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 RULE 1407.1 – CONTROL OF TOXIC AIR CONTAMINANT EMISSIONS FROM CHROMIUM ALLOY 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, 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 in the Draft EA.

This letter and the attached NOC for 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 South Coast AQMD's Public Information Center at (909) 396-2039 or accessing the South Coast AQMD's 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, November 13, 2020 and ending at 5:00 p.m. on Tuesday, December 15, 2020. **Please send any comments relative to the CEQA analysis in the Draft EA to Kevin Ni (c/o Planning/CEQA) at the address shown above.** Comments can also be sent via email to kni@aqmd.gov or via facsimile to (909) 396-3982. Please include the name and phone number of the contact person for your organization. Questions regarding the proposed rule language should be directed to Charlene Nguyen at (909) 396-2648 or by email to cnguyen@aqmd.gov.

The public is invited to attend the following meetings, subject to change, for the proposed project which will be conducted remotely via video conferencing and by telephone: 1) Stationary Source Committee on November 20, 2020 at 9:30 a.m.; and 2) Governing Board Meeting (Public Adoption Hearing) on January 8, 2021 at 9:00 a.m. Meeting agendas, which include details on how the public can participate electronically, are posted at least 72 hours prior to the meeting and are available from South Coast AQMD's website at: http://www.aqmd.gov/home/news-events/meeting-agendas-minutes.

Date: November 12, 2020 **Signature:**

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development, 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 Rule (PR) 1407.1 – Control of Toxic Air Contaminant Emissions from Chromium Alloy Melting Operations

Project Location: The project is located within the South Coast Air Quality Management District's (South Coast AQMD) jurisdiction, which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties), and the Riverside County portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin.

Description of Nature, Purpose, and Beneficiaries of Project: PR 1407.1 proposes to reduce hexavalent chromium, arsenic, cadmium, and nickel emissions from melting operations of metals containing greater than 0.5 percent chromium, including, but not limited to, alloy steel, chromium non-ferrous alloys, stainless steel, and superalloys. Chromium alloy melting operations include smelting, die-casting, and other miscellaneous processes where metals are processed in molten form. PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. By focusing on controlling hexavalent chromium emissions from chromium alloy melting operations, concurrent emission reductions of arsenic, cadmium, and nickel are also expected. The Draft EA did not identify any environmental topic areas that would be significantly adversely affected by PR 1407.1. Two facilities affected by PR 1407.1 were 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

The Draft EA is available from South Coast AQMD's website at:	**or by calling:** (909) 396-2039 **or by emailing:**	**PR 1407.1 and all supporting documentation are available from South Coast AQMD's website at:**
http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects	PICrequests@aqmd.gov	http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules#1407.1

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

☑ Los Angeles Times (November 13, 2020)
☑ South Coast AQMD Website
☑ South Coast AQMD Mailing List & Interested Parties
☑ South Coast AQMD Public Information Center

Draft EA Review Period (32 days): November 13, 2020 to December 15, 2020

Scheduled Public Meeting Date(s) (subject to change): The public is invited to attend the following meetings for the proposed project which will be conducted remotely via video conferencing and by telephone: 1) Stationary Source Committee on November 20, 2020 at 9:30 a.m.; and 2) Governing Board Meeting (Public Adoption Hearing) on January 8, 2021 at 9:00 a.m. Meeting agendas, which include details on how the public can participate electronically, are posted at least 72 hours prior to the meeting and are available from South Coast AQMD's website at: http://www.aqmd.gov/home/news-events/meeting-agendas-minutes.

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:**
Kevin Ni	(909) 396-2462	kni@aqmd.gov	(909) 396-3982
Send Questions on PR 1407.1 to:	**Phone:**	**Email:**	**Fax:**
Charlene Nguyen	(909) 396-2648	cnguyen@aqmd.gov	(909) 396-3982

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Environmental Assessment for Proposed Rule 1407.1 – Control of Toxic Air Contaminant Emissions From Chromium Alloy Melting Operations

November 2020

South Coast AQMD Number: 11122020KN
State Clearinghouse Number: TBD

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CHAPTER 1

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, the 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 the jurisdiction of the South Coast AQMD[2]. Furthermore, the South Coast AQMD must adopt rules and regulations that carry out the AQMP[3]. The AQMP is a regional blueprint for how the South Coast AQMD will achieve air quality standards and healthful air. The 2016 AQMP[4] contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases (GHGs), and toxic air contaminants (TACs). 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.

In 2017, South Coast AQMD staff was tasked with pursuing additional reductions of arsenic, cadmium, and nickel from non-ferrous metal melting operations as well as to explore ways to reduce emissions from previously exempted ferrous metal melting operations. South Coast AQMD staff's research of metal melting operations revealed that many facilities processed very large quantities of metals possibly containing arsenic, cadmium, and/or nickel but due to overly broad exemptions in Rule 1407 – Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Ferrous Metal Melting Operations, the processes were exempt from most of the requirements. For this reason, Rule 1407 was amended on October 4, 2019 to impose stricter criteria for a facility conducting metal melting operations to qualify for an exemption and to incorporate requirements to specifically address non-chromium metal melting operations.

The types of toxic air contaminants emitted from non-ferrous and ferrous metal melting operations vary and approaches to controlling multiple toxic air contaminant emissions are dependent upon the potency of each toxic air contaminant. In addition, while some non-ferrous alloys contain chromium, certain ferrous alloys do not. For these reasons, the title of Rule 1407 was revised to "Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations" and the rule applicability correspondingly changed. Chromium melting operations are addressed separately in Proposed Rule (PR) 1407.1 – Control of Toxic Air Contaminant Emissions from Chromium Alloy Melting Operations which aims to reduce toxic air contaminant emissions of hexavalent chromium, arsenic, cadmium, and nickel from melting operations of metals containing greater than 0.5 percent chromium content. Melting operations include smelting, die-casting, and other miscellaneous processes where metals are processed in molten form; and affected metals include but are not limited to alloy steel, chromium non-ferrous alloys, stainless steel, superalloys. Proposed Rule 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. By focusing on

[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, Final 2016 Air Quality Management Plan, March 2017. https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp

controlling hexavalent chromium emissions from chromium alloy melting operations, concurrent emission reductions of arsenic, cadmium, and nickel are also expected.

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 PR 1407.1 is a South Coast AQMD-proposed 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 PR 1407.1 (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.

Because PR 1407.1 requires discretionary approval by a public agency, it is a "project" as defined by CEQA[6]. The proposed project would further reduce public health impacts by reducing exposure to hexavalent chromium, arsenic, cadmium, and nickel, and would provide an overall environmental benefit to air quality. However, South Coast AQMD's review of the proposed project also shows that the activities that facility operators may undertake to comply with PR 1407.1 may also create secondary adverse environmental impacts that would not result in significant impacts for any environmental topic area. Thus, the analysis of PR 1407.1 indicates that the type of CEQA document appropriate for the proposed project is an Environmental Assessment (EA) with no significant impacts. The EA is a substitute CEQA document, which the South Coast AQMD, as lead agency for the proposed project, 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); South Coast AQMD Rule 110). The EA is also a public disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental impacts of the proposed project; and, 2) be used as a tool by decision makers to facilitate decision making on the proposed project.

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

[6] CEQA Guidelines Section 15378

The 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 PR 1407.1 is implemented. Because PR 1407.1 would 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 November 13, 2020 to December 15, 2020. 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 PR 1407.1, 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 PR 1407.1.

PROJECT LOCATION

PR 1407.1 applies to any owner or operator of a facility in South Coast AQMD jurisdiction conducting chromium alloy melting, including smelters (primary and secondary), foundries, die-casters, mills, and other establishments conducting miscellaneous melting processes. 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) and the Riverside County portion of the Salton Sea Air Basin (SSAB) and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin (MDAB). The Basin, 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 and 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).

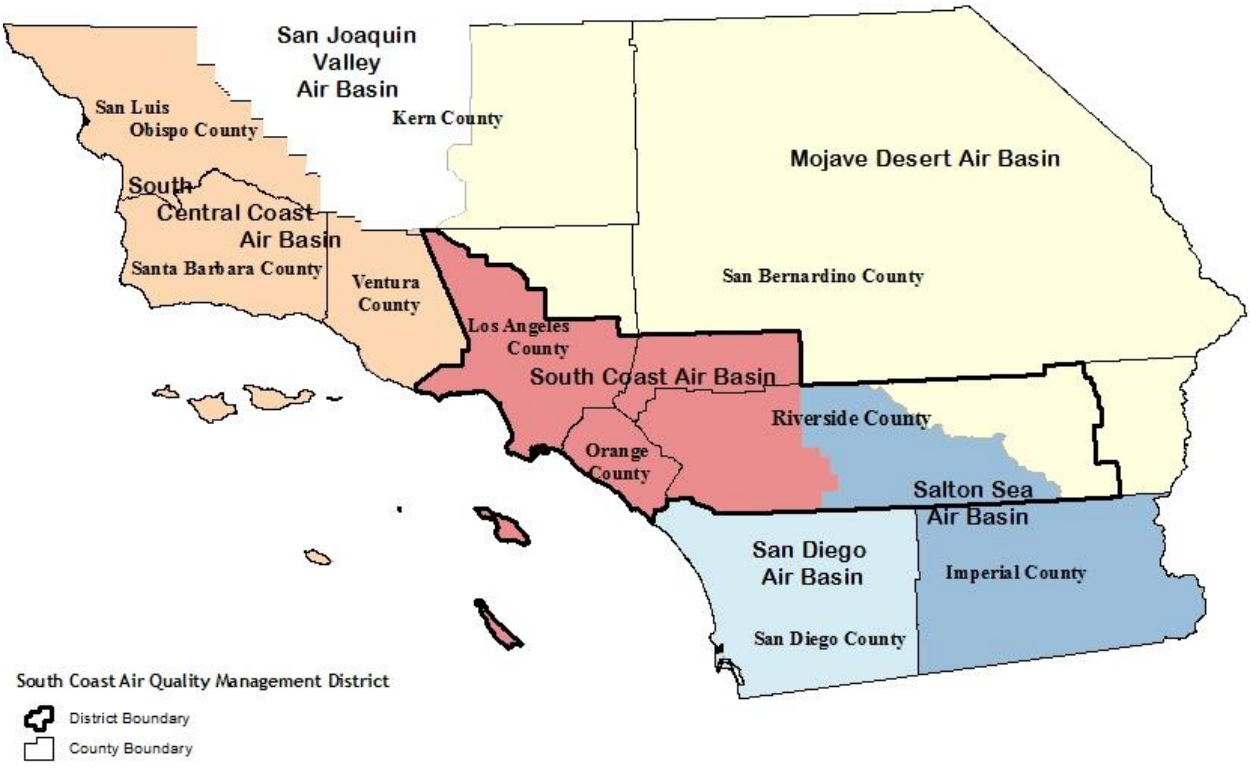

Figure 1-1
Southern California Air Basins

PROJECT BACKGROUND

In 1983, the California Legislature established Assembly Bill 1807, a two-step process to identify toxic air contaminants and to propose airborne 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. The ATCM did not include ferrous metals since it was beyond the scope of the investigation. CARB intended to evaluate the need for proposed controls for ferrous metal melting operations in the future.

[7] California Air Resources Board, Non-Ferrous Metal Melting ATCM, December 30, 1998. https://ww2.arb.ca.gov/sites/default/files/classic//toxics/atcm/metalm.pdf?_ga=2.84703194.2113944730.1601503890-36779924.1597455386

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 the control measure, South Coast AQMD staff explored ways to reduce emissions from ferrous metal melting facilities and to further reduce arsenic, cadmium, and nickel from non-ferrous metal melting operations.

In 2017, South Coast AQMD staff was tasked with pursuing additional reductions of arsenic, cadmium, and nickel from non-ferrous metal melting operations as well as to explore ways to reduce emissions from previously unregulated ferrous metal melting operations. South Coast AQMD staff's research of metal melting operations revealed that many facilities processed very large quantities of metals possibly containing arsenic, cadmium, and/or nickel. Due to the "metal or alloy purity" exemption as well as the "clean aluminum scrap" exemption which did not limit the content of arsenic, cadmium, or nickel contained in the scrap, amendments were necessary to prevent a possible release of toxic emissions that could pose a risk to the surrounding community. For this reason, Rule 1407 was amended on October 4, 2019 to impose stricter criteria for a facility conducting metal melting operations to qualify for an exemption and to incorporate requirements to specifically address non-chromium metal melting operations.

The types of toxic air contaminants emitted from non-ferrous and ferrous metal melting operations vary and approaches to controlling multiple toxic air contaminant emissions are dependent upon the potency of each toxic air contaminant. In addition, while some non-ferrous alloys contain chromium, certain ferrous alloys do not. For these reasons, the title of Rule 1407 was revised to "Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Chromium Metal Melting Operations" and the rule applicability correspondingly changed. Chromium melting operations are addressed separately in Proposed Rule 1407.1 – Control of Toxic Air Contaminant Emissions from Chromium Alloy Melting Operations which aims to reduce toxic air contaminant emissions of hexavalent chromium, arsenic, cadmium, and nickel from melting operations of metals containing greater than 0.5 percent chromium content. Melting operations include smelting, die-casting, and other miscellaneous processes where metals are processed in molten form; and affected metals include but are not limited to alloy steel, chromium non-ferrous alloys, stainless steel, superalloys.

TECHNOLOGY OVERVIEW

The following discussion provides a general overview of the most likely emission control options that would be used to comply with PR 1407.1.

Building Enclosure

A building, as defined in PR 1407.1, is a structure enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation or wind). Cross-draft conditions of a building shall be minimized by not allowing openings on opposite ends of the building to be open simultaneously except during the passage of vehicles, equipment, or people. Minimizing cross-draft conditions would help prevent a loss in the efficiency of an emission collection system. Openings include passages, doorways, bay doors, wall openings, roof openings, vents, and windows. 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, except if used for a chromium alloy melting operation, may also be used to block openings.

If building requirements cannot be complied with due to conflicting requirements set forth by the United States Department of Labor Occupational Safety and Health Administration (OSHA), the

California Division of Occupational Safety and Health (Cal/OSHA), or other municipal codes or agency requirements directly related to worker safety, an owner or operator of a chromium alloy melting facility may use an alternative building compliance measure(s) that has been approved, in writing, by the Executive Officer that meets the same air quality objective and effectiveness of the building compliance requirement it is replacing.

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 would 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 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 baghouses. 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 mainstream 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 would 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* 30th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2019.

High Efficiency Particulate Arrestor (HEPA) and Ultra Low Particulate Air (ULPA) Filters

HEPA filters are capable of capturing fine PM as small as 0.3 micron (μm) diameter or larger with a minimum efficiency rating of 99.97%. ULPA filters are capable of capturing fine PM as small as 0.12 μm diameter or larger with a minimum efficiency rating of 99.9995%. Both filters have a high collection efficiency when compared to other PM control devices and are utilized in situations when a high collection efficiency of submicron PM is necessary such as for toxics. Unlike bags or cartridge filters in baghouses, HEPA and ULPA filters are not automatically cleaned. When a filter element becomes loaded with PM, the filter element is replaced, and the loaded filter is disposed of as hazardous waste.

A HEPA or ULPA filter is generally installed as the final component in a PM collection system downstream from other PM collection devices. The use of a HEPA or ULPA filter is recommended to have a pre-filter upstream to remove large PM for dust concentrations greater that 0.03 grams per square centimeter (g/cm2) or 0.06 pounds per square feet squared (lbs/ft2).

PROJECT DESCRIPTION

The purpose of PR 1407.1 is to reduce point source and fugitive emissions of hexavalent chromium, arsenic, cadmium, and nickel from chromium alloy melting operations, thereby minimizing public health impacts by reducing exposure to toxic air contaminants. PR 1407.1 fills a regulatory gap and is intended to complement South Coast AQMD Rule 1407. During the rule development process for PR 1407.1, source tests were conducted at two facilities in 2019 and the results provided data which was used to quantify each facility's maximum individual cancer risk (MICR) according to distance. The proposed point source control efficiency requirements and mass emission limits were derived from the MICR determinations.

The proposed housekeeping requirements and building enclosure provisions in PR 1407.1 are based on similar requirements in other recently adopted or amended South Coast AQMD rules such as Rules 1407, 1420 – Emissions Standard for Lead, 1420.1 – Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-Acid Battery Recycling Facilities, 1420.2 – Emission Standards for Lead from Metal Melting Facilities, and 1430 – Control of Emissions from Metal Grinding Operations at Metal Forging Facilities. Source testing, material testing, parameter monitoring, and recordkeeping provisions are also proposed.

