



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: NOTICE OF COMPLETION OF A DRAFT ENVIRONMENTAL ASSESSMENT

PROJECT TITLE: PROPOSED AMENDED RULE 1420 – EMISSIONS STANDARD FOR LEAD

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

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

<http://www.aqmd.gov/home/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 30-day public review and comment period beginning Tuesday, September 19, 2017 and ending at 5:00 p.m. on Thursday, October 19, 2017. **Please send any comments relative to the CEQA analysis in the Draft EA to Ms. Diana Thai (c/o CEQA) at the address shown above.** Comments can also be sent via facsimile to (909) 396-3982 or email to dthai@aqmd.gov. Please include the name and phone number of the contact person for your organization. Questions regarding the proposed amended rule language should be directed to Mr. Kennard Ellis at (909) 396-2457 or by email to kellis@aqmd.gov.

The Public Hearing for the proposed rule is scheduled for November 3, 2017. (Note: Public meeting dates are subject to change).

Date: September 15, 2017

Signature:

A handwritten signature in black ink, appearing to read 'Barbara Radlein', is written over a horizontal line.

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

Reference: California Code of Regulations, Title 14, Section 15070, 15071, 15072, 15073, 15105, 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

Project Title:

Draft Environmental Assessment (EA) for Proposed Amended Rule (PAR) 1420 – Emissions Standard for Lead

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

Description of Nature, Purpose, and Beneficiaries of Project: PAR 1420 has been developed to reduce public health impacts from point and fugitive lead emissions from metal melting or lead processing facilities by reducing the exposure to lead, and to ensure and maintain attainment of the National Ambient Air Quality Standard (NAAQS) for lead within the South Coast Air Basin. PAR 1420 proposes an initial ambient air lead concentration limit of 0.150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) averaged over any consecutive 30 days which will be lowered to a final limit of 0.100 $\mu\text{g}/\text{m}^3$ by January 1, 2021. PAR 1420 also proposes requirements for point source lead emission controls, along with periodic source testing, capture efficiency testing, conditional ambient air monitoring, and reporting and recordkeeping requirements to ensure continuous compliance. Fugitive lead emissions will be addressed through housekeeping and maintenance activity requirements and total enclosures of areas where lead processing operations and associated processes are being conducted. Any facility that exceeds the limits in PAR 1420 will be subject to additional mitigation requirements. Some sites affected by PAR 1420 may be identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5. The analysis of PAR 1420 in the Draft EA did not result in the identification of any environmental topic areas that would be significantly adversely affected.

Lead Agency:

South Coast Air Quality Management District

Division:

Planning, Rule Development and Area Sources

Draft EA and all supporting documentation are available at:

SCAQMD Headquarters
21865 Copley Drive
Diamond Bar, CA 91765

or by calling:

(909) 396-2039

Draft EA can also be obtained by accessing SCAQMD's website at:

<http://www.aqmd.gov/home/library/document-s-support-material/lead-agency-scaqmd-projects>

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

☒ Los Angeles Times (September 19, 2017)

☒ SCAQMD Mailing List & Interested Parties

☒ SCAQMD Public Information Center

☒ SCAQMD Website

Draft EA Review Period (30 days): September 19, 2017 – October 19, 2017

Scheduled Public Meeting Date(s) (subject to change):

Working Group Meeting #4: September 20, 2017, 9:00 a.m.; SCAQMD Headquarters – Conference Room CC2

SCAQMD Governing Board Hearing: November 3, 2017, 9:00 a.m.; SCAQMD Headquarters – Auditorium

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

Send CEQA Comments to:

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Environmental Assessment for Proposed Amended Rule 1420 – Emissions Standard for Lead

September 2017

SCAQMD No. 09182017DT
State Clearinghouse No: TBD

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CHAPTER 1

PROJECT DESCRIPTION

Introduction

California Environmental Quality Act

Project Location

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Project Description

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD or District) in 1977¹ 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, SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the District². Furthermore, SCAQMD must adopt rules and regulations that carry out the AQMP³. The AQMP is a regional blueprint for how SCAQMD will achieve air quality standards and healthful air and the 2016 AQMP⁴ contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP includes control measure TXM-07: Control of Lead Emissions from Stationary Sources. Lead emissions are currently regulated by SCAQMD Rule 1420 – Emissions Standard for Lead, which was adopted in 1992.

On October 15, 2008, the U.S. Environmental Protection Agency (U.S. EPA) amended the primary (health-based) and secondary (welfare-based) National Ambient Air Quality Standard (NAAQS) for lead⁵ from 1.5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) averaged over a calendar quarter to 0.15 $\mu\text{g}/\text{m}^3$ averaged over a rolling 90 day period. The NAAQS is a national standard for lead which applies uniformly to all parts of the United States. Studies conducted identified lead as a probable carcinogen and showed that adverse health effects occurred at much lower levels than previously recognized, in particular for children. To update Rule 1420, address control measure TXM-07, and U.S. EPA's amended lead emission standards, SCAQMD staff is currently proposing amendments to Rule 1420 which will protect public health by reducing emissions and ambient air concentrations of lead from non-vehicular sources, reduce public health impacts by reducing the exposure to lead, and help maintain attainment of the NAAQS for lead.

PAR 1420 applies to metal melting or lead processing facilities, including, but not limited to primary or secondary lead smelters, foundries, lead acid battery manufacturers or recyclers, lead platers, and lead-oxide, brass, and bronze producers. Applicability is based on the greatest amount of lead processed at a facility in any one of five calendar years, where the lead content of the material processed is greater than 0.05 percent by weight. Based on SCAQMD staff analysis of compliance and permitting data, 107 facilities in the SCAQMD will be affected by proposed amended rule (PAR) 1420, with a majority of the facilities conducting lead soldering or tin/lead plating.

The following table identifies the industry sectors, as classified by the North American Industry Classification System (NAICS) code, and the types and number of respective facilities subject to PAR 1420:

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

² Health and Safety Code Section 40460(a).

³ Health and Safety Code Section 40440(a).

⁴ SCAQMD, 2016 Air Quality Management Plan. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf>

⁵ U.S. EPA, National Ambient Air Quality Standards (NAAQS) for Lead (Pb), October 18, 2016. <https://www.epa.gov/lead-air-pollution/national-ambient-air-quality-standards-naaqs-lead-pb>

Table 1-1: Type of Facilities and Affected Industry Subject to PAR 1420

NAICS Code	Facility Type	Number of Facilities
331314	Secondary Smelting and Alloying of Aluminum	1
331410	Non-Ferrous Metal (except Aluminum) Smelting and Refining	1
331511	Iron Foundries	2
331524	Aluminum Foundries (except Die-Casting)	4
331529	Other Non-Ferrous Metal Foundries (except (Die-Casting)	5
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	8
334413	Semiconductor and Related Device Manufacturing	1
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	70
334419	Other Electronic Component Manufacturing	9
336411	Aircraft Manufacturing	1
336413	Developing and Manufacturing of Prototypes for Aircraft Parts and Auxiliary Equipment	1
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	2
423500	Metal and Mineral Merchant Wholesalers	1
423930	Recyclable Material Merchant Wholesalers	1
Total		107

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA), California Public Resources Code Section 21000 *et seq.*, requires environmental impacts of proposed projects to be evaluated and feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects to be identified and implemented. The lead agency is the “public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment” (Public Resources Code Section 21067). Since PAR 1420 is a SCAQMD-proposed amended rule, the SCAQMD has the primary responsibility for supervising or approving the entire project as a whole and is the most appropriate public agency to act as lead agency (CEQA Guidelines⁶ Section 15051(b)).

CEQA requires that all potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented if feasible. The purpose of the CEQA process is to inform the lead agency, responsible agencies, decision makers and the general public of potential adverse environmental impacts that could result from implementing PAR 1420 (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 SCAQMD’s regulatory program was certified by the Secretary of Resources Agency on March 1, 1989, and

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

has been adopted as SCAQMD Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment.

PAR 1420 will reduce lead emissions from metal melting and lead processing facilities. Because PAR 1420 requires discretionary approval by a public agency, it is a “project” as defined by CEQA⁷. The proposed project will reduce lead emissions, reduce public health impacts by reducing exposure to lead, and will provide an overall environmental benefit to air quality. However, SCAQMD’s review of the proposed project also shows that implementation of PAR 1420 would not have secondary adverse effects on the environment either directly or indirectly because: 1) aesthetic impacts were determined to be less than significant as analyzed in Section I – Aesthetics; 2) the air quality and greenhouse gas (GHG) impacts were determined to be less than the significance thresholds as analyzed in Section III – Air Quality and Greenhouse Gases; 3) energy impacts were determined to be less than significant as analyzed in Section VI – Energy; 4) geological and soil impacts were determined to be less than significant as analyzed in VII – Geology and Soils; 5) the hazards and hazardous materials impacts were determined to be less than significant as analyzed in Section VIII – Hazards and Hazardous Materials; 6) the increased water usage and wastewater discharge was determined to be less than significant as analyzed in Section IX – Hydrology and Water Quality; 7) the noise impacts were determined to be less than significant as analyzed in Section XII – Noise; 8) public services such as fire protection and police protection were determined to be less than the significance thresholds as analyzed in Section XIV – Public Services; 9) solid and hazardous waste impacts were determined to be less than significant as analyzed in Section XVI – Solid and Hazardous Waste; and 10) transportation and traffic impacts were determined to be less than the significant as analyzed in Section XVII – Transportation and Traffic. Thus, the type of CEQA document appropriate for the proposed project is an Environmental Assessment (EA). The EA is a substitute CEQA document, prepared in lieu of a Negative Declaration with no significant impacts (CEQA Guidelines Section 15252), pursuant to the SCAQMD’s Certified Regulatory Program (CEQA Guidelines Section 15251(l); SCAQMD Rule 110). The EA is also a public disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental impacts of the proposed project; and, 2) be used as a tool by decision makers to facilitate decision making on the proposed project.

Thus, the SCAQMD, as lead agency for the proposed project, prepared a Draft EA pursuant to its Certified Regulatory Program. The Draft EA includes a project description in Chapter 1 and an Environmental Checklist in Chapter 2. The Environmental Checklist provides a standard tool to identify and evaluate a project’s adverse environmental impacts and the analysis concluded that no significant adverse impacts would be expected to occur if PAR 1420 is implemented. Because PAR 1420 will have no statewide, regional or areawide significance, no CEQA scoping meeting is required to be held for the proposed project pursuant to Public Resources Code Section 21083.9(a)(2). Further, pursuant to CEQA Guidelines Section 15252, since no significant adverse impacts were identified, no alternatives or mitigation measures are required.

The Draft EA is being released for a 30-day public review and comment period from September 19, 2017 to October 19, 2017. 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.

⁷ CEQA Guidelines Section 15378

Prior to making a decision on the adoption of PAR 1420, the SCAQMD Governing Board must review and certify the Final EA as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PAR 1420.

PROJECT LOCATION

PAR 1420 applies to any owner or operator of metal melting or lead processing facilities that process lead-containing materials, where the lead content of the material processed is greater than 0.05 percent by weight. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Basin) (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Basin, which is a subarea of SCAQMD's jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. It includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. A federal 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).

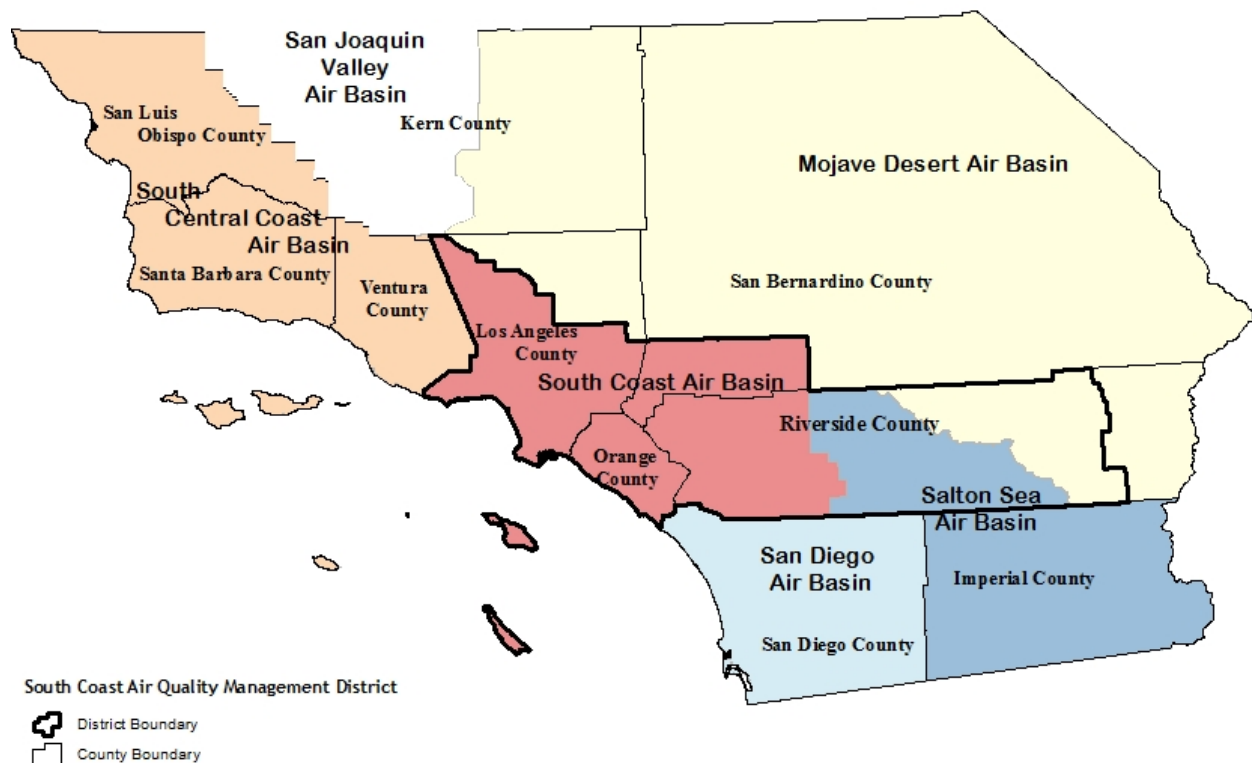


Figure 1-1
Southern California Air Basins

PROJECT BACKGROUND

Rule 1420 was adopted in September 1992 to reduce lead emissions from non-vehicular sources. At the time of the rule adoption, the California Air Resources Board (CARB), in 1970, set the state ambient air quality standard for lead at was $1.5 \mu\text{g}/\text{m}^3$ averaged over 30 days and the NAAQS for lead, in 1978, was $1.5 \mu\text{g}/\text{m}^3$ averaged over a calendar quarter. Since its adoption, many regulatory changes affecting sources of lead have occurred. For example, in January 1993, CARB adopted the Airborne Toxic Control Measure for Emissions of Toxic Metals from Non-Ferrous Metal Melting⁸, which requires control devices for lead and other toxic metal emission points, control efficiency requirements for control devices, fugitive emission controls, and recordkeeping requirements. The U.S. EPA has also adopted regulations for limiting lead emissions from lead smelters and lead battery manufacturing sources, including the National Emission Standards for Hazardous Air Pollutants (NESHAP) for secondary lead smelting⁹, in June 1997, which has since then been amended in January 2014¹⁰ and the NESHAP for lead battery manufacturing area sources¹¹, in July 2007. Both regulations focus on limiting lead emissions by establishing requirements for lead emission concentration limits, and requirements for testing, monitoring, recordkeeping, and reporting.

In 2008, the U.S. EPA reduced the NAAQS for lead to $0.15 \mu\text{g}/\text{m}^3$ averaged over 90 days. The NAAQS for lead was changed based on more than 6,000 new health studies that identified lead as a probable carcinogen, which showed that adverse health effects occurred at much lower levels than previously recognized, and also showed that children were found to be most vulnerable to lead exposure. In addition, on December 31, 2010, the U.S. EPA designated a portion of Los Angeles County as non-attainment for the 2008 NAAQS for lead, based on exceedances at two source-specific monitors located in Vernon and the City of Industry. These exceedances along with the revision of the NAAQS for lead resulted in committing to lowering the lead concentration limit to $0.150 \mu\text{g}/\text{m}^3$ and retaining a more stringent averaging period (e.g., a 30-day rolling average).

Rule 1420 applies to a broad category of lead emitting sources where the control requirements are generally the same; however, larger sources with the potential to emit greater lead emissions needed additional requirements. As a result, SCAQMD adopted Rule 1420.1 – Emission Standards for Lead and Other Toxic Air Contaminants at Large Lead-Acid Battery Recycling Facilities¹², and Rule 1420.2 – Emission Standard for Lead from Metal Melting Facilities¹³, on November 5, 2010 and October 2, 2015, respectively, to regulate major emitters of lead. Also, in 2012, the SCAQMD Governing Board adopted the Lead State Implementation Plan (SIP)¹⁴ which outlines the strategies and pollution control activities to demonstrate attainment of the NAAQS for lead. The 2012 Lead SIP committed to a control measure to amend Rule 1420 to ensure sources of lead will not exceed the 2008 NAAQS for lead. The control measure in the 2012 Lead SIP is

⁸ CARB, 1998-12-30 Non-Ferrous Metal Melting ATCM, January 14, 1993. <https://www.arb.ca.gov/toxics/atcm/metaatcm.htm>

⁹ U.S. EPA, NESHAP from Secondary Lead Smelting, June 13, 1997. <https://www.gpo.gov/fdsys/pkg/FR-1997-06-13/pdf/97-15570.pdf#page=1>

¹⁰ U.S. EPA, NESHAP from Secondary Lead Smelting, January 3, 2014. <https://www.gpo.gov/fdsys/pkg/FR-2014-01-03/pdf/2013-31267.pdf#page=1>

¹¹ U.S. EPA, NESHAP for Lead Acid Battery Manufacturing Area Sources, July 16, 2007. <https://www.gpo.gov/fdsys/pkg/FR-2007-07-16/pdf/E7-12018.pdf#page=1>

¹² SCAQMD, Rule 1420.1 – Emissions Standards for lead and other Toxic Air Contaminants at Large Lead-Acid Battery Recycling Facilities, September 4, 2015. <http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1420-1.pdf>

¹³ SCAQMD, Rule 1420.2 – Emissions Standards for Lead from Metal Melting Facilities, October 2, 2015. <http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/Rule-1420-2rev.pdf>

¹⁴ SCAQMD, 2012 Lead SIP for Los Angeles County, May 4, 2012. <http://www3.aqmd.gov/hb/attachments/2011-2015/2012May/2012-May4-030.pdf>

only required for implementing lead control requirements similar to those in SCAQMD Rule 1420.1. Combined, the adoption of Rules 1420.1 and 1420.2 addressed 15 of the largest lead sources in the SCAQMD; however, there are smaller sources that are subject to Rule 1420 that need to be addressed in order to meet the 2008 NAAQS for lead and fulfill the 2012 Lead SIP. Since there have been a number of regulations that have gone into effect further limiting lead emissions beyond what is required in Rule 1420, amendments are proposed to Rule 1420 to ensure the attainment and maintenance of the NAAQS, address the 2012 Lead SIP, reduce public health impacts and exposure to lead, and maintain consistency with existing SCAQMD Rules 1420.1 and 1420.2.

PROJECT DESCRIPTION

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities, by establishing requirements, which include compliance with ambient air lead concentration limits and requirements for point source controls, housekeeping, maintenance, and source testing. The proposed limits in PAR 1420 are based on the NAAQS for lead. In addition, PAR 1420 is also being updated to follow the same preventative approach and corresponding emission limits as contained in SCAQMD Rules 1420.1 and 1420.2. In particular, PAR 1420 will require an ambient air lead concentration of $0.150 \mu\text{g}/\text{m}^3$ averaged over any 30 consecutive days from the date of adoption of PAR 1420 through December 31, 2020 and an ambient lead concentration of $0.100 \mu\text{g}/\text{m}^3$ averaged over any 30 consecutive days on or after January 1, 2021. PAR 1420 has been crafted to be more health protective by minimizing the release of point source and fugitive lead emissions from lead processing facilities, thereby minimizing the accumulation of lead on soil surfaces and in soil dust.

PAR 1420 affects approximately 107 facilities, with a majority conducting lead soldering or tin/lead plating. Other affected facilities include lead smelters, foundries, smaller lead acid battery manufacturers and recyclers, lead oxide, brass, and bronze producers, and metal melting facilities. For the 92 that process less than two tons of lead per year, PAR 1420 would only require compliance with the conditional ambient monitoring limits and the housekeeping and recordkeeping provisions. If PAR 1420 is adopted, the remaining 15 facilities would be required to install total enclosures and anemometers, and conduct biennial source testing, annual rooftop cleaning, and quarterly smoke tests.

The purpose of PAR 1420 is to protect public health by reducing emissions and ambient air concentrations of lead from non-vehicular sources, reduce public health impacts by reducing the exposure to lead, and to ensure attainment and maintenance of the NAAQS for lead. While implementation of PAR 1420 would be expected to reduce public health impacts from point and fugitive emissions, SCAQMD staff is unable to quantify the emission reductions at each point source per affected facility because many point sources have not recently undergone source tests to verify emissions levels.

The following is a detailed summary of the key elements contained in PAR 1420. It is important to note that PAR 1420 has been reorganized and the following subdivisions have been fully deleted and replaced because they contain obsolete requirements: subdivisions (e) – Requirements; (j) – Reporting; and (f) – Compliance Plan have been removed. A draft of PAR 1420 can be found in Appendix A.

Purpose – subdivision (a)

The proposed changes to subdivision (a) will clarify that the purpose of the rule is to protect public health by reducing emissions and ambient air concentrations of lead from non-vehicular sources, reduce public health impacts by reducing the exposure to lead, and to ensure the attainment and maintenance of the NAAQS for lead.

Applicability – subdivision (b)

The proposed changes to subdivision (b) will clarify that the rule applies to any owner or operator of a metal melting facility or lead processing facility that processes lead containing materials, including, but not limited to, primary or secondary lead smelters, foundries, lead-acid battery manufacturers or recyclers, lead platers, and lead-oxide, brass, and bronze producers. The facility applicability will be based on the greatest amount of lead processed in any one of five calendar years prior to the date of adoption of PAR 1420 and any year thereafter, where the lead content of the material processed is greater than 0.05 percent by weight.

Facilities that process two tons or less of lead per year will be subject to fewer requirements in the rule. In addition, facilities subject to Rule 1420.1 or 1420.2 will not be subject to PAR 1420.

Definitions – subdivision (c)

The following new definitions are proposed to be added: Bag Leak Detection System; Capture Velocity; Duct Section; Dust Suppressants; Emission Control Device; Lead Point Source; Maintenance Activity; Metal; Metal Melting Facility; Slag; Smelting; Smelting Furnace; and Total Enclosure.

The following definitions are proposed to be revised to clarify the meaning of terms used throughout the rule: Emission Collection System; Fugitive Lead-Dust Emissions; and Lead-Processing Facility.

Additionally, the following definitions are proposed to be deleted: Dust Forming Material; Enclosed Storage Area; Molten Metal; Person; and Processes.

Ambient Air Lead Concentration Limit– subdivision (d)

The following changes to subdivision (d) are proposed:

Ambient Air Lead Concentration Limit: Paragraph (d)(1) will limit the ambient air concentrations of lead (in $\mu\text{g}/\text{m}^3$), averaged over 30 consecutive days. Effective upon the date of the rule adoption to December 31, 2020, the ambient air concentrations of lead will be limited to $0.150 \mu\text{g}/\text{m}^3$. On and after January 1, 2021, the ambient air concentrations of lead will be further limited to $0.100 \mu\text{g}/\text{m}^3$.

Exceedances: Paragraph (d)(2) will establish that an exceedance of an ambient air concentration limit for lead will constitute a violation of the rule. Any exceedances will be determined by the measurement by any monitor installed pursuant to subdivision (i) or by a SCAQMD-installed monitor.

Executive Officer Determination to Conduct Ambient Air Monitoring – subdivision (e)

New subdivision (e) will establish the following ambient air monitoring requirements for a facility subject to PAR 1420:

Notification by the Executive Officer: New paragraph (e)(1) will require the Executive Officer to notify the owner or operator that ambient air monitoring is required if either the ambient air lead concentration limit of $0.150 \mu\text{g}/\text{m}^3$ averaged over 30 consecutive days, or the lead point source emission limit based on two or more source tests over a rolling 36-month period, is exceeded.

Response to Receiving a Notification: New paragraph (e)(2) will allow the owner or operator to provide additional substantiating information within 30 days of the date of initial notification by the Executive Officer to demonstrate that the criteria for an exceedance has not been met.

Consideration by the Executive Officer: New paragraph (e)(3) will require the Executive Officer to consider the following prior to making a final determination in accordance with new paragraph (e)(4): additional information provided by the owner or operator, any emissions data, including, but not limited to ambient air lead data or source test data, any facility site visit(s), and any findings from an investigation of surrounding sites.

