.2635	0.0169	0.1957	0.2126	0.0000	527.3416	527.3416	0.0856	0.0000	529.4817
Maximum	**0.4987**	**3.1693**	**3.5276**	**5.6200e-003**	**0.0627**	**0.2009**	**0.2635**	**0.0169**	**0.1957**	**0.2126**	**0.0000**	**527.3416**	**527.3416**	**0.0856**	**0.0000**	**529.4817**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

PAR1407_baghouse_construction_06.13.2019 - 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
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

PAR1407_baghouse_construction_06.13.2019 - 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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	6/13/2019	6/19/2019	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	1	4.00	63	0.31
Building Construction	Air Compressors	1	4.00	78	0.48
Building Construction	Forklifts	1	4.00	89	0.20
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	4	5.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Summer

3.1 Mitigation Measures Construction

3.2 Building Construction - 2019

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	0.4706	3.0903	3.2746	4.8600e-003		0.1994	0.1994		0.1943	0.1943		450.1479	450.1479	0.0834		452.2335
Total	**0.4706**	**3.0903**	**3.2746**	**4.8600e-003**		**0.1994**	**0.1994**		**0.1943**	**0.1943**		**450.1479**	**450.1479**	**0.0834**		**452.2335**

PAR1407_baghouse_construction_06.13.2019 - South Coast AQMD Air District, Summer

3.2 Building Construction - 2019

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	3.6200e-003	0.0620	0.0283	1.7000e-004	6.7600e-003	1.1000e-003	7.8600e-003	2.0300e-003	1.0500e-003	3.0800e-003		18.1443	18.1443	3.3000e-004		18.1526
Worker	0.0245	0.0170	0.2247	5.9000e-004	0.0559	4.3000e-004	0.0563	0.0148	4.0000e-004	0.0152		59.0495	59.0495	1.8500e-003		59.0956
Total	**0.0281**	**0.0790**	**0.2530**	**7.6000e-004**	**0.0627**	**1.5300e-003**	**0.0642**	**0.0169**	**1.4500e-003**	**0.0183**		**77.1937**	**77.1937**	**2.1800e-003**		**77.2482**

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	0.4706	3.0903	3.2746	4.8600e-003		0.1994	0.1994		0.1943	0.1943	0.0000	450.1479	450.1479	0.0834		452.2335
Total	**0.4706**	**3.0903**	**3.2746**	**4.8600e-003**		**0.1994**	**0.1994**		**0.1943**	**0.1943**	**0.0000**	**450.1479**	**450.1479**	**0.0834**		**452.2335**

3.2 Building Construction - 2019

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	3.6200e-003	0.0620	0.0283	1.7000e-004	6.7600e-003	1.1000e-003	7.8600e-003	2.0300e-003	1.0500e-003	3.0800e-003		18.1443	18.1443	3.3000e-004		18.1526
Worker	0.0245	0.0170	0.2247	5.9000e-004	0.0559	4.3000e-004	0.0563	0.0148	4.0000e-004	0.0152		59.0495	59.0495	1.8500e-003		59.0956
Total	**0.0281**	**0.0790**	**0.2530**	**7.6000e-004**	**0.0627**	**1.5300e-003**	**0.0642**	**0.0169**	**1.4500e-003**	**0.0183**		**77.1937**	**77.1937**	**2.1800e-003**		**77.2482**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 5 Days to install

Off-road Equipment - worst-case construction day: 1 APCDs installation per facility (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

Vehicle Emission Factors -

Fleet Mix -

Vehicle Emission Factors -

Vehicle Emission Factors -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	5.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.2500e-003	7.9300e-003	8.7800e-003	1.0000e-005	1.5000e-004	5.0000e-004	6.6000e-004	4.0000e-005	4.9000e-004	5.3000e-004	0.0000	1.1894	1.1894	1.9000e-004	0.0000	1.1943
Maximum	**1.2500e-003**	**7.9300e-003**	**8.7800e-003**	**1.0000e-005**	**1.5000e-004**	**5.0000e-004**	**6.6000e-004**	**4.0000e-005**	**4.9000e-004**	**5.3000e-004**	**0.0000**	**1.1894**	**1.1894**	**1.9000e-004**	**0.0000**	**1.1943**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.2500e-003	7.9300e-003	8.7800e-003	1.0000e-005	1.5000e-004	5.0000e-004	6.6000e-004	4.0000e-005	4.9000e-004	5.3000e-004	0.0000	1.1894	1.1894	1.9000e-004	0.0000	1.1943
Maximum	**1.2500e-003**	**7.9300e-003**	**8.7800e-003**	**1.0000e-005**	**1.5000e-004**	**5.0000e-004**	**6.6000e-004**	**4.0000e-005**	**4.9000e-004**	**5.3000e-004**	**0.0000**	**1.1894**	**1.1894**	**1.9000e-004**	**0.0000**	**1.1943**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-13-2019	9-12-2019	0.0092	0.0092
		Highest	0.0092	0.0092