Eleven facilities were identified as being subject to PR 1407.1 as a result of reviewing South Coast AQMD permits for metal melting furnaces and South Coast AQMD inspection reports for metal

operations facilities, conducting internet searches for facilities that offer metal melting services, and conducting 30 site visits at facilities with various chromium and non-chromium metal melting operations. Facilities that conduct heat treating or other metalworking operations but do not melt metal were excluded. Additionally, PR 1407.1 proposes to exclude facilities that melt: 1) only non-chromium metals since they are already subject to Rule 1407, and 2) metals containing lead since they are already subject to either Rule 1420.1 or Rule 1420.2.

If PR 1407.1 is adopted, all 11 facilities would need to comply with emission control requirements, prohibitions, housekeeping practices, building requirements, and conduct source tests and parameter monitoring amongst other provisions. More specifically, all facilities would need to close roof openings that are located 15 feet or less above the edge of a chromium alloy melting furnace and where molten metal is poured and cooled, remove weather caps, purchase a handheld anemometer, install at least one bag leak detection system, and install at least two pressure gauges with data acquisition system (DAS) to monitor each baghouse and filter bank. In addition, in order to comply with PR 1407.1:

- 10 facilities would need to make minor building upgrades such as installing plastic strip curtains;
- While eight facilities would each need to install one bag leak detection system, three facilities would need to install two;
- While eight facilities would each need to install two pressure gauges with DAS, two facilities would each need to install four, and one facility would need to install seven;
- Five facilities would need to install one baghouse each;
- Eight facilities would need to install a total 14 HEPA filtration units; and
- One facility would need to install one ULPA filtration unit.

While implementation of PR 1407.1 would be expected to reduce public health impacts from point source and fugitive emissions of metal toxic air contaminants, it is not possible to quantify the emission reductions at each point source in each affected facility.

The following is a detailed summary of the key elements contained in PR 1407.1. A draft of rule language can be found in Appendix A.

Purpose – subdivision (a) & Applicability – subdivision (b)

Subdivision (a) states the purpose of this rule to reduce emissions of toxic air contaminants from chromium alloy melting operations. Subdivision (b) states the rule applies to an owner or operator of a facility conducting chromium alloy melting. "Chromium alloy" is defined in paragraph (c)(9) to be "any metal at least 0.5 percent chromium by weight, including, but not limited to, alloy steel, stainless steel, chromium non-ferrous alloy, and superalloy." Each sub-category is further defined in subdivision (c) according to standard industry definitions, and other metal (such as scrap and rerun scrap) also meeting the minimum 0.5 percent chromium by weight is included in the chromium alloy definition. The melting of metals that contain less than 0.5 percent chromium by weight such as carbon steel, aluminum, aluminum alloys, brass, bronze, and lead are not subject

to this rule. "Chromium alloy melting operations" is defined in paragraph (c)(12) to be "any process conducted where a chromium alloy is melted, poured, casted, and finished including, but not limited to, chromium alloy melting, casting, casting material removal, metal grinding, and metal cutting."

Definitions – subdivision (c)

PR 1407.1 contains similar definitions of terms as Rule 1407 for approved cleaning methods, building enclosures and enclosed storage area, but with slight differences as indicated in italics:

- APPROVED CLEANING METHODS means cleaning using wet wash, wet mop, damp cloth, or low pressure spray; *sweeping with use of dust suppressing sweeping compounds;* or vacuuming with a vacuum equipped with filter(s) rated by the manufacturer to achieve a 99.97 percent control efficiency for 0.3 micron particles.
- BUILDING means a type of enclosure that is a structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g. precipitation or wind).
- ENCLOSED STORAGE AREA means any space used to contain materials that has a wall or partition on at least three sides or three-quarters of its circumference, *that is at least six inches taller than the height of the materials contained in the space,* and that screens the materials stored therein to prevent emissions of the material into the air.

Emission Control Requirements – subdivision (d)

Aggregate hexavalent chromium emission is limited to 0.40 milligrams per hour (mg/hr) for sensitive receptors located at a distance less than 50 meters, 1.5 mg/hr for sensitive receptors located between 50 meters and 100 meters, and 1.8 mg/hr for sensitive receptors located at a distance greater than 100 meters. Distances are measured from the stack or centroid of stacks to the nearest property line of the closest sensitive receptor, at the time a permit application is deemed complete with the South Coast AQMD.

Prohibitions – subdivision (e)

An owner or operator cannot melt chromium non-ferrous alloys which contain more than 0.002 percent arsenic by weight or 0.004 percent cadmium by weight. New exhaust stacks cannot be oriented horizontally, and no vertical stacks may utilize a weather cap that restricts the flow of exhaust air.

Housekeeping Requirements – subdivision (f)

To prevent the accumulation of hazardous waste and the generation of fugitive emissions due to improper storage or during the transport of hazardous materials or waste, requirements for conducting housekeeping and cleaning on a daily, weekly, quarterly, semi-annual, annual, and biennial basis are proposed.

Building Requirements – subdivision (g)

PR 1407.1 proposes to require that all chromium alloy melting operations to be conducted inside a building. Additional building enclosure provisions are proposed that would prevent fugitive emissions from cross drafts through openings on opposite ends of the building or rising uncaptured emissions through openings in the building roof.

Exemptions – subdivision (l)

PR 1407.1 contains a low use exemption from all requirements except recordkeeping for an owner or operator that melts no more than one ton of chromium alloy(s). The following facilities and equipment are proposed to be exempt from PR 1407.1: educational facilities, jewelers, equipment subject to Rules 1420.1 and 1420.2, and brazing, dip soldering, and wave soldering operations. Metal cutting and metal grinding performed for maintenance and repair activities except for those associated with chromium alloy melting operation(s), emission collection and control, or housekeeping or building requirements that would generate fugitive emissions, are also exempt.

CHAPTER 2

ENVIRONMENTAL CHECKLIST

INTRODUCTION

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

GENERAL INFORMATION

Project Title:	Proposed Rule 1407.1 – Control of Toxic Air Contaminant Emissions from Chromium Alloy Melting Operations
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Kevin Ni, (909) 396-2462, kni@aqmd.gov
PR 1407.1 Contact Person:	Charlene Nguyen, (909) 396-2648, cnguyen@aqmd.gov
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:	PR 1407.1 proposes to reduce hexavalent chromium, arsenic, cadmium, and nickel emissions from melting operations of metals containing greater than 0.5 percent chromium, including, but not limited to, alloy steel, chromium non-ferrous alloys, stainless steel, and superalloys. Chromium alloy melting operations include smelting, die-casting, and other miscellaneous processes where metals are processed in molten form. PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. By focusing on controlling hexavalent chromium emissions from chromium alloy melting operations, concurrent emission reductions of arsenic, cadmium, and nickel are also expected. The Draft EA did not result in the identification of any environmental topic areas that would be significantly adversely affected by PR 1407.1.
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: November 12, 2020 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA
Planning, Rule Development and Area Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

As explained in Chapter 1, PR 1407.1 proposes to reduce hexavalent chromium, arsenic, cadmium, and nickel emissions from chromium alloy melting operations at 11 facilities by establishing collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements.

Implementation of PR 1407.1 is anticipated to require physical modifications and compliance activities which may create secondary adverse environmental impacts which will be analyzed in this chapter. Installation of air pollution control equipment such as baghouses and HEPA or ULPA filtration units to comply with collection efficiency requirements and hexavalent chromium mass emission limits is a physical modification. Minor improvements including but not limited to installing strip curtains and closing roof openings to minimize the movement of fugitive metal dust within the buildings where chromium alloy melting operations occur are also physical modifications. Activities associated with implementing housekeeping and conducting source tests may create some secondary adverse environmental impacts.

There are other components in PR 1407.1 that are administrative or procedural in nature and as such, would not be expected to cause any physical changes that would create any secondary adverse environmental impacts. These include recordkeeping, applying for permit applications, and preparing and submitting source testing protocols.

For these reasons, the analysis in this Draft EA focuses on the key elements in PR 1407.1 with the potential to create secondary adverse environmental impacts associated with installing and maintaining emission control devices, constructing building enclosures, conducting source tests, and implementing housekeeping requirements. The key components of PR 1407.1 that are expected to involve physical activities and the number facilities affected by each provision are summarized in Table 2-1.

Table 2-1
Key Components of PR 1407.1 with Physical Effects on Affected Facilities

PR 1407.1 Category	Number of Affected Facilities	Potential Physical Effects on Affected Facilities
Subdivision (d): Emission Control Requirements	5	Each facility would need to install one baghouse which would involve construction activities and maintenance once the baghouse becomes operational. Maintenance activities involve periodically emptying the baghouse filters, collecting the waste material, and hauling it away for disposal.
	9	14 HEPA filtration units would need to be installed at eight facilities. One facility would need to install one ULPA filtration unit; however, the installation process and housing for an ULPA is the same as for a HEPA. Once the installation is completed, periodic replacement and disposal of spent HEPA/ULPA filters would be necessary.
Subdivision (f): Housekeeping Requirements	11	Each facility would be required to conduct various types of housekeeping activities including but not limited to: cleaning floors, roofs, and areas around air pollution collection points via wet wash, wet mop, or dry sweeping with the use of dust suppressing sweeping compound. Facilities may employ a HEPA vacuum system such as a portable HEPA backpack unit or HEPA sweeper. Periodic replacement and disposal of spent HEPA filters would be necessary.
Subdivision (e): Prohibitions		Removal of existing weather caps would be necessary at each facility to provide a clear path for air movement when the exhaust fan is operating. One-time installation of butterfly caps or dampers to replace the weather cap required for removal is anticipated though not required by the rule.
Subdivision (g): Building Requirements		All facilities would need to close roof openings that are located 15 feet or less above the edge of a chromium alloy melting furnace and where molten metal is poured and cooled. Except for one facility, all facilities would also need to install overlapping floor-to-ceiling plastic strip curtains or another physical modification to close openings on one end for each pair of opposing ends of the building, except during the passage of vehicles, equipment, or people.
Subdivision (h): Source Testing Requirements		17 initial source tests would need to be conducted for 76 equipment units by July 1, 2024, with additional source testing required every 60 months thereafter.
Subdivision (j): Parameter Monitoring Requirements		Eight facilities would need to install one bag leak detection system; three would need to install two each (14 total). Eight facilities would need to install two pressure gauges with data acquisition systems, two would need to install four each, and one would need to install seven (31 total).
Attachment A: Smoke Test		Smoke tests would need to be conducted for each emission collection system at each facility during each source test pursuant to paragraph (h)(4), and additionally 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

I. a), b), c) & d) No Impact. Physical modifications associated with PR 1407.1 include the following construction activities which are expected to require the use of off-road equipment such

as aerial lifts, forklifts, air compressors, and welders: 1) enclosing building and roof openings; 2) installing plastic strip curtains; 3) constructing baghouses and HEPA/ULPA filtration units; 4) installing bag leak detection systems, and pressure gauges with digital acquisition systems; and 5) removing weather caps. 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. Once construction is completed, all construction equipment would be removed from each facility.

The physical modifications would result in slight changes to the appearance of the affected facilities. However, due to the nature of the modifications, any altered appearances would be minor and would not substantially alter the overall visual character of the existing facilities. In addition, after construction is completed, the result of enclosing building and roof openings and installing strip curtains to minimize cross-draft conditions combined with the operation of new air pollution control equipment (e.g., baghouses with HEPA/ULPA filtration units would be expected to reduce particulate emissions, thus serving to prevent visible emissions from the affected facilities.

The affected facilities are located throughout the Los Angeles, Orange, and San Bernardino counties and each county is mandated by the state of California to prepare a general plan containing an aesthetics element[8] [9] [10]. However, none of the anticipated physical activities associated with implementing PR 1407.1 would involve activities that would exceed height restrictions or be inconsistent with each facility's zoning designation. The proposed project would neither take place in nor have a substantial adverse effect on a scenic vista indicated in the Los Angeles County General Plan 2035, County of Orange General Plan, or San Bernardino Countywide Plan. Further, none of the affected facilities are located within the views of a scenic vista or state scenic highway as designated by the California Department of Transportation (CalTrans)[11].

For these reasons, implementation of PR 1407.1 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, since all of the affected facilities are located in urbanized areas, any changes to the buildings or structures would require approvals from the local

[8] Los Angeles County Department of Regional Planning, Los Angeles County General Plan 2035, Chapter 9: Conservation and Natural Resources Element, Accessed October 2020. http://planning.lacounty.gov/generalplan/generalplan

[9] OC Public Works, General Plan, Chapter IV Scenic Highway Plan Map and Chapter VI Resources Element, Accessed October 2020. https://www.ocpublicworks.com/ds/planning/generalplan

[10] San Bernardino County Land Use Services, Open Space Element, Accessed October 2020. http://cms.sbcounty.gov/Portals/5/Planning/ZoningOverlaymaps/OpenSpaceCountywide.pdf

[11] Caltrans, Scenic Highways, Accessed October 2020. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways

city or county planning departments. Therefore, PR 1407.1 would not be expected to conflict with applicable zoning or other regulations governing scenic quality.

The requirements in PR 1407.1 specific to conducting housekeeping, source testing, material testing, parameter monitoring, and recordkeeping would involve low-profile activities, if at all, that would be expected to blend in with routine day-to-day operations occurring within the fence line of each affected facility. Therefore, housekeeping, maintenance, source testing and smoke testing would not be expected to cause any discernable aesthetic impacts visible to outside the property lines of each facility.

PR 1407.1 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.

The existing buildings at the affected facilities are currently illuminated at night for safety and security purposes, and the lighting typically faces toward the interior of the each facility's property so that they point downward or parallel to the ground, which has the effect of limiting the amount of lighting to what is needed to adequately illuminate the specific locations. While minimal, additional permanent light sources could potentially be installed at or near the installation of new baghouses and HEPA/ULPA filtration units, PR 1407.1 does not specifically require new lighting to be installed. Thus, any new lighting, if installed, would likely be consistent in intensity and type with the existing lighting on equipment and other structures at the existing facilities and directed to minimize potential lighting impacts on areas outside the property lines. These practices are followed to avoid or minimize potential lighting impacts on areas outside each facility's property. Since the anticipated modifications would occur within the boundaries of each facility's property, no new areas are expected to be illuminated off-site by permanent additional lighting, in the event any new lighting is installed.

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 PR 1407.1. 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
PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

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 Department of Conservation[12]. 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 PR 1407.1. Since no significant agriculture and forestry resources impacts were identified, no mitigation measures are necessary or required.

[12] California Department of Conservation, California Important Farmland Finder, Accessed October 2020. https://maps.conservation.ca.gov/DLRP/CIFF/

	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 PR 1407.1 are significant, impacts will be evaluated and compared to the criteria in Table 2-1. PR 1407.1 will be considered to have significant adverse impacts if any one of the thresholds in Table 2-1 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

III. a) No Impact. The South Coast AQMD is required by law to prepare a comprehensive district-wide 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[13] 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, to reduce nickel, arsenic, and cadmium emissions. The amendments to Rule 1407 implements TXM-06 for non-chromium metal melting operations while PR 1407.1 was developed to address chromium alloy melting operations.

PR 1407.1 is not expected to obstruct or conflict with the implementation of the 2016 AQMP because the emission reductions from implementing PR 1407.1 are in accordance with the emission reduction goals in the 2016 AQMP. Thus, implementing PR 1407 would not conflict with or obstruct implementation of the applicable air quality plans.

III. b) and e) Less Than Significant Impact. While PR 1407.1 is designed to reduce hexavalent chromium, arsenic, cadmium, and nickel emissions, secondary air quality impacts are expected due to physical activities that may need to occur from its implementation: constructing five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems; removing weather caps; and conducting housekeeping, source tests, and smoke tests.

Table 2-3 summarizes the key requirements in PR 1407.1 that may result in secondary adverse air quality and greenhouse gas (GHG) impacts during construction and operation.