Final Determination: New paragraph (e)(4) will require the Executive Officer to provide written notification to the owner or operator of a final determination. If ambient lead monitoring is required, the owner or operator will be required to prepare and submit a Lead Ambient Air Monitoring and Sampling Plan (Plan) pursuant to subdivision (i) – Ambient Monitoring and Sampling Requirements, for review and approval by the Executive Officer within 120 days of the date of the final determination.

Lead Point Source Emissions Control – subdivision (f)

Lead point sources are defined as any process or equipment used at a metal melting facility or lead-processing facility. New subdivision (f) will establish the following requirements for lead point source emissions controls:

Compliance Schedule: Paragraph (f)(1) will require all lead point sources to be vented to a lead emission control device according to the following schedule:

- No later than May 1, 2018, if the lead point source is vented to an existing lead emissions control device: and
- No later than six months after a Permit to Construct for a lead emission control device is issued by the Executive Officer, if the lead point source is not vented to an existing lead emissions control device.

Control Efficiency or Outlet Mass Lead Emission Rate: Paragraph (f)(2) will require all lead point source emission controls to reduce lead emissions by a minimum of 99 percent or meet an outlet mass lead emission rate of less than 0.00030 pound per hour, upon review of District-approved source tests. Paragraph (f)(2) will also allow lead point sources with very low uncontrolled emissions to avoid having to install emission control devices provided that an emission rate of less than 0.00030 pound per hour can be demonstrated.

New paragraph (f)(3) will require any permit modification to the equipment or process vented to the lead control device, that may affect the amount of lead emissions, to undergo a new source test at the inlet and outlet of the lead emission control device to ensure compliance with paragraph (f)(1).

New paragraph (f)(4) will require the total facility mass lead emissions to be determined be based on the average of triplicate samples, using the most recently approved source tests conducted.

Maintenance: New paragraph (f)(5) will require each emission collection system and device to be approved, in writing, by the Executive Officer and, at a minimum, be inspected, maintained, and operated in accordance with manufacturer's specifications.

Total Enclosures – subdivision (g)

New subdivision (g) will establish the following requirements for total enclosures for facilities.

Minimizing Cross-Draft Conditions: A total enclosure is a permanent containment structure, completely enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g., precipitation, wind, or run-off), with limited openings to allow ingress and egress for people and vehicles, that is free of cracks, gaps, or deterioration that could cause or result in the escape of fugitive lead-dust. Paragraph (g)(1) will require the owner or operator of a lead-processing facility to conduct operations within a total enclosure that minimize cross-draft conditions, to provide maximum containment, and to minimize fugitive lead-dust emissions generated in areas where lead processing, handling or storage of lead-containing materials occur. Subparagraph (g)(1)(A) will establish acceptable methods available to minimize cross-draft conditions, including, but not limited to, closing openings, except when moving parts, people, vehicles, or equipment through the openings; using automatic roll-up doors; installing plastic strip curtains; or using vestibules. Equivalent or more effective alternative method(s) may be used to minimize cross-draft conditions. Any enclosure type will also be required to be designed in a manner that does not conflict with federal Occupational Safety Health Assessment (OSHA) or Cal-OSHA worker safety guidelines as proposed in paragraph (g)(2).

Completion Schedule of Total Enclosures: Subparagraph (g)(1)(B) will establish a completion schedule for any modification or construction made to complete the construction of a total enclosure. The completion schedule will depend on whether the owner or operator is processing lead in a building existing as of the date of adoption of PAR 1420 or if a new building had to be constructed. If an existing building needs to be modified to become a total enclosure, construction will need to be completed by May 3, 2018. If however, a new building has to be constructed, the required completion date will be no later than twelve months after the date of adoption of PAR 1420. In addition, the owner or operator will also be required to provide the Executive Officer with a written notice that a new total enclosure will be constructed within 60 days after the adoption of PAR 1420.

Maintenance and Repairs: Paragraph (g)(3) will establish requirements to inspect any total enclosure at least once per calendar month for breaks, cracks, gaps, or deterioration that could cause or result in fugitive lead-dust. In addition, paragraph (g)(4) will require the repair of any breaks, cracks, gaps, or deterioration that could result in fugitive lead-dust within 72 hours of discovery. In the event an extension is required, the Executive Officer may approve a request if the request is submitted before the 72-hour time limit has expired and the owner or operator

can provide information to substantiate that either the repair will take longer than 72 hours or the equipment, parts, or materials needed cannot be obtained within 72 hours.

Housekeeping Requirements – subdivision (h)

New subdivision (h) will establish the following housekeeping requirements to minimize fugitive lead-dust emissions. It is important to note that all of the housekeeping requirements, except the requirement to conduct annual rooftop cleanings of structures and the prohibition of dry sweeping and the prohibition of dry sweeping and use of compressed air to clean will go into effect within 30 days of after the adoption of PAR 1420. The timing of rooftop cleanings varies by circumstance and is described below in paragraph (h)(1). Paragraph (h)(2) specifies the prohibition for dry sweeping and use of compressed air to clean will be effective upon the date of adoption of PAR 1420.

Cleaning Requirements: Paragraph (h)(1) establishes cleaning requirements for facilities. Unless the facility has a total enclosure vented to a lead emission control device, the facility operator will be required to conduct cleaning by wet wash, wet mop, or with a vacuum in a manner that does not generate fugitive lead-dust according to the following frequencies:

- Facilities that process greater than 10 tons of lead per year are required to conduct rooftop cleanings at least once annually during the months of July through September.
- Weekly cleanings by wet wash, wet mop, vacuum, or stabilization with dust suppressant of all areas where lead-containing wastes generated from housekeeping activities are stored, disposed of, recovered, or recycled, and surfaces that accumulate lead-containing dust subject to foot or vehicular traffic.
- Initiate immediate cleaning, no later than one hour after any construction or maintenance activity or event, including, but not limited to accidents, process upsets, or equipment malfunction that causes deposition of fugitive lead-dust emissions onto areas specified in subparagraphs (h)(1)(A) and (h)(1)(B). If the facility can demonstrate that delays were due to unreasonable risks to safety posed by earlier cleaning or inability to reasonably obtain equipment required to implement this requirement, immediate cleanings of rooftops will be required to be completed within 72 hours.

Lead Emission Control Device: Paragraph (h)(3) will require quarterly cleaning of collection vents, ducting, and openings of each lead emission control device.

Weather Caps: Paragraph (h)(4) will require the removal of weather caps from any stack that is a source of lead emissions.

Storage and Transportation of Materials Capable of Generating Fugitive Lead-Dust or Lead Containing Trash/Debris: Paragraphs (h)(5), (h)(6), and (h)(8) establish the following requirements for the storage and transportation of fugitive lead-dust or lead-containing trash or debris.

- All materials capable of generating any amount of fugitive lead-dust will be required to be stored in sealed leak-proof containers or stabilized with a non-chemical dust suppressant approved in writing by the Executive Officer, unless located within a total enclosure.

- All materials capable of generating any amount of fugitive lead-dust will be required to be transported within closed conveyor systems or in sealed leak-proof containers, or stabilized using dust suppressants approved in writing by the Executive Officer, unless located within a total enclosure. The transportation of high temperature materials exceeding 500 degrees Fahrenheit where implementation of the specified control requirements is infeasible will not be applicable.
- Except when inside a total enclosure, all lead-containing trash and debris will be required to be placed in covered containers that remain covered at all times, except when trash or debris is actively transferred. Trash and debris containers will be required to be free of liquid or dust leaks.

Total Enclosures Cleaning: Paragraph (h)(7) will require wet washing, wet scrubbing, or vacuum sweeping to be conducted for any paved area located outside of a total enclosure that is subject to vehicular traffic, no later than one hour after any construction or maintenance activity or event, including accidents, process upsets, or equipment malfunction that results in the deposition of fugitive lead-dust, unless located within a total enclosure vented to a lead emission control device. Wet scrubbing is not required during days of measurable precipitation.

Signage: Paragraph (h)(9) will require signs to be posted at all entrances and truck loading and unloading areas indicating a speed limit of five miles per hour or less on any roadway located within 75 feet of the perimeter of a total enclosure.

Alternative Housekeeping: Paragraph (h)(10) will allow an alternative housekeeping measure to be used, provided the owner or operator demonstrates and receives written approval from the Executive Officer.

Ambient Monitoring and Sampling Requirements – subdivision (i)

New subdivision (i) will establish the following requirements to conduct ambient monitoring and sampling:

Lead Ambient Air Monitoring Sampling Plan: Paragraph (i)(1) will require the preparation of a Lead Ambient Air Monitoring Sampling Plan (Plan) to be submitted within 120 days of a final determination requiring ambient air monitoring to be conducted. The Plan shall contain the following information:

- Source test results of all lead point sources, conducted pursuant to subdivision (j).
- Map of the facility identifying the location of all lead emission sources, emission control devices, stacks, enclosures, openings of enclosures, storage of lead-containing materials, roadways where vehicles carrying lead-containing materials travel within the facility, vehicle egress and ingress locations, the property line of the facility, the fence line of the facility if it differs from the property line of the facility, and any areas within the property line of the facility that are publicly accessible; and
- Number and locations for sampling sites that meet the requirements of paragraph (i)(2).

The Executive Officer will be required to notify the owner or operator in writing of whether the Plan has been approved or disapproved. If the Plan is disapproved, the owner or operator will be required to resubmit the Plan within 30 calendar days after notification of the

disapproval of the Plan. The resubmitted Plan will need to include any information necessary to address the deficiencies identified in the disapproval letter. A facility will be in violation of the rule after a second successive denial of the Plan. If the resubmitted Plan is denied, an appeal may be submitted to the SCAQMD Hearing Board.

Installing Monitors and Sampling: Paragraphs (i)(2) and (i)(11) will require monitors to be installed and ambient air lead monitoring and sampling to be conducted within 90 days after approval of a Plan, meet in accordance with the following criteria and procedures:

- Samples must be collected from a minimum of two sites, as approved by the Executive Officer. The locations will be based on the maximum expected ground level lead concentrations, at or beyond the property line, as determined by the Executive Officer-approved air dispersion modeling calculations and emission estimates from all lead point sources and fugitive lead-dust sources, and other factors, including, but not limited to, population exposure and seasonal meteorology.
- One or more of the sampling sites may be at locations that are not based on maximum ground level lead concentrations and are instead at locations at or beyond the property line that are representative of upwind or background concentrations. Sampling sites at the property line may be located just inside the fence line on facility property if logistical constraints preclude placement outside the fence line at the point of maximum expected ground level lead concentrations.
- A facility may be required by the Executive Officer to relocate existing monitors or install additional monitors in order to measure ambient air lead concentrations at locations that may contribute to the exceedance of an ambient air lead concentration limit.
- Facilities will be required to report by the 15th of each month to the Executive Officer, the results of all ambient air lead and wind monitoring for each preceding month, or more frequently, if determined necessary by the Executive Officer. The report will be required to include the results of individual valid 24-hour samples and 30-day rolling averages for each day within the reporting period.

Subparagraph (i)(2)(E) will require existing monitors to be relocate or additional monitors to be installed in order to measure ambient air lead concentrations at locations that may contribute to the exceedance of an ambient air lead concentration, if information becomes available showing any of the following:

- A new or existing source of lead emissions that was not previously identified or full disclosed;
- An increase in lead emission from an existing source where existing monitors are not capturing the potential ambient air lead concentration; or
- That none of the existing monitors are capturing the maximum expected ground-level lead concentration.

24-hour Sampling: Paragraphs (i)(3), (i)(4), and (i)(8) will require all facilities to conduct ambient monitoring to collect one valid 24-hour, midnight-to-midnight sample at least once every six calendar days, on a schedule approved by the Executive Officer. If a 24-hour sample is not collected due to a monitor malfunction or other occurrence beyond the control of the facility, the owner or operator will be required to:

- Notify the SCAQMD (1-800-CUT-SMOG) within two hours and providing the facility name, name of the monitor, date of occurrence, and reason that the 24-hour sample was not collected; and
- Not miss a valid 24-hour sample for more than one day over a consecutive 30-day period for each of the monitors.

A valid 24-hour sample may be conducted on a different schedule, if it is demonstrated to and approved by the Executive Officer that the alternative schedule is adequate to routinely collect valid 24-hour samples and is conducted using the same sampling methods referenced in paragraph (i)(6). Approval may be temporarily suspended during days when the SCAQMD conducts concurrent sampling to verify monitor readings. The approval may also be permanently rescinded by the Executive Officer.

Submitting Samples: Paragraph (i)(5) will require collected samples to be submitted to an approved laboratory in accordance with the SCAQMD Laboratory Approval Program for analysis within three calendar days of collection and ambient lead concentrations to be calculated for individual valid 24-hour samples within 15 calendar days of the end of the calendar month in which the samples were collected. Split samples will be required to be made available and submitted to the SCAQMD upon request by the Executive Officer.

Sample Collection and Analysis: Paragraph (i)(6) establishes the following reference method requirements for sample collection and analysis:

- Sample collection for lead will be required to be conducted using *Title 40, Code of Federal Regulations (CFR) Part 50, Appendix B – Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method)*, or U.S. EPA-approved equivalent methods
- Sample analysis for lead will be required to be conducted using *Title 40 CFR Part 50, Appendix G – Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air*, or U.S. EPA - approved equivalent methods.

Additional Requirements: Paragraphs (i)(7), (i)(9), and (i)(10) establishes the following requirements for recording wind speed and direction, ambient air monitoring personnel and equipment, and cleaning activities when sampling is occurring:

- Wind speed and direction will be required to be continuously recorded at all times using equipment approved by the Executive Officer at a minimum of one location approved by the Executive Officer.
- Ambient air monitoring will be required to be conducted by trained and certified personnel. Sampling equipment will be required to be operated and maintained in accordance with U.S. EPA-approved equivalent methods.
- Cleaning activities that could result in damage or biases to samples collected will be required to not be conducted within 10 meters of any sampling site.

Exceedances: Paragraph (i)(12) will require a facility operator to notify the SCAQMD of any exceedance of the ambient air lead concentrations specified in subdivision (d) by calling 1-800-CUT-SMOG within 24 hours of receipt of the completed sample analysis followed by

submitting a written report to the Executive Officer no later than three calendar days after the telephone notification. The written report will need to include the potential causes of the exceedance and the specific corrective actions implemented.

Source Tests – subdivision (j)

New subdivision (j) will establish the following requirements for conducting source testing:

Source Testing Compliance Dates: Paragraphs (j)(1), (j)(2), and (j)(10) establish the following criteria and timing for when source tests need to be conducted:

- Effective upon the date of adoption of PAR 1420, the owner or operator will be required to conduct a source test once every 24 months after the initial source test to demonstrate the lead emission control device or a series of lead emission control devices will reduce lead emissions by a minimum of 99 percent or meet an outlet mass lead emission rate of less than 0.00030 pounds per hour. If the source test demonstrates a 99 percent or greater reduction of lead emissions and a stack outlet mass lead emission of less than 0.00015 pounds per hour, then the next source test will be required to be performed no later than 48 months after the most recent source test.
- A facility with an existing lead emission control device in operation before the date of adoption of PAR 1420 will be required to conduct a source test by February 3, 2018.
- A facility with a new or modified lead control device with initial start-up on or after the date of adoption of PAR 1420 will be required to conduct the initial source test within 60 calendar days after initial start-up.

Paragraph (j)(10) will allow a source test conducted on or after January 1, 2014 for lead emission control devices, that was performed prior to the date of adoption of PAR 1420, to be used as the initial source test to demonstrate compliance with the lead emission control standards in subdivision (f), provided that the following criteria is also met:

- No additional source test has been conducted since January 1, 2014;
- The source test demonstrates compliance with the emission control requirements in subdivision (f);
- The source test is representative of a method used to test emissions from control devices currently in use; and
- The source test was conducted using applicable and approved test methods.

Source Test Protocol: Paragraph (j)(3) will require a source test protocol to be submitted to the Executive Officer for approval at least 60 calendar days prior to conducting a source test. The source test protocol will need to include the source test criteria of the end user, all assumptions, required data, calculated targets for testing and all of the following:

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

Notifications and Reporting: Paragraphs (j)(4), (j)(5), and (j)(12) will require the owner or operator to submit notifications to the SCAQMD when conducting source testing and preparing and submitting source test reports, as follows:

- The owner or operator will need to notify the Executive Officer, in writing, of the intent to conduct source testing, one week prior to conducting any source test.
- The owner or operator will need to notify the Executive Officer within three business days (Monday through Friday) of when the facility is aware of or should have been aware of any source test result that exceeds any of the emission standards. Notifications will need to be made and followed up in writing with the results of the source tests within seven business days of notification to the Executive Officer.
- Source testing reports must be submitted to the SCAQMD within 90 days of completion of source testing.

Test Methods and Protocols: Paragraph (j)(6) will require source tests to be conducted while operating at a minimum of 80 percent of the equipment's permitted capacity by using the following applicable test methods:

- SCAQMD Method 12.1 – *Determination of Inorganic Lead Emissions from Stationary Sources Using a Wet Impingement Train;*
- CARB Method 12 – *Determination of Inorganic Lead Emissions from Stationary Sources;* or
- U.S. EPA Method 12 – *Determination of Inorganic Lead Emissions from Stationary Sources*

Paragraph (j)(7) will allow an alternative or equivalent source test method, as defined in the U.S. EPA 40 CFR 60.2, may be used if it is approved in writing by the Executive Officer, in addition to the CARB, or the U.S. EPA, as applicable.

Paragraph (j)(8) will require the owner or operator to use a test laboratory approved under the SCAQMD Laboratory Approval Program. If there is no approved laboratory, then approval of the testing procedures used by the laboratory will be granted by the Executive Officer on a case-by-case basis based on SCAQMD protocols and procedures.

Paragraph (j)(9) will specify that for any testing when more than one source test method or set of source test methods are specified, the application of these source test methods to a specific set of test conditions is subject to the approval by the Executive Officer and any violation established by any one of the test methods constitutes a violation of the rule.

Paragraph (j)(11) will require a source test to be performed according to the most recent SCAQMD-approved source test protocol.

Emission Control Device Monitoring– subdivision (k)

New subdivision (k) will establish parametric monitoring requirements to ensure the proper operation of all emission control devices. Operational parameters are generally expressed as range parametric measurements within which the emission control device functions best and reaches optimum efficiency. Parametric monitoring will need to be conducted as a supplement to conducting source testing in order to alert the operator if an issue with an emission control device occurs in between source testing dates.

Bag Leak Detection System: Paragraph (k)(1) will require the owner or operator to apply for a permit to install, operate, calibrate, and maintain a Bag Leak Detection System for baghouses subject to the requirements of SCAQMD Rule 1155 – Particulate Matter (PM) Control Devices¹⁵.

Monitoring Device: Paragraph (k)(2) will require a monitoring device to continuously measure the pressure drop across the filter of an emission control device with a mechanical gauge that is visible and in clear sight. The owner and operator will also be required to ensure that the monitoring device meets all of the following criteria:

- Is equipped with ports to allow for periodic calibration in accordance with manufacturer's specifications;
- Is calibrated according to manufacturer's specifications at least once every calendar year;
- Is equipped with a continuous data acquisition system (DAS) and record the data output from the monitoring device no less than once every 60 minutes;
- Generates a data file each calendar day, including a table of chronological date and time and the corresponding data output value from the monitoring device in inches of water column. A separate file will be required to be prepared showing the 4-hour average pressure readings each calendar day. The files will be saved in Microsoft Excel format or any other format as approved by the Executive Officer; and
- Is maintained in accordance to manufacturer's specifications.

Paragraph (k)(3) will require a source test to be conducted if the pressure across the filter is not maintained either within the range specified by the manufacturer or according to the conditions of the Permit to Operate for the emission control device as determined by hourly or more frequent recordings by the DAS for the averaging periods of a 4-hour time period on three or more separate days over 60 continuous days; or any consecutive 24-hour period.

Capture Velocity: Paragraph (k)(4) will require the emission collection system associated with the lead emission control device to be at a minimum collection induced capture velocity specified in the most current edition of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists, at the time a permit application is deemed complete with the SCAQMD.

Periodic Smoke Testing: Paragraph (k)(5) will require a quarterly smoke test to be conducted after source testing each emission collection system using the procedures set forth in Appendix 1 of PAR 1420.

Anemometer: Paragraph (k)(6) will require the installation of a calibrate hot wire anemometer to monthly measure the capture velocity of each emission collection system. An emission collection system with a hood or enclosure will need to maintain a capture velocity of at least 200 feet per minute at the face of the enclosure. An emission collection system without an enclosing hood that is designed with collection slots will be required to maintain a capture velocity of at least 2,000 feet per minute, or the minimum slot velocity if the most recent source test verifies 100 percent collection efficiency, whichever is greater.

¹⁵ SCAQMD, Rule 1155 – Particulate Matter Control Devices, May 2, 2014.
<http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1155.pdf>

Recordkeeping – subdivision (l)

Subdivision (l) contains the following proposed revisions to recordkeeping requirements for lead processing facilities:

Paragraph (l)(1) will require the owner or operator to keep records of data related to lead-containing raw materials used at the facility, including quantities processed monthly and the lead content of these raw materials, purchase records, results of analyses, source test data and other SCAQMD-approved verification to indicate amounts of lead containing materials processed.

New paragraph (l)(2) will require monthly records which identify the weight of metal waste collected by the baghouse catch, including, if applicable, any metal analyses for bulk samples of baghouse catches conduction to subdivision (b).

Paragraph (l)(3) will require monthly records which identify the results of all ambient air lead monitoring, wind monitoring, and other data specified in subdivision (i).

Paragraph (l)(4) will require the following records to be maintained:

- Inspections, maintenance, and repairs of total enclosures pursuant to paragraphs (g)(3) and (g)(4);
- Housekeeping activities completed as required by paragraphs (h)(1), (h)(3), and (h)(7);
- Source test data as required by subdivision (j) or paragraph (k)(3);
- Data files, inspection, and maintenance of emission collection devices as required by subdivision (k), including the name of the person conducting the activity and the dates and times at which specific activities were completed;
- Smoke test results as required by paragraph (k)(5); and
- Hot wire anemometer data collected, including capture velocities, dates of measurement and calibration documentation as required by paragraph (k)(6).

New paragraph (l)(5) will require records to be maintained for three years, with at least the two most recent years to be kept onsite and made available to SCAQMD personnel upon request.

Exemptions – subdivision (m)

Subdivision (m) will be revised to allow an owner or operator of a lead processing facility to be exempt from the ambient monitoring requirements set forth in subdivision (i), provided that the ambient air lead concentration level can be demonstrated to be less than or equal to $0.07 \mu\text{g}/\text{m}^3$, (averaged over 30 consecutive days for 12 rolling months during normal facility conditions), subsequent to the Executive Officer's approval of an Air Monitoring Relief Plan. The Air Monitoring Relief Plan will need to contain all of the following:

- Air dispersion modeling analysis demonstrating an ambient air lead concentration less than or equal to $0.07 \mu\text{g}/\text{m}^3$ (30 consecutive days for 12 rolling months during normal facility conditions);
- One year of ambient air lead monitoring data without a single 30 consecutive day average exceeding $0.07 \mu\text{g}/\text{m}^3$;
- Most recent SCAQMD approved source tests demonstrating a mass emission rate of less than 0.00030 pound per hour at each lead point source emission control device;

- Most recent SCAQMD approved source tests demonstrating a total facility mass lead emission rate from all point sources of less than 0.00030 pound per hour.

CHAPTER 2

ENVIRONMENTAL CHECKLIST

Introduction

General Information

Environmental Factors Potentially Affected

Determination

Environmental Checklist and Discussion

INTRODUCTION

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

GENERAL INFORMATION

Project Title:	Draft Environmental Assessment for Proposed Amended Rule 1420 – Emissions Standard for Lead
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Ms. Diana Thai, (909) 396-3443
PAR 1420 Contact Person	Mr. Kennard Ellis, (909) 396-2457
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	PAR 1420 has been developed to reduce public health impacts from point and fugitive lead emissions from metal melting or lead processing facilities by reducing the exposure to lead, and to ensure and maintain attainment of the NAAQS for lead within the South Coast Air Basin. PAR 1420 proposes an initial ambient air lead concentration limit of $0.150\mu\text{g}/\text{m}^3$ averaged over any consecutive 30 days which will be lowered to a final limit of $0.100\mu\text{g}/\text{m}^3$ by January 1, 2021. PAR 1420 also proposes requirements for point source lead emission controls, along with periodic source testing, capture efficiency testing, conditional ambient air monitoring, and reporting and recordkeeping requirements to ensure continuous compliance. Fugitive lead emissions will be addressed through housekeeping and maintenance activity requirements and total enclosures of areas where lead processing operations and associated processes are being conducted. Any facility that exceeds the limits in PAR 1420 will be subject to additional mitigation requirements. Some sites affected by PAR 1420 may be identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5. The analysis of PAR 1420 in the Draft EA did not result in the identification of any environmental topic areas that would be significantly adversely affected.