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	6/13/2019	6/19/2019	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	1	4.00	63	0.31
Building Construction	Air Compressors	1	4.00	78	0.48
Building Construction	Forklifts	1	4.00	89	0.20
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	4	5.00	1.00	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 - 2019

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	1.1800e-003	7.7300e-003	8.1900e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.9000e-004	4.9000e-004	0.0000	1.0209	1.0209	1.9000e-004	0.0000	1.0257
Total	**1.1800e-003**	**7.7300e-003**	**8.1900e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**1.0209**	**1.0209**	**1.9000e-004**	**0.0000**	**1.0257**

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	1.0000e-005	1.6000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0411	0.0411	0.0000	0.0000	0.0411
Worker	6.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1274	0.1274	0.0000	0.0000	0.1275
Total	**7.0000e-005**	**2.1000e-004**	**5.9000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1685**	**0.1685**	**0.0000**	**0.0000**	**0.1686**

3.2 Building Construction - 2019

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	1.1800e-003	7.7300e-003	8.1900e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.9000e-004	4.9000e-004	0.0000	1.0209	1.0209	1.9000e-004	0.0000	1.0257
Total	**1.1800e-003**	**7.7300e-003**	**8.1900e-003**	**1.0000e-005**		**5.0000e-004**	**5.0000e-004**		**4.9000e-004**	**4.9000e-004**	**0.0000**	**1.0209**	**1.0209**	**1.9000e-004**	**0.0000**	**1.0257**

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	1.0000e-005	1.6000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0411	0.0411	0.0000	0.0000	0.0411
Worker	6.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1274	0.1274	0.0000	0.0000	0.1275
Total	**7.0000e-005**	**2.1000e-004**	**5.9000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1685**	**0.1685**	**0.0000**	**0.0000**	**0.1686**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.548858	0.043235	0.200706	0.120309	0.016131	0.005851	0.021034	0.033479	0.002070	0.001877	0.004817	0.000707	0.000925

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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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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

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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
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

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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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B-3

Operational and Construction Emissions Assumptions and Calculations

Mobile Source Emissions for Operation and Construction

Activity	Description	Trip Distance (miles)	CO2 Emissions (lb/mile)	Number Trips/yr	CO2 Emissions (lb/yr)	CO2 Emissions (MT/yr)
Smoke Test Trips - Passenger Auto	19 Smoke Tests Every 6 Months	40	0.79	38.00	1,200.80	0.55
Source Test Trips - Passenger Auto	21 Source Tests Every 5 Years	40	0.79	4.20	132.72	0.06
Source Test Trips - Medium Duty Truck	21 Source Tests Every 5 Years	40	1.93	4.20	324.24	0.15
Equipment Delivery - Medium Duty Vendor Trucks	19 Enclosure Improvements, 8 sets of Emission Control Device Monitoring Equipment, Ammortized over 30 Years	15	1.93	0.90	26.06	0.01
Equipment Installation - Passenger Auto	2 Workers each for 19 Enclosure Improvements, 8 Sets of Emission Control Device Monitoring Equipment, Ammortized over 30 years	30	0.79	1.80	42.66	0.02
Baghouse Waste Hauling - Heavy Duty Truck	4 Facilities, 4 Trips Each per Year	40	3.52	12.00	1,691.14	0.77
Total					3,417.61	1.55

CO2 emission factors obtained from EMFAC 2017

Baghouse Emissions

Activity	Description	# Baghouses	Fabric Area (sf)	Annual Energy Use (kWhr)	CO2 Intensity (lb/kWhr)	CO2 Emissions (lb/yr)	CO2 Emissions (MT/yr)
Baghouse Operation Electricity	24 Hour/Day, 365 Days/Year	10	4000	2120	0.702	1488.24	0.68