[13] 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
Sources of Potential Secondary Adverse Air Quality and GHG Impacts During Construction and Operation

Key Requirements in PR 1407.1	Physical Effects Anticipated During:	
	Construction	**Operation**
Emission Control Requirements	Emissions from vehicle trips and construction equipment to install five baghouses at five facilities, and 15 HEPA/ULPA filtration units at nine facilities.	1. Vehicle emissions from transporting increased amounts of baghouse and filter waste and spent HEPA/ULPA filters for disposal and/or recycling; and 2. Electricity to power baghouses.
Prohibitions	Emissions from construction equipment to remove weather caps on stacks.	No operational impacts.
Housekeeping Requirements	No construction impacts	No additional vehicle trips from staff relative to the existing setting since cleaning and other housekeeping activities can be performed by existing staff. Further disposal of HEPA filters from backpack portable HEPA vacuum units or HEPA sweepers can be combined with baghouse waste and HEPA/ULPA filtration unit waste, no separate, additional disposal trips would be necessary on a peak daily basis.
Building Requirements	Emissions from vehicle trips and construction equipment to enclose building and roof openings such as installing plastic strip curtains.	No operational impacts
Emission Control Device Monitoring Equipment	Emissions from vehicle trips to deliver and install monitoring equipment	No operational impacts
Source and Smoke Testing	No construction impacts	Emissions from vehicle trips to perform periodic tests

For the purpose of conducting a worst-case CEQA analysis for the 11 facilities that would be subject to PR 1407.1, the following assumptions have been made:

Emission Control Devices (Baghouses and HEPA/ULPA Filtration Units)

- Five facilities would need to install five baghouses, and nine facilities (including the five) would need to install 15 HEPA/ULPA filtration units. The two facilities which would not have to install new emission control devices already have baghouses followed by HEPA filtration units.

- Each baghouse is assumed to contain approximately 4,000 square feet of fabric and is expected to require approximately 24 watts of electric power to operate. Installation of one baghouse would 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 miles per gallon (mpg), and one worker would drive a vendor truck with an average fuel economy of 10 mpg at a distance of 15 miles round trip per affected facility.

- Each baghouse is capable of collecting approximately one additional drum (0.25 cubic yard) of waste every three months. The analysis assumes that the collected waste would be collected and hauled away once every three months per facility by a heavy-duty truck with an average fuel economy of 6.6 mpg, traveling 40 miles round trip.

- HEPA/ULPA filtration units would require the same amount and type of construction equipment and vehicles as needed to construct the baghouses, but construction can be completed in one day per unit. Construction of 15 HEPA/ULPA filtration units would be equivalent to three baghouses and require 15 days.

- The lifetime of a HEPA or ULPA filter is typically three to five years before replacement is needed because they are preceded by a preliminary stage of control such as a baghouse which is capable of removing the largest sized particles. The dimensions of each HEPA/ULPA filter is approximately 24"x24"x2" and disposal of one HEPA/ULPA filter would result in the generation of 0.025 cubic yard of waste every three years. 15 HEPA/ULPA filtration units would generate an additional 0.03 cubic yard of waste every three months.

Stack Emission Points (Remove Weather Caps)

- All facilities would be required to remove weather caps that restrict the flow of exhaust on any stack that is a source of emissions from chromium alloy melting operations. Facilities may choose to replace the existing weather caps with butterfly caps or dampers. The number of existing weather caps to be removed and new butterfly caps that may be installed is not known. Removal of existing weather caps and installation of new butterfly caps for example 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 that no gasoline or diesel-fueled construction equipment or additional vehicle trips would be necessary to accomplish this task.

Housekeeping

- All 11 facilities would 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, thus no new air quality impacts would 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 PR 1407.1.

Building Modification (Enclosing Building and Roof Openings and Plastic Strip Curtains)

- All 11 facilities would need to close building and roof openings by employing any of the following methods: the use of automatic doors; installation of overlapping floor-to-ceiling plastic strip curtains; vestibules; and airlock systems. However, 10 facilities are assumed to install overlapping plastic strip curtains at entryways. Installations of plastic strip curtains are assumed to be accomplished within a relatively short amount of time using 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 would drive a vendor truck with an average fuel economy of 10 mpg approximately 15 miles round trip per facility.

Monitoring Equipment (Bag Leak Detection Systems and Pressure Gauges)

- All 11 facilities would be required to install a total of 14 bag leak detection systems and 31 pressure gauges with data acquisition systems. The installation of bag leak detection systems, pressure gauges, and data acquisition systems can be accomplished within a relatively short amount of time using of electric or manual hand tools, ladders, and a minimal number of construction workers. The analysis assumes that two construction workers would commute approximately 30 miles round trip each day by driving gasoline-fueled vehicles with an average fuel economy of 21 mpg and one worker would drive a vendor truck 15 miles round trip with an average fuel economy of 10 mpg.

Source Testing and Smoke Tests

- A total 17 source tests for 76 equipment units would need to be conducted, with the initial source tests to be completed by July 1, 2024 followed by additional source tests conducted every 60 months thereafter. Owners/operators of affected facilities would be expected to hire a company to conduct the source tests. This analysis assumes that one light duty vehicle with a fuel economy averaging 21 mpg and one medium duty maintenance truck with a fuel economy averaging 10 mpg would each drive approximately 40 miles round trip as part of conducting source tests at each facility.

- All facilities would be required to conduct smoke tests with each source test, Additional smoke tests are required to be conducted once every six months after the initial source test. This analysis assumes that one light duty testing vehicle with a fuel economy averaging 21 mpg would drive approximately 40 miles round trip to conduct the required smoke tests at each facility.

Timing of Construction and Operation Activities

PR 1407.1 would require enclosures of building and rooftop openings to be constructed by July 1, 2021. By July 1, 2024, the baghouses, HEPA/ULPA filtration units, and corresponding monitoring equipment all need to be installed and the initial source tests need to be completed. There is a three-year period between required deadlines. Therefore, the analysis assumes that the construction activities needed to implement the aforementioned requirements would not be expected to overlap with each other.

Construction 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[14] 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 mobile emissions were estimated using emission factors for on-road vehicles from CARB's EMFAC2017[15] 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 light duty gasoline-fueled passenger vehicles used for transporting workers to facilities in order to install equipment or perform modifications. Table 2-4 summarizes the peak daily emissions associated with construction activities occurring at all affected facilities.

[14] 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.

[15] 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.

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

Construction Activity	VOC	NOx	CO	SOx	PM10	PM2.5
Phase 1: Building Modification by July 1, 2021						
11 Medium-Duty Vendor Truck Trips to Deliver Plastic Strip Curtains and Supplies to Enclose Building and Roof Openings	0.06	0.05	0.60	0.00	0.02	0.01
22 Light-Duty Auto Worker Trips to Install Plastic Strip Curtains and Enclose Building and Roof Openings	0.29	3.09	1.60	0.01	0.26	0.16
Phase 1 Total	0.36	3.14	2.20	0.01	0.27	0.17
Significance Threshold for Construction	75	100	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Phase 2: Installation of Air Pollution Control Equipment and Monitoring Devices by July 1, 2024						
Install 9 Baghouse or HEPA/ULPA Filtration Units	4.86	35.13	38.03	0.07	2.83	2.11
20 Medium-Duty Vendor Truck Trips to Deliver Emission Control Device (9), and Monitoring Equipment (11)	0.12	0.09	1.09	0.00	0.03	0.01
67 Light-Duty Auto Worker Trips to Install Emission Control Device (45), and Monitoring Equipment (22)	0.88	9.41	4.88	0.04	0.78	0.49
Phase 2 Total	5.87	44.64	44.00	0.11	3.64	2.62
Significance Threshold for Construction	75	100	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Assumptions: Nine facilities would be required to install baghouses or HEPA/ULPA filtration units. All 11 facilities would be required to install monitoring equipment. A peak day would involve nine control device installations and 11 monitoring installations. See Appendix B for additional assumptions and calculations.

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

Operational Impacts

Source testing, smoke testing, and waste haul trips would cause recurring operation emissions. Pursuant to PR 1407.1 paragraph (h)(3), a smoke test must be conducted during each source test. Typically, source testing personnel would conduct any required same-day smoke tests, but it is conservatively assumed that each test would have its own dedicated staff and vehicles. Although unlikely, it is also assumed that two source tests, two smoke tests, and a waste hauling trip would occur on the same day at a facility. Finally, as a conservative estimate, the analysis assumes that all 11 facilities would conduct these activities on the same day.

Table 2-5 summarizes the peak daily emissions associated with operation.

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

Operation Activity	VOC	NOx	CO	SOx	PM10	PM2.5
2 Medium-Duty Truck Trips to Conduct Source Testing	0.03	0.02	0.29	0.00	0.01	0.00
4 Light-Duty Auto Worker Trips to Conduct Source Testing and Smoke Testing	0.07	0.75	0.39	0.00	0.06	0.04
1 Heavy-Duty Waste Truck Trip to Collect Baghouse and Filter Waste	0.02	0.48	0.10	0.00	0.02	0.01
Subtotal for One Facility	0.12	1.25	0.78	0.00	0.09	0.05
Total for All 11 Facilities	1.32	13.79	8.54	0.05	0.95	0.57
Significance Threshold for Operation	55	55	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

The air quality analysis indicates that the peak daily operation emissions are well below 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.

Cumulatively Considerable Impacts

Based on the foregoing analysis, since criteria pollutant project-specific air quality impacts from implementing PR 1407.1 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 PR 1407.1 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."[16]

[16] 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

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 AQMD'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 considerable. Thus, it may be concluded that the proposed project would 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 would be completed within six months at all the 11 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)[17]. 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 and operation only. Because the emissions from all activities that may occur as part of implementing PR1407.1 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, implementation of PR 1407.1: conducting housekeeping activities, enclosing building and roof openings, and installing air pollution control equipment would decrease emissions of hexavalent chromium, arsenic, cadmium, and nickel from chromium alloy melting facilities. Overall, the implementation of PR 1407.1 would reduce TACs, an air quality benefit. Therefore, PR 1407.1 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.

[17] 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

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 would 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[18]; thus, the fuel is expected to have minimal odor. The operation of construction equipment would occur within the confines of existing affected facilities. It would be expected that 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 would be operated on-site as a part of construction activities would not be allowed to idle longer than five minutes per any one location in accordance with the CARB idling regulation[19], so lingering odors from idling vehicles would not be expected. In addition, construction activities for constructing building modifications and installing emission control devices would be temporary (completed by July 1, 2021 and July 1, 2024, respectively). Operation within the buildings and having equipment within the buildings vented to emission control devices 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, PR 1407.1 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)

[18] 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

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

(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[20].

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 timeframe. As a result, the South Coast AQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (i.e., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate effects.

It is assumed one HEPA or ULPA filtration unit requires one-fifth of the construction time needed for a baghouse with the same equipment, such that construction can be completed in one day instead of five. Because the construction equipment would be the same, peak day calculations assumed nine baghouses were being constructed in one day because nine facilities would need to install a total of five baghouses and 15 HEPA or ULPA filtration units to comply with the proposed rule. Actual construction emissions would be more accurately estimated as eight baghouses being constructed (15 HEPA or ULPA filtration units requiring the same equipment and time as three baghouses). Since GHG impacts are defined on an annual, instead of a peak daily basis, the GHG emissions for construction were quantified by summing all of the GHGs occurring during construction for eight baghouses which should be completed by July 1, 2024 and then amortizing the total construction GHGs over 30 years.

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 PR 1407.1 were calculated at the project-specific level during construction and operation activities.

Table 2-6 summarizes the GHG analysis which shows that PR 1407.1 may result in the generation of 2.79 MT per year of CO2eq, which is less than the South Coast AQMD's air quality significance threshold for GHGs. Detailed calculations of project GHG emissions can be found in Appendix B.

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

Table 2-6
Summary of GHG Emissions from Affected Facilities

Phase	Activity	CO2eq Emissions (MT/yr)
Construction	APCD Installation	0.41
	Medium Duty Vendor Truck Trips to Deliver APCD, Monitoring Equipment, and Supplies for Plastic Strip Curtains and to Enclose Roof Openings	0.03
	Light Duty Auto Worker Trips to Install APCD, Monitoring Equipment, and Supplies for Plastic Strip Curtains and to Enclose Roof Openings	0.09
	Subtotal	0.52
Operation	Smoke Test Trips	0.49
	Source Test Trips	0.17
	Baghouse Waste and Spent Filter Waste Hauling	1.28
	Baghouse Operation (Electricity)	0.34
	Subtotal	2.27
Overall	**Total**	2.79
	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 2-6, 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 PR 1407.1 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 PR 1407.1. 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 PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

IV. a), b), c), & d) No Impact. Implementation of PR 1407.1 would occur at existing affected facilities, which are located in industrial areas. Additionally, the physical improvements are expected to occur within the existing facility property boundaries which have been previously disturbed. Thus, PR 1407.1 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, PR 1407.1 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely. PR 1407.1 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 PR 1407.1 would take place at the existing facilities and would not occur on or near a wetland or in the path of migratory species.

IV. e) & f) No Impact. The 11 facilities subject to PR 1407.1 are located throughout Los Angeles, Orange, and San Bernardino counties. According to the California Department of Fish and Wildlife, Natural Community Conservation Plans (NCCP) Plan Summaries[21] and the U.S. Department of Fish and Wildlife list of Habitat Conservation Plans (HCP)[22], there are no NCCPs or HCPs for either Los Angeles County or San Bernardino County. However, Orange County has

[21] California Department of Fish and Wildlife, NCCP Plan Summaries, Accessed October 2020. https://wildlife.ca.gov/conservation/planning/nccp/plans.

[22] U.S. Fish and Wildlife Service, Habitat Conservation Plans, Accessed October 2020. https://ecos.fws.gov/ecp0/conservationPlan/region/summary?region=8&type=HCP

both a NCCP and HCP (e.g., Orange County Central/Coastal region or Southern Subregion HCP/NCCP and the Orange County Transportation Authority NCCP. Nonetheless, because PR 1407.1 does not contain any requirements that would involve facility modifications or require divisions in any existing communities and since compliance with PR 1407.1 would occur at existing facilities located in previously disturbed areas, none of the affected facilities are subject to the HCP or NCCP. Thus, PR 1407.1 would not be expected to conflict with any adopted HCP, NCCP, or any other relevant habitat conservation plan, and would not create divisions in any existing communities. The proposed project is also 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 PR 1407.1.

Conclusion

Based upon these considerations, significant biological resource impacts are not expected from implementing PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

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 PR 1407.1 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, PR 1407.1 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 facility boundaries with the implementation of PR 1407.1. Thus, PR 1407.1 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, PR 1407.1 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 PR 1407.1 is, therefore, not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources.

PR 1407.1 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, PR 1407.1 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, PR 1407.1 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, PR 1407.1 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 and tribal cultural resources impacts are not expected from implementing PR 1407.1. Since no significant cultural and tribal 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
PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

VI. a), e) & f) No Impact. PR 1407.1 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 PR 1407.1 is implemented. The effects of implementing PR 1407.1 would apply to existing facilities. PR 1407.1 would also be applicable to new chromium alloy melting facilities; however, 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 enclose building and roof openings, install and operate baghouses, HEPA or ULPA filtration units, and monitoring equipment, and conduct source tests and smoke tests would be used to achieve reductions in hexavalent chromium, arsenic, cadmium, and nickel; and therefore, would not be using non-renewable resources in a wasteful manner. For these reasons, PR 1407.1 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) Less Than Significant Impact. & g) No Impact. Implementation of PR 1407.1 would result in the installation of baghouses, HEPA or ULPA filtration units, and emission control device monitoring equipment. In addition, all affected facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors; installation of overlapping floor-to-ceiling plastic strip curtains; vestibules; and airlock systems. Lastly, all affected facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests. To accomplish these various activities, use of energy in terms of gasoline and diesel fuel would be needed for on-road passenger vehicles and light-, medium- and heavy duty trucks associated with delivering supplies and construction materials, conducting source testing and smoke testing, and hauling collected waste from the baghouses and spent HEPA/ULPA filters. In addition, once the air pollution control devices are operational, electricity would be needed to operate the five new blowers which are necessary to be able to pull exhaust air from the chromium alloy melting operations through the baghouses and HEPA/ULPA filtration units. The amount of electricity needed to operate five new baghouses is relatively small and capable of being supplied by existing utilities such that no new or substantially altered power or natural gas utility systems would be necessary. HEPA or ULPA filtration units are not expected to require significant amounts of electricity beyond that already necessary for baghouses. The projected increased electricity demands that may result from PR 1407.1 are presented below.

Table 2-7
Increases in Electricity Demand For Operating Baghouses

Equipment	Energy Demand (GWhr)
Baghouse[a]	0.001
South Coast AQMD Jurisdiction Electricity End Use Consumption[b]	120,210
Total Increase Above Baseline	0.000001%
Significance Threshold	1%
Significant?	**No**

Notes:
a) This analysis assumes baghouse blowers operate at 24 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 PR 1407.1 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 PR 1407.1, no change to existing natural gas supplies and usage would be expected to occur. In addition, because PR 1407.1 would not require new facilities to be constructed and because new energy demands can be satisfied from existing power systems, implementation PR 1407.1 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, forklifts, etc.) used to install baghouses and HEPA or ULPA filtration units would consume diesel fuel, as would vendor trucks providing deliveries of equipment. Gasoline would 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 OFFROAD2017 model.