Surrounding Land Uses and Various
Setting:

Other Public Agencies Not applicable
Whose Approval is
Required:

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Population and Housing |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Air Quality and Greenhouse Gas Emissions | <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Solid and Hazardous Waste |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Transportation and Traffic |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Noise | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

On the basis of this initial evaluation:

- ☒ I find the proposed project, in accordance with those findings made pursuant to CEQA Guidelines Section 15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.
- ☐ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.
- ☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and, 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: 1) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards; and, 2) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: September 15, 2017

Signature:



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

ENVIRONMENTAL CHECKLIST AND DISCUSSION

Rule 1420 applies to metal melting or lead processing facilities, including, but not limited to primary or secondary lead smelters, foundries, lead acid battery manufacturers or recyclers, lead platers, and lead-oxide, brass, and bronze producers. Applicability is based on the greatest amount of lead processed at a facility in any one of five calendar years, prior to the date of adoption of PAR 1420 and any year thereafter, where the lead content of the material processed is greater than 0.05 percent by weight. As discussed in Chapter 1, the main focus of PAR 1420 is to reduce public health impacts from point and fugitive lead emissions, by reducing the exposure to lead, and to ensure and maintain attainment of the NAAQS for lead within SCAQMD's jurisdiction. To accomplish this goal, PAR 1420 proposes requirements for point source lead emission control devices and to lower the ambient lead concentration limit to $0.150 \mu\text{g}/\text{m}^3$ and even further to $0.100 \mu\text{g}/\text{m}^3$ after January 1, 2021, averaged over 30 consecutive days. PAR 1420 also contains new requirements for periodic source testing, capture efficiency testing, conditional ambient air monitoring, and reporting and recordkeeping to ensure continuous compliance. Implementing PAR 1420 would be expected to result in some facilities making building improvements to meet the total enclosure requirement and the activities associated with making these physical changes may also create secondary adverse environmental impacts. Similarly, activities associated with conducting source tests and smoke tests, and implementing housekeeping and maintenance requirements may also create secondary adverse environmental impacts.

While there are other requirements in PAR 1420 that are necessary to support compliance with the rule, the following components of PAR 1420 are administrative or procedural in nature and as such, would not be expected to cause any physical changes: revising, adding, or deleting definitions; clarifying applicability; adding test methods; conducting monitoring of the emission collection system; recordkeeping; posting signage; applying for permit applications; and preparing and submitting source testing protocols. As such, these components of PAR 1420 would not be expected to create any secondary adverse environmental impacts.

For these reasons, the analysis in this EA focuses on the potential secondary adverse environmental impacts associated with constructing total enclosures, conducting source tests and smoke tests, and implementing housekeeping and maintenance requirements. The effects of implementing these key rule components in PAR 1420 have been evaluated relative to the environmental topics identified in the following environmental checklist (e.g., aesthetics, agriculture and forestry resources, biological resources, etc.). To evaluate these impacts, the following assumptions were relied upon in the foregoing analyses.

Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420:

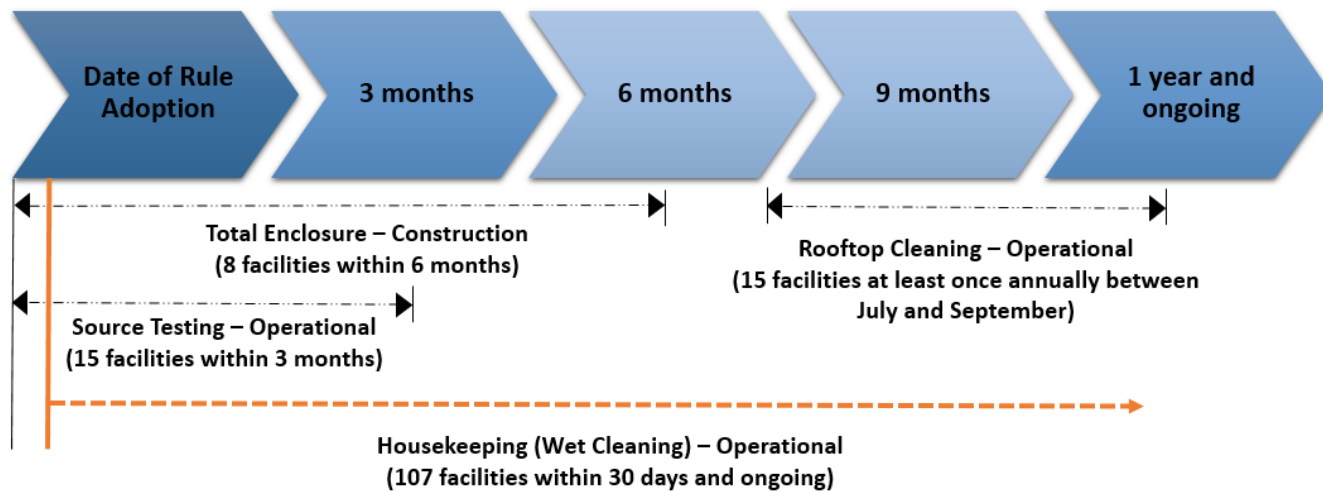
- Fifteen facilities are assumed to be subject to all of the requirements that would require physical changes (e.g., constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements). Constructing total enclosures are treated as construction impacts while conducting source tests and smoke tests, and implementing housekeeping and maintenance requirements are considered operational impacts.
- Eight of the 15 facilities do not currently have a total enclosure in place. As such, each facility is assumed to need to construct one wall of an existing building to meet the requirements for building a total enclosure. Because these facilities are required to comply with the total enclosure requirement within six months after the date of adoption of PAR

1420 (May 3, 2018), construction of the total enclosures is expected to occur during this six-month period.

- Ten of the 15 facilities currently conduct lead or metal grinding operations inside a building that may not necessarily qualify as a total enclosure. To comply with PAR 1420, the grinding operations would also need to occur either inside a building that already qualifies as a total enclosure (seven of the 15 facilities), in a building that needs to be modified to qualify as a total enclosure (eight of the 15 facilities), or within a smaller enclosure or room located within an existing or to be modified total enclosure. The enclosure that would be needed to house each grinding operation would have a relatively small footprint (e.g., approximately 100 square feet) relative to the construction that would be required to build a total enclosures. For this reason, the construction impacts associated with building a total enclosure includes the impacts that may occur from also building smaller enclosures to accommodate the grinding operations.
- All 107 facilities have existing emission control devices (baghouses); thus, no additional emission control devices would be required to be installed because of PAR 1420. Of these 107 facilities, 15 facilities are required to meet the initial source testing requirements no later than three months after the date of adoption of PAR 1420 (February 3, 2018). All baghouses will be subject to periodic source testing requirements because of PAR 1420. Implementing source testing requirements will have associated worker trips to visit each facility to conduct the source tests and these activities are considered operational impacts.
- Ninety-two facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping and recordkeeping requirements in PAR 1420. Implementing housekeeping and recordkeeping activities are considered operational impacts. The 92 facilities are under two tons per year and are not required to vent point sources to emission control devices.
- The housekeeping activities, which apply to all 107 facilities, could require the use of some water to conduct periodic cleaning. Housekeeping requirements would begin no later than 30 days after the date of adoption of PAR 1420. Fifteen facilities will be subject to an additional housekeeping requirement of rooftop cleaning. The rooftop cleaning will occur at least one time per year during the months of July through September.
- Any facility that exceeds the limits in PAR 1420 will be subject to additional monitoring requirements. Although it is not expected, if a facility exceeds the limits in PAR 1420, it is required to install monitors and conduct ambient air lead sampling. The installation of the monitors will have associated vehicle equipment to complete the installation and these activities are considered construction impacts. Implementing sampling requirements will have associated worker trips to visit each facility to collect the samples and these activities are considered operational impacts. It is not anticipated that any facility will exceed the limits in PAR 1420; thus, impacts from conditional ambient air monitoring was not included.
- No additional employees are expected to be hired as a result of PAR 1420.

Figure 2-1 summarizes the implementation dates of PAR 1420 requirements, the type of impact (construction or operational), and the number of affected facilities.

Figure 2-1
Timeline of Implementation of PAR 1420 Requirements and Number of Affected Facilities



	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need to undergo periodic source testing to demonstrate that the emission control devices meet the minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

I. a), b), & c) No Impact. To reduce fugitive lead emissions from affected facilities, eight facilities would need to complete the construction of total enclosures. Construction will require

the use of heavy-duty construction equipment such as forklifts, tractors/loaders/backhoes, and cement mixers. The construction equipment is expected to be low in height and not substantially visible to the surrounding area due to construction occurring within existing facility's property line, existing fencing along property lines, and existing structures currently within the facilities that may buffer the views of the construction activities.

Since the affected facilities are located at existing industrial areas, the construction equipment is not expected to be substantially discernable from what exists on-site for routine operations and maintenance activities. Further, the construction activities are not expected to adversely impact views and aesthetics resources since most of the 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 the facility. In addition, the construction activities are expected to be temporary in nature and will cease following the completion of the total enclosure. Once construction is completed, all construction equipment will be removed from each facility. Construction is expected to be completed within six months after the date of rule adoption of PAR 1420. The construction of total enclosures would be expected to reduce lead emissions and minimize cross-draft conditions, thus reducing visible emissions at facilities.

PAR 1420 also contains requirements for housekeeping and maintenance activities and source testing. These activities would be low-profile and limited to each facility's property and would be expected to blend in with regular day-to-day activities. Thus, they would not be expected to affect any scenic vistas. Any potential construction would not be expected to damage or obstruct scenic resources or degrade the existing visual character of a site of any site in the vicinity of affected facilities.

I. d) Less Than Significant Impact. PAR 1420 does not include any components that would require construction activities 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 of the proposed project 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. Further, while the proposed project has no provisions that would require affected equipment to operate at night, some facilities currently operate multiple shifts and existing lighting is utilized during the nighttime shifts. Additional permanent light sources may be installed on each new wall constructed, to provide illumination for operations personnel at night, in accordance with applicable safety standards. However, any new lighting that may be installed will be consistent in intensity and type with existing lighting on the existing buildings and other structures within each affected facility. Further, any additional lighting, if installed will be placed in a manner to provide lighting within the facility and would not be expected to create substantial light or glare off of each facility's property. For these reasons, the proposed project would not create a new source of substantial light or glare at any of the affected facilities in a manner that would adversely affect day or nighttime views in the surrounding areas.

Conclusion

Based upon these considerations, significant adverse aesthetics impacts are not expected from implementing PAR 1420. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

II. a), b), c), & d) No Impact. The affected facilities and their immediately surrounding areas are not located on or near areas zoned for agricultural use, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency. Therefore, the proposed project would not result in any construction of new buildings or other structures that would require converting farmland to non-agricultural use or conflict with zoning for agriculture use or a Williamson Act contract. The construction and operation activities would be expected to occur within the confines of existing industrial facilities, thus the proposed project is not expected to result in converting farmland to non-agricultural use; conflict with existing zoning for agricultural use, or a Williamson Act Control.

All of the facilities are located in industrial use areas in the urban portion of the Basin that is not near forest land. Therefore, the proposed project is not expected to conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)) or result in the loss of forest land or conversion of forest land to non-forest use. Consequently, the proposed project would not create any significant adverse agriculture or forestry impacts.

Conclusion

Based upon these considerations, significant adverse agriculture and forestry resources impacts are not expected from implementing PAR 1420. Since no significant agriculture and forestry resources impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

To determine whether or not air quality and greenhouse gas impacts from implementing PAR 1420 are significant, impacts will be evaluated and compared to the criteria in Table 2-1. PAR 1420 will be considered to have significant adverse impacts if any one of the thresholds in Table 2-1 are equaled or exceeded.

Table 2-1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds ^a		
Pollutant	Construction ^b	Operation ^c
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO ₂ eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants ^d		
NO ₂ 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM ₁₀ 24-hour average annual average	10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation) 1.0 µg/m ³	
PM _{2.5} 24-hour average	10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation)	
SO ₂ 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99 th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 µg/m ³ (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average	1.5 µg/m ³ (state) 0.15 µg/m ³ (federal)	

^a Source: SCAQMD CEQA Handbook (SCAQMD, 1993)

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

^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

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

^e Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million $\mu\text{g}/\text{m}^3$ = microgram per cubic meter \geq = greater than or equal to
MT/yr CO₂eq = metric tons per year of CO₂ equivalents $>$ = greater than

Revision: March 2015

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

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

The most recent regional blueprint for how the SCAQMD will achieve air quality standards and healthful air is outlined in the 2016 AQMP¹⁶ which contains multiple goals of promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP contains control measure TXM-07: Control of Lead Emissions from Stationary Sources, which will reduce lead emissions through the implementation of PAR 1420.

Compliance with PAR 1420 is expected to occur through the reduction of ambient lead concentration combined with increased housekeeping requirements and best management practices. Conditional ambient air monitoring requirements are also included. Facilities affected by PAR 1420 will need to employ total enclosures at 15 facilities by adding one wall, implement housekeeping and maintenance requirements, and conduct source testing. Eight of the 15 facilities will need to construct one wall to meet the total enclosure requirements. No additional emission control devices are expected to be constructed. Existing facilities have emission control devices and will be subject to source testing requirements to demonstrate compliance with control efficiency requirements or mass outlet lead emissions.

For these reasons, PAR 1420 is not expected to obstruct or conflict with the implementation of the 2016 AQMP because the emission reductions from implementing PAR 1420 are in accordance

¹⁶ SCAQMD, Final 2016 Air Quality Management Plan, March, 2017. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf>

with the emission reduction goals in the 2016 AQMP. PAR 1420 would reduce lead emissions and therefore, be consistent with the goals of the 2016 AQMP. Therefore, implementing PAR 1420 to reduce lead emissions from metal melting and lead processing facilities would not conflict with or obstruct implementation of the applicable air quality plans. Upon implementation, PAR 1420 would be expected to be more health protective because the ambient air lead concentration limit is more stringent than the NAAQS for lead. Since no significant impacts were identified for this issue, no mitigation measures are necessary or required.

III. b) and f) Less Than Significant Impact.

While PAR 1420 is designed to reduce lead emissions, secondary air quality impacts are expected from its implementation due to physical activities that may need to occur. For example, the requirements in PAR 1420 to employ total enclosures would be expected to result in construction impacts from building/installing one new wall at eight facilities. Further, secondary air quality impacts are also expected to occur as a result of facilities conducting source testing and implementing housekeeping and maintenance requirements, such as wet cleaning or vacuuming.

Table 2-2 summarizes the key requirements in PAR 1420 that may result in secondary adverse air quality and greenhouse gas (GHG) impacts during construction and operation.

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

Key Requirements in PAR 1420	Physical Actions Anticipated During:	
	Construction	Operation
Total Enclosures	Construct building improvements to assure compliance with total enclosure requirements	None needed
Point Source Emission Controls	No new emissions control devices are required	<ol style="list-style-type: none"> 1. More frequent filter replacement increasing the amount of filter waste to be disposed of 2. Increased amounts of PM waste disposal and/or recycling
Housekeeping Requirements	<ol style="list-style-type: none"> 1. Vehicle trips due to hauling waste and delivering supplies 2. Cleaning equipment 	<ol style="list-style-type: none"> 1. Vehicle trips due to hauling waste and delivering supplies 2. Cleaning equipment
Source Testing	None needed	Vehicle trips due to periodic source testing

For the purpose of conducting a worst-case CEQA analysis for the lead processing and metal melting facilities that will be subject to PAR 1420, the following assumptions have been made:

- Eight of the 15 facilities do not currently have a total enclosure in place. As such, each facility is assumed to need to construct one wall of an existing building to meet the requirements for building a total enclosure. Because these facilities are required to comply with the total enclosure requirement within six months after the date of adoption of PAR 1420 (May 3, 2018), construction of the total enclosures is expected to occur during this six-month period.
- Ten of the 15 facilities currently conduct lead or metal grinding operations inside a building that may not necessarily qualify as a total enclosure. To comply with PAR 1420, the grinding operations would also need to occur either inside a building that already qualifies as a total enclosure (seven of the 15 facilities), in a building that needs to be modified to qualify as a total enclosure (eight of the 15 facilities), or within a smaller enclosure or room located within an existing or to be modified total enclosure. The enclosure that would be needed to house each grinding operation would have a relatively small footprint (e.g., approximately 100 square feet) relative to the construction that would be required to build a total enclosures. For this reason, the construction impacts associated with building a total enclosure includes the impacts that may occur from also building smaller enclosures to accommodate the grinding operations.
- It is assumed that not all eight facilities would make building improvements to complete the total enclosure on the same day, since there is a six-month period to complete construction. It is expected the construction between facilities would be staggered during the six months. Thus, as a worst case scenario it was assumed 50 percent of facilities (four) would construct one wall in one day.
- All 107 facilities have existing emission control devices (e.g., baghouses); thus no additional emission control devices would be required to be installed because of PAR 1420.

Construction Impacts

Compliance with PAR 1420 for affected facilities is expected to be met by building improvements to complete total enclosures. Each facility is assumed to need to construct one wall of an existing building to meet the requirements for building a total enclosure.

In addition, criteria pollutant emissions were also calculated for all on-road vehicles transporting workers, vendors, and material removal and delivery during construction using the California Emissions Estimator Model¹⁷® version 2016.3.2 (CalEEMod). The detailed output reports for the CalEEMod runs are included in Appendix B. Table 2-3 presents the results of the construction air quality analysis. Appendix B also contains the spreadsheets with the results and assumptions used for this analysis.

The construction impact analysis assumes that construction will take one to two days to complete the construction of one wall at an existing building to attain a total enclosure. Given the affected

¹⁷ CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects.

facilities would only need to make minor building improvements (one additional wall) complete a total enclosure and the six-month timeframe for all affected facilities to comply with the requirements in PAR 1420, it is conservatively assumed that the construction phase for some facilities would overlap and result in construction occurring at as many 50 percent of facilities on a peak day. It is unlikely four facilities would not construct on the same day and instead stagger their construction over the six-month period.

Table 2-3 summarizes the peak daily emissions associated with construction at all affected facilities. The air quality impacts due to construction do not exceed any significance threshold, thus the impact is expected to be less than significant.

Table 2-3
Peak Daily Construction Emissions^d

Peak Daily Construction Emissions by Pollutant (lb/day)						
Building Improvement for Total Enclosures ^{a,b,c}	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	4.30	31.01	24.74	0.04	2.27	2.11
Significance Threshold for Construction	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Notes:

- All of the construction activities would be expected to be completed within six months after date of rule adoption of PAR 1420.
- Fifteen facilities are subject to the total enclosure requirement; however, only eight facilities currently do not have a total enclosure in place. These facilities are assumed to only need building improvements, which include the construction of one wall of an existing building to complete the total enclosure requirement.
- Ten of the 15 facilities currently conduct lead or metal grinding operations inside a building that may not necessarily qualify as a total enclosure. These grinding operations would need to occur inside a building that already qualifies as a total enclosure or a building that needs to be modified as a total enclosure. Regardless, these grinding operations are of a relatively small footprint (e.g. approximately 100 square feet) relative to the construction that would be required to build a total enclosure. For this reason, the construction impacts associated with building a total enclosure includes the impacts that may occur from also building smaller enclosures to house the grinding operations.
- Additional details and calculations can be found in Appendix B.

Operational Impacts

Secondary air quality operational impacts are expected to occur from the following activities that may be implemented to comply with PAR 1420: maintenance of the existing emission control devices; housekeeping; and conducting source tests and smoke tests. Facility operators currently maintain their existing emission control devices (e.g., baghouses) by sending the collected lead and the spent filters, which are considered hazardous waste, to a certified landfill or recycling facility for proper disposal or recycling. Since PAR 1420 lowers the lead emission standards, facility operators will be expected to collect more lead for disposal and increase the frequency for replacing the spent filters. To account for the expected increased maintenance and inspection of the emission control devices and the anticipated increases in filter replacement frequency and the

amount of collected waste and spent filters to be disposed of, the analysis assumes that two additional vehicles per facility on a peak day may be needed. The associated vehicle emissions are considered a secondary operational air quality impacts.

Housekeeping requirements in PAR 1420 are applicable to all 107 facilities. Housekeeping may be accomplished by utilizing wet vacuuming, wet mopping or HEPA vacuuming. If wet vacuuming or wet mopping are employed, wastewater will be generated and it will either need to be collected and treated on-site for facilities that already have this capability, or collect and stored to be picked up by a waste disposal truck if no wastewater treatment and disposal system exists. If HEPA vacuuming is employed, spent HEPA filters will need to be collected and sent to a certified landfill for proper disposal as hazardous waste. While implementation of housekeeping requirements in PAR 1420 would result in the collection of additional waste, each facility would be expected to continue their existing practices for handling waste. For this reason, no additional vehicle trips to handle the collection and disposal of additional waste on a peak day would be expected.

In addition, there are 15 facilities that will be subject to an additional housekeeping requirement to conduct rooftop cleaning at least once per year during the months of July through September. In order to safely access rooftops, aerial lifts are assumed to be necessary equipment for conducting rooftop cleaning.

PAR 1420 requires all emission control devices to be source tested. Of the 107 facilities, 15 have existing emission control devices. Facility owners/operators will be required to meet the initial source testing requirements no later than three months after the date of adoption of PAR 1420 (February 3, 2018). PAR 1420 also requires all baghouses to be subject to periodic source testing requirements. This analysis assumes that implementation of these source testing requirements will require additional vehicle trips to/from each of the 15 facilities on the day that source testing occurs.

Total operational emissions were estimated using CARB's OFFROAD 2011 for the off-road equipment (aerial lift) for the annual rooftop cleaning (housekeeping) requirement and EMFAC2014¹⁸ for the mobile sources (source testing trucks, waste disposal trucks and filter replacement and inspection trucks), for conducting source tests and smoke tests, and employing other housekeeping requirements.

To conduct a worst-case analysis, each facility has been assumed to utilize the following vehicles and off-road equipment on a peak day: one aerial lift, one source testing truck, one waste/wastewater disposal truck, one filter replacement truck, and one filter inspection truck. If all the affected facilities complete their requirements on the same day: 122 medium duty trucks, 15 aerial lifts, and 30 light duty trucks would be used on a peak day. Since PAR 1420 does not require additional emission control devices or negative air conditions in the total enclosures, no changes to additional indirect criteria pollutant and GHG emissions are expected from the generation of electricity needed to operate existing air pollution control equipment.

Table 2-4 summarizes the peak daily emissions associated with operation. Additional details of the assumptions and spreadsheets can be found in Appendix B. Since the total emissions from

¹⁸ CARB, EMFAC2014 Web Database. <https://www.arb.ca.gov/emfac/2014/>

operational activities do not exceed any operational air quality significance thresholds, less than significant air quality impacts are expected during operation.

Table 2-4
Peak Daily Operational Emissions^{d, e}

Peak Daily Operational Emissions by Pollutant (lb/day)						
Key Requirements:	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Point Source Emission Controls ^a	0.39	1.96	3.02	0.03	2.43	0.84
Housekeeping ^b	4.14	22.01	14.02	0.05	3.45	1.93
Source Testing ^c	0.27	1.55	1.56	0.01	0.47	0.27
Total Operational Emissions	4.80	25.52	18.60	0.09	6.35	3.04
Significance Threshold for Operation	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Notes:

- The occasional delivery, recycling and disposal of filters for emission control devices (baghouses) and source testing trips are expected to generate mobile source emissions.
- All facilities would be required to meet housekeeping requirements (107 facilities), with another 15 facilities required to do additional annual rooftop cleaning at least once between July through September.
- No additional emission control devices would be installed. Source testing would only be conducted on existing emission control devices and is assumed to be performed within three months after the date of adoption of PAR 1420 (February 3, 2018).
- No negative air conditions are required by PAR 1420.
- Additional details and calculations can be found in Appendix B.

Construction and Operation Overlap Impact

With 107 affected facilities and the varying requirements for these facilities to comply with PAR 1420 requirements, there is a possibility that construction activities occurring at some facilities will overlap with operational activities at other facilities. As previously illustrated in Figure 2-1, the source testing of existing emission control devices would need to be completed within three months of the date of adoption of PAR 1420; while housekeeping requirements occurring throughout the year and would need to be first implemented within 30 days after the date of adoption of PAR 1420. In addition, building improvements to complete the construction of total enclosures would need to be completed within the six months of the date of adoption of PAR 1420. Thus, the largest overlap would be expected to occur sometime in the first three months when: 1) building improvements to complete eight total enclosures; 2) source testing of the 15 existing emission control devices; 3) maintenance of existing emission control devices (filter change out/inspection); and, 4) disposal of wastewater resulting from water-based housekeeping requirements. In addition, the larger lead processing facilities (greater than 10 tons per year) are required to conduct rooftop cleaning at least one time per year during the months of July through September. Facilities could conduct rooftop cleaning more often; however PAR 1420 requirements for rooftop cleaning would not be triggered until July or September. However, as a conservative estimate the rooftop cleaning was included and assumed to occur on a peak day.

