South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • http://www.aqmd.gov

SUBJECT: NOTICE TO RELY ON A PREVIOUSLY PREPARED CEQA DOCUMENT
PROJECT TITLE: 2012 LEAD STATE IMPLEMENTATION PLAN FOR LOS ANGELES COUNTY

In accordance with the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (SCAQMD) is the Lead Agency for the project identified above pursuant to its certified regulatory program (SCAQMD Rule 110). On October 15, 2008, the U.S. EPA revised the National Ambient Air Quality Standard (NAAQS) for lead (73 FR 66964; November 12, 2008), lowering it from 1.5 micrograms per cubic meter (ug/m3) to 0.15 ug/m3. On December 31, 2010, the U.S. EPA designated the Los Angeles County portion of the South Coast Air Basin, excluding San Clemente and Santa Catalina Islands (Southern Los Angeles County), as nonattainment for the 2008 Lead NAAQS based on CARB's recommendation and monitored air quality data from 2007 – 2009 indicating a violation of the NAAQS, pursuant to §107 (d)(1) of the Clean Air Act (CAA). The CAA requires areas classified as nonattainment to attain the lead standard as expeditiously as practicable and within the CAA's deadline, December 31, 2015. To comply with CAA requirements to attain the federal lead NAAQS, SCAQMD staff has prepared a 2012 Lead State Implementation Plan (SIP) for Los Angeles County outlining the strategies, planning and pollution control activities for lead emission sources, which would apply to Los Angeles County (2012 Lead SIP) only.

Rule 1420.1 – Emissions Standards for Lead from Large Lead-Acid Battery Recycling Facilities, was adopted in November 2010 and is designed to address lead emissions from large lead-acid battery recycling facilities in order to help achieve attainment with the 0.15 ug/m3 NAAQS standard for lead no later than December 31, 2015. An October 2010 Final Environmental Assessment (EA) for Rule 1420.1 (SCAQMD No. 100331JK, SCH No. 2010041086), which did not identify significant adverse impacts to any environmental topic areas, was prepared for this project, and was certified in November 2010. The proposed 2012 Lead SIP would provide necessary data to EPA and identify ways lead will be kept below the national ambient air quality standards, including relying on Rule 1420.l. The only proposed control measure in the 2012 Lead SIP that may have adverse environmental impacts would be an amendment to Rule 1420, which has not been amended since its adoption in 1992, to lower the ambient lead concentration limit from 1.5 to 0.15 ug/m3, which is consistent with the lead NAAQS and Rule 1420.1. Since the most current monthly lead monitoring data in the Basin at facilities subject to Rule 1420, but not subject to Rule 1420.1, show that average lead concentrations are less than 0.15 ug/m3, the proposed control measure is not expected to result in any changes at existing affected facilities. In the event that monitoring near or at a Rule 1420 affected lead facility exceeds 0.15 ug/m3, the proposed control measure may require implementing lead control requirements similar to those in Rule 1420.1, resulting in environmental impacts that are essentially the same as those identified in the October 2010 Final EA for Rule 1420.1. Since impacts from the currently proposed project are expected to be essentially the same or less than those analyzed in the previous prepared October 2010 Final EA for Rule 1420.1, it will be relied upon as the CEQA document for the 2012 Lead SIP pursuant to CEQA Guidelines §15153. The key issues are whether the CEQA document for Rule 1420.1 should be used for the 2012 Lead SIP and whether there are any additional, reasonable alternatives or mitigation measures that should be considered as ways of avoiding or reducing any significant impacts of the project. Because the October 2010 Final EA for Rule 1420.1 meets the requirements of CEQA Guidelines §15153(1)(A through C) as determined through the preparation of an Initial Study, SCAQMD staff has concluded that it is appropriate to rely on the October 2010 Final EA for Rule 1420.1 as the CEQA document for the 2012 Lead SIP. Therefore, the purpose of this letter and the attached Notice to Rely on a Previously Prepared CEQA Document is to allow public agencies and the public the opportunity to obtain, review and comment on the October 2010 Final EA for Rule 1420.1 as the CEQA document for the 2012 Lead SIP.

This letter and the attached Notice to Rely on a Previously Prepared CEQA document 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 October 2010 Final EA for Rule 1420.1, 2012 Lead SIP 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/ceqa/aqmd.html. Comments focusing on issues relative to the environmental analysis for the proposed project will be accepted during a 30-day public review and comment period beginning Wednesday, February 15, 2012, and ending 5 p.m. on Thursday, March 15, 2012. **Please send any comments to Mr. James Koizumi (c/o Office of Planning, Rule Development, and Area Sources) at the address shown above**. Comments can also be sent via facsimile to (909) 396-3324 or e-mail at jkoizumi@aqmd.gov. Mr. Koizumi can be reached by calling (909) 396-3234. Please include the name and phone number of the contact person for your agency. Questions regarding the proposed 2012 Lead SIP language should be directed to Ms. Victoria Moaveni at (909) 396-2455. The Public Hearing for the proposed project is scheduled for April 6, 2012. (Note: This public meeting date is subject to change.)

Date: February 9, 2012

Signature: Steve Smith

Steve Smith, Ph.D.
Title: Program Supervisor
Telephone: (909) 396-3054

Reference: California Code of Regulations, Title 14, §§15082(a), 15103, and 15375

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

NOTICE TO RELY ON A PREVIOUSLY PREPARED CEQA DOCUMENT

Project Title:
Notice to Rely on a Previously Prepared Environmental Assessment for the 2012 Lead State Implementation Plan for Los Angeles County

Project Location:
South Coast Air Quality Management District: the non-desert portions of Los Angeles County.

Description of Nature, Purpose, and Beneficiaries of Project:
The U.S. EPA revised the lead National Ambient Air Quality Standard (NAAQS) on October 15, 2008 (73 FR 66964; November 12, 2008) by lowering the standard from 1.5 micrograms per cubic meter (ug/m3) to 0.15 ug/m3. On December 31, 2010, the U.S. EPA designated Southern Los Angeles County as nonattainment for the 2008 Lead NAAQS. The purpose of the 2012 Lead State Implementation Plan for Los Angeles County (2012 Lead SIP) is to outline the control strategies for lead emission sources, describe lead air quality and inventory in the Southern Los Angeles County, and describe planning and pollution control activities to demonstrate attainment of the Lead NAAQS, as expeditiously as practicable, but no later than December 31, 2015. The only proposed control measure in the 2012 Lead SIP that may have adverse environmental impacts would be the amendment to Rule 1420 – Emissions Standards for Lead. The amendment would lower the ambient lead concentration limit in Rule 1420 from 1.5 to 0.15 ug/m3, which is consistent with the lead NAAQS and Rule 1420.1. Since the most current monthly lead monitoring data in the Basin at facilities subject to Rule 1420, but not subject to Rule 1420.1, show that average lead concentrations are less than 0.15 ug/m3, the proposed control measure is not expected to result in any changes at existing affected facilities. However, if monitoring near or at a lead facility exceeds 0.15 ug/m3, the proposed control measure may require implementation of lead control requirements similar to those in Rule 1420.1, e.g., lead monitoring, housekeeping activities and/or enclosures, etc, resulting in environmental impacts that are essentially the same as or less than those identified in the October 2010 Final Environmental Assessment (EA) for Rule 1420.1 (SCAQMD No. 100331JK, SCH No. 2010041086). The October 2010 Final EA for the Rule 1420.1, prepared pursuant to CEQA, did not identify significant adverse impacts to any environmental topic areas. Because the October 2010 Final EA for Rule 1420.1, which was circulated for public review and comment and subsequently certified, meets the requirements of CEQA Guidelines §15153(1)(A through C) as determined through the preparation of an Initial Study, SCAQMD staff has concluded that it is appropriate to rely on the October 2010 Final EA for Rule 1420.1 as the CEQA document for the 2012 Lead SIP. The key issues are whether this CEQA document should be used as the CEQA document for the 2012 Lead SIP and whether there are any additional, reasonable alternatives or mitigation measures that should be considered as ways of avoiding or reducing any significant impacts of the project. Because the circumstances of the projects are essentially the same as determined through preparing an Initial Study, SCAQMD staff has concluded that it is appropriate to rely on the October 2010 Final EA as the CEQA document for the 2012 Lead SIP.

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

Previously Prepared Final EA and all supporting documentation are available at:	**or by calling:**	**Previously Prepared Final EA is available online by accessing the SCAQMD's website at:**
SCAQMD Headquarters 21865 Copley Drive Diamond Bar, CA 91765	(909) 396-2039	http://www.aqmd.gov/ceqa/aqmd.html

The Public Notice of Completion is provided through the following:

☑ Los Angeles Times (February 15, 2012) ☑ SCAQMD Website ☑ SCAQMD Mailing List

Previously Prepared Final EA Review Period (30-day):
February 15. 2012– March 15, 2012

Scheduled Public Meeting Dates (subject to change):
SCAQMD Governing Board Hearing: April 6, 2012, 9:00 a.m.; SCAQMD Headquarters

Send CEQA Comments to:	**Phone:**	**Email:**	**Fax:**
Mr. James Koizumi	(909) 396-3234	jkoizumi@aqmd.gov	(909) 396-3324

Direct Questions on the 2012 Lead SIP for Los Angeles County:	**Phone:**	**Email:**	**Fax Number:**
Ms. Victoria Moaveni	(909) 396-2455	vmoaveni@aqmd.gov	(909) 396-3252

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Environmental Assessment for Proposed Rule 1420.1 – Emissions Standard for Lead from Large Lead-Acid Battery Recycling Facilities

October 2010

SCAQMD No. 100331JK
SCH No. 2010041086

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BARRY R. WALLERSTEIN, D.Env.

PREFACE

This document constitutes the Final Environmental Assessment (EA) for Proposed Rule (PR) 1420.1 – Emissions Standard for Lead from Large Lead-Acid Battery Recycling Facilities. The Draft EA was released for a 30-day public review and comment period from April 27, 2010 to May 26, 2010. No comment letters were received on the Draft EA during the public comment period. Two comment letters were received after the public comment period and are included with response to comments in Appendix C.

Changes to PR 1420.1

Subsequent to the release of the Draft EA for public review, PR 1420.1 several requirements were added, deleted or modified. The following briefly summarizes proposed modifications to PR 1420.1. A more detailed description of the proposed modifications to PR 1420.1 can be found in Chapter 1 of this Final EA.