CalEEMod version 2016.3.2 was used to calculate construction emissions for emission control device installation 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 building modification and emission control device monitoring equipment installation. 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 2-8 summarizes the projected fuel use impacts associated with construction activities. Detailed fuel use calculations can be found in Appendix B.

Table 2-8
Annual Total Projected Fuel Usage for Construction Activities

	Diesel	Gasoline
Projected Operational Energy Use (gal/yr)[a]	93	349
Year 2017 South Coast AQMD Jurisdiction Estimated Fuel Demand (gal/yr)[b]	775,000,000	7,086,000,000
Total Increase Above Baseline	0.00001%	0.000005%
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 93 gallons of diesel and 349 gallons of gasoline are consumed during construction, the fuel usages are 0.00001% and 0.000005% 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 the five new baghouses and 15 HEPA or ULPA filtration units would need to be collected and hauled away at least once every three months by diesel trucks. Further, diesel-fueled trucks hauling source testing gear and gasoline-fueled passenger vehicles for the source test workers would need travel to the 11 facilities to conduct 17 source tests, initially and then once every five years, thereafter. In addition, gasoline-fueled vehicles would be used to transport technicians to perform smoke tests at the 11 facilities initially, and then every six months thereafter. The analysis assumes that each trip associated with conducting source tests, smoke tests and hauling waste would be 40 miles round trip. The analysis also 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 2-9.

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

	Diesel	Gasoline
Projected Operational Energy Use (gal/yr)[a]	135	71
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%	0.000001%
Significance Threshold	1%	1%
Significant?	**No**	**No**

Notes:

a) Estimated peak fuel usage from operation 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.]

The use of passenger vehicles is estimated to consume about 71 gallons of gasoline, approximately 0.000001% of the annual gasoline supply. Similarly, the use of trucks is estimated to consume approximately 135 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 PR 1407.1 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 PR 1407.1 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 PR 1407.1.

Conclusion

Based upon these considerations, significant adverse energy impacts are not expected from implementing PR 1407.1. 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
PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

VII. a) No Impact. PR 1407.1 would result in construction activities at existing affected facilities located in developed industrial settings. Affected facilities are expected to make minor building improvements on existing structures to enclose buildings and roof openings, and install air pollution control equipment, such that only minor site preparation is anticipated. Further, the proposed project does not cause or require any new facilities to be constructed and all construction activities would occur within the existing facility boundaries. Therefore, PR 1407.1 is not expected to adversely affect geophysical conditions in the South Coast AQMD.

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 enclose buildings and roof openings, and install

new baghouses and HEPA or ULPA filtration units 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, PR 1407.1 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 PR 1407.1 would require the installation of air pollution control equipment, 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. For this reason, no unstable earth conditions or changes in geologic substructures are expected to result from implementing PR 1407.1. Therefore, impacts to the loss of topsoil and soil erosion are less than significant.

VII. c) No Impact. Since PR 1407.1 would affect existing facilities, it is expected that the soil types present at the affected facilities would not be made further susceptible to expansion or liquefaction due to the proposed project. 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 PR 1407.1 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 PR 1407.1 involves activities to enclose building and roof openings; install plastic strip curtains, baghouses, HEPA/ULPA filtration units, bag leak detection systems, and pressure gauges with digital acquisition systems; and remove weather caps. All of these activities are expected to be confined within the property lines of each affected facility. Further, PR 1407.1 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 would be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal. Thus, the implementation of PR 1407.1 would 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. PR 1407.1 would result in construction activities at existing affected facilities located in developed industrial settings. Affected facilities are expected to make improvements to existing structures enclosing building and roof openings, and installing air pollution control equipment, such that only minor site preparation is anticipated. Further, the proposed project does not cause or require the construction of any new facilities. No previously undisturbed land that

may contain a unique paleontological resource or site or unique geological feature would be affected. Therefore, PR 1407.1 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 PR 1407.1. 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
PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

VIII. a) & b) Less than Significant Impact. PR 1407.1 has been developed to reduce public health impacts and exposure to fugitive emissions of hexavalent chromium, nickel, arsenic, and cadmium through installing new air pollution control equipment (e.g., baghouses and HEPA/ULPA filtration units), enclosing building and roof openings to minimize cross-draft conditions, and removing weather caps. Additionally, facilities would be required to comply with housekeeping and parameter monitoring requirements in PR 1407.1 that would also contribute to the prevention of fugitive emissions and consequently reduce the potential for the public and the environment to be exposed to toxic air contaminants.

Facilities with existing air pollution control equipment which collect toxic metal waste currently recycle or haul away hazardous waste or materials off-site to a hazardous waste landfill. PR 1407.1 requires dust emitting waste to be transported in sealed containers which can be helpful in limiting its potential release and thereby decreasing the risk of hazardous waste exposure to the public and environment. Thus, no new significant hazards are expected to the public or environment through the continued routine transport, disposal or recycling of hexavalent chromium, arsenic, cadmium, and nickel waste generated at metal melting facilities. Therefore, PR 1407.1 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 11 facilities subject to PR 1407.1, two facilities are located within one-quarter mile of a school and they currently utilize hazardous materials and handle hazardous waste. Under PR 1407.1, both of these facilities would be required to enclose building and roof openings, install plastic strip curtains, and install air pollution control equipment to minimize fugitive emissions of toxic air contaminants. One facility is currently equipped with a

baghouse but would be required to install a HEPA filtration unit to comply with PR 1407.1. The other facility would be required to install a baghouse and ULPA filtration unit. Each facility would be required to conduct source tests within 90 days after Permits to Construct are issued for each modification. Construction activities are expected to be minor and once they are completed, emissions from these facilities are expected to be reduced. Further, any required source testing and smoke testing is not expected to generate additional hazards at the affected facilities but instead are necessary to ensure that the air pollution control equipment is working properly. Compliance with housekeeping requirements and improvements to the buildings would also be expected to minimize fugitive emissions. These facilities and their proximities to the nearest sensitive receptors are identified in Appendix C.

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). Two of the 11 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 PR 1407.1 would limit the exposure to hexavalent chromium, nickel, arsenic, and cadmium, and reduce public health impacts by establishing collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; and housekeeping and building provisions to limit fugitive emissions. Housekeeping requirements, such as to collect materials captured by air pollution control equipment into sealed leakproof containers except when materials are actively removed from the containers for disposal, decrease the risk of inadvertent emissions and contact with hazardous waste. PR 1407.1 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 PR 1407.1 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).

One facility identified in Appendix C is located within two miles of an airport. However, construction at this facility would be limited to its existing building structure height, well below the 200 feet limit specified in 14 CFR Part 77. Therefore, implementation of PR 1407.1 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. Physical modifications to the 11 facilities necessary to comply with PR 1407.1 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 would not create any environmental impacts. Therefore, PR 1407.1 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. PR 1407.1 would not change the existing requirements and permit conditions for the proper handling of flammable materials. Further, PR 1407.1 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 PR 1407.1. 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
PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

IX. a) Less than Significant Impact. PR 1407.1 would require facilities to enclose building and rooftop opening and to install baghouses and HEPA/ULPA filtration units. None of these activities utilize water and as such, no wastewater would be expected to be generated. However, PR 1407.1 contains a wide variety of periodic housekeeping to be conducted and requires an approved cleaning method to be used.

Approved methods for conducting cleaning activities include wet washing, wet mopping, wiping surfaces with a damp cloth, or applying low pressure spray; sweeping with use of dust suppressing sweeping compounds; or vacuuming with a vacuum equipped with filter(s) rated by the manufacturer to achieve a 99.97 percent control efficiency for 0.3 micron particles (e.g. HEPA or better).

For any facility that conducts wet cleaning, but that does not currently have a wastewater treatment system or a wastewater discharge permit, the wastewater 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. The collected wastewater at these facilities would not be allowed to be discharged as typical wastewater. For this reason, facilities that do not currently have a wastewater treatment system or a wastewater discharge permit, would be expected to utilize other approved methods to conduct cleaning without the use of water such as HEPA vacuuming or sweeping with use of dust suppressing sweeping compounds. Of course, 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.

Further, reductions of hexavalent chromium, arsenic, cadmium, and nickel from point and fugitive sources would correspond to reductions in the atmospheric dispersion of toxic air contaminants if PR 1407.1 is implemented. Moreover, the potential for the deposition of metal contamination, either directly or indirectly via stormwater, into water bodies, soils, or other surfaces would also be reduced. The air quality benefits associated with PR 1407.1 are not quantifiable, but would provide an indirect co-benefit by preventing further metal contamination to water bodies within South Coast AQMD's jurisdiction.

For these reasons, implementing PR 1407.1 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 enclose building or rooftop openings, or operate baghouses and HEPA/ULPA filtration units. However, water may be used to conduct wet cleaning pursuant to the proposed housekeeping requirements in PR 1407.1. Any additional water utilized 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, as 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 PR 1407.1 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 PR 1407.1 would not result in any changes to the release of pollutants into ground or surface water, nor would it affect the ground or surface water located in the vicinity of the affected facilities in any way. For these reasons, PR 1407.1 would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

IX. c) No Impact. Implementation of PR 1407.1 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, PR 1407.1 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, PR 1407.1 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 PR 1407.1 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, PR 1407.1 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, PR 1407.1 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 PR 1407.1. Similarly, there is no risk of release of pollutants due to inundation as a result of PR 1407.1.

IX. f), g), & h) Less than Significant Impact. Affected facilities would be required to conduct housekeeping, such as wet cleaning of floors, ducting, vents, and at openings of air pollution control equipment, as outlined in PR 1407.1. 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 11 facilities decided to conduct wet cleaning, a total of 97 additional gallons of water would be used and result in the same amount of wastewater. Thus, the amount of water that may be used to conduct wet cleaning is less 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. PR 1407.1 also would allow sweeping with use of dust suppressing sweeping compounds; or vacuuming with a vacuum equipped with a HEPA filter or better. Because each facility would have the option to choose either wet or dry cleaning to satisfy the housekeeping requirements, the decision to conduct wet cleaning would largely depend on what equipment is available. Also, for previous South Coast AQMD rule development projects regulating toxic air contaminants and requiring with housekeeping to be conducted, facility owners/operators, indicated a preference to use dry vacuuming in lieu of wet cleaning primarily to avoid having to deal with handling and processing or treating hazardous wastewater. Thus, the estimated use of water for wet cleaning as result of PR 1407.1 and the corresponding generation of wastewater on a peak day may be less than estimated. Because the water demand and wastewater generation is relatively minor when compared to the significance thresholds for water usage, as well as expected to be within each affected facility's supporting infrastructure to handle these projected quantities of water and wastewater, PR 1407.1 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 would be sufficient to support the implementation of housekeeping activities that utilize wet cleaning techniques, 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 PR 1407.1. Further, because wet cleaning would not result in substantial wastewater generation, PR 1407.1 would 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 PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

X. a) & b) No Impact. PR 1407.1 does not require the construction of new facilities, and the physical effects that would result from PR 1407.1 would occur at existing facilities located in industrial areas and would occur within existing facility boundaries. For this reason, implementation of PR 1407.1 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 PR 1407 does not alter any land use or planning requirements. Compliance with PR 1407.1 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 PR 1407.1. 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
PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XI. a) & b) No Impact. There are no provisions in PR 1407.1 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. Implementation of the proposed project would result in building modifications, installation of emission control devices, and require operators to conduct housekeeping, source testing, material testing, parameter monitoring, and recordkeeping; all of which 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 PR 1407.1 are not anticipated.

Conclusion

Based upon these considerations, significant adverse mineral resource impacts are not expected from implementing PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XII. a) & b) Less than Significant Impact. The facilities subject to PR 1407.1 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 may be needed temporarily to enclosure building or roof openings, or install air pollution control equipment as part of implementing PR 1407.1. 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 would likely be indistinguishable from the background noise levels at the property line. In addition, once building modification 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 would 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), one facility identified in Appendix C is located within two miles of an airport. The existing noise environment at this facility 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 from temporary construction activities to enclose building and rooftop openings and install air pollution control equipment and monitoring equipment would be likely to generate noise that is indistinguishable from the background levels at the property line. Thus, PR 1407.1 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 PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XIII. a) No Impact. The construction activities associated with PR 1407.1 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 PR 1407.1 and these workers can be supplied from the existing labor pool in the local Southern California area. Housekeeping and maintenance activities resulting from PR 1407.1 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 nine 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 PR 1407.1, human population within the jurisdiction of the South Coast AQMD is expected to stay about the same.

As such, PR 1407.1 is not anticipated to not result in changes in population densities, population distribution, or induce significant growth in population.

XIII. b) No Impact. PR 1407.1 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. Consequently, PR 1407.1 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 PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XIV. a) & b) No Impact. Implementation of PR 1407.1 would require minor modifications to enclose building and roof openings, install strip curtains, and install air pollution control equipment. Facilities subject to PR 1407.1 currently handle hazardous materials and hazardous waste. While PR 1407.1 requires additional air pollution control equipment which would allow facilities to capture more hazardous material, PR 1407.1 does not require the new use or handling

of hazardous materials. As such, no special circumstances with handling sensitive materials during construction would be expected. For these reasons, new safety hazards are not expected to occur during construction, and implementation of PR 1407.1 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. No significant impact to these existing services is anticipated.

XIV. c), d), & e) No Impact. As explained in Section XIII. a), PR 1407.1 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 for compliance. Because PR 1407.1 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 PR 1407.1 would not trigger changes to current usage practices, no additional schools would need to be constructed. Any construction activities would be temporary. Although nine facilities would be required to install air pollution control equipment and trained personnel may be needed in order to maintain the new equipment, an increase in the labor force of one job per affected facility is insignificant. 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 PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XV. a) & b) No Impact. As previously explained in Section XIII – Population and Housing, PR 1407.1 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 PR 1407.1 can be supplied by the existing labor pool in the local Southern California area. As such, PR 1407.1 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, and thus no additional demand for recreational facilities would be necessary or expected. No requirements in PR 1407.1 would be expected to affect recreation in any way. Therefore, PR 1407.1 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 PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XVI. a) Less Than Significant Impact. PR 1407.1 would 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 PR 1407.1 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.

The operation of baghouses and HEPA/ULPA filtration systems would result in the collection of hazardous waste, and periodic maintenance of this air pollution control equipment involves emptying the baghouse and storing the hazardous waste in 50-gallon drums, and replacing the spent filters with fresh filters. The waste and spent filters would be sent 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. Total waste to be collected from five new baghouses would be approximately 1.5 cubic yards every three months. For comparison, the smallest available commercial dumpster

has double that capacity at three cubic yards. Similar dumpsters are regularly filled and emptied weekly by small businesses.

HEPA and ULPA filters generate solid waste from the collection of metal PM and from the replacement of spent filters; they are not re-used. The lifetime of a HEPA or ULPA filter is typically three to five years because they are most often preceded by a preliminary stage of control such as a baghouse. A 24"x24"x2" HEPA or ULPA filter would result in the generation of 0.025 cubic yard of waste over three years, and the 15 new HEPA or ULPA filters: 0.37 cubic yard every three years.

Thus, solid and hazardous waste generation is not expected to significantly impact existing permitted landfill capacity, and all affected facilities would be able to be served by a landfill with sufficient permitted capacity to accommodate to each facility's solid disposal needs.

XVI. b) No Impact. Current operations at facilities are assumed to comply with all applicable local, state, or federal waste disposal regulations, and PR 1407.1 does not contain any provisions that would weaken, alter, or interfere with current practices. While PR 1407.1 would require housekeeping to be conducted which may result in hazardous waste being stored and hauled away in sealed containers, these requirements are considered best management practices for handling hazardous waste, and in turn, help to reduce risk of exposure to hazardous waste during transport for disposal. Thus, implementation of PR 1407.1 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 PR 1407.1. 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:

- 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
PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XVII. a) & b) Less than Significant Impact. As previously discussed in Section III – Air Quality and Greenhouse Gas Emissions, compliance with PR 1407.1 would require construction activities to modify buildings by enclosing roofs, installing plastic strip curtains, and removing weather caps, and to install baghouses, HEPA or ULPA filtration units, and emission control device monitoring equipment. All affected facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests. To accomplish these various activities, on-road passenger vehicles and light-, medium- and heavy duty trucks would be dispatched to the affected facilities in order to deliver supplies and construction materials, conduct source tests and smoke tests, and haul collected waste from the baghouses and spent HEPA/ULPA filters.

Table 2-10 presents the number of vehicle round trips that may occur on a peak day.