During this overlap period of Month 1 through Month 3 following the adoption of PAR 1420, the analysis assumes that half of the affected facilities will construct walls to build total enclosures and half of the affected facilities will conduct the aforementioned operational activities, because it

is unlikely that each of the eight facilities requiring total enclosure would compete the construction of all eight walls on the same day within a six-month period. Further, the 15 facilities with existing emission control devices are required to submit a source test protocol for approval before conducting source testing. Facilities would also need to temporarily halt operations to allow source testing set up to take place and thus, it is unlikely all the affected facilities would have a similar operation schedule and temporarily halt operations at the same time to be source tested on the same day. For these reasons, source testing would likely be staggered.

In order to conduct housekeeping that requires rooftop cleaning with an aerial lift, advance arrangements would need to be made to bring the aerial lift to a facility. Since rooftop cleaning is required to occur anytime between the months of July through September, it is unlikely that all 15 affected facilities would arrange to have 15 aerial lifts to be delivered on the same day.

All the facilities are required to conduct general housekeeping requirements, and if wet vacuuming or wet mopping are employed, wastewater will be generated and it will either need to be collected and treated on-site for facilities that already have this capability, or collect and stored to be picked up by a waste disposal truck if no wastewater treatment and disposal system exists. As previously explained, while implementation of housekeeping requirements in PAR 1420 would result in the collection of additional waste, each facility would be expected to continue their existing practices for handling waste. For this reason, no additional vehicle trips to handle the collection and disposal of additional waste on a peak day would be expected.

Finally, 15 facilities with existing emission control devices would require filter change out, but not all 15 would be expected to occur on the same day because each facility has different operating schedules, equipment and process lines, and process different amounts of lead. To account for the expected increased maintenance and inspection of the emission control devices and the anticipated increases in filter replacement frequency and the amount of collected waste and spent filters to be disposed of, the analysis assumes that two additional vehicles per facility on a peak day may be needed.

With all of these activities overlapping, a peak overlap day is assumed to need 61 medium duty trucks, 7 aerial lifts, and 15 light duty trucks. Table 2-5 summarizes the peak daily overlap emissions from construction and operational activities.

Table 2-5
Peak Daily Emissions in Construction and Operation Overlap Phase

Peak Daily Emissions During Overlap Phase (lb/day)						
Phase:	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction Emissions ^a	4.30	31.01	24.74	0.04	2.27	2.11
Operational Emissions ^b	2.40	12.76	9.30	0.05	3.18	1.52
Total Overlap Emissions	6.70	43.77	34.04	0.09	5.45	3.63
Significance Threshold During Operation ^c	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Notes:

- The maximum construction impacts during the overlap phase is expected to occur when four facilities or 50 percent of facilities are undergoing building improvements for the total enclosure.
- The maximum operational impacts during the overlap phase occur when 50 percent of the affected facilities are conducting their applicable housekeeping, maintenance, and source testing requirements.
- When there is overlap of construction and operation, the significance thresholds during operation apply.

As indicated in Table 2-5, the emissions during the construction and operational overlap period anticipated from implementing PAR 1420 do not exceed the SCAQMD's CEQA air quality significance thresholds. Therefore, the air quality impacts from construction and operation are considered less than significant. The proposed project is not expected to result in significant adverse air quality impacts during the construction and operation overlap period.

III. c) Less Than Significant Impact.

Cumulatively Considerable Impacts

Based on the foregoing analysis, since criteria pollutant project-specific air quality impacts from implementing PAR 1420 would not be expected to exceed the air quality significance thresholds in Table 2-1, cumulative air quality impacts are also expected to be less than significant. SCAQMD cumulative significance thresholds are the same as project-specific significance thresholds. Therefore, potential adverse impacts from implementing PAR 1420 would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

The SCAQMD's guidance on addressing cumulative impacts for air quality is as follows: "As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR." "Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative

significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”¹⁹

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

III. d) Less Than Significant Impact.

Toxic Air Contaminants (TACs) During Construction

Diesel powered vehicles would be utilized to complete the building improvements for the total enclosure requirements in PAR 1420. Diesel PM is considered a carcinogenic and chronic TAC. The construction activities will be completed within six months at all of the eight affected facilities, thus a Health Risk Assessment (HRA) was not conducted, which is consistent with the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual (2015)²⁰. Construction related activities are not expected to increase toxic fugitives, because the construction includes building one wall at each of the eight facilities to complete a total enclosure compared to installing an entirely new facility or total enclosure. In addition, these facilities in PAR 1420 process material with a lead content lower than those expected at large lead-battery recycling facilities subject to Rule 1420.1 and the Final EA of Rule 1420.1²¹ determined PAR 1420.1 would result in less than significant impacts. Overall, the implementation of PAR 1420 will reduce TACs by reducing lead emissions. Therefore, PAR 1420 is not expected to generate significant adverse TAC impacts from construction or expose sensitive receptors to substantial pollutant concentrations.

¹⁹ SCAQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3. <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf>

²⁰ OEHHA, Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, March 6, 2015. <https://oehha.ca.gov/air/crn/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>

²¹ SCAQMD, Final Environmental Assessment for Proposed Rule 1420.1 – Emissions Standard for Lead from Large Lead-Acid Battery Recycling Facilities, August 2015. http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2015/par-1420_1-final-seac3e4a0efc2b66f27bf6fff00004a91a9.pdf

TACs During Operation

The implementation of PAR 1420 will reduce lead emissions from lead and metal processing facilities. Facilities already have existing emission control devices. Among the 15 affected facilities required to conduct building improvements to complete a total enclosure, 15 grinding operations within buildings will be further enclosed amongst a smaller enclosure. In addition, total enclosures would be expected to minimize cross-draft conditions, thus reducing fugitive lead emissions. Additional housekeeping, maintenance, and source testing requirements will ensure compliance of emission control devices and that facility operations do not exceed ambient air lead concentrations. Thus, overall TAC emissions are expected to be reduced. PAR 1420 is not expected to be significant for exposing sensitive receptors to substantial concentrations.

III. e) 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 construction and operation, diesel-fueled equipment and vehicles will be operated. However, the diesel fuel is required to have a low sulfur content (e.g., 15 ppm by weight or less) in accordance with SCAQMD Rule 431.2 – Sulfur Content of Liquid Fuels²², thus the fuel is expected to minimize odor. The operation of construction equipment will occur within the confines of existing affected facilities. It would be expected sufficient dispersion of diesel emissions over distance generally occurs such that odors associated with diesel emissions may not be discernable to off-site receptors, depending on the location of the equipment and its distance relative to the nearest off-site receptor. The diesel trucks that will be operated on-site as a part of construction activities will not be allowed to idle longer than five minutes per any one location in accordance with the CARB idling regulation²³, so odors from these vehicles would not be expected. In addition, construction for building improvements for total enclosure would be temporary (within six months of the date of adoption of PAR 1420). Operation within total enclosures would be expected to reduce any odors from facilities. The additional operation of trucks to maintain operational facility activities (source testing, filter replacement, etc.) would be intermittent and over a relatively short period of time; therefore, the proposed project would not be expected to generate diesel exhaust odor greater than what is already typically present at the affected facilities. Thus, PAR 1420 is not expected to create significant adverse objectionable odors during construction or operation. Since no significant impacts were identified for this issue, no mitigation measures for odors are necessary or required.

²² SCAQMD, 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>

²³ CARB, Multi-Regulation Summary (MRS) Requirements for Diesel Truck and Equipment Owners, <https://www.arb.ca.gov/msprog/onrdiesel/documents/multirule.pdf>

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

Greenhouse Gas (GHG) Impacts

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

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health impacts of CO₂ “domes” that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects²⁴.

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

GHG emission impacts from the implementation of PAR 1420 were calculated at the project-specific level during construction and operational activities. The SCAQMD 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 SCAQMD adopted an interim CEQA GHG Significance Threshold for projects where the SCAQMD is the lead agency (SCAQMD 2008). This GHG interim threshold is set at 10,000 metric tons (MT) of CO₂ equivalent emissions (CO₂e) per year. Projects with incremental increases below this threshold will not be cumulatively considerable.

²⁴ 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 summarizes the GHG analysis which shows that PAR 1420 may result in the generation of 0.64 amortized²⁵ MT per year of CO₂e emissions during construction and seven MT per year of CO₂e during operation, for a total of 26 MT per year of CO₂e emissions, which is less than the CEQA significance threshold. The detailed calculations of project GHG emissions can be found in Appendix B.

Table 2-6
GHG Emissions from Affected Facilities

Activity	CO ₂ e (MT/year ^a)
Construction ^b	0.64
Operation	7
Total Project Emissions	7.64
Significance Threshold	10,000
Significant?	No

Note:

a. 1 metric ton =2,205 pounds

b. GHGs from short-term construction activities are amortized over 30 years

As shown in Table 2-6, the CEQA GHG significance threshold for industrial sources would not be exceeded. For this reason, implementing the proposed project would not be expected to generate significant adverse cumulative GHG air quality impacts. Further, as noted in Section III. a), implementation of PAR 1420 would not be expected to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing criteria pollutants and the same is true for GHG emissions since GHG emissions would not be impacted in any way by PAR 1420. Therefore, GHG impacts are not considered significant.

Conclusion

Based upon these considerations, significant air quality and GHG emissions impacts are not expected from implementing PAR 1420. Since no significant air quality and GHG emissions impacts were identified, no mitigation measures are necessary or required.

²⁵ GHGs from short-term construction activities amortized over 30 years. To amortize GHGs from temporary construction activities over a 30-year period (est. life of the project/equipment), the amount of CO₂e emissions during construction are calculated and then divided by 30.

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

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

IV. a), b), c), & d) No Impact. Implementation of PAR 1420 would occur at existing affected facilities, which are located in industrial areas. Thus, PAR 1420 is not expected to adversely affect in any way habitats that support riparian habitat, federally protected wetlands, or migratory corridors. Similarly, special status plants, animals, or natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service are not expected to be found on or in close proximity to affected facilities. Therefore, PAR 1420 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely. PAR 1420 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 PAR 1420 would take place at the existing facilities and would not be built on or near a wetland or in the path of migratory species.

IV. e) & f) No Impact. The proposed project is not expected to conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans, because land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by implementation of PAR 1420. Additionally, PAR 1420 would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, and would not create divisions

in any existing communities because compliance with PAR 1420 would occur at existing facilities in previously disturbed areas which are not typically subject to Habitat or Natural Community Conservation Plans.

Conclusion

Based upon these considerations, significant biological resource impacts are not expected from implementing PAR 1420. Since no significant biological resource impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Impacts to cultural resources will be considered significant if:

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass

emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

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

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

Buildings, structures, and other potential culturally significant resources that are less than 50 years old are generally excluded from listing in the National Register of Historic Places, unless they are shown to be exceptionally important. Buildings or structures that may be affected by PAR 1420 are used for industrial purposes and would generally not be considered to be historically significant, since they would not have any of the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. Therefore, PAR 1420 is not expected to cause any impacts to significant historic cultural resources.

V. b), c), & d) No Impact. Construction-related activities are expected to be confined within the affected existing industrial facilities with the implementation of PAR 1420. Thus, PAR 1420 is not expected to require physical changes to the environment which may disturb paleontological or archaeological resources. Furthermore, it is envisioned that these areas are already either devoid of significant cultural resources or whose cultural resources have been previously disturbed. Therefore, PAR 1420 has no potential to cause a substantial adverse change to a historical or archaeological resource, directly or indirectly to destroy a unique paleontological resource or site or unique geologic feature, or to disturb any human remains, including those interred outside formal cemeteries. Implementing PAR 1420 is, therefore, not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources.

V. e) No Impact. Construction-related activities are expected to be confined within the affected existing industrial facilities with the implementation of PAR 1420. Therefore, no impacts to historical or cultural resources are anticipated to occur. PAR 1420 is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, PAR 1420 is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. For these reasons, PAR 1420 is not expected to cause any substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

As part of releasing this CEQA document for public review and comment, the SCAQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes)

that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code Section 21080.3.1(b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project.

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

Conclusion

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing PAR 1420. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

VI. a) & e) No Impact. PAR 1420 is not expected to conflict with any adopted energy conservation plans or violate any energy conservation standards because existing facilities would be expected to continue implementing any existing energy conservation plans that are currently in place regardless of whether PAR 1420 is implemented. The implementation of PAR 1420 will apply to existing facilities; however, it will also apply to any new lead processing or metal melting facilities in the future. SCAQMD staff is not aware of any new facilities planned to be constructed in the immediate future and is unable to predict or forecast, when, if any, would be built in the long-term. Any energy resources that may be necessary to install total enclosures, conduct source tests, conduct monitoring and employ housekeeping would be used to achieve reductions in lead; and therefore, would not be using non-renewable resources in a wasteful manner. For these reasons, PAR 1420 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. Implementation of PAR 1420 will increase the use of electricity from construction-related impacts to provide power to electric construction equipment needed to implement building improvements to complete the total enclosure requirement and to provide electricity to additional lighting, if any, that may be installed after each wall is constructed for the total enclosures. Since, no additional emission control devices or ventilation systems would be required at existing facilities from the implementation of PAR 1420, no additional electricity would be needed for these purposes.

The air quality and health protective benefits that would be expected to occur as a result of implementing these activities would not require utilities that would provide additional electricity to the affected facilities to substantially alter power system because any additional energy needed to implement PAR 1420 can be provided from existing supplies. Further, since natural gas would not be needed to implement any of the physical changes that may occur as part of implementing PAR 1420, no change to existing natural gas supplies and usage would be expected to occur.

Implementation of PAR 1420 will also increase the use of diesel fuel and gasoline to operate construction equipment and diesel-fueled trucks, and gasoline for construction worker vehicles. After construction is complete, operational activities would also increase the use diesel fuel by delivery and haul trucks and aerial lifts.

Construction-Related Impacts

During the various phases of construction, diesel and gasoline fuel will be consumed by portable construction equipment (e.g., air compressors, cement and mortar mixers, concrete/industrial saws, forklifts, tractors/loaders/backhoes, welders etc.) for building improvements to complete the total enclosures by construction workers' vehicles and delivery/haul trucks traveling to and from each construction site. To estimate the "worst-case" energy impacts associated with construction activities, the total construction oxides of sulfur (SOx) emissions were taken to scale to the total diesel fuel usage since the estimated SOx emissions during construction are derived from CARB's OFFROAD2011 and EMFAC2014 models. These two models both calculate the SOx emissions based on the mass-balance method and the sulfur content in the fuel. By scaling the SOx emissions from one single piece of construction equipment with known diesel fuel usage in gallons per day to the total construction SOx emissions, the total diesel fuel consumption from construction associated equipment and trucks can be estimated. Assumptions and calculations used for estimating fuel usage associated with construction can be found in Appendix B.

The fuel usage per construction worker commute round trip was calculated by assuming that each workers' gasoline vehicle would get a fuel rate of approximately 15 miles per gallon and would travel 30 miles round trip to and from the construction site in one day, thus each vehicle would use two gallons per day. It is expected six construction workers would be working at each affected facility. The implementation of PAR 1420 would be expected to result in eight affected facilities that would need to complete building improvements to complete a total enclosure.

Table 2-7 lists the projected energy impacts associated with the construction from the affected facilities.

Table 2-7
Total Projected Fuel Usage for Construction Activities

Fuel Type	Year 2015 Estimated Basin Fuel Demand ^a (mmgal/year)	Fuel Usage ^b (mmgal/year)	Total Increase Above Baseline (%)	Significant? ^c
Diesel	756	0.00005	0.000006	No
Gasoline	6,783	0.0001	0.000001	No

Notes:

- a. California Energy Commission, California Annual Retail Fuel Outlet Report Results Year 2015, (http://www.energy.ca.gov/almanac/transportation_data/gasoline/2015_A15_Results.xlsx). Accessed on September 11, 2017.
- b. Estimated peak fuel usage from construction activities. Diesel usage estimates are based on the usage of portable construction equipment and on-road vehicles conducting haul/delivery trips. Gasoline usage estimates are from construction workers' vehicle daily trips to and from work.
- c. SCAQMD's energy threshold for both types of fuel used is 1 percent of fuel supply.

As indicated in Table 2-7, the fuel usage during construction anticipated from implementing PAR 1420, does not exceed the SCAQMD's CEQA significance thresholds for energy.

Operational-Related Impacts

Additional truck trips are expected to be needed for additional source testing, filter replacement or inspection, and disposal of waste. Each truck is assumed to drive approximately 40 miles, round trip, with a fuel economy of approximately five miles per gallon (mpg) which would mean that each truck would use approximately eight gallons of diesel fuel per round trip. Each facility was assumed to need at least one waste/wastewater disposal truck a year to meet housekeeping requirements and 15 facilities would be subject to source testing and filter inspection/replacement requirements, thus, needing three additional trucks for each affected facility. The total trucks per year would be 152 and the corresponding annual total diesel use would be 1,216 gallons per year.

PAR 1420 requires each affected facility to conduct rooftop cleaning at least once between July and September. Aerial lifts are assumed to be needed in order for facility employees to be able to access the rooftops. For this analysis, aerial lifts are assumed to be used for four hours per year at each facility. Diesel fuel use was estimated using a 1.4 gallon per hour fuel consumption rate from CARB's OFFROAD2007 database, which is an older version of OFFROAD2011, is the only model which provides the fuel usage data as an output. The diesel fuel use from one aerial lift is

estimated to be approximately 5.6 gallons per year. The worst case for all 15 facilities utilizing aerial lifts according to the annual roof cleaning schedule would be 84 gallons per year of diesel fuel consumed.

Table 2-8
Annual Total Projected Diesel Fuel Usage for Operational Activities

Type of Equipment	Diesel Usage (gal/year)
Trucks	1,216
Aerial Lifts	84
Total Usage	1,300
Year 2015 Estimated Basin Fuel Demand (gal/year) ^a	585,000,000
Total Above Baseline (%)	0.0002
Significant? ^b	No

Notes:

- a. California Energy Commission, California Annual Retail Fuel Outlet Report Results Year 2015, (http://www.energy.ca.gov/almanac/transportation_data/gasoline/2015_A15_Results.xlsx). Accessed on September 11, 2017.
- b. SCAQMD's energy threshold for both types of fuel used is 1 percent of fuel supply.

As indicated in Table 2-8, the diesel fuel usage during operation anticipated from implementing PAR 1420, does not exceed the SCAQMD's CEQA significance thresholds for energy.

Since no new permanent employees are expected from implementing PAR 1420, no additional workers and no additional gasoline-powered vehicles are expected to occur. Thus, no additional gasoline use would be expected during operations.

As explained in Section I. – Aesthetics, it is possible that some permanent lighting may be installed on the eight additional walls that are anticipated to be constructed to comply with the requirements for total enclosures in PAR 1420. If the eight affected facilities used two 100 watts (W) LED lightbulbs for an assumed 12 hours of nighttime lighting, a total of 16 100W LED lightbulbs would be used. As such, for this small amount of electricity that will be needed to supply power to these additional lights, less than significant electricity demand would be expected to operate this additional lighting. In addition as explained in Section III – Air Quality and Greenhouse Gas Emissions, construction of an additional wall to complete the total enclosure would result in construction equipment using electricity. Table 2-9 summarizes the total electricity consumption for PAR 1420 which is less than the energy threshold for electricity.

Table 2-9
PAR 1420 Electricity Consumption from Construction and Operation

Energy Use	Consumption (GW-h)
Construction - Electricity Use ^a	0.0023
LED Light Bulbs	0.000019
Total Use:	0.0024
SCAQMD Basin Electricity End Use Consumption ^{b,c}	120,210
Total Impact % of Capacity	0.000002
Significant? ^d	No

Notes:

- From CalEEMod, calculations and assumptions can be found in Appendix B.
- 2016 Draft Final SCAQMD AQMD Chapter 10, 2012 Electricity use in gigawatt-hour (GW-h), (<http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/draft-final-aqmp/strikeout/11ch10-draft-final-120116.pdf>).
- It is assumed the energy supply is equal to energy consumption.
- SCAQMD's energy threshold for both types of fuel used is 1 percent of supply.

Based on the foregoing analyses, the construction- and operational-related activities associated with the implementation of PAR 1420 would not use energy in a wasteful manner and would not result in substantial depletion of existing energy resource supplies, create a significant demand of energy when compared to existing supplies. Thus, there are no significant adverse energy impacts associated with the implementation of PAR 1420.

Conclusion

Based upon these considerations, significant adverse energy impacts are not expected from implementing PAR 1420. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.

- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

VII. a) No Impact. PAR 1420 would result in construction activities at existing affected facilities located in developed industrial settings. Affected facilities are expected to make building improvements on existing structures to complete total enclosures, such that only minor site preparation is anticipated. Further, the proposed project does not cause or require a new facility to be constructed. Therefore, PAR 1420 is not expected to adversely affect geophysical conditions in the District.

Southern California is an area of known seismic activity. As part of the issuance of building permits, local jurisdictions are responsible for assuring that the Uniform Building Code is adhered to and can conduct inspections to ensure compliance. The Uniform Building code is considered to be a standard safeguard against major structural failures and loss of life. The basic formulas used for the Uniform building Code seismic design require determination of the seismic zone and site coefficient, which represents the foundation condition at the site. The Uniform Building Code requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction. The modification of existing structures at existing facilities to construct eight new walls to make eight total enclosures would be expected to conform to the Uniform Building Code and all other applicable state and local building codes. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. Thus, PAR 1420 would not alter the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or

structures to the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated.

VII. b) Less than Significant Impact. Since PAR 1420 would require the modification of existing buildings to complete the total enclosure, construction activities such as minor grading may be necessary to prepare a level foundation. As such, temporary erosion resulting from grading activities may be expected. However, these grading activities and any associated temporary erosion that may occur are expected to be relatively minimal since the existing facilities are generally flat and have previously been graded and paved. In addition, the eight affected facilities only require the addition of one wall per facility to be constructed on eight existing partial enclosures and each existing partial enclosure would be expected to already be on a relatively level foundation. For this reason, no unstable earth conditions or changes in geologic substructures are expected to result from implementing PAR 1420. Therefore, impacts to the loss of topsoil and soil erosion are less than significant.

VII. c) No Impact. Since PAR 1420 will affect existing facilities, it is expected that the soil types present at the affected facilities will not be made further susceptible to expansion or liquefaction. Furthermore, subsidence is not anticipated to be a problem since only minor construction for building improvements are expected to occur at affected facilities. The areas, where the existing facilities are located are not envisioned to be prone to new landslide impacts or have unique geologic features since the existing facilities are currently operational. Thus, the proposed project would not be expected to increase or exacerbate any existing risks at the affected facility locations. Implementation of PAR 1420 would not involve locating facilities on a geologic unit or soil that is unstable or that would become unstable as a result of the project; therefore, it would not be expected to potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. No impacts are anticipated.

VII. d) & e) No Impact. The implementation of PAR 1420 includes building improvements to complete eight total enclosures, conducting source testing and maintenance of emission control devices, and housekeeping activities, such as wet vacuuming or rooftop cleaning. These activities are expected to be confined within the affected existing industrial facilities. Further, PAR 1420 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 sewer system. Therefore, no persons or property will be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal. Thus, the implementation of PAR 1420 will not adversely affect soils associated with a installing a new septic system or alternative wastewater disposal system or modifying an existing sewer.

Conclusion

Based upon these considerations, significant adverse geology and soils impacts are not expected from the implementation of PAR 1420. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

VIII. a) & b) Less than Significant Impact. PAR 1420 has been developed to reduce public health impacts and exposure to lead. Eight facilities are expected to conduct building improvements to complete total enclosures and minimize cross-draft conditions, thereby reducing fugitive emissions of lead being released. Additionally, facilities will be required to comply with the new housekeeping requirements in PAR 1420 which will also have the effect of preventing fugitive emissions of lead emissions and consequently reducing the potential for the public and the environment to be exposed to lead.

Facilities with existing air pollution control equipment currently recycle or haul away hazardous waste or materials off-site to a hazardous waste landfill and there are no requirements in PAR 1420 that would be required for these current hazardous waste handling practices to change. Thus, no new significant hazards are expected to the public or environment through the continued routine transport, disposal or recycling of lead waste generated at lead processing facilities. Therefore, PAR 1420 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 15 facilities assumed to be subject to all the requirements that would require physical changes (e.g., construction total enclosure, conducting

initial source tests and smoke tests, and implementing housekeeping and maintenance requirements), there are two facilities located within one-quarter mile of a school. These facilities and the names of the schools and their proximities are identified in Appendix C. PAR 1420, if implemented, would reduce exposure to lead by reducing the ambient air lead concentration to $0.100 \mu\text{g}/\text{m}^3$, averaged over 30 consecutive days by January 1, 2021. Housekeeping requirements and building improvements to complete total enclosures will minimize fugitive lead emissions. However, PAR 1420 does not include new requirements of alter existing requirements for hazardous waste disposal. For this reason, all 15 facilities, including the two that are located within one quarter mile of a school, are expected to continue to take the appropriate and required actions to ensure proper handling of existing quantities of hazardous or acutely hazardous materials, substances or wastes that are currently generated.