- Addition of total facility lead point source emission rate limitation and maximum individual lead point source emission rate (pound per hour)
- Removal of 99 percent control efficiency compliance option for lead control devices
- Addition of a requirement to use of specific filters/bags in lead control devices
- Addition of a requirement to add secondary lead controls on dryers
- Removal of vehicle wet wash area requirement
- Change in schedule of roof cleaning requirement with the new compliance option of vacuuming surfaces or wet washing
- Public notifications for:
    - Unplanned and planned shutdowns/turnarounds of specific equipment
    - Specific types of maintenance activity

The proposed modifications were analyzed and SCAQMD staff concluded that recirculation was not necessary per CEQA Guidelines §15073.5, because the modifications were determined not to be a substantial revision (i.e., a new, avoidable significant effect that requires mitigation measures or project revisions to reduce the effect to insignificance or that project effects cannot be reduced to insignificant and new measures or project revisions are required). Recirculation is not required, because mitigation is not required; the modifications were not a response to written or verbal comments on the proposed effects identified in the Draft EA; modifications were not required by CEQA, and do not create new significant environmental effects, and it is not necessary to mitigate an avoidable significant effect; and new information added to the proposed project makes insignificant modifications to the Draft EA.

To facilitate identification, modifications to the document are included as underlined text and text removed from the document is indicated by ~~strikethrough~~. This document constitutes the Final EA for PR 1420.1 – Emissions Standard for Lead from Large Lead-Acid Battery Recycling Facilities.

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INTRODUCTION

The South Coast Air Quality Management District (AQMD) is responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin). By state law, the SCAQMD is required to adopt an Air Quality Management Plan (AQMP) demonstrating compliance with all federal regulations and standards such as National Ambient Air Quality Standards (NAAQS) for the Basin [H&S Code Section 40460 (a)]. On October 15, 2008, the U.S. Environmental Protection Agency (EPA) amended both the primary and secondary NAAQS for lead from a level of 1.5 micrograms per cubic meter to 0.15 micrograms per cubic meter averaged over a rolling three-month period, along with changes to monitoring and reporting requirements.

The purpose of Proposed Rule 1420.1 (PR 1420.1) is to propose a new rule for large lead-acid battery recycling facilities which are the highest stationary source emitters of lead in the Basin. In addition, PR 1420.1 is designed to address the amended NAAQS for lead to ensure the Basin can achieve the revised standard. Other lead-emitting sources will be addressed in a future amendment to District Rule 1420 – Emission Standards for Lead.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PR 1420.1 is a discretionary action, which has the potential for resulting in direct or indirect change to the environment and, therefore, is considered a "project" as defined by the California Environmental Quality Act (CEQA). SCAQMD is the lead agency for the proposed project and has prepared this Final Environmental Assessment (EA) with no significant adverse impacts pursuant to its Certified Regulatory Program. California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written document in lieu of an environmental impact report or negative declaration once the Secretary of the Resources Agency has certified the regulatory program. SCAQMD's regulatory program was certified by the Secretary of the Resources Agency on March 1, 1989, and is codified as SCAQMD Rule 110. Pursuant to Rule 110, SCAQMD has prepared this Draft EA.

CEQA and Rule 110 require that potential adverse environmental impacts of proposed projects be evaluated and that feasible methods to reduce or avoid significant adverse environmental impacts of these projects be identified. To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this Draft EA to address the potential adverse environmental impacts associated with the proposed project. The Draft EA is a public disclosure document intended to: (a) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental effects of the proposed project; and, (b) be used as a tool by decision makers to facilitate decision making on the proposed project.

SCAQMD's review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. The analysis in Chapter 2 supports the conclusion of no significant adverse environmental impacts. Therefore, pursuant to CEQA Guidelines §15252, no alternatives or mitigation measures are required to be included in this Draft EA. ~~Comments received on the Draft EA during the 30-day public review period will be addressed and included in the Final EA.~~ The Draft EA was released for a 30-day public review and comment period from April 27, 2010 to May 26, 2010. No comment letters were received on the Draft EA during the comment period. Two comment letters were received after the public comment period and are included with response to comments in Appendix C.

PROJECT LOCATION

PR 1420.1 would affect two large lead-acid battery recycling facilities located in the SCAQMD's jurisdiction. 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 the 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 nondesert 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. The federal nonattainment area (known as the Coachella Valley Planning Area) is a subregion of the 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 (Figure 1-1).

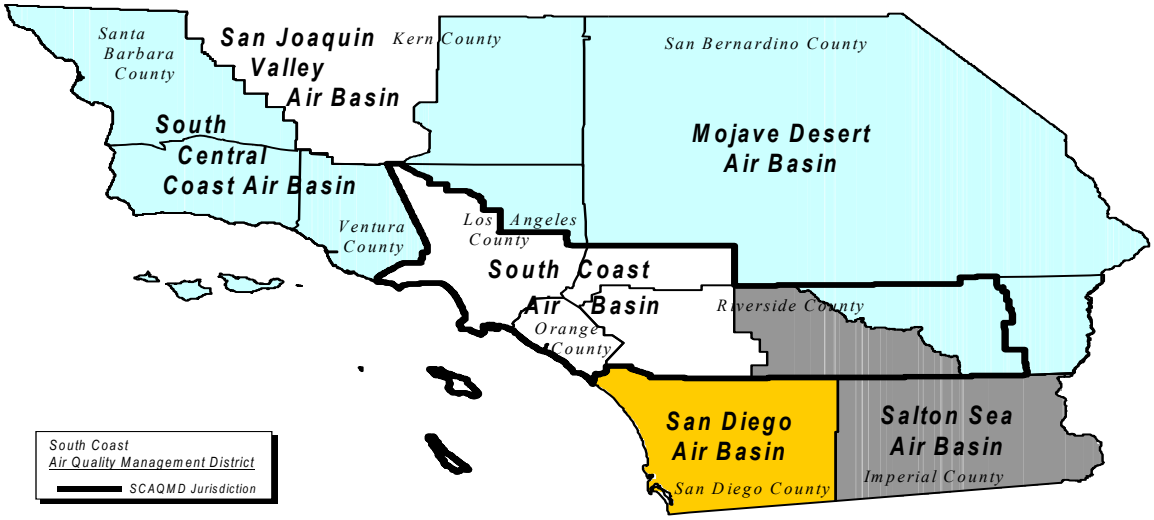

Figure 1-1
Boundaries of the South Coast Air Quality Management District

PROJECT OBJECTIVE

PR 1420.1 would protect public health by reducing lead emissions produced by large lead-acid battery recycling facilities. Requirements under PR 1420.1 are designed to ensure the Basin can achieve the 2008 NAAQS for lead. PR 1420.1 would accomplish this by requiring total enclosures for any process associated with the preparation, recovery, refining and storage of lead-containing material and requiring pollution control devices on the enclosures and lead emission point sources. PR 1420.1 also includes housekeeping requirements, monitoring, reporting and recordkeeping.

PROJECT BACKGROUND

PR 1420.1 addresses exposure to lead emissions from lead-acid battery recycling facilities. The purpose of the proposed rule is to protect public health and ensure attainment with the amended lead NAAQS. As required by the federal Clean Air Act, the U.S. EPA periodically reviews the standard to determine if changes are warranted. Based on review of health studies, the U.S. EPA has determined that the standard of 1.5 micrograms per cubic meter set in 1978 was not sufficient to protect public health and welfare with an adequate margin of safety. The standard has been lowered to 0.15 micrograms per cubic meter based on studies that demonstrate health effects at much lower levels of lead than previously believed. Selection of the new standard provides increased protection for children and other at-risk populations against an array of health effects, most notably including neurological effects in children, including neurocognitive and neurobehavioral effects.

Large lead-acid battery recycling facilities have been determined by SCAQMD staff to be the highest stationary source emitters of lead in the Basin. Staff's analysis has also shown lead-acid battery recycling facilities to be the only known source category that currently demonstrates ambient air lead concentration measurements that would cause non-attainment with the new lead NAAQS. PR 1420.1 is in addition to Rule 1420 – Emission Standards for Lead which addresses lead emissions from any stationary source that uses or processes lead-containing material. Although Rule 1420 also applies to lead-acid battery recycling facilities, it does not contain specific control measures for this source category to minimize lead emission exposure such that ambient air lead concentrations will comply with the new lead NAAQS. Other lead-emitting sources in the Basin will be further analyzed and addressed in a future amendment to Rule 1420.

Health Effects of Lead

Human exposure to lead occurs in a variety of ways with common routes being that of inhalation and ingestion. Ingestion of lead-containing paint chips and soil with deposited atmospheric lead is a source of concern for exposure for children. The most widely used indicator of lead exposure in many studies is the amount of lead measured in whole blood because of the direct relationship with blood lead (PbB) levels and health effects. Clinical effects resulting from high-level lead exposure include nervous and reproductive system disorders, neurological and physical developmental effects, cognitive and behavioral changes, and hypertension. Young children are especially susceptible to the effects of environmental lead because they appear to be more vulnerable to certain biological effects of lead including learning disabilities, deficits in IQ, and behavioral problems.[1] Health & Safety Code Section 39669.5, "Special Provisions for Infants and Children," required the California Air Resources Board (CARB) to identify up to five TACs that may cause infants and children to be especially susceptible to illness. The "Prioritization of Toxic Air Contaminants under the Children's Environmental Health Protection Act" document released in 2001 by the Office of Environmental Health Hazard Assessment (OEHHA) lists lead as one of the original five toxic air contaminants.

Lead is classified as a probable human carcinogen by both the International Agency for Research on Cancer and the U.S. EPA. OEHHA classified lead as a carcinogenic toxic air contaminant (TAC) and it was added to the SCAQMD Rule 1401 list of TACs in 1992. SCAQMD's "Risk Assessment Procedures for Rules 1401 and 212" Tier 1 screening value for lead indicates that a lifetime exposure (70 years for residential receptors, 40 years for worker receptors) to 0.628

[1] Environmental Protection Agency, "Lead in Air," (*http://www.epa.gov/air/lead/health.html*), June 12, 2009.

pounds of lead a year at 25 meters could potentially cause one additional case of cancer out of a million cases.