Table 2-10
Number of Round Trips on a Peak Day

Activity	Vehicle Trips
11 Building Modifications	11 Delivery Trucks 22 Passenger Autos
Total (by July 1, 2021)	**33 Vehicle Trips**
9 Baghouse or HEPA/ULPA Filtration Unit Installations	9 Delivery Trucks 45 Passenger Autos
11 Emission Control Device Monitoring Equipment Installations	11 Delivery Trucks 22 Passenger Autos
2 Smoke Tests	2 Passenger Autos
2 Source Tests	2 Support Trucks 2 Passenger Autos
1 Haul Trip	1 Haul Truck
Total (by July 1, 2024)	**112 Vehicle Trips**

11 medium-duty trucks and 22 passenger vehicles would be used on a peak day for building modifications, and 22 medium-duty trucks, 71 passenger vehicles, one heavy-duty haul truck, nine

aerial lifts, and nine forklifts would be used on a peak day for other activities. Because the compliance dates required for building modifications versus other activities are separated by 3 years, the two periods are not expected to overlap. The totals of 33 and 112 additional vehicle trips respectively, are below the significance threshold of 350 round trips. Forklifts and aerial lifts 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, by applying emission factors from CARB's EMFAC2017, VMT from implementing PR 1407.1 has been quantified (see Appendix B-2 for this analysis). The total VMT quantified represents a worst-case year of construction and operation activities overlapping. During the first year when all source tests and smoke tests would be conducted and construction impacts would occur, these activities are estimated to result in 10,682 total VMT. For perspective, an additional 10,682 VMT is equivalent to adding one or two vehicles to the road over the period of one year. PR 1407.1 is not expected to cause a significant adverse transportation impact. Therefore, PR 1407.1 would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b). Further, because implementation of PR 1407.1 would not alter any transportation plans, PR 1407.1 would 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. Since the focus of PR 1407.1 is to control hexavalent chromium, arsenic, cadmium, and nickel emissions from chromium alloy melting facilities, no existing roadways would need to be modified and no new roadways would need to be constructed. Thus, there would be no change to current public roadway designs including a geometric design feature that could increase traffic hazards. Further, PR 1407.1 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 occur over a short-term. Since construction activities and associated passenger vehicle trips and delivery truck trips 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 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 PR 1407.1 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, PR 1407.1 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 PR 1407.1. 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
PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XVIII. a), b), c), d), & e) No Impact. Implementation of PR 1407.1 would neither require the construction of any new facilities nor result in the construction of any occupied buildings or structures beyond the current boundaries of each affected facility. Thus, PR 1407.1 is not expected to substantially impair an adopted emergency response plan or emergency evacuation plan. Further, the existing facilities which are subject to PR 1407.1 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 PR 1407.1 are located in industrial areas and no new facilities are required to be constructed. Thus, PR 1407.1 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 PR 1407.1 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 PR 1407.1. 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

PR 1407.1 establishes collection efficiency requirements and hexavalent chromium mass emission limits to control point source emissions; housekeeping requirements and building enclosure provisions to limit fugitive emissions; and source testing, material testing, parameter monitoring, and recordkeeping requirements. As detailed in Table 2-1, a total of five baghouses, 14 HEPA and one ULPA filtration units, 14 bag leak detection systems, and 31 pressure gauges with data acquisition systems are anticipated to be installed at the 11 facilities. In addition, all 11 facilities would be required to employ any of the following methods to close building and roof openings, including: the use of automatic doors, installation of overlapping floor-to-ceiling plastic strip curtains, vestibules, and airlock systems. Lastly, all 11 facilities would be required to conduct housekeeping, remove weather caps, and periodically conduct source tests and smoke tests.

XIX. a) No Impact. As explained in Section IV - Biological Resources, PR 1407.1 is not expected to significantly adversely affect plant or animal species, or the habitat on which they rely because

any construction and operational activities 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, PR 1407.1 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, PR 1407.1 would not result in significant adverse project-specific environmental impacts. Potential adverse impacts from implementing PR 1407.1 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 PR 1407.1 for any environmental topic.

XIX. c) Less Than Significant Impact. Based on the foregoing analyses, PR 1407.1 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) solid and hazardous waste impacts were determined to be less than significant as analyzed in Section XVI – Solid and Hazardous Waste; and 8) transportation and traffic impacts were determined to be less than the significant as analyzed in Section XVII – Transportation. 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 Rule 1407.1 – Control of Toxic Air Contaminant Emissions from Chromium Alloy Melting Operations

Appendix B: Modeling Files, Assumptions, and Calculations

Appendix C: Proposed Rule 1407.1 List of Affected Facilities

APPENDIX A

Proposed Rule 1407.1 – Control of Toxic Air Contaminant Emissions from Chromium Alloy Melting Operations

PROPOSED RULE 1407.1. CONTROL OF TOXIC AIR CONTAMINANT EMISSIONS FROM CHROMIUM ALLOY MELTING OPERATIONS

(a) Purpose

The purpose of this rule is to reduce emissions of toxic air contaminants from chromium alloy melting operations.

(b) Applicability

This rule applies to an owner or operator of a facility conducting chromium alloy melting, including smelters (primary and secondary), foundries, die-casters, mills, and other establishments conducting miscellaneous melting processes.

(c) Definitions

(1) AGGREGATE HEXAVALENT CHROMIUM MASS EMISSIONS means the sum of hexavalent chromium mass emissions in milligrams per hour from all chromium alloy melting furnaces and associated emission control devices.

(2) ALLOY STEEL means a steel that contains a variety of elements, such as manganese, silicon, nickel, titanium, copper, chromium, and aluminum, in total amounts between 1.0 and 50 percent by weight, in addition to iron and carbon.

(3) APPROVED CLEANING METHODS means cleaning using wet wash, wet mop, damp cloth, or low pressure spray; sweeping with use of dust suppressing sweeping compounds; or vacuuming with a vacuum equipped with filter(s) rated by the manufacturer to achieve a 99.97 percent control efficiency for 0.3 micron particles.

(4) BAG LEAK DETECTION SYSTEM means 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.

(5) BUILDING means a type of enclosure that is a structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g. precipitation or wind).

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

(7) CASTING means the formation of metallic parts or casts by pouring molten metal into a mold and core assembly or into a mold for ingots, sows, or cylinders.

(8) CASTING MATERIAL means any material that is used to form the mold or core assembly in the casting process, including but not limited to, sand, plastic, ceramic, plaster, and clay.

(9) CHROMIUM ALLOY means any metal that is at least 0.5 percent chromium by weight, including, but not limited to, alloy steel, stainless steel, non-ferrous chromium alloy, and superalloy.

(10) CHROMIUM ALLOY MELTING FACILITY means a source at which chromium alloy melting is conducted, and 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.

(11) CHROMIUM ALLOY MELTING FURNACE means any apparatus in which chromium alloy(s) is brought to a liquid state, including, but not limited to, blast, crucible, cupola, direct arc, electric arc, hearth, induction, pot, reverberatory, and sweat furnaces, and refining kettles.

(12) CHROMIUM ALLOY MELTING OPERATION means any process conducted where a chromium alloy is melted, poured, casted, and finished including, but not limited to, chromium alloy melting, casting, casting material removal, metal grinding, and metal cutting.

(13) DIE-CASTER means any facility, operation, or process where molten metal is forced under pressure into a mold cavity.

(14) DROSS means the impurities discharged, in solid state, from the metal melting process.

(15) DRY SWEEPING means cleaning using a broom or brush to collect and remove dust, dirt, debris, trash, and any solid particulate matter from a surface without the use of water or dust suppressing sweeping compounds.

(16) DUCT SECTION means any length of duct, including angles and bends, which is contiguous between processes, emission collection systems, emission control devices, or ventilation inlets or outlets. Examples include ducting between a furnace and heat exchanger; baghouse and scrubber; and scrubber and blower or the exhaust stack itself.

(17) DUST SUPRESSING SWEEPING COMPOUND means non-grit-, oil- or waxed, hygroscopic, or water-based materials used to minimize dust from becoming airborne during sweeping.

(18) EMISSION COLLECTION SYSTEM means any system, including the associated ducting, installed for the purpose of directing, taking in, confining, and conveying an air contaminant, and which, at a minimum, conforms to design and operation specifications given 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 the permit application is deemed complete by the South Coast AQMD.

(19) EMISSION CONTROL DEVICE means any equipment installed in the exhaust ventilation system of a chromium alloy melting furnace or after the emission collection system for the purpose of collecting and reducing metal emissions.

(20) ENCLOSED STORAGE AREA means any space used to contain materials that has a wall or partition on at least three sides or three-quarters of its circumference, that is at least six inches taller than the height of the materials contained in the space, and that screens the materials stored therein to prevent emissions of the material into the air.

(21) FINISHING means a metal removal or reshaping process including, but not limited to, cutting, grinding, sanding, or machining, in order to achieve the desired dimensions, physical shape, or surface finish for the metallic parts or casts.

(22) FOUNDRY means any facility, operation, or process where metal or a metal alloy is melted and cast.

(23) FUGITIVE METAL DUST EMISSIONS means metal emissions generated from chromium alloy melting operations that enter the atmosphere without passing through a stack or vent designed to direct or control their flow or escape from a stack or vent designed to direct or control their flow without passing through an emission control device.

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

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

(26) MAINTENANCE AND REPAIR ACTIVITY means a routine process conducted on equipment and/or machinery to keep such equipment in working order or to prevent breakdowns. It also includes an operation or activity to return a damaged or an improperly operating object, to good condition, and it includes any of the following activities that generates or has the potential to generate fugitive metal-dust emissions:

(A) Maintenance or repair activities on any emission collection or control device that vents a chromium alloy melting operation;

(B) Replacement or removal of any duct section used to vent a chromium alloy melting operation; or

(C) Metal cutting, metal grinding, or welding that penetrates the metal structure of any equipment and its associated components, used to process chromium alloy(s), such that metal dust within the internal structure or its components can become fugitive metal dust.

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

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

(29) METAL REMOVAL FLUID means 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. This 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.

(30) MOLTEN METAL means 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 the container in which it is placed.

(31) NON-FERROUS CHROMIUM ALLOY means an alloy that contains less than one percent iron by weight and at least 0.5 percent chromium by weight. Non-ferrous chromium alloys include, but are not limited to, cobalt- and nickel-based superalloys, cobalt-chromium-tungsten alloys, and aluminum-, copper-, lead-, and zinc-based alloys that contain at least 0.5 percent chromium by weight.

(32) OPENING means any opening that is designed to be part of a building, such as passages, doorways, bay doors, wall openings, roof openings, vents, and windows. Stacks, ducts, and openings to accommodate stacks and ducts are not considered openings.

(33) RERUN SCRAP means any material that includes returns, trims, punch-outs, turnings, sprues, gates, risers, and similar material intended for remelting that has not been coated or surfaced with any material and:

(A) Was generated at the chromium alloy melting facility as a consequence of a casting or forming process; or

(B) Was generated offsite of the chromium alloy melting facility as a consequence of a casting or forming process from materials generated at the chromium alloy melting facility, prior to resale of the product or further distribution in commerce, and includes documentation confirming that the materials were generated at the chromium alloy melting facility.

(34) SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for the education of more than 12 children at the school in kindergarten through grade 12. School also means an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as preschools, Early Head Start, Head Start, First Five, and Child Development Centers. A school does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property.

(35) SCRAP means 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.

(36) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters; schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long-term hospitals, hospices, prisons, and dormitories or similar live-in housing.

(37) SLAG means the by-product material discharged, in melted state, from the metal melting process.

(38) SMELTER means any facility, operation, or process where heat is applied to ore in order to melt out a base metal.

(39) STAINLESS STEEL means a steel alloy with a minimum of 10.5 percent chromium content by mass.

(40) STEEL means a metal alloy of iron and carbon and other elements.

(41) SUPERALLOY means a heat-resistant metal alloy based on nickel, iron, or cobalt.

(42) USED CASTING MATERIAL means any material that has been exposed to molten metal in the casting process, including but not limited to, sand, plastic, ceramic, plaster, and clay.

(d) Emission Control Requirements

(1) On and after July 1, 2024, an owner or operator of a chromium alloy melting facility shall not exceed the limits listed in Table 1 – Aggregate Hexavalent Chromium Emission Limits for all chromium alloy melting furnaces, with or without associated emission control devices, and associated emission control devices as demonstrated through a source test pursuant to subdivision (h).

Table 1: Aggregate Hexavalent Chromium Emission Limits

Distance to Sensitive Receptor (meters)	Aggregate Hexavalent Chromium Emission Limit (milligrams per hour)
Less than 50	0.40
50 to 100	1.5
Greater than 100	1.8

(A) The distance to the sensitive receptor shall be measured from the stack or centroid of stacks to the nearest property line of the closest sensitive receptor, rounded to the nearest meter.

(B) The distance to the nearest sensitive receptor shall be measured at the time the permit application is deemed complete with the South Coast AQMD.

(2) On and after July 1, 2024, an owner or operator of a chromium alloy melting facility shall operate the emission collection system associated with an emission control device at a minimum capture velocity as 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 the permit application is deemed complete with the South Coast AQMD.

(3) An owner or operator of a chromium alloy melting facility shall not allow any activity associated with chromium alloy melting operation(s) at a facility, including, emission collection system and emission control device operation, and the storage, handling, or transfer of any chromium alloy-containing materials, to

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 Ringelmann Chart, as published by the United States Bureau of Mines Information Circular No. 1C8333, (May 1967), as specified in the Health and Safety Code Section 41701 (a); or

(B) Of such opacity as to obscure an observer's view to a degree equal to or greater than smoke as described in subparagraph (d)(3)(A) or 10 percent opacity.

(4) An owner or operator of a chromium alloy melting facility shall ensure visible emissions from a chromium alloy melting furnace do not escape from the collection location(s) of an emission collection system(s).

(5) On or before January 1, 2022, an owner or operator of a chromium alloy melting facility shall submit the following South Coast AQMD permit applications to the Executive Officer:

(A) An application for a change in permit conditions for permitted chromium alloy melting furnaces and emission control devices to reconcile their permit(s) with the requirements of this rule;

(B) A permit application for previously Rule 219 exempt unpermitted chromium alloy melting furnaces and emission control devices installed before *[Date of Adoption]*; and

(C) A permit application to construct new or modify emission control devices.

(e) Prohibitions

(1) An owner or operator of a chromium alloy melting facility shall not melt non-ferrous chromium alloys which have more than:

(A) 0.002 percent arsenic by weight; or

(B) 0.004 percent cadmium by weight.

(2) An owner or operator of a chromium alloy melting facility shall not install a new stack or modify any existing stack to allow emissions associated with chromium alloy melting operations to be released in a horizontal direction.

(3) An owner or operator of a chromium alloy melting facility shall not utilize a weather cap that restricts the flow of exhaust air for any vertical stack that is a source of emissions associated with chromium alloy melting operations.

(f) Housekeeping Requirements

(1) On and after July 1, 2021, an owner or operator of a chromium alloy melting facility shall:

(A) Store in closed leak-proof containers, unless located within a building at least 20 feet away from an opening, chromium alloy-containing materials generated as a result of a chromium alloy melting operation that can form any amount of fugitive metal dust emissions including, but not limited to, slag, dross, ash, trash, debris, used casting material, rerun scrap, and waste generated from housekeeping requirements of this subdivision and the construction or maintenance and repair activity requirements of subdivision (g). Chromium alloy-containing material that has been prepared for delivery to a customer is excluded from this requirement;

(B) Store in an enclosed storage area or in a building at least 20 feet away from an opening, scrap;

(C) Transport in closed leak-proof containers, unless located within a building, chromium alloy-containing materials generated as a result of a chromium alloy melting operation that can form any amount of fugitive metal dust emissions including, but not limited to, slag, dross, ash, trash, and debris, used casting material, rerun scrap, and any waste generated from the housekeeping requirements of this subdivision and the construction or maintenance and repair activities of subdivision (g). Chromium alloy-containing material that has been prepared for delivery to a customer is excluded from this requirement;

(D) Collect material(s) captured by an emission control device into sealed leak-proof containers to prevent any fugitive metal dust emissions, except when material(s) are actively removed from the containers for disposal;

(E) Close containers containing chromium alloy-containing materials pursuant to subparagraphs (f)(1)(A) and (f)(1)(C) at all times, except when material is actively deposited into or actively removed from the container;

(F) Keep containers containing chromium alloy-containing materials pursuant to subparagraphs (f)(1)(A) and (f)(1)(C) free of liquid and dust leaks;

(G) Enclose all filter media of emission control devices associated with chromium alloy melting operations at all times except for unused filter media;

(H) Conduct daily cleaning, using an approved cleaning method, of all floor areas within 20 feet of where chromium alloy melting operation(s) occur, except for areas where metal grinding or metal cutting is conducted under a continuous flow of metal removal fluid;

(I) Conduct weekly cleaning, using an approved cleaning method, of all floor areas within 20 feet of:

(i) Placement or storage of chromium alloy-containing materials, including, but not limited to, ingots, scrap, rerun scrap, dross, slag, ash, and finished products;

(ii) Operation of an emission collection system and emission control device associated with chromium alloy melting operation(s);

(iii) Operation of equipment for handling, mixing, reclaiming, or storing casting material;

(iv) Storage, disposal, recovery, or recycling of waste generated from used casting material, housekeeping requirements of this subdivision, construction and maintenance and repair activities of subdivision (g), and material(s) captured by an emission control device; and

(v) Any entrance or exit point of a building that houses chromium alloy melting operation(s) and an enclosed storage area;

(J) Conduct quarterly inspection of vents, openings, and ducting of each chromium alloy melting operation emission control device for blockage from accumulated dust and clean blockages from accumulated dust using an approved cleaning method;

(K) Conduct cleaning, at least once every six months, using an approved cleaning method, of all floor areas outside of the building that are subject to foot or vehicle traffic;

(L) Conduct cleaning, at least once every 12 months, using an approved cleaning method, of the entire facility, including any area not specified in subparagraphs (f)(1)(H) through (f)(1)(K);

(M) Conduct cleaning, at least once every 24 months, during the months of June through September, using an approved cleaning method, of all roof areas of the building(s) housing chromium alloy melting operation(s); and

(N) Within an hour of any construction or maintenance and repair activity or event, including, but not limited to, accidents, process upsets, or equipment malfunction that results in the deposition of fugitive metal dust emissions,

conduct cleaning, using an approved method, of the area where the construction or maintenance or repair activity occurred.