Note: CO2 intensity of electrictiy obtained from CalEEMod

Baghouse Power Equation, P (kwh/yr, continuous operation) = 0.053*Area, USA EPA, 1998. Particulate Matter Controls, Baghouses and Filters. Available at: https://www3.epa.gov/ttn/catc/dir1/cs6ch1.pdf

Construction Emissions

Activity	Description	CO2/Event (MT)	# Events	CO2 Emissions (MT)	CO2 Emissions (MT/yr)
Enclosure Construction	4 Enclosures (2 Walls) to be Constructed	1.3902	4	5.5608	0.18536
Baghouse Installation	10 Baghouses to be Installed	1.1943	10	11.943	0.3981

Contruction emissions obtained from CalEEMod, ammortized over 30 years

On-Road Vehicles, VMT + Fuel Usage

Phase	Activity	Description	Trip Distance (miles)	Number Trips/yr	VMT	Fuel Type	MPG	Gallons Fuel	Peak Day Trips
operation	Smoke Test Trips - Passenger Auto	19 Smoke Tests Every 6 Months	40	38.0	1,520.0	Gas	21	72	2
	Source Test Trips - Passenger Auto	21 Source Tests Every 5 Years (21 during year 1)	40	21.0	840.0	Gas	21	40	2
	Source Test Trips - Medium Duty Truck	21 Source Tests Every 5 Years (21 during year 1)	40	21.0	840.0	Diesel	10	84	2
	Baghouse Waste Hauling - Heavy Duty Truck	4 Facilities, 4 Trips Each per Year	40	12.0	480.0	Diesel	7	73	1
construction	Equipment Delivery - Medium Duty Vendor Trucks	19 Enclosure Improvements, 8 sets of Emission Control Device Monitoring Equipment, Ammortized over 30 Years	15	27.0	405.0	Diesel	10	41	8
	Equipment Installation - Passenger Auto	2 Workers each for 19 Enclosure Improvements, 8 Sets of Emission Control Device Monitoring Equipment, Ammortized over 30 years	30	54.0	1,620.0	Gas	21	77	16
	Enclosure Construction - Worker Trips	3 worker trips, 5 days, 4 sites	30	60.0	1,800.0	Gas	21	86	12
	Enclosure Construction - Delivery Trips	1 Vendor truck, 5 days, 4 sites	15	20.0	300.0	Diesel	10	30	4
	Baghouse Installation - Worker Trips	5 worker trips, 5 days, 10 sites	30	250.0	7,500.0	Gas	21	357	20
	Baghouse Installation - Delivery Trips	1 Vendor truck, 5 days, 10 sites	15	50.0	750.0	Diesel	10	75	4
	Total VMT				**16,055**				71

Fuel Usage = VMT / MPG

Offroad Equipment Fuel Usage

Activity	Equipment	Number of Equipment	Usage Hours/day	Horse power	Load Factor	Fuel Rate (Gal/hr)	Fuel Use (Gal)	Peak Day Trips
Baghouse Installation (10)	Aerial Lifts	1	4	63	0.31	1.2	1.4	4.0
Baghouse Installation (10)	Air Compressors	1	4	78	0.48	1.0	2.0	-
Baghouse Installation (10)	Forklifts	1	4	89	0.2	0.9	0.7	4.0
Baghouse Installation (10)	Welders	1	4	46	0.45	1.2	2.1	-
Enclosure Construction (4)	Cranes	1	4	231	0.29	3.3	3.8	4.0
Enclosure Construction (4)	Forklifts	1	4	89	0.2	0.9	0.7	4.0
Enclosure Construction (4)	Welders	1	4	97	0.37	1.2	1.8	-
Total Diesel Fuel Usage from Offroad Equipment							12.6	

Fuel Usage = Hours/day * Days * Load Factor * Fuel Rate

2019 Fleet Mix EMFAC 2017 Emission Factors (lbs/mile)

Vehicle Type	-	VOC	NOx	CO	SOx	PM10	PM2.5	CO2	CH4
Heavy Duty Hauling	-	0.000446	0.012004	0.002427	0.000033	0.000388	0.000244	3.523200	0.000026
Light Duty Auto	-	0.000440	0.004682	0.002427	0.000019	0.000388	0.000244	1.927986	0.000042
Medium Duty/ Delivery	-	0.000392	0.000299	0.003638	0.000008	0.000104	0.000044	0.789383	0.000041

Mobile Emissions (lbs/trip)