Under the federal Clean Air Act, lead is classified as a "criteria pollutant." Lead has observed health effects at ambient concentrations. The EPA has thoroughly reviewed the lead exposure and health effects research, and has prepared substantial documentation in the form of a Criteria Document to support the selection of the 2008 NAAQS for lead. The Criteria Document used for the development of the 2008 NAAQS for lead states that studies and evidence strongly substantiate that PbB concentrations in the range of 5-10 micrograms per deciliter of blood, or possibly lower, could likely result in neurocognitive effects in children. The report further states that "there is no level of lead exposure that can yet be identified with confidence, as clearly not being associated with some risk of deleterious health effects."[2]

Based on studies conducted by the Clean Air Scientific Advisory Committee (CASAC), it was concluded that a "population loss of one to two intelligence quotient (IQ) points" resulting from exposure to ambient air lead concentrations "is highly significant from a public health perspective." EPA has determined that a primary and secondary standard of 0.15 microgram per cubic meter is requisite to provide an adequate margin of safety that would ensure the protection of public health and the environment regarding the aforementioned population IQ loss.[3]

Regulatory History

Lead-acid battery recyclers have been subject to regulation for more than two decades. Below is a chronology of regulatory activity:

- In November 1970, CARB set the state ambient air quality standard for lead at 1.5 microgram per cubic meter averaged over 30 days.
- In October 1978, the U.S. EPA adopted the NAAQS for lead requiring attainment with a lead ambient concentration of 1.5 microgram per cubic meter averaged over a calendar quarter.
- In September 1992, the SCAQMD adopted Rule 1420 – Emissions Standard for Lead. The rule incorporated the state ambient air quality standard and required control devices on lead emission points, control efficiency requirements for lead control devices, housekeeping, and monitoring or modeling of ambient air quality.
- In October 1992, OEHHA classified lead as a carcinogenic toxic air contaminant and assigned to it a cancer potency factor and a cancer unit risk factor.
- In June 1997, the EPA adopted the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) from Secondary Lead Smelting. The federal regulation required lead emission concentration limits for lead control devices, control of process fugitive emissions, monitoring, recordkeeping, and reporting.
- On October 15, 2008, the EPA signed into regulation an amended NAAQS for lead of 0.15 microgram per cubic meter[3].

The new lead NAAQS requires full attainment by each state no later than five years after final designations for attainment status are made. Demonstration of attainment is to be based on measurements using a rolling 3-month averaging form to be evaluated over a three-year period. Measurements are to be determined by EPA-required monitoring networks within each state

[2] Environmental Protection Agency, Office of Research and Development, "Air Quality Criteria Document for Lead, Volumes I-II," October 2006.

[3] Environmental Protection Agency, "National Ambient Air Quality Standards for Lead; Final Rule," 40 CFR Parts 50, 51, 53, and 58, November 2008.

which consist of both source-oriented and non-source-oriented monitors. The SCAQMD has already established the required monitoring network for both source and non-source-oriented lead monitors.

Affected Industries

The SCAQMD staff analyzed multiple data sources, including SCAQMD's Annual Emissions Reporting program for years ~~2004~~ 2005 through 2007, permitting data, and compliance data to initially identify the universe of lead-emitting sources. Approximately 600 lead sources were identified and analyzed. Almost all facilities located within the Basin emit less than 0.15 ton of lead per year, an amount far below the 1.0 ton per year threshold warranting source-oriented monitoring at these facilities. Lead-acid battery recycling facilities have the highest lead emissions of all permitted stationary sources. The two lead acid-battery recycling facilities are Exide, Inc. in Vernon and Quemetco in the City of Industry. Exide has an average of more than 1.5 tons of lead emissions per year, with its highest annual emissions at 1.99 tons. Quemetco has the second highest average lead emissions of 0.28 ton per year with a high of 0.32 ton per year. This data was cross referenced with ambient air lead concentration data obtained from the SCAQMD's ambient air monitoring network. Analysis indicated that lead-acid battery recycling facilities are the only industry category that demonstrated consistent readings exceeding the new lead NAAQS.

The lead attainment assessment conducted by the state of California led to the same determination, and in October 2009, CARB submitted recommendations to the EPA of non-attainment status for the portions of Los Angeles County that are located within the Basin. Final designation of attainment status by the EPA may be made as early as 2010, which would require the Basin to be in attainment with the new NAAQS no later than five years later, or 2015. A State Implementation Plan (SIP), outlining the strategy to demonstrate attainment with the lead NAAQS, must also be submitted by the SCAQMD within 18 months of the final designation date.

Process Description and Lead Emission Points

Lead-acid battery recycling facilities are secondary lead smelting operations where spent lead-acid batteries, mostly automotive, and other lead-bearing materials are received from various sources and processed to recover lead, plastics, and acids. The process mainly involves the sorting, melting, and refining of lead from lead-acid batteries, which ultimately produces lead ingots that are then sold to other entities. Below is a general description of the process including potential lead emission points:

I. **Phase I – Raw Materials Processing**: Lead-bearing materials recovered from lead-acid batteries are prepared and processed prior to being charged (loaded) to a smelting furnace. Lead dust emissions may result during the crushing of lead-acid batteries and from the handling and transporting of lead-bearing materials.

   a. **Receiving and Storage:** Spent lead-acid batteries are usually received on pallets that are either stored or sent directly to conveyors for immediate crushing.

   b. **Battery Breaking/Crushing:** The spent lead-acid batteries are unloaded from conveyors and loaded into a hammer mill system where they are crushed whole. The crushed material is then placed into a series of tanks filled with water in order to clean materials of the acids. Through gravity separation, the crushed material sinks to the

bottom of the tanks and goes through a series of screens to further isolate lead-bearing materials. The materials are then typically stored in open or partially covered piles if not required for immediate charge preparation.

c. **Charge Preparation/Rotary Kiln Drying/Sweating**: Recovered lead-bearing materials are prepared by blending them with stored lead scrap and reagents prior to being charged to a furnace. The metallic scrap materials are placed in rotary kiln dryers to remove moisture prior to charging to a furnace in order to reduce furnace upsets (puffs and explosions). The materials are then sweated (subjected to temperatures above the melting temperature of lead, but below that of the other metals) to separate lead from other metals with higher melting points.

II. **Phase II – Smelting:** Smelting is the production of crude lead by melting and separating the lead from metallic and non-metallic contaminants and by reducing oxides to elemental lead. Smelting is carried out in blast, reverberatory, and furnaces. These furnaces emit high levels of lead fumes during the charging and tapping processes.

a. **Blast furnaces**: Typically, "hard" lead, or antimonial lead (containing approximately ten percent antimony) is produced in blast furnaces. Scrap metal, re-run slag, scrap iron, coke, recycled dross, flue dust, and limestone are used as charge materials to the furnace. Process heat is produced by the reaction of the charged coke with blast air that is blown into the furnace.

b. **Reverberatory furnaces**: Semi-soft lead (containing approximately three to four percent antimony) is produced in reverberatory furnaces. Lead scrap, metallic battery parts, oxides, dross, and other residues are used as charge materials to the furnace. The charge materials are heated directly using natural gas, oil, or coal.

III. **Phase III – Refining and Casting:** Refining and casting the crude lead from the smelting process can consist of softening, alloying, and oxidation, depending on the degree of purity or alloy type desired. Crude lead produced during smelting operations is remelted and refined by the addition of reagents, such as sulfur and caustic soda. The purified lead is then cast into molds or ingots. Refining furnaces and kettles are typically gas or oil-fired and maintained at operating temperatures between 600-1300º Fahrenheit. Lead fumes may be emitted when molten lead is transferred to refining kettles and lead particulates may become airborne off refining kettle surfaces due to updrafts created by thermal rise.

a. **Alloying furnaces:** Alloying furnaces are kettle furnaces used to simply melt and mix ingots of lead and alloy materials, such as antimony, tin, arsenic, copper, and nickel.

b. **Refining furnaces**: Refining furnaces are used to either remove copper and antimony for soft lead production, or to remove arsenic, copper, and nickel for hard lead production. Sulfur may be added to the molten lead to remove copper. The resultant copper sulfide is skimmed off as dross and may be processed in a blast furnace to recover residual lead. Aluminum chloride is used to remove copper, antimony, and nickel.

c. **Oxidizing furnaces:** Either kettle or reverberatory units are used to oxidize lead and to entrain the product lead oxides in the combustion air stream for subsequent recovery in high-efficiency baghouses.

PROJECT DESCRIPTION

The following is a summary of the proposed Rule 1420.1. A copy of PR 1420.1 can be found in Appendix A.

Purpose (Subdivision (a))

The purpose of the proposed rule is to protect public health by reducing exposure and emissions of lead from large lead-acid battery recycling facilities, and to help ensure the attainment of the National Ambient Air Quality Standard for Lead.

Applicability (Subdivision (b))

The proposed rule applies to all persons who own or operate a large lead-acid battery recycling facility that processes more than 50,000 tons of lead a year. Annual process amounts would be based on the greatest amount processed in any one of the five calendar years prior to the date of rule adoption, ~~and~~ or annually thereafter. Applicability would be based on facility lead processing records required under Subdivision (m ~~i~~) Recordkeeping of this proposed rule and Rule 1420 – Emissions Standards for Lead. Compliance with the proposed rule would be required in addition to other applicable rules such as Rule 1420.

Definitions (Subdivision (c))

Definitions for agglomerating furnace, ambient air, battery breaking area, ~~demand response program,~~ dryer, dryer transition piece, duct section, emission collection system, fugitive lead-dust, furnace and refining/casting area, ~~interruptible service contract,~~ ~~large~~ lead-acid battery recycling facility, lead, lead control device, lead point source, leeward wall, maintenance activity, materials storage and handling area, measurable precipitation, partial enclosure, ~~person,~~ process, ~~property line~~ renovation, sensitive receptor, slag, smelting, smelting furnace, total enclosure, and windward wall ~~turnaround/maintenance activity~~ are included in PR 1420.1.

General Requirements (Subdivision (d))

The owner or operator of a large lead-acid battery recycling facility would be subject to the following requirements:

- Prior to January 1, 2012, PR 1420.1 would prohibit the discharge of emissions into the atmosphere, which contribute to ambient air concentrations of lead that exceed 1.5 micrograms per cubic meter ($\mu g/m^3$) pursuant to SCAQMD Rule 1420.
- On and after January 1, 2012, PR 1420.1 would prohibit the discharge of emissions into the atmosphere, which contribute to ambient air concentrations of lead that exceed 0.15 $\mu g/m^3$ averaged over any 30 consecutive days. The ambient air concentrations of lead would be required to be determined by monitors pursuant to the Ambient Air Monitoring and Sampling Requirements Subdivision (j) or at any SCAQMD-installed monitor.