VIII. d) No Impact. Government Code Section 65962.5 refers to hazardous waste handling practices at facilities subject to the Resources Conservation and Recovery Act (RCRA). Three of the 15 facilities, presented in Appendix C are identified on lists of California Department of Toxics Substances Control hazardous waste facilities per Government Code Section 65962.5. Implementation of PAR 1420 will limit the exposure to lead through building improvements for total enclosures, implementing housekeeping requirements, and conducting source testing and maintenance of emission control equipment will reduce public health impacts from point and fugitive lead emissions. PAR 1420 would not alter how existing lead waste is stored while awaiting to be transported off-site to a recycling facility or hazardous waste landfill. PAR 1420 is not expected to interfere with existing hazardous waste management programs since facilities handling hazardous waste would be expected to continue to manage any and all hazardous materials and hazardous waste, in accordance with applicable federal, state, and local rules and regulations. Therefore, compliance with PAR 1420 would not create a new significant hazard to the public or environment.

VIII. e) No Impact. None of the 15 facilities identified in Appendix C are located within two miles of an airport. Therefore, implementation of PAR 1420 is not expected to increase or create any new safety hazards to peoples working or residing in the vicinity of public/private airports.

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

- Identification of individuals who are responsible for various actions, including reporting, assisting emergency response personnel and establishing an emergency response team;
- Procedures to notify the administering agency, the appropriate local emergency rescue personnel, and the California Office of Emergency Services;
- Procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
- Procedures to notify the necessary persons who can respond to an emergency within the facility;
- Details of evacuation plans and procedures;

- Descriptions of the emergency equipment available in the facility;
- Identification of local emergency medical assistance; and,
- Training (initial and refresher) programs for employees in:
 1. The safe handling of hazardous materials used by the business;
 2. Methods of working with the local public emergency response agencies;
 3. The use of emergency response resources under control of the handler;
 4. Other procedures and resources that will increase public safety and prevent or mitigate a release of hazardous materials.

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

Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public (surrounding local communities), but the facility employees as well. The proposed project would not impair the implementation of, or physically interfere with any adopted emergency response plans or emergency evacuation plans that may be in place at existing facilities. The building improvements necessary at eight existing facilities to complete a total enclosure in accordance with PAR 1420 may require an update of each affected facility's existing emergency response plan to reflect the building modifications; however, the act of modifying an emergency response plan to reflect these anticipated building modifications will not create any environmental impacts. Therefore, PAR 1420 is not expected to impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

VIII. g) No Impact. The facilities affected by PAR 1420 are typically located in existing industrial use areas and are not located near wildlands; therefore, PAR 1420 is not expected to be significant for exposing people or structures to risk of loss, injury or death involving wildland fires.

VIII. h) Less Than Significant Impact. The Uniform Fire Code and Uniform Building Code set standards intended to minimize risks from flammable or otherwise hazardous materials. Local jurisdictions are required to adopt the uniform codes or comparable regulations. Local fire agencies require permits for the use or storage of hazardous materials and permit modifications for proposed increases in their use. Permit conditions depend on the type and quantity of the hazardous materials at the facility. Permit conditions may include, but are not limited to, specifications for sprinkler systems, electrical systems, ventilation, and containment. The fire departments make annual business inspections to ensure compliance with permit conditions and other appropriate regulations. Further, businesses are required to report increases in the storage or use of flammable and otherwise hazardous materials to local fire departments. Local fire departments ensure that adequate permit conditions are in place to protect against the potential risk of upset. PAR 1420 would not change the existing requirements and permit conditions for the proper handling of flammable materials. Further, PAR 1420 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 lead processing and metal melting facilities that utilize baghouse emission control technologies are already required to have reliable, economical and effective means of explosion control such as baghouse explosion suppression, containment, and venting in place. Also, PAR 1420 is not expected to result in the new installation of baghouses, since affected facilities currently have baghouses installed. Additional information pertaining to these types of protective measures is available in Chapter 8 of the *Industrial Ventilation, A Manual for Recommended Practice for Design*, 28th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2013.

Conclusion

Based upon these considerations, significant adverse hazards and hazardous materials impacts are not expected from implementing PAR 1420. Since no significant hazards and hazardous materials impacts were identified, no mitigation measures are necessary or required.

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

- | | | | | | |
|----|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| f) | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) | Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) | Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) | Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Significance Criteria

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

Water Demand:

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

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.

- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

IX. a) Less than Significant Impact. PAR 1420 would require eight facilities to conduct lead processing and metal melting operations within total enclosures that minimize cross-draft conditions. The lead point source emissions would be required to be vented to emission control devices. All facilities currently employ emission control devices (e.g., baghouses) to control lead emissions and PAR 1420 does not require new emission control devices to be installed. Also, since baghouse technology does not utilize water as part of its function, wastewater is not generated from this type of emission control device. Thus PAR 1420 would not be expected to generate wastewater from operating existing emission control devices.

However, PAR 1420 contains housekeeping requirements that require any facility, not located within a total enclosure, to conduct weekly wet cleaning of areas where lead-containing wastes generated from housekeeping activities are stored, dispose of, recovered, or recycled and surfaces accumulating lead-containing dust subject to vehicular or foot traffic, and initiate immediate cleaning, no later than one hour after any construction or maintenance activity or event. Facilities that process more than 10 tons per year or lead would also be required to complete rooftop cleaning. All facilities would be required to conduct quarterly cleaning of collection vents, ducting, and openings of each lead emission control device and conduct wet cleaning of any paved area located outside of a total enclosure that is subject to vehicular traffic, no later than one hour after any construction or maintenance activity or event. Wet cleaning or wet vacuuming utilized water and as such PAR 1420 may result in increased water usage and the corresponding generation of wastewater that may require treatment or cleaning prior to disposal.

Any facility that conducts wet cleaning, but that does not currently have a wastewater treatment system or a wastewater discharge permit, the dirty water resulting from wet cleaning would need to be collected, stored and disposed of as hazardous materials and these facilities would be required to comply with applicable hazardous waste disposal regulations. Thus, the collected dirty water

at these facilities would not be allowed to be discharged as wastewater. Any facility that conducts wet cleaning and has a wastewater discharge permit would be expected to comply with the permitted effluent discharge concentration and flow limits which means the wastewater generated from wet cleaning would likely need to be treated prior to discharge. For these reasons, implementing PAR 1420 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) No Impact. As previously explained in Section IX. a), water is not needed to operate the total enclosures and vent the lead processing and metal melting operations to emission control devices. However, PAR 1420 includes wet cleaning with water as an option for conducting housekeeping. The additional water for conducting wet cleaning, is expected to be supplied by each facility's current water supplier. The quality of water that would likely be supplied at each affected facility would be potable water since potable water is currently supplied at all of the affected facilities in order to provide drinking water for employees, water for sinks and toilets, and water for any landscaping, if applicable. Should any facility have a groundwater well onsite with groundwater pumping rights, the facility would likely not use groundwater for wet cleaning, because groundwater contains sand and other particles or debris which is not suitable for wet cleaning. Therefore, implementing PAR 1420 would not be expected to cause facilities to utilize groundwater for conducting wet cleaning, substantially deplete groundwater supplies, or interfere substantially with groundwater recharge.

IX. c) & d) No Impact. Implementation of PAR 1420 is expected to take place at existing affected facilities. In particular, PAR 1420 would require eight facilities to make building improvements to install one wall per facility to create total enclosures. As part of installing these walls, the operator may also install rain gutters or rain drains to connect to each facility's existing storm drain system. Currently, all affected facilities are venting lead point source emissions to existing emission control devices. Neither the total enclosures nor the operation of the existing emission control devices require water as part of the day-to-day function.

For these reasons, implementation of PAR 1420 would not be expected to substantially alter the existing drainage pattern of the site or area beyond what currently exists at existing facilities. No streams or rivers are expected to run through existing facilities, because these facilities operate in urban industrial areas. Thus, PAR 1420 would not cause an alteration of the course of a stream or river. Building improvements to complete total enclosures may require some minor earthwork to prepare affected areas at the affected facility. Any construction activities, however would not be expected to permanently create unpaved areas that would be vulnerable to surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site. In addition, PAR 1420 would not create new or contribute to existing runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, because PAR 1420 does not contain any requirements that would change existing drainage patterns or the procedures for how surface runoff is handled.

IX. e) & f) No Impact. As previously explained in Section IV – Biological Resources, PAR 1420 would not require new development in undeveloped areas. Construction of the eight new walls at affected facilities would be short-term and take place within existing facility settings. Therefore, PAR 1420 would not be expected to cause placing housing or structures to be placed within 100-year flood hazard areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate

Map or other flood hazard delineation map, which would impede or redirect flood flows. Similarly, PAR 1420 would also not be expected to expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow because any flood event of this nature would be part of the existing setting or topography that is present for reasons unrelated to PAR 1420.

IX. g) & i) Less than Significant Impact. Affected facilities would be required to conduct housekeeping requirements, such as wet cleaning or rooftop cleaning, as outlined in PAR 1420. Because PAR 1420 contains similar housekeeping requirements for facilities requiring rooftop cleaning as SCAQMD Rule 1420.2 – Emissions Standards for Lead from Metal Melting Facilities, water demand and water quality (wastewater) impacts for PAR 1420 would be expected to be similar to those analyzed in the Final EA for Rule 1420.2 (October 2015)²⁶. The analysis in the Rule 1420.2 Final EA estimated that 13 facilities would need 82,372 gallons per day of water and an equivalent corresponding amount of wastewater would be generated as a result of conducting cleaning for the 15 facilities that would incorporate rooftop cleaning in addition to their weekly housekeeping requirements of wet mop/wet vacuuming. For each facility conducting housekeeping requirements including rooftop cleaning per Rule 1420.2, approximately 6,406 gallons per day of water would be needed and the same amount of wastewater would be generated. If the maximum amount of water that could be used by 15 facilities on a peak day to conduct rooftop cleaning in response to PAR 1420 is equivalent to the analysis in Rule 1420.2, then PAR 1430 could require 96,090 gallons of water per day to conduct wet cleaning and could generate the same amount as wastewater (e.g., 15 facilities x 6,406 gallons per day). In addition, all the facilities are subject to weekly cleanings by wet wash, wet mop, or vacuum, which consists of a basic commercial mop bucket. A typical commercial mop bucket can hold 35 quarts or approximately nine gallons. If on a peak day, all the facilities decided to conduct their weekly cleaning, a total of 936 additional gallons of water would be used and result in the same amount of wastewater. Thus, as a conservative estimate on a peak day 97,053 gallons per day would be used if all affected facilities conducted their applicable housekeeping requirements.

However, while PAR 1420 has similar housekeeping requirements as in Rule 1420.2, wet cleaning is not the only option. PAR 1420 also would allow dry HEPA vacuuming to occur. Because each facility will have the option to choose wet or dry cleaning to satisfy the housekeeping requirements, the decision to conduct wet cleaning will largely depend on whether each affected facility has the capacity to handle an additional wastewater stream. Also, based on the facility owner/operator, in past rules, indicating preferences to use dry HEPA vacuuming, SCAQMD staff believes that the estimated use of water and the corresponding generation of wastewater on a peak day probably substantially overestimates what the actual impact may be. Thus, PAR 1420 would not be expected to require the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or cause the expansion of existing facilities.

IX. h) Less Than Significant Impact. However, as explained in Section IX g) and i) the maximum amount of water that may be needed per facility conducting rooftop cleaning would be 6,406 gallons per day or 96,090 gallons per day for 15 facilities. The maximum amount of water for all the facilities conducting housekeeping requirements on a peak day would be 97,053 gallons per day. Table 2-10 shows the projected water demand from implementing PAR 1420.

²⁶ SCAQMD, Final Environmental Assessment for Proposed Rule 1420.2 – Emissions Standards for Lead Melting Facilities, certified October 2, 2015. http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2015/pr-1420_2-final-ea.pdf

Table 2-10
Projected Water Demand

Wet Cleaning Activity	Additional Water Demand on a Peak Day (gal/day)
PAR 1420 Housekeeping Requirements	97,053
Significance Threshold for Potable Water:	262,820
Significant for Potable Water?	No
Significance for Threshold for Total Water:	5,000,000
Significant for Total Water?	No

Therefore, since the estimated potable water demand and total water demands would be less than significance thresholds for potable and total water, respectively, the water demand impacts that are expected from implementing PAR 1420 would be less than significant. Further, existing water supplies are expected to be sufficiently available from existing entitlements and resources without requiring any new or expanded entitlements because the projected increased water demand is based on a peak day, but that amount will not be needed every day for every facility that conducts wet cleaning. Therefore, PAR 1420 is not expected to have significant adverse water demand impacts.

Conclusion

Based upon these considerations, significant adverse hydrology and water quality impacts are not expected from implementing PAR 1420. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

X. a) & b) No Impact. PAR 1420 does not require the construction of new facilities and the physical effects that will result from PAR 1420 will occur at existing facilities located industrial areas and would not be expected to go beyond existing boundaries. For this reason, implementation of PAR 1420 is not expected to physically divide an established community. Therefore, no impacts are anticipated.

Further, land use and other planning considerations are determined by local governments and PAR 1420 does not alter any land use or planning requirements. Compliance with PAR 1420 would take place within existing facilities. Thus, it would not be expected to affect or conflict with any

applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Conclusion

Based upon these considerations, significant adverse land use and planning impacts are not expected from implementing PAR 1420. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

XI. a) & b) No Impact. There are no provisions in PAR 1420 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 plan. Some examples of mineral resources are gravel, asphalt, bauxite, and gypsum, which are commonly used for construction activities or industrial processes. The proposed project would require the construction of eight walls to create eight total enclosures, implementation of housekeeping and maintenance activity requirements, and source testing, which would have no effects on the use of important minerals, such as those described above. Therefore, no new demand on mineral resources is expected to occur and significant adverse mineral resources impacts from implementing PAR 1420 are not anticipated.

Conclusion

Based upon these considerations, significant adverse mineral resource impacts are not expected from implementing PAR 1420. Since no significant mineral resource impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

Noise impact will be considered significant if:

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are

assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

XII. a), b), & c) Less than Significant Impact. The facilities affected by PAR 1420 are located in urbanized industrial areas. The existing noise environment at each of the facilities is typically dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and existing facility premises. Large, potentially noise-intensive construction equipment would be needed temporarily to modify eight existing enclosures at eight facilities as part of implementing PAR 1420. Operation of the construction equipment would be expected to comply with all existing noise control laws and ordinances. Since the facilities are located in industrial areas, which have a higher background noise level when compared to other areas, the noise generated during construction will likely be indistinguishable from the background noise levels at the property line. In addition, as the construction of total enclosures at the eight affected facilities is completed, the overall noise profile would be expected to lessen when compared to baseline noise levels from day-to-day operations at these facilities because the noise generating activities will occur fully inside. 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. d) No Impact. The 15 affected facilities are located within urbanized industrial areas but none are located within two miles of an airport, as noted in Appendix C. The existing noise environment at each of these facilities is dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and exiting facility premises. Thus, any new noise impacts would from construction activities would be temporary and likely to generate noise that is indistinguishable from the background levels at the property line. Thus, PAR 1420 is not expected to expose persons residing or working within two miles of a public airport or private airstrip to excessive noise levels.

Conclusion

Based upon these considerations, significant adverse noise impacts are not expected from the implementing PAR 1420. 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

XIII. a) No Impact. The construction activities associated with PAR 1420 at each of the eight affected facilities are not expected to involve the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population. It would be anticipated only a handful workers per facility may be needed to perform construction activities to comply with PAR 1420 and these workers can be supplied from the existing labor pool in the local Southern California area. In addition, once the temporary construction activities of the eight total enclosures

are completed, no additional permanent employees would be needed since PAR 1420 does not require additional emission control devices (baghouses) to be installed and operated. Housekeeping and maintenance activities resulting from PAR 1420 would also not be expected to result in the need for additional employees because facilities have existing personnel trained in maintaining the existing emission control devices and associated day-to-day operations. In the event that new employees are hired, it is expected that the number of new employees hired at any one facility would be relatively small, perhaps no more than one or two per facility. Regardless of implementing PAR 1420, human population within the jurisdiction of the SCAQMD. As such, PAR 1420 is not anticipated to not result in changes in population densities, population distribution, or induce significant growth in population.

XIII. b) No Impact. PAR 1420 would result in construction activities within the confines of existing facilities. Additional housekeeping and maintenance requirements would not be expected to substantially alter existing operations at lead processing facilities. Consequently, PAR 1420 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 SCAQMD's jurisdiction.

Conclusion

Based upon these considerations, significant adverse population and housing impacts are not expected from implementing PAR 1420. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

XIV. a) & b) Less Than Significant Impact. Implementation of PAR 1420 is expected to cause modifications to eight existing buildings to install eight walls to make total enclosures, all while continuing current operations at the eight facilities. In order to construct the eight new walls, each facility will be required to obtain a building permit from the local city or county with jurisdiction over the construction. As each step in the construction process progresses, a building inspector will periodically check in with each facility to verify that construction is proceeding according the specifications in the building permit. Because applications for building permits typically undergo a thorough “plan check” process before a permit to build is issued, new safety hazards are not expected to occur during construction. Further, PAR 1420 does not require the use or handling of hazardous materials, so no special circumstances with handling sensitive materials during construction would be expected. For these reasons, implementation of PAR 1420 is not expected to substantially alter or increase the need or demand for additional public services (e.g., fire and police departments and related emergency services, etc.) above current levels, so no significant impact to these existing services is anticipated.

XIV. c) & d) No Impact. As explained in Section XIII. a), PAR 1420 is not anticipated to generate any significant effects, either direct or indirect, on the population or population distribution within SCAQMD’s jurisdiction as no additional workers are anticipated to be required to comply with PAR 1420. Because PAR 1420 is not expected to induce population growth in any way, and because the local labor pool (e.g., workforce) would remain the same since PAR 1420 would not trigger changes to current usage practices, no additional schools would need to be constructed as a result of implementing PAR 1420. Any construction activities would be temporary. No additional emission control devices are expected to be installed from the implementation of PAR 1420, and trained personnel are currently maintaining the emission control devices at existing facilities, thus no increased labor force is expected. Therefore, since no increase in local population would be anticipated as a result of implementing PAR 1420, there would be no corresponding impacts to local schools 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 or other public facilities.

Conclusion

Based upon these considerations, significant adverse public services impacts are not expected from implementing PAR 1420. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts to recreation will be considered significant if:

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

XV. a) & b) No Impact. As previously explained in Section XIII – Population and Housing, PAR 1420 is not expected to affect population growth or distribution within the SCAQMD's jurisdiction because workers needed to conduct construction activities to comply with PAR 1420 can be supplied by the existing labor pool in the local Southern California area and no additional employees are expected long-term to comply with operational requirements. Further, all facilities

subject to PAR 1420 have existing emission control devices with personnel trained to maintain the equipment. As such, PAR 1420 is not anticipated to generate any significant adverse effects, either indirectly or directly on population growth within the SCAQMD's jurisdiction or population distribution, thus no additional demand for recreational facilities would be expected. Further, no provisions in PAR 1420 could increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or expansion of existing recreational facilities that might have an adverse physical effect on the environment because it would not directly or indirectly increase or redistribute population.

Conclusion

Based upon these considerations, significant adverse recreation impacts are not expected from implementing PAR 1420. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

XVI. a & b) Less Than Significant Impact. PAR 1420 may cause some minor construction activities to occur at eight facilities, and these activities may result in the generation of some solid construction waste that may need to be disposed of in a landfill. As discussed in Section III – Air Quality and Greenhouse Gas Emissions b) and f), facility operators will be expected to collect more lead for disposal and increase the frequency for replacing the spent filters. Facility operators would continue sending the collected lead and the spent filters, which are considered hazardous waste, to a certified landfill or recycling facility for proper disposal or recycling. However, PAR 1420 does not contain any requirements that would cause existing practices for disposing of solid and hazardous waste to change. For this reason, facilities that currently comply with all applicable local, state, or federal waste disposal regulations would not be expected to change their current practices if PAR 1420 is implemented. Thus, implementation of PAR 1420 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 impact.

Conclusion

Based upon these considerations, significant adverse solid and hazardous waste impacts are not expected from implementing PAR 1420. Since no significant solid and hazardous waste impacts were identified, no mitigation measures are necessary or required.

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

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Significance Criteria

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

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD's jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

XVII. a) & b) Less than Significant Impact. As previously discussed in Section III – Air Quality and Greenhouse Gas Emissions, compliance with PAR 1420 would require construction activities related to making building improvements to create eight total enclosures. On a peak day, four facilities were assumed to undergo overlapping construction activities and if all the affected facilities complete their requirements on the same day: 122 medium duty trucks, 15 aerial lifts, and 30 light duty trucks would be used on a peak day. This is below the significant threshold of 350 round trips. Traffic and transportation impacts during construction and operation are not expected to cause a significant adverse impact.

XVII. c) No Impact. As explained previously in Section XIII – Hazards and Hazardous Materials, there are no facilities located within two miles of an airport. Since PAR 1420 would not require additional emission control devices to be installed and the new walls to be built would be added to existing structures, implementation of PAR 1420 would not be expected to interfere with an airport, cause a change in existing air traffic patterns, increase air traffic levels, or cause a change in location that would result in substantial safety risks. Therefore, implementation of PAR 1420 is not expected to adversely affect traffic patterns.

XVII. d) & e) No Impact. PAR 1420 does not involve or require the construction of new roadways, because the focus of PAR 1420 is to control lead emissions from lead processing or metal melting facilities. Thus, there will be no change to current public roadway designs that could increase traffic hazards. Further, PAR 1420 is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the facilities. Construction-related activities for the building improvements for eight total enclosures are expected to be temporary and is expected to involve short-term construction activities such as delivery truck trips which would cease after construction is completed. The proposed project is not expected to alter the existing long-term circulation patterns within the areas of each affected facility during construction. Similarly, during operation, the projected increase of additional vehicle trips that may be needed at each affected facility would be at less than significant levels individually and cumulatively such that the implementation of the proposed project is not expected to require a modification to circulation. Thus, no long-term impacts on the traffic circulation system are expected to occur during construction or operation. Further, impacts to existing emergency access at the affected facilities would also not be affected because PAR 1420 does not contain any requirements specific to emergency access points and each facility would be expected to continue to maintain their existing emergency access. As a result, PAR 1420 is not expected to adversely impact emergency access.

XVII. f) No Impact. Since implementation of PAR 1420 is not expected to require permanent additional workers as discussed in Section XIII – Population and Housing a), no operational traffic impacts are expected to occur and consequently. Parking may be necessary at the 15 facilities that require periodic source testing or rooftop cleaning when workers are visiting the facilities to complete testing and cleaning. However, it would be expected only one to two workers would visit during a source test or when rooftop cleaning is conducted. Therefore, PAR 1420 is not expected to adversely impact on- or off-site parking capacity. PAR 1420 has no provisions that would conflict with alternative transportation, such as bus turnouts, bicycle racks, etcetera. Further, affected facilities would still be expected to comply with, and not interfere with adopted policies, plans, or programs supporting alternative transportation (e.g., bicycles or buses) that exist in their respective cities. In addition, implementing PAR 1420 would be expected to occur at existing facilities and thus, would not have an impact on each facility's ability to comply with any applicable alternative transportation plans or policies.

Conclusion

Based upon these considerations, significant adverse transportation and traffic impacts are not expected from implementing PAR 1420. Since no significant transportation and traffic impacts were identified, no mitigation measures are necessary or required.

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

Discussion

PAR 1420 will reduce lead emissions generated from metal melting or lead processing facilities by lowering the lead ambient air concentration limit and establishing requirements for point source controls. PAR 1420 affects existing metal melting or lead processing facilities that process greater than 0.05 percent by weight per year. Of the 107 facilities in SCAQMD’s jurisdiction that are subject to PAR 1420, only 15 facilities would be required to make all of the following physical changes: constructing total enclosures, conducting initial source tests and smoke tests, and implementing housekeeping and maintenance requirements. Of these 15, only eight would need to make building improvements (by constructing one wall at each facility) to achieve the required total enclosure and ten would need to enclose grinding activities. The 92 remaining facilities are assumed to already comply with most of PAR 1420 but would have to comply with the new housekeeping requirements, such as wet cleaning or vacuuming, and recordkeeping. All 107 facilities will have emission control devices that need undergo periodic source testing to demonstrate that the emission control devices meet minimum control efficiency or outlet mass

emission rate limit, along with ensuring ongoing compliance. Finally, only facilities that exceed the ambient air concentrations of lead will be required to conduct ambient air monitoring.

XVIII. a) No Impact. As explained in Section IV - Biological Resources, PAR 1420 is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because any construction and operational activities associated with the facilities are expected to occur entirely within the boundaries of existing developed facilities in areas that have been greatly disturbed and that currently do not support any species of concern or the habitat on which they rely. For these reasons, PAR 1420 is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past.