Trip Type	Miles	VOC	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	CO2e
One Heavy Duty Hauling Trip	40	0.018	0.480	0.097	0.001	0.016	0.010	140.928	0.001	140.954
One Light Duty Auto Worker Trip - Install Equipment	30	0.013	0.140	0.073	0.001	0.012	0.007	57.840	0.001	57.871
One Light Duty Auto Worker Trip - Source Test	40	0.018	0.187	0.097	0.001	0.016	0.010	77.119	0.002	77.161
One Medium Duty Source Testing Trip	40	0.016	0.012	0.146	0.000	0.004	0.002	31.575	0.002	31.617
One Medium Duty Vendor Delivery Trip	15	0.006	0.004	0.055	0.000	0.002	0.001	11.841	0.001	11.856
One Light Duty Auto Worker Trip - Smoke Test	40	0.018	0.187	0.097	0.001	0.016	0.010	77.119	0.002	77.161

Calculations
Mobile Emissions = Emission Factor * Miles
CO2e = CO2 + 25*CH4

APPENDIX C

PAR 1407 List of Affected Facilities

PAR 1407 List of Affected Facilities

Facility ID	Facility Name	Address	On DTSC List per Government Code 65962.5 (Envirostor)?	Nearest Sensitive Receptor (Miles)	Located within 1/4 Mile of a School?	Located within Two Miles of an Airport?
630	CONSOLIDATED FOUNDRIES INC	8333 WILCOX AV CUDAHY 90201	No	0.08	No	No
1226	HYATT DIE CAST & ENGINEERING CORP	4656 LINCOLN AV CYPRESS 90630	Yes	0.00	No	No
1824	BUDDY BAR CASTING	10801-25 SESSLER ST. SOUTH GATE 90280	No	0.00	No	No
4303	LYNWOOD PATTERN SERV INC	11233 PEACH STREET LYNWOOD 90262	No	0.00	Yes	No
4856	DOWELL ALUMINUM FOUNDRY INC	11342 HARTLAND ST. NORTH HOLLYWOOD 91605	No	0.11	No	No
4862	PIONEER DIECASTERS INC	4209 CHEVY CHASE DR LOS ANGELES 90039	No	0.05	No	No
6996	ANGELUS ALUMINUM FOUNDRY CO INC	3479 E PICO BLVD. LOS ANGELES 90023	No	0.07	No	No
7411	DAVIS WIRE CORP	5555 IRWINDALE AV IRWINDALE 91706	Yes	0.42	No	No
8507	ALUM-ALLOY CO INC	614 S BON VIEW AV ONTARIO 91761	No	0.19	No	Yes
9358	SEMCO ENTER. INC	475 WILSON WAY CITY OF INDUSTRY 91744	No	0.23	No	No
11847	CAST-RITE CORP	515 E AIRLINE WAY GARDENA 90248	No	0.03	No	No
13030	MODERN PATTERN & FOUNDRY CO INC	5610 ALCOA AVE. VERNON 90058	No	0.36	No	No
14434	TI WIRE	12459 ARROW HWY ETIWANDA 91739	No	0.54	No	No
14495	VISTA METALS CORPORATION	13425 WHITTRAM AVENUE FONTANA 92335	No	0.23	No	No
14700	MAGPARTS INC	1545 ROOSEVELT ST AZUSA 91702	No	0.54	No	No
16338	KAISER ALUMINUM FABRICATED PRODUCTS, LLC	6250 BANDINI BLVD LOS ANGELES 90040	No	0.55	No	No
17516	LANCAST ALUMINUM INC	1644 W 135TH ST GARDENA 90249	No	0.26	No	No
18244	MOR-CAST ALUMINUM FOUNDRY	2561 E 25TH ST. LOS ANGELES 90058	No	0.80	No	No
19463	COVERT IRON WORKS	7821 S OTIS AVE HUNTINGTON PARK 90255	No	0.05	No	No
20000	BELL FOUNDRY CO	5310 SOUTHERN AV SOUTH GATE 90280	No	0.05	No	No
20167	LOS ANGELES PUMP & VALVE PRODUCTS	2529 E 55TH ST HUNTINGTON PARK 90255	No	0.18	Yes	No
22092	WESTERN TUBE & CONDUIT CORP	2001 E DOMINGUEZ ST LONG BEACH 90801	Yes	0.39	No	No
23225	MONARCH ALUMINUM CASTING CO	11211 SO. GARFIELD AVE. SOUTH GATE 90280	No	0.01	No	No
23464	AMBRIT IND INC	1288 LOS ANGELES ST. GLENDALE 91204	No	0.05	No	No
23733	SUPREME CASTINGS & PATTERN CO INC	1165, 1173 KRAEMER PL ANAHEIM 92806	No	0.22	No	No
35520	COMPU DIE CASTINGS INC	421 WEBER AV COMPTON 90222	No	0.08	No	No
43436	TST, INC.	11600 ETIWANDA FONTANA 92337	No	1.02	No	No
49547	FINKL & SONS CO	10735 SESSLER ST SOUTH GATE 90280	No	0.01	No	No
54402	SIERRA ALUMINUM COMPANY	2345 FLEETWOOD RIVERSIDE 92509	Yes	0.37	No	No
58766	GEMINI ALUMINUM CORP	3255 POMONA BLVD POMONA 91768	No	0.10	No	No
59726	ALUMINUM DIE CASTING CO INC	10775 SAN SEVAINE WY MIRA LOMA 91752	Yes	0.23	No	No
62210	CALIDAD INC	1730 BALBOA AV ONTARIO 91761	No	0.63	No	Yes
75531	EDELBROCK FOUNDRY CORP	1320 BUENA VISTA SAN JACINTO 92583	No	0.26	No	No
77271	ATLAS PACIFIC CORPORATION	2803 INDUSTRIAL DRIVE BLOOMINGTON 92316	No	0.47	No	No
82351	WEST COAST STAINLESS PRODUCTS	2430 E 53RD ST HUNTINGTON PARK 90255	No	0.35	No	No
83102	LIGHT METALS INC	13329 ECTOR ST CITY OF INDUSTRY 91746	Yes	0.16	No	No
84781	ALUM-ALLOY CO INC	603 S HOPE AV ONTARIO 91761	No	0.19	No	Yes
85943	SIERRA ALUMINUM COMPANY	11711-11806 PACIFIC AV FONTANA 92337	Yes	0.63	No	No