- No later than July 1, 2011, owner/operators would be required to install, maintain, and operate total enclosures pursuant to the Total Enclosures Subdivision (e) and lead point source emission control devices pursuant to the Lead Point Source Emissions Controls Subdivision (f). The owner or operator of a large lead-acid battery recycling facility would be required to comply with the following:
    - Submit complete permit applications for all construction and necessary equipment within 30 days of the date of adoption of the proposed rule.
    - Complete all construction within 180 days of receiving Permit to Construct approvals from the Executive Officer, or by July 1, 2011, whichever is earlier.
    - The Executive Officer may approve a request for an extension of the compliance deadline date if the facility can demonstrate that it timely filed all complete permit applications and is unable to meet the deadline due to reasons beyond the facility's control. The request would be required to be submitted to the Executive Officer no less than 30 days before the compliance deadline date.
- On and after July 1, 2011 submit a Compliance Plan pursuant to the Compliance Plan Subdivision (g) if emissions are discharged into the atmosphere which contribute to ambient air concentrations of lead that exceed 0.12 micrograms per cubic meters averaged over any 30 consecutive days determined by monitors pursuant to the Ambient Air Monitoring and Sampling Requirements Subdivision (j) or at any SCAQMD-installed monitor.

Total Enclosures (Subdivison (e))

Enclosure Areas

~~By January 1, 2011, the~~ The owner or operator of a large lead-acid battery recycling facility would be required to totally enclose the following areas in groups or individually: battery breaking areas~~;~~, material storage and handling areas, excluding areas where unbroken lead-acid batteries and finished lead products are stored~~;~~, dryer and dryer areas including transition pieces, charging hoppers, chutes, and skip hoists conveying any lead-containing material~~;~~, smelting furnaces and smelting furnace areas charging any lead-containing material~~;~~, agglomerating furnaces and agglomerating furnaces areas charging any lead-containing material~~;~~, refining and casting areas.

The owner or operator of a large lead-acid battery recycling facility would be required to vent each ~~Each~~ total enclosure ~~would be required to vent~~ to an emission collection system that ducts the entire gas stream to a lead control device pursuant to Subdivision (f) Lead Point Source Emissions Controls ~~that meets a lead or particulate reduction of 99 percent or more. Control efficiencies would be determined by a source test conducted in accordance with the test methods provided in Subdivision (h) Source Tests. Lead or particulate emission reduction would be calculated as prescribed in the proposed rule~~.

~~Each emission collection system and lead control device would be required, at minimum, to be maintained and operated in accordance with the manufacturer's specifications.~~

Total Enclosure Ventilation

Each total enclosure would be required to be maintained at a negative pressure of at least 0.02 millimeters of mercury (0.011 inches of water) and an in-draft velocity of at least 300 feet per minute at any opening such as vents, windows, passages, doorways, bay doors, and roll-ups.

Digital Differential Pressure Monitoring Systems

~~Depending on the size of the area that is to be enclosed, at least one~~ The owner operator of a large lead-acid battery recycling facility would be required to install, operate, and maintain a differential pressure monitoring system ~~continuously measuring the negative pressure of the~~ for each total enclosure ~~would be required to be installed on the leeward wall~~. Areas with a total surface area of 10,000 square feet or more require a minimum of one building digital differential pressure monitoring system installed and maintained at each of the following walls: ~~at the wall of the total enclosure opposite~~ the leeward wall, the windward wall and at an exterior wall that connects the leeward and windward wall at a location defined by the intersection of a perpendicular line between a point on the connecting ~~this~~ wall and a point on its furthest opposite exterior wall, and intersecting within plus or minus ten meters of the midpoint of a straight line between the other two monitors ~~in order to account for shifts in draft direction throughout the enclosure~~. The midpoint monitor would be prohibited from being on the same wall as either of the other two monitors in the room.

A minimum of one building digital differential pressure monitoring system would be required to be installed and maintained at the leeward wall inside of each total enclosure that has a total ground surface area of less than 10,000 feet.

Requirements for operating and maintaining differential pressure monitor are prescribed in the proposed rule.

In-draft Velocities

The in-draft velocity of the total enclosure would be required to be maintained equal or greater than 300 feet per minute at any opening including, but not limited to, vents, windows, passages, doorways, bay doors and roll-ups. In-draft velocities for each total enclosure would be required to be determined by placing an anemometer, or an equivalent device approved by the Executive Officer, at the center of the plane of any opening of the total enclosure ~~that does not have an associated differential pressure monitor. The owner or operator of the facility shall conduct a minimum of three measurements a day, occurring at least once per operating shift, at an opening of each exterior wall of the total enclosure~~.

Lead Point Source Emissions Controls (Subdivision (f))

~~By January 1, 2011, the~~ The owner or operator of a large lead-acid battery recycling facility ~~shall~~ would be required to vent emissions from each ~~all~~ lead point source ~~emissions~~ to ~~an emission collection system that ducts the entire gas stream to~~ a lead control device ~~that meets a lead or particulate reduction of 99 percent or more. Control efficiencies shall be determined by a source test conducted in accordance with the test methods provided in Subdivision (h) Source Test.~~ The total facility mass lead emissions from all lead point sources would be required not to exceed 0.045 pound of lead per hour. The maximum emissions rate for any single lead point source would be required not to exceed 0.010 pound of lead per hour. The total facility and maximum emission rates would be based on the most recent source tests conducted pursuant to Source Test Subdivison (k).

The owner or operator of a large lead-acid battery recycling facility would be required to install a secondary lead control device that controls lead emissions from the exhaust of the primary lead control device used for a dryer. The secondary lead control device would be required to be fitted with dry filter media, and the secondary lead control device would be required to be used to vent only the primary lead control device used for the dryer. An alternative secondary lead control

method that is equally or more effective for the control of lead emissions may be used if a complete application is submitted as part of the permit application required under total enclosure and lead point source emissions control device requirements of Subdivision (d) General Requirements and approved by the Executive Officer.

For any lead control device that, filter media other than filter bag(s), including, but not limited to, HEPA and cartridge-type filters, the filter(s) used would be required to be rated by the manufacturer to achieve a minimum of 99.97 percent capture efficiency for 0.3 micron particles.

For any lead control device that uses a filter bag(s), the filter bag(s) used would be required to be polytetrafluoroethylene membrane-type, or any other material that is equally or more effective for the control of lead emissions, and approved for use by the Executive Officer.

~~Lead or particulate emissions reduction would be calculated as prescribed in the proposed rule.~~ Each emission collection system and lead control device would be, at minimum, inspected, maintained and operated in accordance with the manufacturer's specifications.

Compliance Plan (Subdivision (g))

~~On or after July 1, 2011, any facility that exceeds an early detection~~ The owner or operator of a large lead-acid battery recycling facility that discharges into the atmosphere emissions which contribute to ambient air lead concentrations that exceed ~~of~~ 0.12 microgram per cubic meter averaged over any 30 consecutive days measured ~~by facility~~ at any monitor~~s set up~~ pursuant to Subdivision (j ~~g~~) Ambient Air Monitoring and Sampling Requirements or at any SCAQMD-installed monitor would be required to: ~~located within 1,000 feet of the facility would be required to submit a Compliance Plan that identifies additional measures to ensure that the ambient air quality concentration of 0.15 microgram per cubic meter is not exceeded.~~

~~Each compliance plan submittal would be required to include:~~

- Notify the Executive Officer in writing within 72 hours of when the facility knew or should have known of exceeding an ambient air lead concentration of 0.12 microgram per cubic meter averaged over any 30 consecutive days. Notification would only be required for the first time the ambient air lead concentration of 0.12 microgram per cubic meter is exceeded;
- Submit, within 30 calendar days of exceeding an ambient air lead concentration of 0.12 microgram per cubic meter averaged over any 30 consecutive days, a complete Compliance Plan to the Executive Officer for review and approval, subject to plan fees as specified in Rule 306. The Compliance Plan, at a minimum, would be required to include the following:
  - ~~All data that led to the finding of the exceedance of the early detection concentration;~~
  - ~~A determination of all probable activities or operations that may have contributed to exceedance of 0.12 microgram per cubic meter;~~
  - A ~~comprehensive list~~ description of additional lead emission reduction measures including but not limited to ~~(~~housekeeping and maintenance activities; additional total enclosures; modifications to lead control devices; installation of multi-stage lead control devices; process changes including reducing throughput limits; and conditional curtailments including, at a minimum, information specifying the curtailed processes, process amounts, and length of curtailment measures~~ that can be implemented immediately if lead emissions discharged from the facility contribute to, process modifications, lead control devices, etc.) to be implemented to ensure ambient concentrations of lead do not exceed 0.15 microgram per cubic meter averaged over any 30 consecutive day;~~

- Locations within the facility and method(s) of implementation for each additional lead reduction measure; and
- An implementation schedule for each lead reduction measure to be implemented if lead emissions discharged from the facility contribute to ~~ensure~~ ambient concentrations of lead ~~do not~~ that exceed 0.15 microgram per cubic meter averaged over any 30 consecutive days at any monitor pursuant to Subdivision (j) Ambient Air Monitoring and Sampling Requirements or at any SCAQMD-installed monitor. The scheduled would be required to include a list of the lead emission reduction measures that can be implemented immediately prior to plan approval.

Requirements for submittal, approval, disapproval and resubmittal of the Compliance Plan are detailed in the proposed rule.

~~All lead reduction measures identified to ensure ambient concentrations of lead do not exceed 0.15 microgram per cubic meter averaged over any 30 consecutive days, shall be implemented based on the schedule of the approved Compliance Plan.~~ The owner or operator would be required to implement measures based on the schedule in the approved Compliance Plan if lead emissions discharged from the facility contribute to ambient concentrations of lead that exceed 0.15 microgram per cubic meter averaged over any 30 consecutive days at any monitor pursuant to Subdivision (j) Ambient Air Monitoring and Sampling Requirements or at any SCAQMD-installed monitor. The owner or operator may make a request to the Executive Officer to modify or update the Compliance Plan.