XVIII. b) Less Than Significant Impact. Based on the foregoing analyses, PAR 1420 would not result in significant adverse project-specific environmental impacts. Potential adverse impacts from implementing PAR 1420 would not be “cumulatively considerable” as defined by CEQA Guidelines Section 15064(h)(1) for any environmental topic because there are no, or only minor incremental project-specific impacts that were concluded to be less than significant. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulative considerable. SCAQMD cumulative significant thresholds are the same as project-specific significance thresholds.

Therefore, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by PAR 1420 for any environmental topic.

XVIII. c) Less Than Significant Impact. Based on the foregoing analyses, PAR 1420 is not expected to cause adverse effects on human beings for any environmental topic, either directly or indirectly because: 1) aesthetic impacts were determined to be less than significant as analyzed in Section I - Aesthetics; 2) 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; 3) energy impacts were determined to be less than significant as analyzed in Section VI – Energy; 4) geological and soil impacts were determined to be less than significant as analyzed in VII – Geology and Soils; 5) the hazards and hazardous materials impacts were determined to be less than significant as analyzed in Section VIII – Hazards and Hazardous Materials; 6) the increased water usage and wastewater was determined to be less than significant as analyzed in Section IX – Hydrology and Water Quality; 7) the noise impacts were determined to be less than significant as analyzed in Section XII – Noise; 8) public services such as fire protection and police protection were determined to be less than the significance thresholds as analyzed in Section XIV – Public Services; 9) solid and hazardous waste impacts were determined to be less than significant as analyzed in Section XVI – Solid and Hazardous Waste; and 10) transportation and traffic impacts were determined to be less than the significant as analyzed in Section XVII – Transportation and Traffic. In addition, the analysis concluded that there would be no significant environmental impacts for the remaining environmental impact topic areas: agriculture and forestry resources, biological resources, cultural resources, land use and planning, mineral resources, population and housing, recreation, and solid and hazardous waste.

Conclusion

As previously discussed in environmental topics I through XVIII, 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 1420 – Emissions Standard for Lead

Appendix B: Assumptions and Calculations

B-1: CalEEMod Files and Assumptions – Construction Emissions

Building Improvement for Total Enclosure (Annual)

Building Improvement for Total Enclosure (Summer)

Building Improvement for Total Enclosure (Winter)

B-2: Operational Emissions and Calculations

Appendix C: List of Affected Facilities

APPENDIX A

PROPOSED AMENDED RULE 1420 – EMISSIONS STANDARD FOR LEAD

PROPOSED AMENDED RULE 1420. EMISSIONS STANDARD FOR LEAD

(a) Purpose

The purpose of this rule is to ~~reduce emissions of lead from non-vehicular sources~~ protect public health by reducing emissions and ambient air concentrations of lead from non-vehicular sources, reduce public health impacts by reducing the exposure to lead, and to help ensure attainment and maintenance of the National Ambient Air Quality Standard for Lead.

(b) Applicability

This rule applies to ~~any all persons who owner or operator of a metal melting facility or lead processing facilities~~ that use or processes lead-containing materials, including, but not limited to, primary or secondary lead smelters, foundries, lead-acid battery manufacturers or recyclers, lead platers, and lead-oxide, brass, and bronze producers. Applicability of subdivisions (e), (f), (g), (h), (j) and (k) of this rule shall be based on the greatest amount of lead processed in any one ~~(1) of the three~~ five (5) calendar years dating back from the adoption of this rule prior to [Rule Adoption], and the amount processed annually thereafter or any year thereafter, where the lead content of the material processed is greater than 0.05 percent by weight. A facility that processes two (2) tons or less of lead per year where the lead content of the material processed is greater than 0.05 percent, shall only be subject to paragraphs (d)(1) and (d)(2) and subdivisions (h) and (l) of the rule. This rule does not apply to facilities that are subject to Rule 1420.1 – Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-Acid Battery Recycling Facilities or Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities.

(c) Definitions

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

- (1) BAG LEAK DETECTION SYSTEM is a system that monitors electrical charge transfer based in triboelectric or electrostatic induction to continuously monitor bag leakage and similar failures by detecting changes in particle mass loading in the exhaust.
- (2) CAPTURE VELOCITY is the minimum hood induced air velocity necessary to capture and convey air contaminants into an emission collection system.
- (3) DUCT SECTION is a length of duct including angles and bends which is contiguous between two or more process devices (e.g., between a furnace and a heat exchanger; baghouse and scrubber; scrubber and stack; etc.).

- (1) ~~DUST FORMING MATERIAL is any material containing more than 15 percent by weight of particulate matter less than 0.84 millimeter (mm) equivalent diameter as determined by ASTM C136-84a, *Standard Method for Sieve Analysis of Fine and Coarse Aggregates*, using a number 20 U.S. Bureau of Standards sieve with a 0.84 mm square opening, or an alternative EPA approved procedure.~~
- (4) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (25) EMISSION COLLECTION SYSTEM is any equipment installed for the purpose of directing, taking in, confining, and conveying an air contaminant, and which at minimum conforms to design and operation specifications given in the most current edition of *Industrial Ventilation, Guidelines and Recommended Practices*, published by the American Conference of Government and Industrial Hygienists, at the time a complete permit application is on file with the SCAQMD District.
- (76) EMISSION CONTROL DEVICE is any equipment installed in the ventilation system of a lead point source or emission collection system for the purposes of collecting and reducing emissions of lead.
- (37) EMISSION POINT is any location where lead is emitted into the atmosphere from equipment or processes.
- (4) ~~ENCLOSED STORAGE AREA is any space, container, and/or structure used to contain material that prevents its contents from being emitted into the atmosphere.~~
- (68) FOUNDRY is any facility, operation, or process where metal or a metal alloy is melted and cast.
- (59) FUGITIVE LEAD-DUST EMISSIONS are emissions of lead-containing material from locations other than emission points including, but not limited to, foot and vehicular traffic, and storage piles, where the dust forming material at the emission source has a lead content of 0.50.05 percent by weight or more as determined by EPA-approved methods, monthly baghouse catch, or weighted average of all feedstock sources.
- (710) LEAD means elemental lead, alloys containing elemental lead, or lead compounds, calculated as elemental lead.
- (811) LEAD-ACID BATTERY MANUFACTURER is any facility, operation, or process that produces storage batteries or battery components using lead or lead compounds.
- (912) LEAD-ACID BATTERY RECYCLER is any facility, operation, or process in which lead-containing batteries are disassembled and/or the lead battery components are melted.
- (103) LEAD-OXIDE PRODUCER is any facility, operation, or process intended to produce lead-oxide from materials containing lead, including, but not limited to, lead melting

and/or oxidizing furnaces, lead-oxide conveying systems, associated air pollution control systems, and equipment used for product recovery, storage, and dispensing.

- (14) LEAD POINT SOURCE is any process or equipment used at a metal melting facility or lead-processing facility.
- (15) LEAD-PROCESSING FACILITY is any primary or secondary lead smelter, foundry, lead-acid battery manufacturer or recycler, lead plating, or lead-oxide, bronze, or brass producer company, business, facility, process or operation which uses or processes lead-containing materials, located on one or more contiguous or adjacent properties in actual contact or separated only by a public roadway or other public right-of-way, and owned or operated by the same person or by persons under common control.
- (16) MAINTENANCE ACTIVITY is any of the following activities conducted outside of a total enclosure that generates or has the potential to generate fugitive lead-dust:
 - (A) Maintenance or repair activities on any emission control device that vents metal melting or metal grinding operations; or
 - (B) Replacement or removal of any duct section used to vent metal melting or metal grinding operations.
- (17) METAL is any ferrous (iron-based) metal and alloys and non-ferrous (non-iron-based) metals and alloys. Examples of metals include, but are not limited to, iron, aluminum, copper, gold, silver, zinc, tin, lead, platinum, nickel, chromium, cadmium, manganese, mercury, tungsten, and titanium, and their alloys, including steel, brass, and bronze.
- (18) METAL MELTING FACILITY is any facility that operates a furnace in which scrap metal, ingots, and/or other forms of metals are charged and melted, including but not limited to, die casting, recycling, refining, sintering, smelting, or soldering operations where the lead content of the material processed is greater than 0.05 percent by weight.
- ~~(12) —MOLTEN METAL is a metal or metal alloy in the semi-solid or liquid state.~~
- ~~(13) —PERSON is any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee, or other capacity, including any governmental entity or charitable organization.~~
- ~~(14)~~ PRIMARY LEAD SMELTER is any facility, operation, or process engaged in the production of lead, lead alloys, and/or lead compounds from lead ore and/or lead ore concentrates through the use of pyrometallurgical techniques.
- ~~(15) —PROCESSES means using lead or lead-containing material in any operation.~~
- ~~(16)~~ RINGELMANN OPACITY refers to an opacity shade as given in a chart published by the United States Bureau of Mines.

- (4721) SECONDARY LEAD SMELTER is any facility, operation, or process engaged in the production of lead, lead alloys, and/or lead compounds from lead-bearing scrap material through the use of pyrometallurgical techniques.
- (22) SLAG means the inorganic by-product material discharged, in melted state, from a smelting furnace that has a lower specific gravity than lead metal and contains lead compounds. This shall include, but is not limited to, lead sulfate, lead sulfide, lead oxides, and lead carbonate consisting of other constituents charged to a smelting furnace, which are fused together during the pyrometallurgical process.
- (23) SMELTING is the heating and chemical reduction of lead containing compounds to elemental lead or lead alloys.
- (24) SMELTING FURNACE is any furnace where smelting takes place including, but not limited to, blast furnaces, reverberatory furnaces, rotary furnaces, and electric furnaces.
- (25) TOTAL ENCLOSURE is a permanent containment structure, completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, or run-off), with limited openings to allow ingress and egress for people and vehicles, that is free of cracks, gaps, or deterioration that could cause or result in the escape of fugitive lead-dust.

(d) Standard Ambient Air Lead Concentration Limit

~~On or after July 1, 1994, no person who owns or operates a lead processing facility shall discharge into the atmosphere:~~

- ~~(1) Emissions which cause ambient concentrations of lead to exceed 1.5 microgram per cubic meter, averaged over 30 days, beyond the property line of a facility; or~~

- (1) The owner or operator of a lead processing facility shall not discharge emissions into the atmosphere, which contribute to ambient air concentrations of lead that exceed the following:

<u>Effective Date</u>	<u>Ambient Air Concentrations of Lead ($\mu\text{g}/\text{m}^3$), averaged over 30 consecutive days</u>
<u>[DATE OF ADOPTION] –to December 31, 2020</u>	<u>0.150</u>
<u>On and after January 1, 2021</u>	<u>0.100</u>

- (2) An exceedance of the ambient air concentration of lead specified in the above table shall occur if it is measured by any monitor installed pursuant to subdivision (i) or a SCAQMD-installed monitor that measures lead concentrations resulting from the facility operations.

~~(2)(3) F~~ugitive lead~~—~~dust emissions shall not~~—that~~ exceed Ringelmann 0.5, or 10 percent opacity, for more than three (3) minutes aggregate in any 60-minute period.

(e) Requirements

~~On and after July 1, 1994, the following requirements shall apply to any person who owns or operates a lead processing facility.~~

~~(1) — All emission points shall be vented to an emission collection system.~~

~~(2) — The gas stream from any emission collection system shall be ducted to a lead control device which shall reduce lead emissions by 98 percent or more, as determined by a source test conducted in accordance with SCAQMD Method 12.1 — Determination of Inorganic Lead Emissions from Stationary Sources Using a Wet Impingement Train, or particulate matter emissions by 99 percent or more as determined by a source test using SCAQMD Method 5.1 — Determination of Particulate Matter Emissions from Stationary Sources Using a Wet Impingement Train. When the particulate matter captured by the lead control device is hygroscopic, or SO_x is present in concentrations greater than 10 ppm, or ammonia is present, SCAQMD Method 5.1 shall be replaced by SCAQMD Method 5.2 — Determination of Particulate Matter Emissions from Stationary Sources Using Heated Probe and Filter. Source tests shall be conducted by persons approved by the Executive Officer. Lead or particulate matter emissions reduction shall be calculated as follows:~~

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

~~Where: C_{in} — = mass at the inlet of the control device~~

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

~~(3) — Each emission collection system and lead control device shall, at minimum, be maintained and operated in accordance with the manufacturer's specifications.~~

~~(4) — Fugitive lead dust emissions shall be controlled by the following housekeeping practices:~~

~~(A) — Dust forming material which may contain lead including, but not limited to, baghouse dust, dross, ash, or feed material shall be stored in an enclosed storage area;~~

~~(B) — Surfaces that accumulate lead-containing dust subject to vehicular or foot traffic shall be washed down, vacuumed, or wet-mopped at least once a week, or shall be maintained with the use of non-toxic chemical dust suppressants; and,~~

~~(C) — Lead or lead-containing wastes generated from housekeeping activities shall be stored, disposed of, recovered, or recycled using practices that do not lead to fugitive lead dust emissions.~~

- ~~(5) A facility that processes more than 10 tons of lead per year shall install, maintain and operate ambient air quality monitoring equipment as specified in subdivision (g).~~
- ~~(6) A facility that processes more than 2 tons, but less than or equal to 10 tons of lead per year shall determine ambient lead concentrations by monitoring as specified in subdivision (g), or by air dispersion modeling calculations as specified in subdivision (h). The Executive Officer may require ambient air monitoring as specified in subdivision (g) for any facility when air dispersion modeling calculations indicate that ambient lead concentrations may exceed 0.75 microgram per cubic meter, averaged over 30 days.~~
- ~~(7) Ambient air quality monitoring may be discontinued upon the submittal of a written request and determination by the Executive Officer that lead emissions will remain below a level at which a potential for exceedance of the lead standard of subdivision (d) exists.~~

(e) Executive Officer Determination to Conduct Ambient Air Monitoring

- (1) The Executive Officer may notify the owner or operator of a lead processing facility that ambient air monitoring may be required if the Executive Officer has reason to believe that:
 - (A) The ambient air concentration of lead from the lead processing facility exceeds 0.150 µg/m³ averaged over 30 consecutive day; or
 - (B) The lead point source limits for any lead point source emission control device at the lead processing facility exceeded the limits pursuant to subdivision (f), based on two (2) or more source tests over a rolling 36-month period.
- (2) Within 30 days of the date of initial notification from the Executive Officer that ambient air monitoring may be required, the owner or operator may provide the Executive Officer any additional information that may substantiate that the criteria set forth in subparagraphs (e)(1)(A) or (e)(1)(B) has not been met.
- (3) Prior to making a final determination, the Executive Officer will consider:
 - (A) The additional information provided to the Executive Officer pursuant to paragraph (e)(2);
 - (B) The evaluation of any emissions data, which includes, but is not limited to, ambient air lead data or source test data;
 - (C) Any facility site visit(s); and
 - (D) Any findings from an investigation of surrounding sources.
- (4) The Executive Officer shall notify the owner or operator of the final determination. An owner or operator of a lead processing facility that receives notification that the Executive

Officer has determined that ambient lead monitoring is required shall conduct ambient lead monitoring and sampling pursuant to subdivision (i).

(f) Lead Point Source Emissions Control

- (1) The owner or operator of a lead processing facility shall vent emissions from each lead point source to a lead emission control device that meets the requirements of this subdivision and is approved in writing by the Executive Officer based on the following schedule:
 - (A) No later than May 1, 2018, if the lead point source is vented to an existing lead emissions control device; and
 - (B) No later than six (6) months after a Permit to Construct for a lead emission control device is issued by the Executive Officer, if the lead point source is not vented to an existing lead emissions control device.
- (2) Any lead emission control device, or a series of lead emission control devices, shall reduce lead emissions by a minimum of 99% or meet an outlet mass lead emission rate of less than 0.00030 pounds per hour as determined by the most recent SCAQMD-approved source test conducted on behalf of the facility or the SCAQMD pursuant to subdivision (j).
- (3) Any permit modification to the equipment or process vented to the subject lead control device referenced in paragraph (f)(1) that may affect the amount of lead emissions from the equipment or process shall require a new source test at the inlet and outlet of the lead emission control device to determine compliance with paragraph (f)(2).
- (4) The total facility mass lead emissions shall be determined based on the average of triplicate samples, using the most recently approved source tests conducted on behalf of the facility or the SCAQMD, pursuant to subdivision (j).
- (5) Each emission collection system and emission control device subject to this subdivision shall be approved, in writing, by the Executive Officer and, at a minimum, be inspected, maintained, and operated in accordance with the manufacturer's specifications.

(g) Total Enclosures

- (1) An owner or operator of a lead-processing facility shall conduct all lead processing operations in a total enclosure that minimizes cross-draft conditions that could result in the decrease in collection efficiency of the emission collection system and the release of fugitive lead-dust emissions from openings in the wall and roof of a total enclosure, such as windows, passages, doorways, and bay doors. Alternative methods to minimize the release of fugitive lead-dust from the total enclosure may be used if the owner or operator

can demonstrate to the Executive Officer an equivalent or more effective method(s) to minimize cross-draft conditions.

(A) Acceptable methods to minimize cross-draft conditions include, but are not limited to the following:

- (i) Closing openings, except when moving parts, people, vehicles, or equipment through the openings;
- (ii) Use of automatic roll-up doors;
- (iii) Installation of plastic strip curtains; or
- (iv) Use of vestibules.

(B) Any modification or construction made to a structure to meet the provisions of paragraph (g)(1) shall be completed:

- (i) No later than May 3, 2018, if the owner or operator is modifying a building existing as of [DATE OF ADOPTION]; or
- (ii) No later than 12 months after [DATE OF ADOPTION], if the owner or operator is constructing a new building, provided the owner or operator provides written notice to the Executive Officer within 60 days after [DATE OF ADOPTION].

(2) All enclosure types shall be designed in a manner that does not conflict with the requirements set forth by the United States Department of Labor Occupational Safety and Health Administration or the California Division of Occupational Safety and Health regarding worker safety.

(3) The owner or operator of a lead processing facility shall inspect any total enclosure at least once a calendar month for breaks, cracks, gaps, or deterioration that could cause or result in fugitive lead-dust.

(4) The owner or operator of a lead processing facility shall repair any breaks, cracks, gaps, or deterioration that could result in fugitive lead-dust from any total enclosure within 72 hours of discovery. The Executive Officer may approve a request for extension beyond the 72-hour limit if the request is submitted before the 72-hour time limit has expired and the owner or operator can provide information to substantiate that either:

(A) The repair will take longer than 72 hours; or

(B) The equipment, parts, or materials needed for the repair cannot be obtained within 72 hours.

(h) Housekeeping Requirements

Unless otherwise specified, no later than 30 days after [DATE OF ADOPTION], the owner or operator of a facility that processes lead shall control fugitive lead-dust by conducting the following housekeeping practices:

- (1) Clean by wet wash, wet mop, or with a vacuum in a manner that does not generate fugitive lead-dust, the areas at specified frequencies listed in subparagraphs (h)(1)(A) through (h)(1)(C), unless located within a total enclosure vented to a lead emission control device.
 - (A) For lead processing facilities that process more than 10 tons per year, cleaning of rooftops on structures that house areas associated with lead processing operations at least one time per year during the months of July through September.
 - (B) Weekly cleanings by wet wash, wet mop, vacuum, or stabilization with dust suppressant of all:
 - (i) Areas where lead-containing wastes generated from housekeeping activities are stored, disposed of, recovered, or recycled; and
 - (ii) Surfaces that accumulate lead-containing dust subject to vehicular or foot traffic.
 - (C) Initiate immediate cleaning, no later than one hour after any construction or maintenance activity or event, including, but not limited to accidents, process upsets, or equipment malfunction that causes deposition of fugitive lead-dust emissions onto areas specified in subparagraphs (h)(1)(A) and (h)(1)(B). If the facility can demonstrate that delays were due to unreasonable risks to safety posed by earlier cleaning or inability to reasonably obtain equipment required to implement this requirement, immediate cleanings of rooftops shall be completed within 72 hours.
- (2) Effective [Date of Rule Adoption], the owner or operator of a lead processing facility shall not conduct any activities, including housekeeping, that involves dry sweeping or the use of compressed air.
- (3) Conduct quarterly cleaning of collection vents, ducting, and openings of each lead emission control device.
- (4) Remove any weather cap installed on any stack that is a source of lead emissions.
- (5) Store all materials capable of generating any amount of fugitive lead-dust including, but not limited to, slag and any other lead-containing waste generated from the housekeeping requirements of this subdivision and the construction or maintenance activities of subdivision (g), in sealed leak-proof containers, or stabilize such materials using dust

suppressants approved in writing by the Executive Officer, unless located within a total enclosure.

- (6) Transport all materials capable of generating any amount of fugitive lead-dust including, but not limited to, slag and any other waste generated from the housekeeping requirements of this subdivision and the construction or maintenance activities of subdivision (g), within closed conveyor systems or in sealed leak-proof containers, or stabilize such materials using dust suppressants approved in writing by the Executive Officer, unless located within a total enclosure. This paragraph shall not be applicable to the transport of high temperature materials exceeding 500 degrees Fahrenheit where implementation of the specified control requirements is infeasible.
- (7) Conduct wet washing, wet scrubbing, or vacuum sweeping of any paved area located outside of a total enclosure that is subject to vehicular traffic, no later than one hour after any construction or maintenance activity or event, including accidents, process upsets, or equipment malfunction that results in the deposition of fugitive lead-dust, unless located within a total enclosure vented to a lead emissions control device. Wet scrubbing shall not be required during days of measurable precipitation.
- (8) Except when inside a total enclosure, all lead-containing trash and debris shall be placed in covered containers that remain covered at all times except when trash or debris is actively transferred. Trash and debris containers shall be free of liquid or dust leaks.
- (9) Post signs at all entrances and truck loading and unloading areas indicating a speed limit of five (5) miles per hour or less on any roadway located within 75 feet of the perimeter of a total enclosure.
- (10) For any of the housekeeping requirements specified under paragraphs (h)(1) through (h)(9), an alternative housekeeping measure can be used provided the owner or operator demonstrates and receives written approval from the Executive Officer that the alternative housekeeping measure meets the same objective and effectiveness of the housekeeping requirement it is replacing.

(i) Ambient Monitoring and Sampling Requirements

- (1) Within 120 days of the date of final determination pursuant to paragraph (e)(4) that the owner or operator of a lead processing facility shall conduct ambient air lead monitoring, the owner or operator of a lead processing facility shall submit a Lead Ambient Air Monitoring and Sampling Plan for review and approval by the Executive Officer, subject to plan fees as specified in SCAQMD Rule 306 – Plan Fees that includes:
 - (A) Source test results of all lead point sources conducted pursuant to subdivision (j).

- (B) Map of the facility identifying the location of all lead emission sources, emission control devices, stacks, enclosures, openings of enclosures, storage of lead containing materials, roadways where vehicles carrying lead containing materials travel within the facility, vehicle ingress and egress locations, the property line of the facility, the fence line of the facility if it differs from the property line of the facility, and any areas within the property line of the facility that are publicly accessible.
- (C) Number and locations for sampling sites that meet the requirements of paragraph (i)(2).
- (D) The Executive Officer shall notify the owner or operator in writing of whether the Lead Ambient Air Monitoring and Sampling Plan has been approved or disapproved.
 - (i) Determination of approval status shall be based on, at a minimum, submittal of information that satisfies the criteria set forth in subparagraphs (i)(1)(A) through (i)(1)(C).
 - (ii) If the Lead Ambient Air Monitoring and Sampling Plan is disapproved, the owner or operator shall resubmit the plan, subject to plan fees specified in Rule 306, within 30 calendar days after notification of disapproval of the plan. The resubmitted plan shall include any information necessary to address deficiencies identified in the disapproval letter. A facility shall be in violation of the rule after a second successive denial of the Lead Ambient Air Monitoring and Sampling Plan.
 - (iii) If the resubmitted plan is denied, the owner or operator may appeal the denial to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans.
- (2) No later than 90 days after the approval of a Lead Ambient Air Monitoring and Sampling Plan, the owner of a lead processing facility shall install monitors and conduct ambient air lead monitoring and sampling as follows:
 - (A) Collect samples from a minimum of two (2) sampling sites. Locations for sampling sites shall be approved by the Executive Officer.
 - (B) Locations for sampling sites shall be based on maximum expected ground level concentrations, at or beyond the property line, as determined by Executive Officer-approved air dispersion modeling calculations and emissions estimates from all lead point sources and fugitive lead-dust sources, and other factors including, but not limited to, population exposure and seasonal meteorology.