(2) An owner or operator of a chromium alloy melting facility shall not conduct cleaning using dry sweeping or compressed air in areas where chromium alloy melting operation(s) occur.

(3) For the housekeeping requirements specified in subparagraphs (f)(1)(H) through (f)(1)(N), an owner or operator of a chromium alloy melting facility may use an alternative housekeeping measure that has been approved, in writing, by the Executive Officer that meets the same air quality objective and effectiveness of the housekeeping requirement it is replacing.

(A) Approved alternative housekeeping measures may not be used retroactively from the date of their approval.

(B) Compliance with the approved alternative housekeeping measures shall constitute compliance with the applicable provisions of subparagraphs (f)(1)(H) through (f)(1)(N).

(g) Building Requirements

(1) On and after July 1, 2021, an owner or operator of a chromium alloy melting facility shall conduct all chromium alloy melting operations in a building.

(2) On and after January 1, 2022, if the building contains openings to the exterior that are on opposite ends of the building where air can pass through any space where chromium alloy melting operations occur, an owner or operator of a chromium alloy melting facility shall close openings on one end for each pair of opposing ends of the building, except during the passage of vehicles, equipment, or people, by using one or more of the following:

(A) Door that automatically closes;

(B) Overlapping floor-to-ceiling plastic strip curtains;

(C) Vestibule;

(D) Barrier, such as a large piece of equipment, except if used for a chromium alloy melting operation, that restricts air from moving through the building;

(E) Airlock system; or

(F) Approved alternative method to minimize the release of fugitive metal dust emissions from the building that an owner or operator of a facility has demonstrated to the Executive Officer is an equivalent or more effective

method(s) to prevent fugitive metal dust emissions from escaping a building.

(3) On and after January 1, 2022, an owner or operator of a chromium alloy melting facility shall close all openings in the roof that are located 15 feet or less above the edge of a chromium alloy melting furnace and where molten metal is poured and cooled, except during the passage of equipment or parts.

(4) If implementation of the building requirements specified in paragraphs (g)(2) or (g)(3) cannot be complied with due to conflicting requirements set forth by the United States Department of Labor Occupational Safety and Health Administration (OSHA), the California Division of Occupational Safety and Health (Cal/OSHA), or other municipal codes or agency requirements directly related to worker safety, an owner or operator of a chromium alloy melting facility may use an alternative building compliance measure(s) that has been approved, in writing, by the Executive Officer that meets the same air quality objective and effectiveness of the building compliance requirement it is replacing.

(A) An owner or operator of a chromium alloy melting facility shall implement the approved alternative building compliance measures, no later than 90 days after receiving notification of approval.

(B) Approved alternative building compliance measures may not be used retroactively from the date of approval.

(C) Compliance with the approved alternative building compliance measures shall constitute compliance with the applicable provisions of paragraphs (g)(2) and (g)(3).

(h) Source Testing Requirements

(1) An owner or operator of a chromium alloy melting facility shall submit to the Executive Officer for approval a source test protocol. The source test protocol shall be submitted:

(A) No later than 90 days prior to the source tests required pursuant to subparagraphs (h)(2)(A), (h)(2)(C), and (h)(2)(D); and

(B) Within 90 days after the Permit to Construct is issued for new or modified chromium alloy melting furnaces and/or associated emission control devices installed or modified on or after *[Date of Adoption]*.

(2) The source test protocols required pursuant to paragraph (h)(1) shall include the following:

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

(B) Calculated target hexavalent chromium emissions in milligrams per hour;

(C) Planned sampling parameters, including the total sample volume for each sample sufficient to demonstrate compliance with the aggregate hexavalent chromium emission limits pursuant to paragraph (d)(1) at the method reporting limit;

(D) Evaluation of the capture efficiency and velocity of the emission collection system(s); and

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

(3) An owner or operator of a chromium alloy melting facility shall notify the Executive Officer, in writing, of the intent to conduct source testing, at least seven days prior to conducting any source test required by paragraph (h)(4). The owner or operator of a chromium alloy melting facility shall report a change in the source test date to 1-800-CUT-SMOG at least twenty-four hours prior to the scheduled source test date. The date of any rescheduled source test shall be set so that the Executive Officer is notified of the rescheduled source test, in writing, at least seven days prior to conducting the rescheduled source test.

(4) An owner or operator of a chromium alloy melting facility shall conduct the following source tests of all chromium alloy melting furnaces, including chromium alloy melting furnaces without emission control devices, and associated emission control device(s) to determine compliance with the aggregate hexavalent chromium emission limits pursuant to paragraph (d)(1), smoke test pursuant to paragraph (j)(3), and the capture velocity or face velocity of each intake of the emission collection system pursuant to paragraph (j)(4):

(A) An initial source test, on or before July 1, 2024, for chromium alloy melting furnaces and/or associated emission control devices permitted before *[Date of Adoption]*;

(B) An initial source test, no later than 120 days after the approval of the source test protocol pursuant to subparagraph (h)(1)(B), for new or modified chromium alloy melting furnaces and/or associated emission control devices installed or modified on or after *[Date of Adoption]*;

(C) Periodic source tests, within 60 months after the most recent source test, and once every 60 months thereafter;

(D) A source test, within six months, if an owner or operator of a chromium alloy melting facility:

(i) Does not conduct any parameter monitoring requirement by the effective date, at the required frequency, or with a monitoring device that is calibrated and in proper working condition as specified in subdivision (j);

(ii) Does not cease operation of furnace(s) associated with the emission control device(s) or emission collection system(s) within 24 hours after discovery of failure and until the emission control device(s) or emission collection system(s) passes the required parameter monitoring as required by paragraph (j)(6); or

(iii) Fails any one parameter monitoring requirement pursuant to subparagraphs (j)(6)(A) to (j)(6)(E) three consecutive times.

(5) An owner or operator of a chromium alloy melting facility shall notify the Executive Officer within five calendar days of receiving source test result(s) that exceeded any of the aggregate hexavalent chromium emission limits specified in paragraph (d)(1), failed the smoke test pursuant to paragraph (j)(3), or does not maintain the velocity of the emission collection system specified in paragraph (j)(4). The owner or operator of a chromium alloy melting facility shall make such notifications to 1-800-CUT-SMOG and shall follow up in writing to the Executive Officer with a copy of the result(s) of the source test(s) within 10 calendar days of notification.

(6) An owner or operator of a chromium alloy melting facility shall conduct source tests representative of typical operating conditions, and in accordance with California Air Resources Board (CARB) Method 425 – *Determination of Total Chromium and Hexavalent Chromium Emissions from Stationary Sources*.

(A) The total sample volume for each sample shall be sufficient to demonstrate compliance with the aggregate hexavalent chromium emission limits pursuant to paragraph (d)(1) at the method reporting limit. Alternatively, run the test for a minimum sampling time of 8 hours for each sample, assuming a method reporting limit for hexavalent chromium of 0.05 micrograms per sample or less.

(B) For the purposes of this rule, if at least one test run is below the method reporting limit, the following quantification procedures shall be used:

(i) In situations in which all test runs and analyses indicate levels below the method reporting limit, the compound may be identified as "not detected."

(ii) In cases in which one or more of the test runs and analyses show measured values above the method reporting limit, the runs or analysis that were below the method reporting limit shall be assigned one half of the method reporting limit for that run.

(7) An owner or operator of a chromium alloy melting facility may use alternative or equivalent source test methods, as defined in United States Environmental Protection Agency (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.

(8) An owner or operator of a chromium alloy melting facility shall use a test laboratory approved under the South Coast AQMD Laboratory Approval Program for the 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.

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

(10) An existing source test conducted on or after *[36 months prior to Date of Adoption]* for a chromium alloy melting furnace or associated emission control device existing before *[Date of Adoption]* may be used as the initial source test specified in subparagraph (h)(4)(A) 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 *[36 months prior to Date of Adoption]*;

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

(C) The source test demonstrated compliance with emission collection system requirements of paragraphs (j)(3) and (j)(4);

(D) The source test was conducted using applicable and approved test methods and test laboratories specified in paragraphs (h)(6) through (h)(8); and

(E) The report from the source test was evaluated and approved by the Executive Officer.

(11) An owner or operator of a chromium alloy melting facility shall submit reports from source testing conducted pursuant to subdivision (h) to the South Coast AQMD within 90 days of completion of the source testing.

(i) Material Testing Requirements

(1) Using the test method(s) identified in paragraph (i)(2), an owner or operator of a chromium alloy melting facility shall conduct material testing, for each furnace charge, to determine the weight average percentages of arsenic and cadmium contained in materials melted in non-ferrous chromium alloy melting furnaces, excluding rerun scrap and material generated at another facility that has documentation confirming the material has no more than 0.002 percent arsenic and 0.004 percent cadmium by weight. In lieu of material testing pursuant to paragraph (i)(2), the owner or operator may use documentation confirming the weight average percentages of arsenic and cadmium including, but not limited to, metallurgical assays, certificates of analysis, and material specification sheets.

(2) An owner or operator of a chromium alloy melting facility shall use the following test method(s) most applicable to the sample matrix, method detection limit, and interferences:

(A) U.S. EPA-approved method(s);

(B) Active ASTM International method(s); or

(C) Alternative method(s) approved, in writing, by the Executive Officer.

(j) Parameter Monitoring Requirements

(1) Bag Leak Detection System

On and after July 1, 2024, an owner or operator of a chromium alloy melting facility shall operate, calibrate, and maintain a Bag Leak Detection System (BLDS) for all baghouses subject to this rule, regardless of size and position within a series of emission control devices, pursuant to the Tier 3 requirements of Rule 1155 – Particulate Matter (PM) Control Devices.

(2) Pressure Across the Filter Media

On and after July 1, 2024, for each emission control device, an owner or operator of a chromium alloy melting facility shall:

(A) Use a gauge to continuously monitor the pressure drop across each filter stage of the emission control device;

(B) Ensure that the gauge:

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

(ii) Is calibrated according to manufacturer's specifications at least once every 12 months;

(iii) Is equipped with a continuous data acquisition system (DAS) that records the data output from the gauge in inches of water column at a frequency of at least once every 60 minutes;

(iv) Generates a data file from the computer system interfaced with each DAS for each calendar day saved in Microsoft Excel (xls or xlsx) or plain text (txt or csv) formats, or other format as approved by the Executive Officer, that tabulates chronological date and time and the corresponding data output value from the gauge in inches of water column; and

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

(C) Position the gauge so that it is easily visible and in clear sight; and

(D) Maintain the pressure drop across each filter stage of the emission control device within the range specified by the manufacturer or according to conditions of the Permit to Operate for the emission control device.

(3) For each emission collection system, an owner or operator of a chromium alloy melting facility shall conduct and pass a smoke test during each source test pursuant to paragraph (h)(4), and additionally once every 180 days after the initial source test pursuant to subparagraph (h)(4)(A) or (h)(4)(B), using the procedure set forth in Attachment A – Smoke Test to Demonstrate Capture Efficiency for Emission Collection Systems of an Emission Control Device in this rule.

(4) On or before July 1, 2024, and once every 180 days thereafter, for each emission collection system, an owner or operator of a chromium alloy melting facility shall use and keep onsite a calibrated anemometer to measure the capture velocity or face velocity for each intake of the emission collection system of each emission control system, based on its location within a chromium alloy 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 95 percent or greater of the minimum velocity that verifies 100 percent collection efficiency according to conditions of the Permit to Operate.

(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 95 percent or greater of the minimum slot velocity that verifies 100 percent collection efficiency according to conditions of the Permit to Operate.

(C) An emission collection system designed with a canopy hood without an enclosure shall maintain a capture velocity of at least 200 feet per minute across the entirety of all open sides extending from the perimeter of the hood and operating without any cross-drafts or maintain 95 percent or greater of the minimum velocity that verifies 100 percent collection efficiency according to conditions of the Permit to Operate.

(5) Within 24 hours, an owner or operator of a chromium alloy melting facility shall report to 1-800-CUT-SMOG any of the following:

(A) The cumulative number of hours of BLDS alarm activation pursuant to paragraph (j)(1) and Rule 1155 within any continuous six-month rolling period that has exceeded more than five percent of the total operating hours in that period;

(B) An average pressure across a filter stage of the emission control device that has not been maintained at the range specified in subparagraph (j)(2)(D) as determined by hourly or more frequent recordings by the DAS for the averaging periods below:

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

(ii) Any consecutive 24-hour period;

(C) A DAS that has not been recording or generating the data output from the gauge pursuant to clauses (j)(2)(B)(iii) and/or (j)(2)(B)(iv);

(D) A smoke test pursuant to paragraph (j)(3) that has failed; and

(E) An anemometer reading indicating that the required velocity in paragraph (j)(4) has not been maintained.

(6) Starting no later than 24 hours after discovery of failure and until the emission control device(s) or emission collection system(s) passes the required parameter monitoring, an owner or operator of a chromium alloy melting facility shall not use

the associated furnace(s) for production if the emission control device(s) or emission collection system(s) fails any of the following:

(A) To minimize the BLDS alarm activation pursuant to paragraph (j)(1) and Rule 1155;

(B) To maintain the average pressure pursuant to subparagraph (j)(2)(D);

(C) To record or generate the data output from the gauge using a DAS pursuant to clauses (j)(2)(B)(iii) and/or (j)(2)(B)(iv);

(D) A smoke test pursuant to paragraph (j)(3); and

(E) To maintain the velocity pursuant to paragraph (j)(4).

(7) In the case of a failure of a DAS pursuant to clauses (j)(2)(B)(iii) and/or (j)(2)(B)(iv) to record and/or generate the data output of the gauge due to an emergency beyond the control of an owner or operator of a chromium alloy melting facility, including, but not limited to, power outages and computer malfunctions, the owner or operator shall:

(A) Restore the DAS to working condition no later than 24 hours after the end of the emergency; and

(B) Manually record the data output from the gauge associated with the non-operational DAS, or if the gauge associated with the non-operational DAS is not operating due to the emergency, the pressure as measured by a mechanical gauge, at least once every eight hours until the DAS is restored.

The period of missing DAS data due to the emergency shall not be used to determine compliance with clauses (j)(2)(B)(iii) and/or (j)(2)(B)(iv).

(8) Unreasonable Risk

If the parameter monitoring requirements specified in paragraphs (j)(3) or (j)(4) cannot be conducted due to an unreasonable risk to safety, an owner or operator of a chromium alloy melting facility shall use an alternative parameter monitoring measure that has been approved by the Executive Officer in a source test protocol pursuant to paragraph (i)(2). If there is no safe alternative parameter monitoring measure, as evaluated by the Executive Officer, the owner or operator of a chromium alloy melting facility is no longer subject to the parameter monitoring requirement.

(A) Approved alternative parameter monitoring measures may not be used retroactively from the date of approval.

(B) Compliance with the approved alternative parameter monitoring measures shall constitute compliance with the applicable provisions of paragraphs (j)(3) or (j)(4).