~~Ambient Air Quality Concentration~~ (moved to Subdivision (d))

~~Beginning January 1, 2012, large lead-acid battery recycling facilities subject to PR 1420.1 would not be allowed to discharge into the atmosphere, at or beyond the property line of the facility, emissions which cause ambient concentrations of lead to exceed 0.15 microgram per cubic meter averaged over any 30 consecutive days. The ambient concentrations of lead shall be measured pursuant to Subdivision (g) Ambient Air Monitoring and Sampling Requirements. Exceedances measured at any rule-required ambient air lead monitor, including those operated by the District located within 1,000 feet of the facility property line, are subject to compliance with the standard.~~

~~Any exceedance of the 0.15 microgram per cubic meter concentration measured at any facility monitor set up pursuant to Subdivision (g) Ambient Air Monitoring and Sampling Requirements, or at any SCAQMD-installed monitor located within 1,000 feet of the facility property line, would be recognized as resulting from emissions discharged into the atmosphere by the facility unless evidence is provided by the facility demonstrating otherwise and as approved by the Executive Officer.~~

~~New Facilities (Subdivision (e))~~ (moved to Subdivision (l))

~~Any new facility that begins construction or operations on or after rule adoption would be required not to be located in an area that is zoned for residential or mixed use. In addition, any new facility shall not be located within 1,000 feet from the boundary of a sensitive receptor, a school under construction, or any area that is zoned for residential or mixed use.~~

Housekeeping Requirements (Subdivision (h~~-f~~))

~~Housekeeping requirements are proposed to minimize fugitive lead dust emissions. All requirements will be effective upon rule adoption.~~ No later than 30 days after the date of

adoption of the proposed rule, the owner or operator of a large lead-acid battery recycling facility would be required to control fugitive lead-dust by conducting all of the following housekeeping practices:

- ~~Wash down, at least once a week, unless located within a total enclosure vented to a lead control device~~ Clean by wet wash or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97 percent capture efficiency for 0.3 micron particles in a manner that does not generate fugitive lead-dust, the following areas at the specified frequencies, unless located within a total enclosure vented to a lead control device. Days of measurable precipitation in the following areas occurring within the timeframe of a required cleaning frequency may be counted as a cleaning:
  - ~~Roof tops of structures that house areas that are associated with the storage, handling or processing of lead-containing materials~~ Monthly cleanings of roof tops on structures less than 45 feet in height that house areas associated with the storage, handling or processing of lead-containing materials; and
  - Quarterly cleanings, no more than three calendar months apart, of roof tops on structures greater than 45 feet in height that house areas associated with the storage, handling or processing of lead-containing materials; and
  - ~~Any~~ Weekly cleanings of all areas where lead-containing wastes generated from housekeeping activities are stored, disposed of, recovered or recycled, and
  - Initiate immediate cleaning, no later than one hour, after any maintenance activity or event including, but not limited to, accidents, process upsets, or equipment malfunction, that causes deposition of fugitive lead-dust onto areas specified above (roof tops and areas where wastes from housekeeping activities are stored, disposed of, recovered or recycled). Immediate cleanings of roof tops would be required to be completed within 72 hours if the facility can demonstrate that delays were due to safety or timing issues.
- Inspect all total enclosures and facility structures that house, contain or control any lead point source or fugitive lead-dust emissions at least once a month. Any gaps, breaks, separations, leak points or other possible routes for emissions of lead or fugitive lead-dust to ambient air would be required to be permanently repaired within 72 hours of discovery. The Executive Officer may approve a request for an extension beyond the 72-hour limit if the request is submitted before the limit is exceeded.
- Any lead-acid battery that is cracked or leaking upon receipt would be required to be sent to the battery breaking area for processing or stored pursuant to the proposed rule.
- ~~Negative air containment enclosures vented to negative air machine equipped with filters certified for 99.97 percent efficiency on 0.3 micron particles enclosing all affected areas where dust generation potential exists during turnaround/maintenance activities unless located within a total enclosure approved by the Executive Officer.~~
- ~~Replacement of any heavy gauge steel hot acid exhaust duct sections which have developed more than two corrosion leaks or required patch repairs.~~
- ~~Monthly structural integrity inspections of any structures that house, contain, or control lead emission points or fugitive lead-dust emissions. Any gaps, breaks, separations, leak points or other possible routes for emissions of lead or fugitive lead-dust to outside ambient air would be required to be permanently repaired within three calendar days of discovery. The Executive Officer may approve a request for an extension of the three-calendar day limit if made before the limit is exceeded.~~
- ~~Encapsulation (paving, asphalting, etc.) of all facility grounds as approved by the Executive Officer.~~ Pave, concrete, asphalt, or otherwise encapsulate all facility grounds as approved by the Executive Officer. Facility grounds used for plant life that are less than a total surface

area of 100 square feet would not be subject to encapsulation. Facility grounds requiring removal of existing pavement, concrete, asphalt or other forms of encapsulation, necessary for maintenance purposes would not require encapsulation while undergoing work, and would be required to be re-encapsulated immediately after all required work is completed. All work would be required to be conducted in accordance with maintenance activity requirements in Subdivision (i).

- Prohibition of weather caps on any stack that is a lead emissions source.
- ~~Storage of~~ 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 housekeeping requirements of this Subdivison and maintenance activities of Maintenance Activity Subdivision (i), in sealed, leak-proof containers unless located within a total enclosure.
- Transport of all materials capable of generating any amount of fugitive lead-dust emissions including, but not limited to, slag and any other waste generated from housekeeping requirements of this subdivision within closed conveyor systems or in sealed, leak-proof containers, unless located within a total enclosure.
- ~~Remove~~ Initiate removal of any lead-containing material, including sludge, from the entire surface area of any surface impoundment pond or reservoir holding storm water runoff or spent water from housekeeping activities within ~~24~~ one hour~~s~~ after the water level is one inch at any point above the bottom of the pond or reservoir. ~~Surfaces~~ Removal of lead-containing material would be required to be completed as soon as possible, and no later than six calendar days after the time initiation of the removal was required. Thereafter, surfaces are required to be washed down weekly ~~thereafter~~ in a manner that does not generate fugitive lead-dust until the pond or reservoir is used again for holding water.
- ~~Facility owner/operator would be required to sweep paved, concreted or asphalted facility areas subject to vehicle and foot traffic and vehicle wet wash down areas with an onsite mobile sweeper that is in compliance with SCAQMD Rule 1186. Sweeping would be required three times each day, occurring at least once per operating shift with each event not less than four hours apart. Additionally, any accidents, mishaps and/or process upsets occurring in the aforementioned areas that result in the deposition of lead-containing material or dust shall be swept immediately using an onsite mobile sweeper. Sweeping would not be required within ten meters of any ambient air monitor location when conducting sample collection in order to avoid interference. Further, sweeping would not be required during days of measurable precipitation.~~ The owner or operator of a large lead-acid battery recycling facility would be required to maintain an onsite mobile vacuum sweeper that is in compliance with SCAQMD Rule 1186, or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97 percent capture efficiency for 0.3 micron particles to conduct the following sweeping activities:
  - Vacuum sweep all paved, concreted or asphalted facility areas subject to vehicular or foot traffic three times per day and occurring at least once per operating shift with each event not less than four hours apart, unless located within a total enclosure vented to a lead control device.
  - Immediately vacuum sweep any area specified to be swept above, no later than one hour after any maintenance activity or event including accidents, process upsets, or equipment malfunction that results in the deposition of fugitive lead-dust.
  - Vacuum sweeping activities specified in sweeping requirements above would not be required during days of measurable precipitation.
- ~~A vehicle wet washing area would be required to maintain a vehicle wet washing area using a wet washing method approved by the Executive Officer. The system would be required to be~~

~~capable of removing dust and other accumulated material from the wheels, body, and vehicle underside to prevent the inadvertent transfer of lead contaminated material to public roadways. All vehicles traversing facility areas associated with the lead-acid battery recycling process prior to exiting the facility and onsite mobile sweepers after operation, would need to be sufficiently washed such as visual inspections of all vehicle surfaces, wheel, or tires does not indicate any accumulation of dust, particles or mud contamination. Each vehicle would need to be inspected after washing to verify compliance with washing requirements. Vehicles that do not pass would be prohibited from exiting the facility. Ground surfaces where vehicles are washed would be required to be wet washed prior to the vehicle wet washed areas becoming dry to prevent any fugitive lead-dust or residue from becoming airborne. Practices that minimize the potential for further releases of lead emission when collecting and disposing of lead contaminated water accumulated during washing processes would be required. Practices would include the minimization of the amount of water which is allowed to dry exposed to the atmosphere prior to collection for treatment.~~

Maintenance Activity (Subdivision (i))

- Beginning date of adoption, the owner or operator of a large lead-acid battery recycling facility would be required to conduct any maintenance activity in a negative air containment enclosure, vented to a permitted negative air machine equipped with a filter(s) rated by the manufacturer to achieve a 99.97 percent capture efficiency for 0.3 micron particles, that encloses all affected areas where fugitive lead-dust generation potential exists, unless located within a total enclosure or approved by the Executive Officer. Any maintenance activity that cannot be conducted in a negative air containment enclosure due to physical constraints, limited accessibility, or safety issues when constructing or operating the enclosure would be required to be conducted:
  - In a partial enclosure, barring conditions posing physical constraints, limited accessibility, or safety issues;
  - Using wet suppression or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97 percent capture efficiency for 0.3 micron particles, at locations where the potential to generate fugitive lead-dust exists prior to conducting, during, and upon completion of the maintenance activity. Wet suppression or vacuuming would be required to be conducted during the maintenance activity barring safety issues;
  - While collecting 24-hour samples at monitors for every day that maintenance activity is occurring and notwithstanding Ambient Air Monitoring and Sampling Requirements Subdivison (j);
  - Would be required to be stopped immediately when instantaneous wind speeds are greater than 25 miles per hour. Maintenance work may be continued if it is necessary to prevent the release of lead emissions.
- Store or clean by wet wash or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97 percent capture efficiency for 0.3 micron particles, all lead-contaminated equipment and materials used for any maintenance activity immediately after completion of work in a manner that does not generate fugitive lead-dust.