- (C) The Executive Officer may require one or more of the sampling sites to be at locations that are not based on maximum ground level lead concentrations, and that are instead at locations at or beyond the property line that are representative of upwind or background concentrations.
- (D) Sampling sites at the property line may be located just inside the fence line on facility property if logistical constraints preclude placement outside the fence line at the point of maximum expected ground level lead concentrations.
- (E) The Executive Officer may require a facility to relocate existing monitors or install additional monitors to those required under subparagraph (i)(2)(A) in order to measure ambient air lead concentrations at locations that may contribute to the exceedance of an ambient air lead concentration limit specified in subdivision (d), if information becomes available showing:
 - (i) A new or existing source of lead emissions that was not previously identified or fully disclosed;
 - (ii) An increase in lead emissions from an existing source where existing monitors are not capturing the potential ambient air lead concentration; or
 - (iii) That none of the existing monitors are capturing the maximum expected ground level lead concentration.
- (3) All facilities required to conduct ambient monitoring pursuant to paragraphs (e)(4) and (i)(2), shall collect one valid 24-hour, midnight-to-midnight sample at least once every six calendar days, on a schedule approved by the Executive Officer.
- (4) If a valid 24-hour, midnight-to-midnight sample was not collected due to a monitor malfunction or other occurrence beyond the control of the facility, the owner or operator shall:
 - (A) Report with a notification made to 1-800-CUT-SMOG within two (2) hours of knowing that the valid 24-hour, midnight-to-midnight sample was not collected, providing the facility name, name of the monitor, date of the occurrence, and reason that the valid 24-hour, midnight-to-midnight sample was not collected; and
 - (B) For each of the monitors, the operator shall not miss a valid 24-hour, midnight-to-midnight sample for more than one day over a consecutive 30-day period.
- (5) The owner or operator of a lead processing facility shall submit samples collected pursuant to this subdivision to a laboratory approved under the SCAQMD Laboratory Approval Program for analysis within three calendar days of collection and calculate ambient lead concentrations for individual valid 24-hour samples within 15 calendar days

- of the end of the calendar month in which the samples were collected. Split samples shall be made available and submitted to the SCAQMD upon request by the Executive Officer.
- (6) Sample collection for lead shall be conducted using Title 40, CFR 50 Appendix B - *Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method)*, or U.S. EPA-approved equivalent methods, and sample analysis for lead shall be conducted using Title 40, CFR 50 Appendix G - *Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air*, or U.S. EPA-approved equivalent methods.
- (7) Continuously record wind speed and direction at all times using equipment approved by the Executive Officer at a minimum of one location approved by the Executive Officer.
- (8) A facility may conduct valid 24-hour sampling on a schedule different than midnight-to-midnight if it is demonstrated to and approved by the Executive Officer that the alternative schedule is adequate to routinely collect valid 24-hour samples and is conducted using the sampling methods referenced in paragraph (i)(6). The approval may be temporarily suspended during days when the SCAQMD conducts concurrent sampling to verify monitor readings. The approval may also be permanently rescinded by the Executive Officer.
- (9) Ambient air monitoring shall be conducted by persons approved by the Executive Officer, or facility personnel trained and certified to conduct ambient air monitoring demonstrated through successful completion of a course offered or approved by the Executive Officer. Sampling equipment shall be operated and maintained in accordance with U.S. EPA-approved equivalent methods.
- (10) Cleaning activities including, but not limited to, wet washing and misting, that could result in damage or biases to samples collected shall not be conducted within 10 meters of any sampling site required under this subdivision.
- (11) Beginning no later than 90 days after a Lead Ambient Air Monitoring and Sampling Plan as required by subdivision (i), is approved by the Executive Officer, the owner or operator of a lead processing facility shall report by the 15th of each month to the Executive Officer, the results of all ambient air lead and wind monitoring for each preceding month, or more frequently if determined necessary by the Executive Officer. The report shall include the results of individual valid 24-hour samples and 30-day rolling averages for each day within the reporting period.
- (12) Any exceedances of ambient air lead concentrations specified in subdivision (d) shall be reported with a notification made to the 1-800-CUT-SMOG within 24 hours of receipt of the completed sample analysis required in paragraph (i)(6), followed by a written report

to the Executive Officer no later than three (3) calendar days after the notification. The written report shall include the potential causes of the exceedance and the specific corrective actions implemented.

(j) Reporting

~~Any lead processing facility that is required or elects to do ambient air monitoring shall report to the District the results of all ambient air lead and wind monitoring each calendar quarter. Results of individual 24 hour samples shall be reported and averaged each calendar month. Any exceedances of ambient air quality standards identified within that period shall be reported to the District within 24 hours of receipt of the completed sample analysis required in paragraph (g)(4).~~

Source Tests

- (1) Effective [DATE OF ADOPTION], the owner or operator shall conduct a source test of all lead point sources once every 24 months after the initial source test to demonstrate compliance with the facility mass emissions standards specified in subdivision (f). If a source test to demonstrate compliance with the lead point source emission standards of subdivision (f) demonstrates a 99% or greater reduction of lead emissions, and stack outlet mass lead emissions of less than 0.00015 pounds per hour, then the next source test for the lead point source lead emissions control device shall be performed no later than 48 months after the date of the most recent source test.
- (2) The owner or operator of a lead processing facility with an existing lead emission control device in operation before [DATE OF ADOPTION] shall conduct a source test for it no later than February 3, 2018. The owner or operator of a lead processing facility with a new or modified lead control device with initial start-up on or after [DATE OF ADOPTION] shall conduct the initial source test for it within 60 calendar days after initial start-up.
- (3) At least 60 calendar days prior to conducting a source test pursuant to paragraph (j)(1) or (j)(2), the owner or operator shall submit a source test protocol to the Executive Officer for approval. The source test protocol shall include the source test criteria of the end user, all assumptions, required data, calculated targets for testing, and the following:
 - (A) Target lead mass emission standard;
 - (B) Planned sampling parameters;
 - (C) Information on equipment, logistics, personnel, and other resources necessary for an efficient and coordinated source test; and
 - (D) Evaluation of emission collection system.

- (4) The owner or operator shall notify the Executive Officer, in writing, of the intent to conduct source testing, one week prior to conducting any source test required by paragraphs (j)(1) or (j)(2).
- (5) The owner or operator shall notify the Executive Officer within three (3) business days (Monday through Friday) of when the facility knew or should have known of any source test result that exceeds any of the emission standards specified in subdivision (f). Notifications shall be made to 1-800-CUT-SMOG and followed up in writing to the Executive Officer with the results of the source tests within seven (7) business days of notification.
- (6) Source tests shall be conducted while operating at a minimum of 80% of the equipment's permitted capacity and in accordance with any of the following applicable test methods:
 - (A) SCAQMD Method 12.1 – *Determination of Inorganic Lead Emissions from Stationary Sources Using a Wet Impingement Train*;
 - (B) CARB Method 12 – *Determination of Inorganic Lead Emissions from Stationary Sources*; or
 - (C) U.S. EPA Method 12 – *Determination of Inorganic Lead Emissions from Stationary Sources*.
- (7) The owner or operator may use alternative or equivalent source test methods as defined in U.S. EPA 40 CFR 60.2, if approved in writing by the Executive Officer, in addition to the CARB, or the U.S. EPA, as applicable.
- (8) The owner or operator shall use a test laboratory approved under the SCAQMD Laboratory Approval Program for the source test methods cited in this subdivision. If there is no approved laboratory, then approval of the testing procedures used by the laboratory shall be granted by the Executive Officer on a case-by-case basis based on SCAQMD protocols and procedures.
- (9) When more than one source test method or set of source test methods are specified for any testing, the application of these source test methods to a specific set of test conditions is subject to approval by the Executive Officer. In addition, a violation established by any one of the specified source test methods or set of source test methods shall constitute a violation of the rule.
- (10) An existing source test conducted on or after January 1, 2014 for lead emission control devices existing before November 3, 2017 may be used as the initial source test specified in paragraph (j)(1) to demonstrate compliance with the lead emission control standards of subdivision (f). The source test shall meet, at a minimum, the following criteria:
 - (A) The source test is the most recent conducted since January 1, 2014;

- (B) The source test demonstrated compliance with the control requirements of subdivision (f);
- (C) The source test is representative of a method used to test emissions from control devices currently in use; and
- (D) The source test was conducted using applicable and approved test methods specified in paragraphs (j)(6) through (j)(8).
- (11) Source testing conducted by the facility, the SCAQMD, or a contractor acting on behalf of the SCAQMD or the facility to determine compliance with this rule shall be performed according to the most recent SCAQMD-approved source test protocol for the same purpose.
- (12) Reports from source testing conducted pursuant to subdivision (j) shall be submitted to the SCAQMD within 90 days of completion of source testing.

~~(f) — Compliance Plan~~

~~No later than July 1, 1993, any person who owns or operates a lead processing facility that processes more than 2 tons of lead per year shall submit a Compliance Plan to the Executive Officer for approval, with the following, including all supporting information, data, and calculations:~~

- ~~(1) — For each of the previous three calendar years dating from the date of the adoption of this rule;~~
 - ~~(A) — Quantities of each lead-containing material processed;~~
 - ~~(B) — The amount of lead in each material processed;~~
- ~~(2) — For the previous 12 calendar months;~~
 - ~~(A) — The maximum and average daily process rates and monthly process rates for all equipment and processes;~~
 - ~~(B) — The maximum and average daily and annual emissions of lead from all emission points and average daily and annual emission estimates from all sources of fugitive lead dust;~~
- ~~(3) — The approximate date of intended source tests for lead control devices, as required by paragraph (e)(2), and an application for a Permit to Construct any required lead control devices and associated emission collection systems, if applicable;~~
- ~~(4) — Engineering drawings, calculations or other methodology to demonstrate compliance with paragraphs (e)(1) and (e)(4);~~
- ~~(5) — Air dispersion modeling calculations using procedures approved by the Executive Officer to determine the location of sampling sites as required by subdivision (g) or to estimate ambient concentrations of lead as required by subdivision (h);~~

~~(6) — All information necessary to demonstrate means of compliance with subdivision (g).~~

~~(g) — Requirements for Ambient Air Monitoring~~

~~No later than 6 months after approval of the Compliance Plan, all facilities that are required or elect to employ ambient air monitoring shall conduct ambient air monitoring as follows:~~

- ~~(1) — Collect samples from a minimum of two sampling sites approved by the Executive Officer located at or beyond the property line of the facility where maximum ground level lead concentrations are indicated by Executive Officer approved air dispersion modeling calculations and based on Executive Officer approved emission estimates from all emission points and fugitive lead dust sources;~~
- ~~(2) — Collect samples from a minimum of one Executive Officer approved sampling site to determine background ambient lead concentration;~~
- ~~(3) — Collect 24-hour samples at all sites for 30 consecutive days from the date of initial sampling, followed by one 24-hour sample collected every 6 days, on a schedule approved by the Executive Officer;~~
- ~~(4) — Submit samples collected pursuant to paragraphs (g)(1), (g)(2), and (g)(3) to a Executive Officer approved laboratory for analysis within three (3) calendar days of collection and calculate ambient lead concentrations for individual 24-hour samples within 15 calendar days of the end of the calendar month in which the samples were collected;~~
- ~~(5) — Sample collection shall be conducted using Title 40, CFR 50 Appendix B — Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method), and sample analysis shall be conducted using Title 40, CFR 50 Appendix G — Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air, or U.S. EPA-approved equivalent methods;~~
- ~~(6) — Continuously record wind speed and direction data during sampling periods using equipment approved by the Executive Officer at location and placement approved by the Executive Officer;~~
- ~~(7) — Ambient air quality monitoring shall be conducted by persons approved by the Executive Officer and sampling equipment shall be operated and maintained in accordance with EPA-referenced methods.~~

~~(h) — Requirements for Air Dispersion Modeling~~

- ~~(1) — Facilities that process more than 2 tons, but less than or equal to 10 tons of lead per year shall submit to the Executive Officer, with the Compliance Plan, the results and input data of air dispersion modeling calculations, as applicable. Air dispersion modeling shall be conducted using modeling approaches and emission estimates approved by the Executive Officer.~~

(k) Emission Control Device Monitoring

(1) Bag Leak Detection System

The owner or operator of a lead processing facility shall apply for a permit to install, operate, calibrate, and maintain a Bag Leak Detection System for baghouses subject to the requirements of SCAQMD Rule 1155 – Particulate Matter (PM) Control Devices.

(2) The owner or operator of a lead processing facility shall continuously monitor the pressure drop across the filter of an emission control device used to control lead emissions with a gauge. The gauge shall be located so that it is easily visible and in clear sight of the owner or operator or maintenance personnel. For the purposes of this requirement, the owner or operator shall ensure that the monitoring device:

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

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

(C) Is equipped with a continuous data acquisition system (DAS). The DAS shall record the data output from the monitoring device at a frequency of not less than once every 60 minutes;

(D) Generates a data file from the computer system interfaced with each DAS each calendar day saved in Microsoft Excel (xls orxlsx) format or other format as approved by the Executive Officer. The file shall contain a table of chronological date and time and the corresponding data output value from the monitoring device in inches of water column. The operator shall prepare a separate data file each day showing the 4-hour average pressure readings recorded by this device each calendar day; and

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

(3) The owner or operator shall conduct a source test pursuant to subdivision (j), if the pressure across the filter is not maintained within the range specified by the manufacturer or according to conditions of the Permit to Operate for the emission control device as determined by hourly or more frequent recordings by the DAS for the averaging periods below:

(A) A 4-hour time period on three (3) or more separate days over 60 continuous days;
or

(B) Any consecutive 24-hour period.

(4) The owner or operator of a lead processing facility shall operate the emission collection system associated with the lead emission control device at a minimum collection induced

capture velocity specified in the most current edition of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists, at the time a permit application is deemed complete with the SCAQMD.

- (5) For each emission collection system subject to this subdivision, a periodic smoke test shall be conducted during source testing, pursuant to paragraph (j)(1) and at least once every three months thereafter, using the procedure set forth in Appendix 1 of this rule. The smoke test need not be performed if it is demonstrated to the Executive Officer that it presents an unreasonable risk.
- (6) A calibrated hot wire anemometer shall be used to measure the capture velocity of each emission collection system at least once monthly, based on its location within a lead processing facility 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.
 - (B) An emission collection system without an enclosing hood that is designed with collection slots shall maintain a velocity of at least 2,000 feet per minute, or the minimum slot velocity measured in the most recent source test that verifies 100% collection efficiency, whichever is greater.

(j)(1) Recordkeeping

~~Effective January 1, 1994, any person who owns or operates a lead processing facility subject to this rule shall maintain two years of the following records at the facility and make them available to the Executive Officer upon request.~~The owner or operator of a lead processing facility shall keep records of the following:

- (1) ~~Information on quantities of each lead-containing material processed, and the lead content of the material, including purchase records, usage records, results of analysis or other verification to indicate lead content and lead usage, updated annually;~~ Data related to lead-containing raw materials used at the facility, including quantities processed monthly and the lead content of these raw materials, purchase records, results of analyses, source test data, and other SCAQMD-approved verification to indicate amounts of lead-containing materials processed. The Executive Officer may approve other alternative methods used to calculate the amount of lead processed and the percentages of lead contained within the lead-containing raw materials processed.

- (2) Monthly records of weight of metal waste collected by the baghouse catch, including, if applicable, any metal analyses for bulk samples of baghouse catches conducted pursuant to subdivision (b).
- ~~(2)(3) Results of all ambient air lead monitoring, including data specified by subdivision (g), and air dispersion modeling as specified in subdivision (h), as applicable~~Results of all ambient air lead monitoring, wind monitoring, and other data specified in subdivision (i);
- ~~(3)(4) Records of housekeeping activities completed as required by paragraph (e)(4), and inspections and maintenance of emission collection systems and control devices, including the name of the person performing the activity, and the dates on which specific activities were completed~~Records of the following shall also be maintained:
 - (A) Inspections, maintenance, and repairs of total enclosures pursuant to paragraphs (g)(3) and (g)(4);
 - (B) Housekeeping activities completed as required by paragraphs (h)(1), (h)(3), and (h)(7);
 - (C) Source tests data as required by subdivision (j) or paragraph (k)(3);
 - (D) Data files, inspection, and maintenance of emission collection devices as required by subdivision (k), including the name of the person conducting the activity and the dates and times at which specific activities were completed;
 - (E) Smoke test results as required by paragraph (k)(5); and
 - (F) Hot wire anemometer data collected, including capture velocities, dates of measurement and calibration documentation as required by paragraph (k)(6).
- (5) The owner or operator shall maintain all records for three years, with at least the two most recent years kept onsite and made available to the SCAQMD upon request.

~~(k)(m)~~ Exemptions

- ~~(1) Lead-processing facilities processing 2 tons or less of lead per year shall be exempt from subdivisions (e), (f), (g) and (h), and paragraphs (i)(2) and (i)(3) of this rule, provided the owner or operator demonstrates eligibility for this exemption to the satisfaction of the Executive Officer.~~
- ~~(2) Lead-processing facilities processing more than 2 tons of lead per year and with maximum daily lead emissions of less than 0.5 pound per day from all emission points and fugitive dust sources, as determined by a compliance plan approved by the Executive Officer and submitted pursuant to subdivision (f), recordkeeping pursuant to subdivision (i), and all other District reporting requirements, shall be exempt from paragraphs (e)(1), (e)(2), (e)(5), (e)(6), and subdivisions (g) and (h) of this rule.~~

- (1) An owner or operator of a lead processing facility that demonstrates ambient air lead concentration levels of less than or equal to $0.07 \mu\text{g}/\text{m}^3$ averaged over 30 consecutive days for 12 rolling months, measured during normal conditions that are representative of the facility, may be exempt from the ambient monitoring requirements set forth in subdivision (i) upon Executive Officer approval of an Air Monitoring Relief Plan, subject to plan fees specified in Rule 306, which shall be granted if the plan contains all of the following:
- (A) Air dispersion modeling analysis that demonstrates an ambient air lead concentration that is less than or equal to $0.07 \mu\text{g}/\text{m}^3$ averaged over 30 consecutive days that is representative of normal facility operations;
 - (B) One year of ambient air lead monitoring data without a single 30 consecutive day average exceeding an ambient air lead concentration of $0.07 \mu\text{g}/\text{m}^3$;
 - (C) Most recent source tests approved by the SCAQMD that demonstrate that mass emission rate of each lead point source emission control device does not exceed the 0.00030 pound per hour limit in accordance with subdivision (f); and
 - (D) Most recent source tests approved by the SCAQMD that demonstrate a total facility mass lead emission rate from all lead point sources of less than 0.0030 pound per hour.

Appendix 1 - Smoke Test to Demonstrate Capture Efficiency for Ventilation Systems of (an) Emission Control Device(s) Pursuant to Paragraph (k)(5).

1. Applicability and Principle

- 1.1 Applicability. This method is applicable to all point sources where an emission control device is used to capture and control emissions from lead processing operations.
- 1.2 Principle. Collection of emissions from lead processing sources is achieved by the ventilation system associated with the emission control device for lead processing equipment. Emission control efficiency at the exhaust of an emission control device is related to capture efficiency at the inlet of the ventilation system. For this reason, it is imperative that 100% capture efficiency is maintained. A smoke device placed within the area where collection of emissions by the ventilation 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 generating device should not provide excessive momentum to the smoke stream that may create a bias in the determination of collection efficiency. If the device 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 must 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 control device is in normal operation. The position of any adjustable dampers that can affect air flow shall be documented. Precautions should 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 control device is in normal operation and under typical draft conditions representative of the facility's lead processing operations. This includes cooling fans and openings affecting draft conditions around the metal grinding area including, but not limited to, vents, windows, doorways, bay doors, and roll-ups, as

well as the operation of other work stations and traffic. The smoke generator must be at full generation during the entire test and operated according to manufacturer's suggested use.

4. Procedure

- 4.1 Collection Slots. For work stations equipped with collection slots or hoods, the smoke shall be released at points where lead processing emissions are generated (e.g. the point where melting occurs). Observe the collection of the smoke to the collection location(s) of the ventilation system. An acceptable smoke test shall demonstrate a direct stream to the collection location(s) of the ventilation system without meanderings out of this direct path. Smoke shall be released at points not to exceed 12 inches apart across ventilated work areas. Record these observations at each of the points providing a qualitative assessment of the collection of smoke to the ventilation system.
- 4.2 Equipment Enclosures. Equipment enclosures include equipment where emissions are generated inside the equipment, and the equipment is intended to have inward air flow through openings to prevent the escape of process emissions. The smoke shall be released at points outside of the plane of the opening of the equipment, over an evenly spaced matrix across all openings with points not to exceed 12 inches apart. Observe the inward movement of the smoke to the collection location(s) of the ventilation system. An acceptable smoke test shall demonstrate a direct stream into the equipment without meanderings out of this direct path. Record these observations at each of the points providing a qualitative assessment of the collection of smoke to the ventilation system.
5. Documentation. The smoke test shall be documented by photographs or video at each point that clearly show the path of the smoke. Documentation shall also include a list of equipment tested and any repairs that were performed in order to pass the smoke test. As previously discussed, the documentation shall include the position of adjustable dampers, cross-draft conditions, and the heat input of the equipment, if applicable. The documentation shall be signed and dated by the person performing the test. The records shall be maintained on site for at least two years and be made available to SCAQMD personnel upon request.

APPENDIX B

ASSUMPTIONS AND CALCULATIONS

APPENDIX B-1

CalEEMod Files and Assumptions – Construction Emissions

CalEEMod Files and Assumptions

Building Improvement For Total Enclosure (Annual)

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Annual

R1420_Total Enclosure Improvement_20170914

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	0.60	1000sqft	0.01	600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - assume 2017/11/1 to start the construction and 2018 is the operational year

Land Use - assumption: 3000 sq ft building with only 1 wall = 20% = 600 sqft

Construction Phase - assumptions: 5 days construction

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

Off-road Equipment - assumptions: 4hrs per day

Trips and VMT - assumptions 10 hauling trips

Demolition -

Grading -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	5.00
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	2.6900e-003	0.0194	0.0155	3.0000e-005	9.0000e-005	1.3300e-003	1.4200e-003	2.0000e-005	1.3000e-003	1.3200e-003	0.0000	2.3172	2.3172	3.5000e-004	0.0000	2.3260
Maximum	2.6900e-003	0.0194	0.0155	3.0000e-005	9.0000e-005	1.3300e-003	1.4200e-003	2.0000e-005	1.3000e-003	1.3200e-003	0.0000	2.3172	2.3172	3.5000e-004	0.0000	2.3260

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					
2017	2.6900e-003	0.0194	0.0155	3.0000e-005	9.0000e-005	1.3300e-003	1.4200e-003	2.0000e-005	1.3000e-003	1.3200e-003	0.0000	2.3172	2.3172	3.5000e-004	0.0000	2.3260
Maximum	2.6900e-003	0.0194	0.0155	3.0000e-005	9.0000e-005	1.3300e-003	1.4200e-003	2.0000e-005	1.3000e-003	1.3200e-003	0.0000	2.3172	2.3172	3.5000e-004	0.0000	2.3260

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	2.4500e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	3.0000e-005	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.7734	0.7734	3.0000e-005	1.0000e-005	0.7763
Mobile	4.7000e-004	2.6300e-003	6.9600e-003	2.0000e-005	1.6400e-003	3.0000e-005	1.6700e-003	4.4000e-004	2.0000e-005	4.6000e-004	0.0000	1.9726	1.9726	1.1000e-004	0.0000	1.9752
Waste						0.0000	0.0000		0.0000	0.0000	0.1137	0.0000	0.1137	6.7200e-003	0.0000	0.2816
Water						0.0000	0.0000		0.0000	0.0000	0.0440	0.5756	0.6197	4.5400e-003	1.1000e-004	0.7666
Total	2.9200e-003	2.6600e-003	6.9900e-003	2.0000e-005	1.6400e-003	3.0000e-005	1.6700e-003	4.4000e-004	2.0000e-005	4.6000e-004	0.1577	3.3216	3.4793	0.0114	1.2000e-004	3.7997

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.4500e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	3.0000e-005	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.7734	0.7734	3.0000e-005	1.0000e-005	0.7763
Mobile	4.7000e-004	2.6300e-003	6.9600e-003	2.0000e-005	1.6400e-003	3.0000e-005	1.6700e-003	4.4000e-004	2.0000e-005	4.6000e-004	0.0000	1.9726	1.9726	1.1000e-004	0.0000	1.9752
Waste						0.0000	0.0000		0.0000	0.0000	0.1137	0.0000	0.1137	6.7200e-003	0.0000	0.2816
Water						0.0000	0.0000		0.0000	0.0000	0.0440	0.5756	0.6197	4.5400e-003	1.1000e-004	0.7666
Total	2.9200e-003	2.6600e-003	6.9900e-003	2.0000e-005	1.6400e-003	3.0000e-005	1.6700e-003	4.4000e-004	2.0000e-005	4.6000e-004	0.1577	3.3216	3.4793	0.0114	1.2000e-004	3.7997

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction/improvement	Building Construction	11/1/2017	11/7/2017	5	5	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0**Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction/improvement	Air Compressors	1	4.00	78	0.48
Building Construction/improvement	Forklifts	1	4.00	89	0.20
Building Construction/improvement	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction/improvement	Welders	1	4.00	46	0.45
Building Construction/improvement	Cement and Mortar Mixers	1	4.00	9	0.56
Building Construction/improvement	Concrete/Industrial Saws	1	4.00	81	0.73
Building Construction/improvement	Cranes	0	4.00	231	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction/improvement	6	0.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Building Construction/improvement - 2017**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	2.6400e-003	0.0177	0.0151	2.0000e-005		1.3200e-003	1.3200e-003		1.2900e-003	1.2900e-003	0.0000	1.9283	1.9283	3.3000e-004	0.0000	1.9364
Total	2.6400e-003	0.0177	0.0151	2.0000e-005		1.3200e-003	1.3200e-003		1.2900e-003	1.2900e-003	0.0000	1.9283	1.9283	3.3000e-004	0.0000	1.9364