(k) Recordkeeping Requirements

An owner or operator of a chromium alloy melting facility shall maintain records of the following:

(1) Quarterly quantities of raw materials processed, including ingots, scrap, and rerun scrap and any purchase records, if applicable, to verify these quantities melted per year;

(2) Material testing data as required by subdivision (i), including description of each material tested, quantity of material processed, test method(s) used, method detection and reporting limits, quality assurance, quality control, and calibration data, and arsenic and cadmium percent in weight for each material tested;

(3) Source test protocols and reports as required by subdivision (h);

(4) Housekeeping activities conducted as required by subdivision (f), including the name of the person conducting the activity and the dates and times at which specific activities were completed;

(5) Construction and maintenance and repair activities conducted on any equipment or structures associated with the chromium alloy melting operation(s) including chromium alloy melting furnaces and associated emission collection systems and emission control devices; buildings housing chromium alloy melting operation(s); and enclosed storage areas housing chromium alloy melting materials;

(6) Inspection, calibration documentation, and maintenance of emission control devices and parameter monitoring equipment 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) Cumulative number of hours of BLDS alarm activation pursuant to paragraph (j)(1) and Rule 1155;

(8) DAS data files as required by clauses (j)(2)(B)(iii) and (j)(2)(B)(iv) and paragraph (j)(7)(B);

(8) Smoke test documentation as required by paragraph (j)(3) and pursuant to Attachment A – Smoke Test to Demonstrate Capture Efficiency for Emission Collection Systems of an Emission Control Device;

(10) Anemometer data collected as required by paragraph (j)(4), including capture or face velocities, and dates of measurement;

(11) Call log of all reporting made to 1-800-CUT-SMOG as required by paragraph (j)(5), including date and time of call and reported parameter monitoring requirement(s); and

(12) Documentation of any repairs or replacements that were performed in order to pass any parameter monitoring as required by subparagraphs (j)(6)(A) to (j)(6)(E).

An owner or operator shall maintain all records and keep these onsite for five years and make such records available to the South Coast AQMD upon request.

(l) Exemptions

(1) An owner or operator of a chromium alloy melting facility that melts no more than one ton of chromium alloy(s) per year shall only be subject to paragraph (k)(1).

(2) Educational facilities, including, but not limited to, universities, colleges, and schools, that melt chromium alloy(s) for purposes of education, shall be exempt from the requirements of this rule.

(3) Jewelers shall be exempt from the requirements of this rule.

(4) Rules 1420.1 and 1420.2

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

(5) Brazing, dip soldering, and wave soldering operations shall be exempt from the requirements of this rule.

(6) Metal cutting and metal grinding performed for maintenance and repair activities, except for those associated with the chromium alloy melting operation(s), emission collection systems and emission control devices, and except any activities pursuant to subdivisions (f) and (g) that generate or have the potential to generate fugitive metal dust, are exempt from the requirements of this rule.

ATTACHMENT A
Smoke Test to Demonstrate Capture Efficiency for Emission Collection Systems of an Emission Control Device

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 chromium alloy melting operations.

   1.2 Principle

   Collection of emissions from a chromium alloy melting operation is achieved by the emission collection system associated with the emission control device for the chromium alloy melting operation. Mass emissions at the exhaust of an emission control device is related to capture efficiency at the inlet of the emission collection system. For this reason, total capture 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 chromium alloy melting operations. This includes cooling fans and enclosure openings affecting draft conditions including, but not limited to, vents, windows, doorways, and bay doors, as well as the operation of other workstations 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

4.1.1 For workstations equipped with collection slots or hoods, the smoke shall be released at points where emissions from chromium alloy melting operations are generated (e.g. the point where melting occurs). Smoke shall be released at points not to exceed 12 inches apart across ventilated work areas.

4.1.2 Observe the collection of the smoke from the smoke generator and emissions from the operations to the collection location(s) of the emission collection system. Record these observations at each of the points providing a qualitative assessment of the collection of smoke and emissions to the emission collection system.

4.2 Equipment Enclosures

4.2.1 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.

4.2.2 Observe the inward movement of the smoke from the smoke generator and emissions from the operations to the collection location(s) of the emission collection system. Record these observations at each of the points providing a qualitative assessment of the collection of smoke and emissions to the emission collection system.

5. Results:

   A passing smoke test shall demonstrate a direct stream of smoke and emissions to the collection location(s) of the emission collection system without meanderings out of this direct path.

6. Documentation:

   The smoke test shall be documented by photographs or video at each point that clearly show the path of the smoke and emissions. 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

Modeling Files, Assumptions, and Calculations

APPENDIX B-1

CalEEMod – Baghouse/HEPA Construction

Baghouse/HEPA Construction_Annual

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2022
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumption: (5 days Installation per Baghouse for 5 Total) + (1 day Installation per HEPA/ULPA Filter Unit for 15 Total = 3 Additional Baghouses)

Off-road Equipment - Assumption: 1 APCD Installation per Facility (Each Has 1 Air Compressor, 1 Welder, 1 Forklift, 1 Aerial Lift)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	100.00	5.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	8.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	1.00	11.00
tblTripsAndVMT	WorkerTripNumber	4.00	55.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0108	0.0783	0.0848	1.4000e-004	1.6800e-003	4.4300e-003	6.1100e-003	4.5000e-004	4.2600e-003	4.7100e-003	0.0000	12.1371	12.1371	2.1800e-003	0.0000	12.1916
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0108**	**0.0783**	**0.0848**	**1.4000e-004**	**1.6800e-003**	**4.4300e-003**	**6.1100e-003**	**4.5000e-004**	**4.2600e-003**	**4.7100e-003**	**0.0000**	**12.1371**	**12.1371**	**2.1800e-003**	**0.0000**	**12.1916**

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	0.0108	0.0783	0.0848	1.4000e-004	1.6800e-003	4.4300e-003	6.1100e-003	4.5000e-004	4.2600e-003	4.7100e-003	0.0000	12.1370	12.1370	2.1800e-003	0.0000	12.1916
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0108**	**0.0783**	**0.0848**	**1.4000e-004**	**1.6800e-003**	**4.4300e-003**	**6.1100e-003**	**4.5000e-004**	**4.2600e-003**	**4.7100e-003**	**0.0000**	**12.1370**	**12.1370**	**2.1800e-003**	**0.0000**	**12.1916**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-30-2020	1-29-2021	0.0891	0.0891
		Highest	0.0891	0.0891

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	0.0367	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Energy	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4178	0.4178	1.0000e-005	1.0000e-005	0.4203
Mobile	4.9600e-003	0.0292	0.0735	2.9000e-004	0.0246	2.3000e-004	0.0249	6.6000e-003	2.1000e-004	6.8100e-003	0.0000	26.7760	26.7760	1.2400e-003	0.0000	26.8069
Waste						0.0000	0.0000		0.0000	0.0000	1.7173	0.0000	1.7173	0.1015	0.0000	4.2546
Water						0.0000	0.0000		0.0000	0.0000	0.6603	0.0000	0.6603	0.0678	1.6000e-003	2.8329
Total	**0.0417**	**0.0295**	**0.0740**	**2.9000e-004**	**0.0246**	**2.6000e-004**	**0.0249**	**6.6000e-003**	**2.4000e-004**	**6.8400e-003**	**2.3776**	**27.1941**	**29.5717**	**0.1706**	**1.6100e-003**	**34.3150**

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	0.0367	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Energy	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4178	0.4178	1.0000e-005	1.0000e-005	0.4203
Mobile	4.9600e-003	0.0292	0.0735	2.9000e-004	0.0246	2.3000e-004	0.0249	6.6000e-003	2.1000e-004	6.8100e-003	0.0000	26.7760	26.7760	1.2400e-003	0.0000	26.8069
Waste						0.0000	0.0000		0.0000	0.0000	1.7173	0.0000	1.7173	0.1015	0.0000	4.2546
Water						0.0000	0.0000		0.0000	0.0000	0.6603	0.0000	0.6603	0.0678	1.6000e-003	2.8329
Total	**0.0417**	**0.0295**	**0.0740**	**2.9000e-004**	**0.0246**	**2.6000e-004**	**0.0249**	**6.6000e-003**	**2.4000e-004**	**6.8400e-003**	**2.3776**	**27.1941**	**29.5717**	**0.1706**	**1.6100e-003**	**34.3150**

	ROG	NOx	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

Baghouse/HEPA Construction_Annual - South Coast AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/30/2020	10/29/2020	5	0	
2	Site Preparation	Site Preparation	11/13/2020	11/12/2020	5	0	
3	Grading	Grading	11/14/2020	11/13/2020	5	0	
4	Building Construction	Building Construction	11/18/2020	11/24/2020	5	5	
5	Paving	Paving	4/7/2021	4/6/2021	5	0	
6	Architectural Coating	Architectural Coating	4/14/2021	4/13/2021	5	0	

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: 13,500; Non-Residential Outdoor: 4,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Baghouse/HEPA Construction_Annual - South Coast AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Aerial Lifts	8	4.00	63	0.31
Building Construction	Air Compressors	8	4.00	78	0.48
Building Construction	Forklifts	8	4.00	89	0.20
Building Construction	Welders	8	4.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Tractors/Loaders/Backhoes	2	8.00	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	35	55.00	11.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.2 Demolition - 2020

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.2 Demolition - 2020

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 2020

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 2020

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.5 Building 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	0.0101	0.0748	0.0789	1.2000e-004		4.4000e-003	4.4000e-003		4.2400e-003	4.2400e-003	0.0000	10.1026	10.1026	2.1000e-003	0.0000	10.1551
Total	**0.0101**	**0.0748**	**0.0789**	**1.2000e-004**		**4.4000e-003**	**4.4000e-003**		**4.2400e-003**	**4.2400e-003**	**0.0000**	**10.1026**	**10.1026**	**2.1000e-003**	**0.0000**	**10.1551**

3.5 Building Construction - 2020

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	9.0000e-005	2.9300e-003	7.3000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.6764	0.6764	4.0000e-005	0.0000	0.6775
Worker	6.1000e-004	4.7000e-004	5.2100e-003	2.0000e-005	1.5100e-003	1.0000e-005	1.5200e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3580	1.3580	4.0000e-005	0.0000	1.3590
Total	**7.0000e-004**	**3.4000e-003**	**5.9400e-003**	**3.0000e-005**	**1.6800e-003**	**2.0000e-005**	**1.7100e-003**	**4.5000e-004**	**2.0000e-005**	**4.7000e-004**	**0.0000**	**2.0344**	**2.0344**	**8.0000e-005**	**0.0000**	**2.0365**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0101	0.0748	0.0789	1.2000e-004		4.4000e-003	4.4000e-003		4.2400e-003	4.2400e-003	0.0000	10.1026	10.1026	2.1000e-003	0.0000	10.1551
Total	**0.0101**	**0.0748**	**0.0789**	**1.2000e-004**		**4.4000e-003**	**4.4000e-003**		**4.2400e-003**	**4.2400e-003**	**0.0000**	**10.1026**	**10.1026**	**2.1000e-003**	**0.0000**	**10.1551**

3.5 Building Construction - 2020

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	9.0000e-005	2.9300e-003	7.3000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.6764	0.6764	4.0000e-005	0.0000	0.6775
Worker	6.1000e-004	4.7000e-004	5.2100e-003	2.0000e-005	1.5100e-003	1.0000e-005	1.5200e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.3580	1.3580	4.0000e-005	0.0000	1.3590
Total	**7.0000e-004**	**3.4000e-003**	**5.9400e-003**	**3.0000e-005**	**1.6800e-003**	**2.0000e-005**	**1.7100e-003**	**4.5000e-004**	**2.0000e-005**	**4.7000e-004**	**0.0000**	**2.0344**	**2.0344**	**8.0000e-005**	**0.0000**	**2.0365**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.6 Paving - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.6 Paving - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.9600e-003	0.0292	0.0735	2.9000e-004	0.0246	2.3000e-004	0.0249	6.6000e-003	2.1000e-004	6.8100e-003	0.0000	26.7760	26.7760	1.2400e-003	0.0000	26.8069
Unmitigated	4.9600e-003	0.0292	0.0735	2.9000e-004	0.0246	2.3000e-004	0.0249	6.6000e-003	2.1000e-004	6.8100e-003	0.0000	26.7760	26.7760	1.2400e-003	0.0000	26.8069

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	15.12	15.12	15.12	64,800	64,800
Total	15.12	15.12	15.12	64,800	64,800

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	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	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

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	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4178	0.4178	1.0000e-005	1.0000e-005	0.4203
NaturalGas Unmitigated	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4178	0.4178	1.0000e-005	1.0000e-005	0.4203

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	7830	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4178	0.4178	1.0000e-005	1.0000e-005	0.4203
Total		**4.0000e-005**	**3.8000e-004**	**3.2000e-004**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.4178**	**0.4178**	**1.0000e-005**	**1.0000e-005**	**0.4203**

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	7830	4.0000e-005	3.8000e-004	3.2000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4178	0.4178	1.0000e-005	1.0000e-005	0.4203
Total		**4.0000e-005**	**3.8000e-004**	**3.2000e-004**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.4178**	**0.4178**	**1.0000e-005**	**1.0000e-005**	**0.4203**

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	35100	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			
Unrefrigerated Warehouse-No Rail	35100	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	0.0367	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Unmitigated	0.0367	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-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	4.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0325					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Total	**0.0367**	**0.0000**	**1.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.4000e-004**

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	4.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0325					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Total	**0.0367**	**0.0000**	**1.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.6603	0.0678	1.6000e-003	2.8329
Unmitigated	0.6603	0.0678	1.6000e-003	2.8329

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	2.08125 / 0	0.6603	0.0678	1.6000e-003	2.8329
Total		**0.6603**	**0.0678**	**1.6000e-003**	**2.8329**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	2.08125 / 0	0.6603	0.0678	1.6000e-003	2.8329
Total		**0.6603**	**0.0678**	**1.6000e-003**	**2.8329**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.7173	0.1015	0.0000	4.2546
Unmitigated	1.7173	0.1015	0.0000	4.2546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	8.46	1.7173	0.1015	0.0000	4.2546
Total		**1.7173**	**0.1015**	**0.0000**	**4.2546**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	8.46	1.7173	0.1015	0.0000	4.2546
Total		**1.7173**	**0.1015**	**0.0000**	**4.2546**

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

Baghouse/HEPA Construction

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2022
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumption: 5 days Installation for Baghouse

Off-road Equipment - Assumption: 1 APCD Installation per Facility (Each Has 1 Air Compressor, 1 Welder, 1 Forklift, 1 Aerial Lift)

Trips and VMT - Assumption: Each APCD Installation Requires 1 Hauling Trip and 5 Workers/day for 9 Facilities. Each Monitoring Equipment Installation Requires 1 Hauling Trip and 2 Workers/day for 11 Facilities.