PAR 1407 List of Affected Facilities

Facility ID	Facility Name	Address	On DTSC List per Government Code 65962.5 (Envirostor)?	Nearest Sensitive Receptor (Miles)	Located within 1/4 Mile of a School?	Located within Two Miles of an Airport?
103761	CONSOLIDATED FOUNDRIES INC	8333 WILCOX AVE CUDAHY 90201	No	0.08	No	No
105903	PRIME WHEEL	17704 BROADWAY CARSON 90746	No	0.20	Yes	No
112188	FONTANA FOUNDRY CORP.	8306 CHERRY AVE FONTANA 92335	No	0.00	No	No
112267	ALLOY DIE CASTING CO	6550 CABALLERO BLVD. BUENA PARK 90620	Yes	0.10	No	No
113251	DYNACAST, INC.	25952 COMMERCENTRE DR LAKE FOREST 92630	No	0.08	Yes	No
120697	CALIFORNIA DIE CASTING INC	1820 S GROVE AVE ONTARIO 91761	No	0.47	No	Yes
123168	PERFORMANCE ALUMINUM PRODUCTS	508 S PALMETTO AVE ONTARIO 91762	No	0.14	No	No
125830	FOUNDRY WORKS	7607 1/2 RAMISH ST BELL GARDENS 90201	No	0.03	No	No
126536	CONSOLIDATED FOUNDRIES - POMONA	4200 W VALLEY BL POMONA 91769	Yes	0.08	No	No
127681	TY BAR CORP	10727 GARFIELD AVE SOUTH GATE 90280	No	0.01	No	No
128316	AMERICAN INTERNATIONAL ENG	860 ARROYO AVE SAN FERNANDO 91340	No	0.10	Yes	No
131507	WIRETECH, INC.	6440 E CANNING ST COMMERCE 90040	No	0.62	No	No
138795	H & M FOUNDRY, INC	5615 LEEDS ST SOUTH GATE 90280	No	0.05	No	No
145216	UNIVERSAL MOLDING COMPANY	10806 STANFORD AVE LYNWOOD 90262	No	0.03	No	No
159332	AMERICAN DIE CASTING, INC.	14576 FONTLEE LN FONTANA 92335	No	0.00	No	No
170864	PACIFIC CAST PRODUCTS ALUMISTAR INC	12711 E IMPERIAL HWY SANTA FE SPRINGS 90670	No	0.06	No	No