Ambient Air Monitoring and Sampling Requirements (Subdivision (k ~~g~~))

~~Each facility would be required to collect and analyze ambient air lead samples to determine compliance with the ambient air quality lead concentration standard of PR 1420.1.~~ Prior to January 1, 2011, ambient air monitory and sampling would be conducted pursuant to SCAQMD Rule 1420. No later than January 1, 2011, the owner or operator of a large lead-acid battery recycling facility would be required to conduct ambient air monitoring and sampling as follows:

- Collect samples from a minimum of ~~three~~ four sampling sites approved by the Executive Officer~~, located at or beyond the property line of the facility~~;
  - Locations for sampling sites would be required to be based on maximum expected ground level lead concentrations, at or beyond the property line, as determined by 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.
  - The Executive Officer may require one or more of the four 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.
  - 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.
- ~~Collect samples from a minimum of one Executive Officer-approved sampling site to determine background ambient lead concentration;~~
- Collect 24-hour, midnight-to-midnight, samples at all sites for 30 consecutive days from the date of initial sampling, followed by one 24-hour, midnight-to-midnight, sample collected at least once every three calendar days, on a schedule approved by the Executive Officer;
- Submit collected samples to ~~an Executive Officer approved~~ laboratory approved under the SCAQMD Laboratory Approval Program for analysis within three 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. ~~provide duplicate~~ Duplicate samples would be required to be made available to the ~~District~~ SCAQMD upon request by the Executive Officer; and
- ~~Calculate ambient lead concentrations for individual 24 hour samples within 15 calendar days of the end of the calendar month.~~
- Sample collection would be required to 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 ~~shall~~ would be required to 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.
- ~~Facilities would also have to continuously monitor wind speed and direction for the ambient air quality monitoring systems at all times to supplement data analysis of samples collected.~~ Continuously record wind speed and direction data at all times using equipment approved by the Executive Officer at a minimum of one location and placement approved by the Executive Officer.
- ~~Only personnel approved by the Executive Officer would be allowed to conduct ambient air quality monitoring, and sampling equipment shall be operated and maintained in accordance with U.S. EPA-referenced methods.~~ Ambient air quality monitoring would be required to be conducted by persons approved by the Executive Officer and sampling equipment be required to be operated and maintained in accordance with U.S. EPA-referenced methods.
- Cleaning activities, including, but not limited to, wet washing and misting, that result in damage or biases to samples collected would be required not to be conducted within 10 meters of any sampling site required by this subdivision.

- All ambient air quality monitoring systems ~~would be~~ required by this subdivision would be required to be equipped with a backup, uninterruptible power supply ~~if the facility is enrolled into a Demand Response Program~~.
- On and after January 1, 2012, if the owner or operator of a large lead-acid battery recycling facility exceeds an ambient air lead concentration 0.15 microgram per cubic meter measured pursuant to General Requirements Subdivision (d), the owner or operator would be required to:
    - Begin daily ambient air monitoring and sampling no later than three calendar days after the time the facility knew or should have known of the exceedance. Conduct daily ambient air monitoring and sampling for 60 consecutive days at each sampling site that measured an exceedance according to General Requirements Subdivision (d).
    - The 60 consecutive-day period would be restarted for any subsequent exceedance.

Source Tests (Subdivision (k ~~h~~))

- ~~Annual source tests would be required for all lead control devices in order to demonstrate compliance with the 99 percent control efficiency standard.~~ The owner or operator of a large lead-acid battery recycling facility would be required to conduct a source test of all lead control devices at least annually to demonstrate compliance with the control standards specified in the Lead Point Source Emissions Controls Subdivison (f). If the results of the most recent source test for a lead control device demonstrating compliance with the lead emission standards of Lead Point Source Emissions Controls Subdivison (f) demonstrate emissions of 0.0025 pounds of lead per hour or less, the next test for that lead control device would be required to be performed no later than 24 months after the date of the most recent test.
- The owner or operator of a large lead-acid battery recycling facility with an ~~Existing~~ existing lead control devices in operation before the adoption date of the rule would ~~require a~~ would be required to conduct a source test no later than January 1, 2011. Initial source tests for new and modified lead control devices with an initial start-up date on or after the adoption date of the rule would be required within 60 days of initial start-up.
- The Executive Officer would be required to be notified in writing one week prior to conducting any source test required by PR 1420.1.
- Prior to conducting a source test for PR 1420.1 the owner/operator of a large lead-acid battery recycling facility would be required to ~~obtain~~ submit a~~n approved~~ pre-test protocol~~, submitted~~ to the Executive Officer for approval at least 60 calendar days prior to conducting the source test. The pre-test protocol would need to include the source test criteria of the end user and all assumptions, required data, and calculated targets for testing the following: target lead control efficiency; preliminary lead analytical data; planned sampling parameters; and information on equipment, logistics, personnel, and other resources necessary for an efficient and coordinated test.
- The owner or operator of a large lead-acid battery recycling facility would be required to notify the Executive Officer within three business days, including Mondays, of when the facility knew or should have known of any source test result that exceeds any of the emission standards specified in Lead Point Source Emissions Controls Subdivison (f). Notifications would be made to 1-800-CUT-SMOG.
- ~~The proposed rule lists the following applicable test methods~~ Source tests would be required to be conducted while operating at a minimum of 80 percent of equipment maximum capacity and in accordance with any of the following applicable test methods:
    ~~o SCAQMD Methods 5.1, 5.2, and 12.1;~~

- ~~CARB Methods 12 and 436; and~~
- ~~EPA Methods 9 and 12.~~
- SCAQMD Method 12.1 - Determination of Inorganic Lead Emissions from Stationary Sources Using a Wet Impingement Train
- ARB Method 12 – Determination of Inorganic Lead Emissions from Stationary Sources
- EPA Method 12 – Determination of Inorganic Lead Emissions from Stationary Sources
- ARB Method 436 – Determination of Multiple Metal Emissions from Stationary Sources

- The average of triplicate samples according to approved test methods would be required to be used to determine compliance.
- ~~Use of~~ The operator may use an alternative or equivalent test method defined in U.S. EPA 40 CFR 60.2,~~would be allowed as long as it is~~ approved in writing by the Executive Officer, CARB, and the U.S. EPA. ~~Source tests would be required to be completed by a test laboratory approved under the SCAQMD Laboratory Approval Program.~~
- The operator would be required to 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 would be granted by the Executive Officer on a case-by-case basis based on SCAQMD protocols and procedures.
- 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~~ would be constitute a violation of the rule.
- An existing source test, for existing lead control devices, conducted on or after January 1, 2010 may be used as the initial source test specified in this subdivison ~~as long as the test~~ to demonstrate compliance with the control standard of Lead Point Source Emissions Controls Subdivison (f) upon Executive Officer approval. The source test would be required to meet, at a minimum, the following criteria:
  - The test is the most recent conducted since January 1, 2009;
  - The test demonstrated compliance with the applicable control standard of Lead Point Source Emissions Controls Subdivison (f) ~~99 percent control efficiency~~;
  - ~~Is~~ The test is representative of the method to control emissions currently in use; and
  - ~~Was~~ The test was conducted using applicable and approved test methods in this subdivison.

New Facilities (Subdivision (l))

The owner or operator of a large lead-acid battery recycling facility beginning construction or operations on or after the date of adoption of the rule would be required to:

- Demonstrate to the satisfaction of the Executive Officer that the facility is not located in an area that is zoned for residential or mixed use; and
- Demonstrate to the satisfaction of the Executive Officer that the facility is not located within 1,000 feet from the property line of a sensitive receptor, a school under construction, park or any area that is zoned for residential or mixed use. The distance would be measured from the property line of the new facility to the property line of the sensitive receptor.
- Submit complete permit applications for all equipment required by this rule prior to beginning construction or operations.

Recordkeeping (Subdivision (m ~~i~~))

The owner or operator of a large lead-acid battery recycling facility would be required to keep records of the following:

- ~~Records~~ Daily records indicating ~~quantities and lead content of each~~ amounts of lead-containing material processed, including, but not limited to, purchase records, usage records, results of analysis, or other SCAQMD-approved verification ~~at a facility~~ to indicate processing amounts; ~~lead content and lead would be required to be maintained by the facility.~~
- Results of all ambient air lead monitoring, meteorological monitoring, and other data specified by the Ambient Air Monitoring and Sampling Requirements Subdivision (j)
- Recordkeeping for all housekeeping activities in Subdivision (h), maintenance of Subdivision (i), and lead control device inspection and maintenance requirements of Lead Point Source Emissions Controls Subdivision (f), including the name of the person performing the activity, and the dates and times on which specific activities were completed ~~ambient air lead monitoring, meteorological monitoring, vehicle wet washing and vehicle inspection required by the rule would be required to be maintained~~.
- Records of unplanned shutdowns of any smelting furnace including the date and time of the shutdown, description of the corrective measures taken, and the re-start date and time.
- All records would be required to be maintained for five years and maintained onsite for at least two years.

Reporting (Subdivision (n ~~j~~))

Ambient Air Monitoring Reports

- ~~Facilities would be required to submit reports for monthly ambient air monitoring results for lead and wind data measured at each sampling location on a monthly or more frequent basis if determined by the EO. Results of individual 24-hour samples would be required to be reported and averaged each calendar month.~~ Beginning no later than January 1, 2011, the owner or operator of a large lead-acid battery recycling facility would 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 would be required to include the results of individual 24-hour samples and 30-day averages for each day within the reporting period.
- Any exceedance of the ambient air quality concentration specified in the General Requirements (d) ~~shall~~ would be required to be reported with a notification made to the 1-800-CUT-SMOG ~~to the Executive Officer~~ within 24 hours of receipt of completed sample analysis required by Ambient Air Monitoring and Sampling Requirements Subdivsion (j), followed by a written report to the Executive Officer no later than three calendar days after the notification. The written report would be required to include the causes of the exceedance and the specific corrective actions implemented.

Shutdown,Turnaround~~/~~, and ~~–~~Maintenance Activity Notification ~~and Unplanned Shutdown Reporting~~

The owner or operator of a large lead-acid battery recycling facility would be required to:

- Notify the Executive Officer within one hour after an unplanned shutdown of any lead control device has occurred. The notification would be required to include the associated processes or equipment vented by the shutdown lead control device. If the unplanned shutdown involves a breakdown pursuant to Rule 430, the breakdown notification report required by Rule 430 would serve in lieu of this notification to the Executive Officer.