Grading -

Baghouse/HEPA Construction - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	100.00	5.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	1.00	20.00
tblTripsAndVMT	WorkerTripNumber	4.00	67.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.8332	35.1177	38.0313	0.0657	0.8769	1.9495	2.8264	0.2355	1.8785	2.1139	0.0000	6,216.8546	6,216.8546	1.0623	0.0000	6,243.4117
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.4491	0.0000	0.0000	0.4241	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**4.8332**	**35.1177**	**38.0313**	**0.0657**	**0.8769**	**1.9495**	**2.8264**	**0.2355**	**1.8785**	**2.1139**	**0.0000**	**6,216.8546**	**6,216.8546**	**1.0623**	**0.0000**	**6,243.4117**

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	4.8332	35.1177	38.0313	0.0657	0.8769	1.9495	2.8264	0.2355	1.8785	2.1139	0.0000	6,216.8546	6,216.8546	1.0623	0.0000	6,243.4117
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.4491	0.0000	0.0000	0.4241	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**4.8332**	**35.1177**	**38.0313**	**0.0657**	**0.8769**	**1.9495**	**2.8264**	**0.2355**	**1.8785**	**2.1139**	**0.0000**	**6,216.8546**	**6,216.8546**	**1.0623**	**0.0000**	**6,243.4117**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2011	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
Mobile	0.0292	0.1536	0.4284	1.6600e-003	0.1378	1.2500e-003	0.1390	0.0369	1.1700e-003	0.0380		168.7337	168.7337	7.5600e-003		168.9228
Total	**0.2305**	**0.1557**	**0.4311**	**1.6700e-003**	**0.1378**	**1.4100e-003**	**0.1392**	**0.0369**	**1.3300e-003**	**0.0382**		**171.2594**	**171.2594**	**7.6200e-003**	**5.0000e-005**	**171.4636**

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	0.2011	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
Mobile	0.0292	0.1536	0.4284	1.6600e-003	0.1378	1.2500e-003	0.1390	0.0369	1.1700e-003	0.0380		168.7337	168.7337	7.5600e-003		168.9228
Total	**0.2305**	**0.1557**	**0.4311**	**1.6700e-003**	**0.1378**	**1.4100e-003**	**0.1392**	**0.0369**	**1.3300e-003**	**0.0382**		**171.2594**	**171.2594**	**7.6200e-003**	**5.0000e-005**	**171.4636**

	ROG	NOx	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	Demolition	Demolition	10/30/2020	10/29/2020	5	0	
2	Site Preparation	Site Preparation	11/13/2020	11/12/2020	5	0	
3	Grading	Grading	11/14/2020	11/13/2020	5	0	
4	Building Construction	Building Construction	11/18/2020	11/24/2020	5	5	
5	Paving	Paving	4/7/2021	4/6/2021	5	0	
6	Architectural Coating	Architectural Coating	4/14/2021	4/13/2021	5	0	

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: 13,500; Non-Residential Outdoor: 4,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Baghouse/HEPA Construction - South Coast AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Aerial Lifts	9	4.00	63	0.31
Building Construction	Air Compressors	9	4.00	78	0.48
Building Construction	Forklifts	9	4.00	89	0.20
Building Construction	Welders	9	4.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Tractors/Loaders/Backhoes	2	8.00	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	39	67.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.2 Demolition - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.2 Demolition - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.5 Building 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	4.4643	32.8152	34.7925	0.0529		1.9334	1.9334		1.8633	1.8633		4,901.1980	4,901.1980	1.0058		4,926.3424
Total	**4.4643**	**32.8152**	**34.7925**	**0.0529**		**1.9334**	**1.9334**		**1.8633**	**1.8633**		**4,901.1980**	**4,901.1980**	**1.0058**		**4,926.3424**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0657	2.0987	0.4998	5.1500e-003	0.1280	0.0104	0.1384	0.0369	9.9500e-003	0.0468		548.8969	548.8969	0.0345		549.7585
Worker	0.3031	0.2038	2.7391	7.7000e-003	0.7489	5.6800e-003	0.7546	0.1986	5.2300e-003	0.2038		766.7597	766.7597	0.0220		767.3108
Total	**0.3688**	**2.3025**	**3.2388**	**0.0129**	**0.8769**	**0.0161**	**0.8930**	**0.2355**	**0.0152**	**0.2506**		**1,315.6566**	**1,315.6566**	**0.0565**		**1,317.0693**

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	4.4643	32.8152	34.7925	0.0529		1.9334	1.9334		1.8633	1.8633	0.0000	4,901.1980	4,901.1980	1.0058		4,926.3424
Total	**4.4643**	**32.8152**	**34.7925**	**0.0529**		**1.9334**	**1.9334**		**1.8633**	**1.8633**	**0.0000**	**4,901.1980**	**4,901.1980**	**1.0058**		**4,926.3424**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0657	2.0987	0.4998	5.1500e-003	0.1280	0.0104	0.1384	0.0369	9.9500e-003	0.0468		548.8969	548.8969	0.0345		549.7585
Worker	0.3031	0.2038	2.7391	7.7000e-003	0.7489	5.6800e-003	0.7546	0.1986	5.2300e-003	0.2038		766.7597	766.7597	0.0220		767.3108
Total	**0.3688**	**2.3025**	**3.2388**	**0.0129**	**0.8769**	**0.0161**	**0.8930**	**0.2355**	**0.0152**	**0.2506**		**1,315.6566**	**1,315.6566**	**0.0565**		**1,317.0693**

3.6 Paving - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.6 Paving - 2021

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.6 Paving - 2021

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	0.0292	0.1536	0.4284	1.6600e-003	0.1378	1.2500e-003	0.1390	0.0369	1.1700e-003	0.0380		168.7337	168.7337	7.5600e-003		168.9228
Unmitigated	0.0292	0.1536	0.4284	1.6600e-003	0.1378	1.2500e-003	0.1390	0.0369	1.1700e-003	0.0380		168.7337	168.7337	7.5600e-003		168.9228

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	15.12	15.12	15.12	64,800	64,800
Total	15.12	15.12	15.12	64,800	64,800

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	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	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

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	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
NaturalGas Unmitigated	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388

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	21.4521	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
Total		**2.3000e-004**	**2.1000e-003**	**1.7700e-003**	**1.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**2.5238**	**2.5238**	**5.0000e-005**	**5.0000e-005**	**2.5388**

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					
Unrefrigerated Warehouse-No Rail	0.0214521	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
Total		**2.3000e-004**	**2.1000e-003**	**1.7700e-003**	**1.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**2.5238**	**2.5238**	**5.0000e-005**	**5.0000e-005**	**2.5388**

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	0.2011	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Unmitigated	0.2011	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003

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	0.0229					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.2012**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

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	0.0229					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.2012**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

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

Baghouse/HEPA Construction

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2022
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumption: 5 days Installation for Baghouse

Off-road Equipment - Assumption: 1 APCD Installation per Facility (Each Has 1 Air Compressor, 1 Welder, 1 Forklift, 1 Aerial Lift)

Trips and VMT - Assumption: Each APCD Installation Requires 1 Hauling Trip and 5 Workers/day for 9 Facilities. Each Monitoring Equipment Installation Requires 1 Hauling Trip and 2 Workers/day for 11 Facilities.

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	100.00	5.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	9.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	1.00	20.00
tblTripsAndVMT	WorkerTripNumber	4.00	67.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.8638	35.1348	37.8159	0.0651	0.8769	1.9497	2.8266	0.2355	1.8786	2.1141	0.0000	6,151.3681	6,151.3681	1.0634	0.0000	6,177.9520
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.4491	0.0000	0.0000	0.4241	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**4.8638**	**35.1348**	**37.8159**	**0.0651**	**0.8769**	**1.9497**	**2.8266**	**0.2355**	**1.8786**	**2.1141**	**0.0000**	**6,151.3681**	**6,151.3681**	**1.0634**	**0.0000**	**6,177.9520**

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	4.8638	35.1348	37.8159	0.0651	0.8769	1.9497	2.8266	0.2355	1.8786	2.1141	0.0000	6,151.3681	6,151.3681	1.0634	0.0000	6,177.9520
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.4491	0.0000	0.0000	0.4241	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**4.8638**	**35.1348**	**37.8159**	**0.0651**	**0.8769**	**1.9497**	**2.8266**	**0.2355**	**1.8786**	**2.1141**	**0.0000**	**6,151.3681**	**6,151.3681**	**1.0634**	**0.0000**	**6,177.9520**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2011	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
Mobile	0.0278	0.1573	0.3965	1.5700e-003	0.1378	1.2600e-003	0.1391	0.0369	1.1700e-003	0.0380		159.9233	159.9233	7.5200e-003		160.1113
Total	**0.2291**	**0.1595**	**0.3992**	**1.5800e-003**	**0.1378**	**1.4200e-003**	**0.1392**	**0.0369**	**1.3300e-003**	**0.0382**		**162.4490**	**162.4490**	**7.5800e-003**	**5.0000e-005**	**162.6521**

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	0.2011	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
Mobile	0.0278	0.1573	0.3965	1.5700e-003	0.1378	1.2600e-003	0.1391	0.0369	1.1700e-003	0.0380		159.9233	159.9233	7.5200e-003		160.1113
Total	**0.2291**	**0.1595**	**0.3992**	**1.5800e-003**	**0.1378**	**1.4200e-003**	**0.1392**	**0.0369**	**1.3300e-003**	**0.0382**		**162.4490**	**162.4490**	**7.5800e-003**	**5.0000e-005**	**162.6521**

	ROG	NOx	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	Demolition	Demolition	10/30/2020	10/29/2020	5	0	
2	Site Preparation	Site Preparation	11/13/2020	11/12/2020	5	0	
3	Grading	Grading	11/14/2020	11/13/2020	5	0	
4	Building Construction	Building Construction	11/18/2020	11/24/2020	5	5	
5	Paving	Paving	4/7/2021	4/6/2021	5	0	
6	Architectural Coating	Architectural Coating	4/14/2021	4/13/2021	5	0	

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: 13,500; Non-Residential Outdoor: 4,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Baghouse/HEPA Construction - South Coast AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Aerial Lifts	9	4.00	63	0.31
Building Construction	Air Compressors	9	4.00	78	0.48
Building Construction	Forklifts	9	4.00	89	0.20
Building Construction	Welders	9	4.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Tractors/Loaders/Backhoes	2	8.00	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	39	67.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.2 Demolition - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.2 Demolition - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 2020

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.5 Building 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	4.4643	32.8152	34.7925	0.0529		1.9334	1.9334		1.8633	1.8633		4,901.1980	4,901.1980	1.0058		4,926.3424
Total	**4.4643**	**32.8152**	**34.7925**	**0.0529**		**1.9334**	**1.9334**		**1.8633**	**1.8633**		**4,901.1980**	**4,901.1980**	**1.0058**		**4,926.3424**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0688	2.0965	0.5572	5.0000e-003	0.1280	0.0106	0.1386	0.0369	0.0101	0.0470		533.0256	533.0256	0.0370		533.9509
Worker	0.3306	0.2231	2.4662	7.2000e-003	0.7489	5.6800e-003	0.7546	0.1986	5.2300e-003	0.2038		717.1445	717.1445	0.0206		717.6587
Total	**0.3994**	**2.3197**	**3.0234**	**0.0122**	**0.8769**	**0.0162**	**0.8931**	**0.2355**	**0.0153**	**0.2508**		**1,250.1701**	**1,250.1701**	**0.0576**		**1,251.6096**

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	4.4643	32.8152	34.7925	0.0529		1.9334	1.9334		1.8633	1.8633	0.0000	4,901.1980	4,901.1980	1.0058		4,926.3424
Total	**4.4643**	**32.8152**	**34.7925**	**0.0529**		**1.9334**	**1.9334**		**1.8633**	**1.8633**	**0.0000**	**4,901.1980**	**4,901.1980**	**1.0058**		**4,926.3424**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0688	2.0965	0.5572	5.0000e-003	0.1280	0.0106	0.1386	0.0369	0.0101	0.0470		533.0256	533.0256	0.0370		533.9509
Worker	0.3306	0.2231	2.4662	7.2000e-003	0.7489	5.6800e-003	0.7546	0.1986	5.2300e-003	0.2038		717.1445	717.1445	0.0206		717.6587
Total	**0.3994**	**2.3197**	**3.0234**	**0.0122**	**0.8769**	**0.0162**	**0.8931**	**0.2355**	**0.0153**	**0.2508**		**1,250.1701**	**1,250.1701**	**0.0576**		**1,251.6096**

3.6 Paving - 2021

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.6 Paving - 2021

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.6 Paving - 2021

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

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	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	0.0278	0.1573	0.3965	1.5700e-003	0.1378	1.2600e-003	0.1391	0.0369	1.1700e-003	0.0380		159.9233	159.9233	7.5200e-003		160.1113
Unmitigated	0.0278	0.1573	0.3965	1.5700e-003	0.1378	1.2600e-003	0.1391	0.0369	1.1700e-003	0.0380		159.9233	159.9233	7.5200e-003		160.1113

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	15.12	15.12	15.12	64,800	64,800
Total	15.12	15.12	15.12	64,800	64,800

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	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	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

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	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
NaturalGas Unmitigated	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388

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	21.4521	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
Total		**2.3000e-004**	**2.1000e-003**	**1.7700e-003**	**1.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**2.5238**	**2.5238**	**5.0000e-005**	**5.0000e-005**	**2.5388**

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					
Unrefrigerated Warehouse-No Rail	0.0214521	2.3000e-004	2.1000e-003	1.7700e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5238	2.5238	5.0000e-005	5.0000e-005	2.5388
Total		**2.3000e-004**	**2.1000e-003**	**1.7700e-003**	**1.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**		**2.5238**	**2.5238**	**5.0000e-005**	**5.0000e-005**	**2.5388**

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	0.2011	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Unmitigated	0.2011	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003

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	0.0229					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.2012**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

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	0.0229					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.2012**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B-2

EMFAC – Operational Emissions

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	17 Smoke Tests Every 6 Months	40	0.79	34.00	1,074.40	0.49
Source Test Trips - Passenger Auto	17 Source Tests Every 5 Years	40	0.79	3.40	107.44	0.05
Source Test Trips - Medium Duty Truck	17 Source Tests Every 5 Years	40	1.93	3.40	262.48	0.12
Equipment Delivery - Medium Duty Vendor Trucks	11 Building Modifications, 8 APCD, and 11 sets of Monitoring Equipment, Amortized over 30 Years	15	1.93	2.07	59.83	0.03
Equipment Installation - Passenger Auto	2 Workers each for Building Modifications and Monitoring Equipment, and 5 Workers each for APCD, Amortized over 30 years	30	0.79	8.13	192.76	0.09
Baghouse Waste Hauling - Heavy Duty Truck	5 Facilities, 4 Trips Each per Year	40	3.52	20.00	2,818.56	1.28
Total					4,515.47	2.05

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	5	4000	1060	0.702	744.12	0.34

Note: CO2 intensity of electricity 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)
APCD Installation	5 Baghouses and 15 HEPA/ULPA Filtration Units to be Installed	12.1916	1	12.1916	0.40638667

Construction emissions obtained from CalEEMod, amortized over 30 years

On-Road Vehicles, VMT + Fuel Usage

Phase	Activity	Description	Trip Distance (miles)	Number Trips/yr	VMT	Fuel Type	MPG	Gallons Fuel
Operation	Smoke Test Trips - Passenger Auto	17 Smoke Tests Every 6 Months	40	34.00	1,360.0	Gas	21	65
	Source Test Trips - Passenger Auto	17 Source Tests Every 5 Years	40	3.40	136.0	Gas	21	6
	Source Test Trips - Medium Duty Truck	17 Source Tests Every 5 Years	40	3.40	136.0	Diesel	10	14
	Baghouse Waste Hauling - Heavy Duty Truck	5 Facilities, 4 Trips Each per Year	40	20.00	800.0	Diesel	7	121
Construction	Equipment Delivery - Medium Duty Vendor Trucks	11 Building Modifications, 8 APCD, and 11 sets of Monitoring Equipment	15	62.00	930.0	Diesel	10	93
	Equipment Installation - Passenger Auto	2 Workers each for Building Modifications and Monitoring Equipment, and 5 Workers each for APCD	30	244.00	7,320.0	Gas	21	349
	Total VMT				**10,682**			

Fuel Usage = VMT / MPG

Offroad Equipment Fuel Usage

Activity	Equipment	Number of Equipment	Usage Hours/day	Horsepower	Load Factor	Fuel Rate (Gal/hr)	Fuel Use (Gal/day)
Baghouse Installation (8)	Aerial Lifts	8	4	63	0.31	1.2	11.4
Baghouse Installation (8)	Air Compressors	8	4	78	0.48	1.0	15.7
Baghouse Installation (8)	Forklifts	8	4	89	0.2	0.9	5.8
Baghouse Installation (8)	Welders	8	4	46	0.45	1.2	17.2
Total Diesel Fuel Usage from Offroad Equipment (Gal)							250.7

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/Smoke 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

Calculations
Mobile Emissions = Emission Factor * Miles
CO2e = CO2 + 25*CH4

APPENDIX C

Proposed Rule 1407.1 List of Affected Facilities

Facility ID	Facility Name	Address	On DTSC List per Government Code 65962.5 (Envirostor)?	Nearest Senstive Receptor (Miles)	Located within 1/4 Mile of a School?	Located within Two Miles of an Airport?
11298	Pacific Alloy Casting Inc.	5900-10 E Firestone Blvd, South Gate 90280	No	0.02	No	No
126544	PAC Foundries (CPP City of Industry)	16800 Chestnut St, City Of Industry 91745	No	0.26	No	No
184960	West Coast Foundry LLC	2450 E 53rd St, Huntington Park 90255	No	0.03	No	No
22953	Certified Alloy Products	3245 Cherry Ave, Long Beach 90807-5213	No	0.18	No	Yes
189638 (formerly 117608)	Griswold Industries (formerly Strategic Materials Corp.)	8616 Otis St, South Gate 90280	No	0.13	Yes	No
7796	Techni-Cast Corporation	11220 S Garfield Ave, South Gate 90280-7586	Yes	0.08	No	No
140871	PAC Rancho (CPP Rancho Cucamonga)	11000 Jersey Blvd, Rancho Cucamonga 91730-5103	No	0.28	No	No
69833	Fenico Precision Casting	7805 Madison St, Paramount 90723-4220	No	0.00	Yes	No
800318	Griswold (Cla-Val)	1701-41 Placentia Ave, Costa Mesa 92627-4416	Yes	0.01	No	No
46580	Miller Castings	2503-25 Pacific Park Dr, Whittier 90601-1610	No	0.26	No	No
183510	Pro Cast Industries	15555 Minnesota Ave, Paramount, CA 90723	No	0.04	No	No