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	5.0000e-005	1.7200e-003	3.2000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3889	0.3889	3.0000e-005	0.0000	0.3896
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	5.0000e-005	1.7200e-003	3.2000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3889	0.3889	3.0000e-005	0.0000	0.3896

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3.2 Building Construction/improvement - 2017**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	2.6400e-003	0.0177	0.0151	2.0000e-005		1.3200e-003	1.3200e-003		1.2900e-003	1.2900e-003	0.0000	1.9283	1.9283	3.3000e-004	0.0000	1.9364
Total	2.6400e-003	0.0177	0.0151	2.0000e-005		1.3200e-003	1.3200e-003		1.2900e-003	1.2900e-003	0.0000	1.9283	1.9283	3.3000e-004	0.0000	1.9364

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	5.0000e-005	1.7200e-003	3.2000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3889	0.3889	3.0000e-005	0.0000	0.3896
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	5.0000e-005	1.7200e-003	3.2000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3889	0.3889	3.0000e-005	0.0000	0.3896

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.7000e-004	2.6300e-003	6.9600e-003	2.0000e-005	1.6400e-003	3.0000e-005	1.6700e-003	4.4000e-004	2.0000e-005	4.6000e-004	0.0000	1.9726	1.9726	1.1000e-004	0.0000	1.9752
Unmitigated	4.7000e-004	2.6300e-003	6.9600e-003	2.0000e-005	1.6400e-003	3.0000e-005	1.6700e-003	4.4000e-004	2.0000e-005	4.6000e-004	0.0000	1.9726	1.9726	1.1000e-004	0.0000	1.9752

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	1.01	1.01	1.01	4,320	4,320
Total	1.01	1.01	1.01	4,320	4,320

4.3 Trip Type Information

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.7456	0.7456	3.0000e-005	1.0000e-005	0.7482
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.7456	0.7456	3.0000e-005	1.0000e-005	0.7482
NaturalGas Mitigated	0.0000	3.0000e-005	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0279	0.0279	0.0000	0.0000	0.0280
NaturalGas Unmitigated	0.0000	3.0000e-005	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0279	0.0279	0.0000	0.0000	0.0280

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	522	0.0000	3.0000e-005	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0279	0.0279	0.0000	0.0000	0.0280
Total		0.0000	3.0000e-005	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0279	0.0279	0.0000	0.0000	0.0280

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	522	0.0000	3.0000e-005	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0279	0.0279	0.0000	0.0000	0.0280
Total		0.0000	3.0000e-005	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0279	0.0279	0.0000	0.0000	0.0280

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	2340	0.7456	3.0000e-005	1.0000e-005	0.7482
Total		0.7456	3.0000e-005	1.0000e-005	0.7482

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	2340	0.7456	3.0000e-005	1.0000e-005	0.7482
Total		0.7456	3.0000e-005	1.0000e-005	0.7482

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4500e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	2.4500e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	2.0000e-005
Total	2.4500e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	2.0000e-005

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	2.0000e-005
Total	2.4500e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail**7.1 Mitigation Measures Water**

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.6197	4.5400e-003	1.1000e-004	0.7666
Unmitigated	0.6197	4.5400e-003	1.1000e-004	0.7666

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	0.13875 / 0	0.6197	4.5400e-003	1.1000e-004	0.7666
Total		0.6197	4.5400e-003	1.1000e-004	0.7666

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	0.13875 / 0	0.6197	4.5400e-003	1.1000e-004	0.7666
Total		0.6197	4.5400e-003	1.1000e-004	0.7666

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1137	6.7200e-003	0.0000	0.2816
Unmitigated	0.1137	6.7200e-003	0.0000	0.2816

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	0.56	0.1137	6.7200e-003	0.0000	0.2816
Total		0.1137	6.7200e-003	0.0000	0.2816

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	0.56	0.1137	6.7200e-003	0.0000	0.2816
Total		0.1137	6.7200e-003	0.0000	0.2816

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

CalEEMod Files and Assumptions

Building Improvement For Total Enclosure (Summer)

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

R1420_Total Enclosure Improvement_20170914

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	0.60	1000sqft	0.01	600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - assume 2017/11/1 to start the construction and 2018 is the operational year

Land Use - assumption: 3000 sq ft building with only 1 wall = 20% = 600 sqft

Construction Phase - assumptions: 5 days construction

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

Off-road Equipment - assumptions: 4hrs per day

Trips and VMT - assumptions 10 hauling trips

Demolition -

Grading -

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	5.00
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00

2.0 Emissions Summary

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.0756	7.7429	6.1743	0.0107	0.0350	0.5335	0.5684	0.0000	0.5181	0.5277	0.0000	1,022.9494	1,022.9494	0.1557	0.0000	1,026.8417
Maximum	1.0756	7.7429	6.1743	0.0107	0.0350	0.5335	0.5684	0.0000	0.5181	0.5277	0.0000	1,022.9494	1,022.9494	0.1557	0.0000	1,026.8417

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					
2017	1.0756	7.7429	6.1743	0.0107	0.0350	0.5335	0.5684	0.0000	0.5181	0.5277	0.0000	1,022.9494	1,022.9494	0.1557	0.0000	1,026.8417
Maximum	1.0756	7.7429	6.1743	0.0107	0.0350	0.5335	0.5684	0.0000	0.5181	0.5277	0.0000	1,022.9494	1,022.9494	0.1557	0.0000	1,026.8417

[illegible]

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Energy	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Mobile	2.7200e-003	0.0137	0.0404	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		12.4439	12.4439	6.6000e-004		12.4604
Total	0.0162	0.0139	0.0405	1.2000e-004	9.1900e-003	1.5000e-004	9.3400e-003	2.4600e-003	1.4000e-004	2.6000e-003		12.6122	12.6122	6.6000e-004	0.0000	12.6298

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	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Energy	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Mobile	2.7200e-003	0.0137	0.0404	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		12.4439	12.4439	6.6000e-004		12.4604
Total	0.0162	0.0139	0.0405	1.2000e-004	9.1900e-003	1.5000e-004	9.3400e-003	2.4600e-003	1.4000e-004	2.6000e-003		12.6122	12.6122	6.6000e-004	0.0000	12.6298

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction/improvement	Building Construction	11/1/2017	11/7/2017	5	5	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction/improvement	Air Compressors	1	4.00	78	0.48
Building Construction/improvement	Forklifts	1	4.00	89	0.20
Building Construction/improvement	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction/improvement	Welders	1	4.00	46	0.45
Building Construction/improvement	Cement and Mortar Mixers	1	4.00	9	0.56
Building Construction/improvement	Concrete/Industrial Saws	1	4.00	81	0.73
Building Construction/improvement	Cranes	0	4.00	231	0.29

Trips and VMT

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction/improvement	6	0.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Building Construction/improvement - 2017****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	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147		850.2212	850.2212	0.1437		853.8126
Total	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147		850.2212	850.2212	0.1437		853.8126

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

3.2 Building Construction/improvement - 2017**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	0.0199	0.6659	0.1224	1.6000e-003	0.0350	3.5900e-003	0.0385	9.5800e-003	3.4400e-003	0.0130		172.7282	172.7282	0.0120		173.0292
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
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
Total	0.0199	0.6659	0.1224	1.6000e-003	0.0350	3.5900e-003	0.0385	9.5800e-003	3.4400e-003	0.0130		172.7282	172.7282	0.0120		173.0292

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	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147	0.0000	850.2212	850.2212	0.1437		853.8126
Total	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147	0.0000	850.2212	850.2212	0.1437		853.8126

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

3.2 Building Construction/improvement - 2017**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	0.0199	0.6659	0.1224	1.6000e-003	0.0350	3.5900e-003	0.0385	9.5800e-003	3.4400e-003	0.0130		172.7282	172.7282	0.0120		173.0292
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
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
Total	0.0199	0.6659	0.1224	1.6000e-003	0.0350	3.5900e-003	0.0385	9.5800e-003	3.4400e-003	0.0130		172.7282	172.7282	0.0120		173.0292

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.7200e-003	0.0137	0.0404	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		12.4439	12.4439	6.6000e-004		12.4604
Unmitigated	2.7200e-003	0.0137	0.0404	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		12.4439	12.4439	6.6000e-004		12.4604

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	1.01	1.01	1.01	4,320	4,320
Total	1.01	1.01	1.01	4,320	4,320

4.3 Trip Type Information

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

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	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
NaturalGas Unmitigated	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

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	1.43014	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Total		2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0.00143014	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Total		2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

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	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Unmitigated	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Total	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Total	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

7.0 Water Detail

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

R1420_Total Enclosure Improvement_20170914

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	0.60	1000sqft	0.01	600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - assume 2017/11/1 to start the construction and 2018 is the operational year

Land Use - assumption: 3000 sq ft building with only 1 wall = 20% = 600 sqft

Construction Phase - assumptions: 5 days construction

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

Off-road Equipment - assumptions: 4hrs per day

Trips and VMT - assumptions 10 hauling trips

Demolition -

Grading -

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	5.00
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00

2.0 Emissions Summary

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.0762	7.7531	6.1846	0.0106	0.0350	0.5335	0.5685	0.0000	0.5182	0.5278	0.0000	1,019.9490	1,019.9490	0.1563	0.0000	1,023.8554
Maximum	1.0762	7.7531	6.1846	0.0106	0.0350	0.5335	0.5685	0.0000	0.5182	0.5278	0.0000	1,019.9490	1,019.9490	0.1563	0.0000	1,023.8554

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					
2017	1.0762	7.7531	6.1846	0.0106	0.0350	0.5335	0.5685	0.0000	0.5182	0.5278	0.0000	1,019.9490	1,019.9490	0.1563	0.0000	1,023.8554
Maximum	1.0762	7.7531	6.1846	0.0106	0.0350	0.5335	0.5685	0.0000	0.5182	0.5278	0.0000	1,019.9490	1,019.9490	0.1563	0.0000	1,023.8554

[illegible]

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Energy	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Mobile	2.6100e-003	0.0142	0.0375	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		11.7812	11.7812	6.5000e-004		11.7976
Total	0.0160	0.0143	0.0377	1.2000e-004	9.1900e-003	1.5000e-004	9.3400e-003	2.4600e-003	1.4000e-004	2.6000e-003		11.9496	11.9496	6.5000e-004	0.0000	11.9669

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	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Energy	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Mobile	2.6100e-003	0.0142	0.0375	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		11.7812	11.7812	6.5000e-004		11.7976
Total	0.0160	0.0143	0.0377	1.2000e-004	9.1900e-003	1.5000e-004	9.3400e-003	2.4600e-003	1.4000e-004	2.6000e-003		11.9496	11.9496	6.5000e-004	0.0000	11.9669

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction/improvement	Building Construction	11/1/2017	11/7/2017	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction/improvement	Air Compressors	1	4.00	78	0.48
Building Construction/improvement	Forklifts	1	4.00	89	0.20
Building Construction/improvement	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction/improvement	Welders	1	4.00	46	0.45
Building Construction/improvement	Cement and Mortar Mixers	1	4.00	9	0.56
Building Construction/improvement	Concrete/Industrial Saws	1	4.00	81	0.73
Building Construction/improvement	Cranes	0	4.00	231	0.29

Trips and VMT

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction/improvement	6	0.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Building Construction/improvement - 2017****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	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147		850.2212	850.2212	0.1437		853.8126
Total	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147		850.2212	850.2212	0.1437		853.8126

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

3.2 Building Construction/improvement - 2017**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	0.0205	0.6761	0.1327	1.5800e-003	0.0350	3.6500e-003	0.0386	9.5800e-003	3.4900e-003	0.0131		169.7278	169.7278	0.0126		170.0428
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
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
Total	0.0205	0.6761	0.1327	1.5800e-003	0.0350	3.6500e-003	0.0386	9.5800e-003	3.4900e-003	0.0131		169.7278	169.7278	0.0126		170.0428

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	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147	0.0000	850.2212	850.2212	0.1437		853.8126
Total	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147	0.0000	850.2212	850.2212	0.1437		853.8126

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

3.2 Building Construction/improvement - 2017**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	0.0205	0.6761	0.1327	1.5800e-003	0.0350	3.6500e-003	0.0386	9.5800e-003	3.4900e-003	0.0131		169.7278	169.7278	0.0126		170.0428
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
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
Total	0.0205	0.6761	0.1327	1.5800e-003	0.0350	3.6500e-003	0.0386	9.5800e-003	3.4900e-003	0.0131		169.7278	169.7278	0.0126		170.0428

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6100e-003	0.0142	0.0375	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		11.7812	11.7812	6.5000e-004		11.7976
Unmitigated	2.6100e-003	0.0142	0.0375	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		11.7812	11.7812	6.5000e-004		11.7976

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	1.01	1.01	1.01	4,320	4,320
Total	1.01	1.01	1.01	4,320	4,320

4.3 Trip Type Information

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

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	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
NaturalGas Unmitigated	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

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	1.43014	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Total		2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0.00143014	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Total		2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

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	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Unmitigated	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Total	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Total	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

7.0 Water Detail

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Boilers

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

Equipment Type	Number
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11.0 Vegetation

CalEEMod Files and Assumptions

Building Improvement For Total Enclosure (Winter)

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

R1420_Total Enclosure Improvement_20170914

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	0.60	1000sqft	0.01	600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - assume 2017/11/1 to start the construction and 2018 is the operational year

Land Use - assumption: 3000 sq ft building with only 1 wall = 20% = 600 sqft

Construction Phase - assumptions: 5 days construction

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

Off-road Equipment - assumptions: 4hrs per day

Trips and VMT - assumptions 10 hauling trips

Demolition -

Grading -

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	5.00
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00

2.0 Emissions Summary

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.0762	7.7531	6.1846	0.0106	0.0350	0.5335	0.5685	0.0000	0.5182	0.5278	0.0000	1,019.9490	1,019.9490	0.1563	0.0000	1,023.8554
Maximum	1.0762	7.7531	6.1846	0.0106	0.0350	0.5335	0.5685	0.0000	0.5182	0.5278	0.0000	1,019.9490	1,019.9490	0.1563	0.0000	1,023.8554

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					
2017	1.0762	7.7531	6.1846	0.0106	0.0350	0.5335	0.5685	0.0000	0.5182	0.5278	0.0000	1,019.9490	1,019.9490	0.1563	0.0000	1,023.8554
Maximum	1.0762	7.7531	6.1846	0.0106	0.0350	0.5335	0.5685	0.0000	0.5182	0.5278	0.0000	1,019.9490	1,019.9490	0.1563	0.0000	1,023.8554

[illegible]

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Energy	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Mobile	2.6100e-003	0.0142	0.0375	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		11.7812	11.7812	6.5000e-004		11.7976
Total	0.0160	0.0143	0.0377	1.2000e-004	9.1900e-003	1.5000e-004	9.3400e-003	2.4600e-003	1.4000e-004	2.6000e-003		11.9496	11.9496	6.5000e-004	0.0000	11.9669

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	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Energy	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Mobile	2.6100e-003	0.0142	0.0375	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		11.7812	11.7812	6.5000e-004		11.7976
Total	0.0160	0.0143	0.0377	1.2000e-004	9.1900e-003	1.5000e-004	9.3400e-003	2.4600e-003	1.4000e-004	2.6000e-003		11.9496	11.9496	6.5000e-004	0.0000	11.9669

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction/improvement	Building Construction	11/1/2017	11/7/2017	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction/improvement	Air Compressors	1	4.00	78	0.48
Building Construction/improvement	Forklifts	1	4.00	89	0.20
Building Construction/improvement	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction/improvement	Welders	1	4.00	46	0.45
Building Construction/improvement	Cement and Mortar Mixers	1	4.00	9	0.56
Building Construction/improvement	Concrete/Industrial Saws	1	4.00	81	0.73
Building Construction/improvement	Cranes	0	4.00	231	0.29

Trips and VMT

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction/improvement	6	0.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Building Construction/improvement - 2017****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	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147		850.2212	850.2212	0.1437		853.8126
Total	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147		850.2212	850.2212	0.1437		853.8126

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

3.2 Building Construction/improvement - 2017**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	0.0205	0.6761	0.1327	1.5800e-003	0.0350	3.6500e-003	0.0386	9.5800e-003	3.4900e-003	0.0131		169.7278	169.7278	0.0126		170.0428
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
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
Total	0.0205	0.6761	0.1327	1.5800e-003	0.0350	3.6500e-003	0.0386	9.5800e-003	3.4900e-003	0.0131		169.7278	169.7278	0.0126		170.0428

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	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147	0.0000	850.2212	850.2212	0.1437		853.8126
Total	1.0557	7.0770	6.0519	9.0600e-003		0.5299	0.5299		0.5147	0.5147	0.0000	850.2212	850.2212	0.1437		853.8126

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

3.2 Building Construction/improvement - 2017**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	0.0205	0.6761	0.1327	1.5800e-003	0.0350	3.6500e-003	0.0386	9.5800e-003	3.4900e-003	0.0131		169.7278	169.7278	0.0126		170.0428
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
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
Total	0.0205	0.6761	0.1327	1.5800e-003	0.0350	3.6500e-003	0.0386	9.5800e-003	3.4900e-003	0.0131		169.7278	169.7278	0.0126		170.0428

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.6100e-003	0.0142	0.0375	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		11.7812	11.7812	6.5000e-004		11.7976
Unmitigated	2.6100e-003	0.0142	0.0375	1.2000e-004	9.1900e-003	1.4000e-004	9.3300e-003	2.4600e-003	1.3000e-004	2.5900e-003		11.7812	11.7812	6.5000e-004		11.7976

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	1.01	1.01	1.01	4,320	4,320
Total	1.01	1.01	1.01	4,320	4,320

4.3 Trip Type Information

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

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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	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
NaturalGas Unmitigated	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

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	1.43014	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Total		2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

R1420_Total Enclosure Improvement_20170914 - South Coast AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0.00143014	2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693
Total		2.0000e-005	1.4000e-004	1.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.1683	0.1683	0.0000	0.0000	0.1693

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	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Unmitigated	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Total	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0119					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004
Total	0.0134	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.3000e-004	1.3000e-004	0.0000		1.4000e-004

7.0 Water Detail

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7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

APPENDIX B-2

Operational Emissions and Calculations

PAR 1420 Operation Emissions

(09/08/17 rev.)

Summary

Key Requirements: Operation Phase	CO, lb/day	NOx, lb/day	PM10, lb/day	PM2.5, lb/day	VOC, lb/day	SOX, lb/day
Total Enclosure	-	-	-	-	-	-
Point Source Emission Controls	3.02	1.96	2.43	0.84	0.39	0.03
Housekeeping	14.02	22.01	3.45	1.93	4.14	0.05
Source Testing	1.56	1.55	0.47	0.27	0.27	0.01
Total	18.60	25.52	6.35	3.04	4.80	0.09

By Vehicle Class	CO, lb/day	NOx, lb/day	PM10, lb/day	PM2.5, lb/day	VOC, lb/day	SOX, lb/day	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr
Total Enclosure	-	-	-	-	-	-	-	-	-	-
Mobile Source - Diesel Trucks (MDT)	2.92	0.82	3.93	1.13	0.23	0.05	4.96	-	-	4.96
Roof top cleaning (aerial lift)	12.56	21.60	1.49	1.37	4.02	0.02	0.94	0.00	0.00	0.96
Source Testing (LDT)	3.12	3.09	0.94	0.54	0.55	0.01	0.98	-	-	0.98
Total	18.60	25.52	6.35	3.04	4.80	0.09	6.88	0.00	0.00	6.90

All facilities	
Max. # used/day	Max. # used/yr
122	244
15	15
30	60

Notes and Assumptions:

1. No additional air pollution control devices would need to be installed from the implementation of PAR 1420. However, 15 facilities have existing emission control devices that would be subject to source testing. To meet the control efficiency requirements, these emission control devices would also need to maintain the filters; therefore, requiring filter changeout and inspection.
2. It was assumed all of the facilities (107 facilities) would utilize 1 waste/wastewater disposal truck (MDT) to meet housekeeping requirements.
15 facilities are subject to rooftop cleaning, 15 are subject to source testing, and maintenance requirements and would use: 1 filter replacement truck (MDT), 1 source testing truck (LDT), 1 filter inspection truck (LDT), and 1 aerial lift.
3. It was assumed as a worst case scenario, every year 2 MDT round trips, 2 LDT round trips, and 1 aerial lift trip use would occur in every facility.
4. Although unlikely, it was assumed on a peak day all the affected facilities would conduct their requirements including: waste disposal, source testing, filter maintenance/inspection, and rooftop cleaning.
5. It was assumed every on-road vehicle used during operation would travel a distance of 40 miles round trip and aerial life would be used 4 hours per day.

Medium-Duty Truck (MDT) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e
g/mile (RUNEX, PMBW, PMTW, Fugitive)	0.26	0.08	0.37	0.10	0.02	0.00	505.00			505.00
g/vehicle (IDLEX)	0.33	0.05	0.01	0.01	0.02	0.00	139.57			139.57
lb/day, MT/day for GHG	0.02	0.01	0.03	0.01	0.00	0.00	0.02	-	-	0.02

EF: from EMFAC2014, EPA AP-42

VMT, mile/day
40.0

Aerial Lift

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e
lb/hr	0.21	0.36	0.02	0.02	0.07	0.00	34.72	0.01	0.01	36.57
lb/day, MT/day for GHG	0.84	1.44	0.10	0.09	0.27	0.00	0.06	0.00	0.00	0.06

EF: from OFFROAD2012

Usage, hr/day
4

Light-Duty Truck (LDT) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e
g/mile (RUNEX, PMBW, PMTW, Fugitive)	1.14	1.15	0.35	0.20	0.20	0.00	406.56			406.56
g/vehicle/day (IDLEX)	1.42	0.75	0.16	0.16	0.19	0.00	112.36			112.36
lb/day, MT/day for GHG	0.10	0.10	0.03	0.02	0.02	0.00	0.02	-	-	0.02

EF: from EMFAC2014, EPA AP-42

VMT, mile/day
40.0

APPENDIX C

List of Affected Facilities

Facility Name	NAICS	Facility ID	On Lists Per Government Code §65962.5 Per EnviroStor?	Address	City	Zip	Located Within Two Miles of Airport?	Nearest Sensitive Receptor	Approx. Distance to Nearest Sensitive Receptor (ft)	Nearest School	Approx. Distance to Nearest School (ft)
Atlas Pacific Corporation	331410	77271	No	2803 Industrial Dr	Bloomington	92316	No	Residential	2,000	Crestmore Elementary School	7,200
Metal Briquetting Company	331314	61681/ 91868/ 104332/ 144706/ 144903/ 800430	Yes	366 E 58th St	Los Angeles	90011	No	Residential	180	Estrella Elementary School	540
Fox Hills Ind Inc	331511	19341	No	5831 Research Dr	Huntington Beach	92649	No	Residential	960	Marina High School	5,300
Alhambra Foundry Co LTD	331511	20492	No	1147 Meridian Ave	Alhambra	91803	No	Residential	650	Freemont Elementary School	3,300
Alcast Foundy Inc	331524	43020	No	2821 190th St	Redondo Beach	90278	No	Residential	120	Coast Christian Schools	2,700
Arrowhead Brass and Plumbing	331524	164864	No	5142 Alhambra Ave	Los Angeles	90032	No	Residential	72	Little Sunshine Preschool Cal State L.A.	9,000 6,900
Came Alloys	331524	48010	No	12319 Branford St	Sun Valley	91352	No	Residential	1,300	Montague Charter Academy	5,800
Los Angeles Pump and Valve Products	331529	20167	No	2529 E 55th St	Huntington Park	90255	No	Residential	230	Merci School	530
Charter Foundry Co Inc	331529	21972	No	5208 Malabar St	Huntington Park	90255	No	Residential	360	Pacific Blvd School	7,400
Techni-Cast Corp	331529	7796	Yes	11220 S Garfield Ave	South Gate	90280	No	Residential	1,000	Will Rogers Child Development Center	7,900
Gasser Olds	331529	23941	No	2618 Fruitland Ave	Vernon	90058	No	Residential	1,040	City of Angels School	4,800
Montclair Broze Inc	331529	35194/ 60815	No	5621 State St	Montclair	91763	No	Residential	160	Mission Elementary	4,200
Koko's Foundry	423500/ 331524	142410	No	3525 E 15th St	Los Angeles	90023	No	Residential	1,100	Foundation of Early Childhood	2,800
KinsBursky Brothers, Inc	423930	35006	Yes	1314 N Anaheim Blvd	Anaheim	92801	No	Residential	630	SEA Charter School	2,700

Notes:

1. Metal Briquetting Company has a unique address for each facility id.