- Notify the Executive Officer at least ten calendar days prior to a planned turnaround or shutdown of any smelting furnace, battery breaker, or lead control device that result in lead emissions. The notification would be required to specify the subject equipment and the start and end date of the turnaround or shutdown period.
- Notify the Executive Officer at least ten calendar days prior to the beginning of maintenance activity, as defined in Definitions Subdivision I, that is conducted routinely on a monthly or less frequent basis. The notification and report would be required to include, at a minimum, the following:
  - Dates, times, and locations of activities to be conducted;
  - Description of activities;
  - Name of person(s)/company conducting the activities;
  - Lead abatement procedures, including those specified in Maintenance Activity Subdivision (i), to be used to minimize fugitive lead-dust emissions; and
  - Date of expected re-startup of equipment.
- Notify the public at least ten calendar days prior to the beginning of building construction, renovation, or demolition, and resurfacing, repair, or removal of ground pavement, concrete or asphalt if such activities are conducted outside of a total enclosure and generate fugitive lead-dust. The notification would include, at a minimum, the following:
  - Dates, times, and locations of activities to be conducted;
  - Description of activities;
  - Date of expected re-start of equipment.
- Notification in this subdivision would be required to be made to 1-800-CUT-SMOG followed by a written notification report to the Executive Officer no later than three business days, including Mondays, after the unplanned shutdown occurred.
- Provide notification to the public required under this subdivision through a facility contact or pre-recorded notification center that is accessible 24 hours a day, seven days a week, and through electronic mail using a list of recipients provided by the Executive Officer. Another method of notification to the public may be used provided it is approved by the Executive Officer.
- Install a sign indicating the phone number for the facility contact or pre-recorded notification center that meets the following requirements, unless otherwise approved in writing by the Executive Officer:
  - Installed within 50 feet of the main entrance of the facility and in a location that is visible to the public;
  - Measures at least 48 inches wide by 48 inches tall;
  - Displays lettering at least four inches tall with text contrasting with the sign background; and
  - Located between six and eight feet above grade from the bottom of the sign.

~~A Turnaround/Maintenance Lead Abatement Notification would be required to be submitted at least four weeks prior to the beginning of any turnaround/maintenance activity no later than January 1, 2011. Notification information would need to include a description of the activity including dates, times, persons conducting the activity, and specific locations at the facility where activities will be conducted. Lead abatement procedures that would be used to minimize lead emissions would also be required.~~

~~Unplanned shutdown of any equipment that processes lead-containing material shall be reported to the Executive Officer by calling 1-800-CUT-SMOG within one hour of shutdown. A written notification would also be required to be made to the Executive Officer no later than three calendar days after the unplanned shutdown occurred.~~

Initial Facility Status Report

No later than January 1, 2011, existing large lead-acid battery recycling facility owners/operators would be required to submit an initial facility status report. Large lead-acid battery recycling facilities beginning construction or initial operations after the date of rule adoption would be required to submit the initial compliance report upon start-up. Minimum information required in the report is specified in Appendix 1 of the rule. Below is a summary of required information:

- General facility information (name, SCAQMD Facility ID Number, address, contact number);
- The distance from the property line of the facility to the property line of the nearest commercial/industrial facility and sensitive receptor.
- Sensitive receptor and worker locations with respect to the facility if they are within one-quarter mile from the center of the facility;
- Facility building parameters;
- Description of the types of lead processes at the facility;
- For ~~all three~~ each of the last five calendar years dating back from the adoption of the rule:
  - Annual amounts and lead content of all lead-containing materials processed;
  - Maximum and average daily and monthly operating schedules;
  - Maximum and average daily and monthly lead-processing rates for all equipment and processes;
  - Maximum and average daily and annual lead emissions from all emission points and fugitive lead sources;
- Approximate date of intended source tests for all lead control devices, as required by source test requirements.
- Engineering drawings, calculations, or other methodology to demonstrate compliance with enclosure areas ~~emission standards~~; total enclosures; total enclosure ventilation~~; ambient air lead monitoring and concentrations~~; and source tests;
- Air dispersion modeling calculations using procedures approved by the Executive Officer to determine the location of sampling sites as required by ambient air monitoring and sampling requirements.
- All information necessary to demonstrate means of compliance with ambient air monitoring and sampling requirements.
- ~~Intended source test dates for all lead control devices; and~~
- The name, title, and signature of the responsible official certifying the report.
- Date of the report.

Ongoing Facility Status Report

Facilities would be required to submit a summary report to ~~update~~ the Executive Officer ~~of~~ to document the ongoing facility status ~~and changes through submittal of an Ongoing Facility Status Report~~. Ongoing Facility Status Reports would be due every year on or before February 1st for all sources and would require information covering the preceding calendar year. Minimum information required in the report is specified in Appendix 2 of the rule. Below is a summary of required information:

- General facility information (name, SCAQMD Facility ID Number, address, contact number);
- Beginning and ending dates of the calendar year for the reporting period.

- The following information would be required to be provided for each of the last 12 calendar months of the reporting period:
    - ~~Quantities~~Annual amounts of lead-containing material processed;
    - ~~Lead content of lead-containing materials processed;~~
    - Maximum and average daily and monthly lead-processing rates from all equipment and processes;
    - Maximum and average daily and annual emissions of lead from all emission points and fugitive lead-dust sources;
- ~~Description of changes in sensitive receptor locations and distances since the previous reporting period;~~ Worker and sensitive receptor distances, if they are located within one-quarter mile from the center of the facility and facility maximum operating schedule, if changed since submittal of the initial compliance status report or prior year's ongoing compliance status and emission reports.
- Description of changes in monitoring, processes, or controls since the previous reporting period; and
- The name, title, and signature of the responsible official certifying accuracy of the report.
- Date of the report.

Adjustments to the Timeline for Submittal and Format of Reports

The Executive Officer may adjust the timeline for submittal of periodic reports, allow consolidation of multiple reports into a single report, establish a common schedule for submittal of reports, or accept reports prepared to comply with other state or local requirements. Adjustments ~~shall~~ would be required to provide the same information and ~~shall~~ not to alter the overall frequency of reporting.

CONTROL STRATEGIES

Several types of controls for lead emissions are currently used at the lead-acid battery recycling facilities in the Basin. Lead emissions at lead-acid battery recycling facilities are generally categorized as point and fugitive lead emissions. Point source emissions are those emissions that are vented to a stack where the stack can be from a specific piece of equipment such as a furnace or building. Fugitive emissions are particulate matter that contain lead, is in contact with the ambient air, and can become airborne. Point source emissions that are vented through a control device, but not captured and contained can become fugitive emissions. The following discusses lead point source controls and fugitive source control strategies: ~~from lead processes discussed in the previous section are vented to one or more lead control devices listed below:~~

Lead Point Source Control Strategies

The following describes lead point source control strategies. As with any type of control device, maintenance and proper operation of the control device are important to ensure the control device can achieve its maximum control efficiency. The following provides a description of baghouses and filter controls, wet scrubbers, high efficiency particulate arrestors (HEPA), electrostatic precipitators and wet electrostatic precipitators. Use of multistage point source controls such as use of baghouse filters and HEPA filters can improve the capture efficiency and provide additional protection. Lead emissions from lead processes discussed in the previous section are vented to one or more lead control devices listed below:

Baghouses and Filters

Baghouses operate by collecting particles on a fabric or membrane filter. Typically, they consist of fabric or membrane bags of tubular or envelope shapes. As an air stream flows through the

bags, small particles are initially captured and retained on the fabric or membrane filter by one or a combination of the following collection mechanisms: impaction, direct interception, diffusion, electrostatic attraction, and gravitational settling. Once dust has accumulated on the walls of the bags, the "dust mat" acts as a sleeve to further increase particulate matter capture.

Arrays of filters are also used to collect particulate matter. They can be used after the bags in a baghouse to further reduce emissions or can be used alone as in a spray booth. Filters are often used in combination with a prefilter which is "changed out" on a regular basis allowing the bank of filter cartridges to last longer.

Baghouses are commonly used in metal melting operations. They have one of the highest control efficiencies for particulate emissions, and the captured particulate can be recycled to recover metal. Operating parameters of melting operations, such as exhaust stream temperature, gas stream velocity, and particulate chemical properties must be taken into account when designing the baghouse.

Daily maintenance and monitoring of the baghouse is necessary to ensure that it continuously meets the required standard of efficiency. Gas volume, temperature, pressure drop, and dust load are monitored continuously or intermittently. Baghouse shaking and sending pulses of air backwards through the bags is done at specific intervals, or when the bags are overloaded, to remove the captured particulate matter from the bags and drop it into a hopper below the bags.

Baghouse and filter technology combined can achieve an overall particulate matter capture efficiency certifiable up to 99.97 percent. The well designed baghouse can control 99 percent of particulate emissions. The control efficiency of lead particulates is anticipated to be slightly higher, since analytical test methods for metals are more accurate and precise than test methods for total particulates, regardless of particle size distribution. Historical test data performed for compliance with Rule 1420 has demonstrated this to be true. The lead removal efficiency is at least 98 percent for a baghouse with 99 percent efficiency for particulates.

All facilities subject to this rule would be able to use baghouses or filter systems to control particulate lead emissions from most all operations in the lead-acid battery recycling processes. Examples include lead emissions coming from the battery breaking areas and all smelting, refining, and casting operations.

Baghouses and filters are expected to be used to control lead particulate emissions at both affected facilities.

Wet Scrubbers

Wet scrubbers remove both particulate matter and gases from industrial process gas streams. In lead-acid battery recycling operations, wet scrubbers are typically used to remove residual lead particulates and sulfur oxides from the exhaust of baghouses that control emissions from rotary dryers and smelting furnaces. There are a variety of scrubber designs. However, only a limited number can remove small particulates from an exhaust stream. Wet scrubbers are capable of 98 percent collection efficiencies for particles as small as five microns in size. Two scrubbers designed to remove small particulates are the ionizing wet scrubber and the venturi scrubber.

In an ionizing wet scrubber, the gas stream first enters a chamber where a high voltage is used to ionize the gas stream. The second chamber is a wet scrubbing chamber, where the ionized

particles and gases are attracted to the surface of the chamber and the scrubbing liquid. Larger size particles are removed by water through inertial impaction.

Venturi scrubbers are used by some facilities in the district ~~District~~. In these scrubbers, the exhaust stream is passed through a constriction (the venturi) where the scrubbing liquid is sprayed in. The turbulence at and after the venturi promotes contact of particles with the scrubbing liquid droplets. High particulate matter removal efficiencies for small particles can be achieved with this type of scrubber.

One facility ~~would modify~~ has modified an existing scrubber by increasing the blower size and adding a HEPA filter to comply with PR 1420.1.

High-Efficiency Particulate Arrestors (HEPA)

Used in conjunction with a prefilter, high-efficiency particulate air filters can trap particles as small as 0.3 micrometers at an efficiency of 99.97 percent or greater. Like cartridge filters, HEPA filter elements are of pleated construction. HEPA filters are generally limited to ambient temperature (100° Fahrenheit), though special applications for higher temperatures are available. Unlike bags or cartridge filters, HEPA filters are not automatically cleaned. When a HEPA filter element becomes loaded with particulate matter, the element is changed out and disposed of as hazardous waste. Filters can be applied to controls such as baghouses to reduce lead emissions from lower temperature exhaust streams and fugitive lead-dust emissions collected within total enclosures. They can also be utilized in negative air equipment or vacuums used to conduct housekeeping activities throughout the facility.

HEPA filters ~~mist eliminators~~ are expected to be installed in a modified baghouse ~~scrubber~~ at one of the affected facilities.

Electrostatic Precipitators/Wet Electrostatic Precipitators

Electrostatic precipitators operate by charging the effluent particulate matter with a highly ionized gas stream and then attracting the charged particles to an oppositely charged metal wall. Typically, a cylindrical metal tube is used with an ionized wire running through it. As the ions move outward toward the oppositely charged cylinder, the particles are also ionized, and are deposited on the cylinder. The cylinder wall is periodically vibrated to collect particulate matter into a hopper. This technology can achieve 99 percent efficiency for total particulate matter as small as one µm. Electrostatic precipitators in lead-acid battery recycling operations are typically used downstream other lead controls such as baghouses, and treat exhaust streams with smaller lead particulates.

Based on conversations with facility owners/operators, neither type of electrostatic precipitators are expected to be used to comply with PR1420.1.

Fugitive Lead-Dust Control

Fugitive lead-dust at lead-acid battery recycling facilities can be a major source of lead emissions. Fugitive lead-dust accumulates in and around process areas, from lead point sources, on roof tops, in and around facility, and during maintenance operations to name a few. There are a variety of housekeeping and containment strategies that can be implemented to minimize fugitive lead dust. Housekeeping activities must be implemented frequently and properly to ensure they are effective. The concept behind many of these strategies is to either contain or remove lead dust so it cannot become airborne. Housekeeping practices specifying adequate

frequencies and locations for all cleanings to be performed are also critical in the effectiveness to control fugitive lead-dust emissions. The following summarizes some potential fugitive lead dust control strategies:

- Pave roadways subject to vehicular and foot traffic;
- Clean paved areas through vacuuming, vacuum sweepers, and use of wet suppression;
- Wet wash or vacuum areas where lead particulate and accumulate such as roof tops, areas where lead-containing wastes are stored or disposed of;
- Clean areas where lead dust may accumulate due to accidents, process upsets or equipment malfunctions;
- Clean surface impoundments ponds before lead-containing sludge dries and can become a source of fugitive lead-dust;
- Use of enclosures or containment areas during maintenance activities or storage of lead-containing materials; and
- Use of total enclosures under negative air pressure vented to point lead point source controls to ensure that lead dust that accumulates in and around process areas does not become fugitive.

BASELINE CONSIDERATIONS

The two affected facilities already comply with some of the requirements of PR 1420.1 under orders of abatement, best available control technology (BACT) requirements, or existing housekeeping practices. Tables 1-1 and 1-2 present control and housekeeping requirements at each of the two affected facilities. The tables show whether the facility complies with PR 1420.1 requirements (done), would need to comply with PR 1420.1 requirements (PR 1420.1) or the PR 1420.1 does not apply to the affected facility (N/A). One of the affected facilities has permits to construct enclosures and control equipment that comply with PR 1420.1 requirements. The other facility has applied for permits to construct, but has not received them. Adverse environmental impacts in Chapter 2 were evaluated for requirements that had not been implemented at time of the environmental analysis commenced.

Table 1-1
Control Technology Requirements

Control Technology Requirement	Facility 1	Facility 2	PR 1420.1 Reference
Enclosure Raw Material	PR 1420.1	PR 1420.1	~~(d)(1)(i)~~ (e)(1)(A) and (B)
Enclosure Dryer	PR 1420.1	N/A	~~(d)(1)(iii)~~ (e)(1)(C)
Enclosure Smelting Operations	PR 1420.1	PR 1420.1	~~(iv)~~ (e)(1)(D)
Other Enclosures	Done	Done	~~(d)(1)(ii), (v) to (vii)~~ (e)(1)(B)
Ventilation	PR 1420.1	PR 1420.1	~~(d)(1)(B) to (H) and (d)(2)~~ (e)(3) and (e)(5)
Baghouses	PR 1420.1 for new enclosures	Done	~~(d)(1)(B) to (H) and (d)(2)~~ (f)(1) to (5)
Dryer – Secondary Control	PR 1420.1	N/A	(f)(1)(3)
Modification to Scrubber	PR 1420.1	N/A	~~(d)(1)(B) to (H) and (d)(2)~~ (f)(1) and (2)

Done – Facility operators already comply with proposed rule.
PR 1420.1 – Facility operators would need to comply with requirement under PR 1420.1
N/A – Not applicable to facility – facility does not have dryer, scrubber or pond/reservoir

Table 1-2
Housekeeping Requirements

Housekeeping Requirements	Facility 1	Facility 2	PR 1420.1 Reference
Wash/Vacuum Roof Tops	PR 1420.1 ~~would increase from~~ monthly washing (~~semi-annual~~ quarterly for tall buildings) ~~to weekly washing~~	Done	~~(f)(1)(A)~~ (h)(1)(A) and (B)
Wash/Vacuum of Any Area Where Lead Is Stored, Disposed, Recovered or Recycled	Done	Done	~~(f)(1)(B)~~ (h)(1)(C)
Wash/Vacuum Areas After Maintenance or Event (Accidents, Process Upsets, Equipment Malfunction, etc., that causes deposition of Fugitive Dust)	PR 1420.1	PR 1420.1	(h)(1)(D) and (i)(2)
Turnaround/Maintenance in Enclosure with Negative Air Machine with Filters	PR 1420.1	PR 1420.1	~~(f)(2)~~ (i)(1)
~~Replace any Heavy Gauge Steel Hot Acid Gas Exhaust Duct Sections~~	~~PR 1420.1~~	~~PR 1420.1~~	~~(f)(3)~~
Inspect All Facility Structures That House Point or Fugitive Source of Lead Emissions	PR 1420.1	PR 1420.1	~~(f)(4)~~ (h)(2)
Send cracked or leaking batteries immediately to battery breaking area for processing or storage	PR 1420.1	PR 1420.1	(h)(3)
Pave, Concrete, Asphalt or Otherwise Enclosure All Facility Grounds	Done	Done	~~(f)(5)~~ (h)(4)
Remove All Weather Caps	Done	Done	~~(f)(6)~~ (h)(5)
Store Lead Containing Materials Leak-Proof Containers or Enclosure	PR 1420.1	PR 1420.1	~~(f)(7)~~ (h)(6)
Transport Lead Containing Materials Leak-Proof Containers or Enclosure	PR 1420.1	PR 1420.1	~~(f)(8)~~ (h)(7)
Pond or Reservoir	Seasonal washing done; weekly washings required by PR 1420.1	N/A	~~(f)(9)~~ (h)(8)

Done – Facility operators already comply with proposed rule.
PR 1420.1 – Facility operators would need to comply with requirement under PR 1420.1
N/A – Not applicable to facility – facility does not have dryer, scrubber or pond/reservoir

Table 1-2
Housekeeping Requirements (Concluded)

Housekeeping Requirements	Facility 1	Facility 2	PR 1420.1 Reference
On-site Mobile Sweeper	Done	PR 1420.1 would require sweeping twice more per day	~~(f)(10)~~ (h)(9)
~~Vehicle Wet Washing~~	~~PR 1420.1~~	~~PR 1420.1~~	~~(f)(11)~~

Done – Facility operators already comply with proposed rule.
PR 1420.1 – Facility operators would need to comply with requirement under PR 1420.1
N/A – Not applicable to facility – facility does not have dryer, scrubber or pond/reservoir

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 adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Proposed Rule 1420.1 ─ Emissions Standard For Lead From Large Lead-Acid Battery Recycling Facilities
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive, Diamond Bar, CA 91765
CEQA Contact Person:	James Koizumi, (909) 396-3234
PR 1420.1 Contact Person:	Eugene Kang, (909) 396-3524
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive, Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	PR 1420.1 would protect public health by reducing lead emissions produced by large lead-acid battery recycling facilities. PR 1420.1 would accomplish this by requiring enclosures for lead processes, pollution control equipment for lead point sources and additional housekeeping. Owner/operators of affected facilities would be required to meet a standard for lead of 0.15 micrograms per cubic meter averaged over any 30 consecutive days. Additionally, the proposed rule includes source testing, air monitoring, and recordkeeping requirements.
Surrounding Land Uses and Setting:	Primarily industrial and commercial facilities
Other Public Agencies Whose Approval is Required	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact issues 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 "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

☐	Aesthetics	☐	Geology and Soils	☐	Population and Housing
☐	Agricultural Resources	☑	Hazards and Hazardous Materials	☐	Public Services
☑	Air Quality	☑	Hydrology and Water Quality	☐	Recreation
☐	Biological Resources	☑	Land Use and Planning	☑	Solid/Hazardous Waste
☐	Cultural Resources	☐	Mineral Resources	☐	Transportation./Traffic
☑	Energy	☐	Noise	☑	Mandatory Findings

DETERMINATION

On the basis of this initial evaluation:

☑ I find the proposed project, in accordance with those findings made pursuant to CEQA Guideline §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 (a) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards, and (b) 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: April 23, 2010 Signature: Susan Nakamura

Susan Nakamura
Planning and Rules Manager

CHANGES TO PR 1420.1 SINCE THE DRAFT EA

Subsequent to the release of the Draft EA for public review, PR 1420.1 several requirements were added, deleted or modified. The following briefly summarizes proposed modifications to PR 1420.1. A more detailed description of the proposed modifications to PR 1420.1 can be found in Chapter 1 of this Final EA.

- Addition of total facility lead point source emission rate limitation and maximum individual lead point source emission rate (pound per hour)
- Removal of 99 percent control efficiency compliance option for lead control devices
- Addition to require use of specific filters/bags in lead control devices
- Addition of requirement to added secondary lead controls on dryers
- Removal of vehicle wet wash area requirement
- Change in schedule of roof cleaning requirement with the new compliance option of vacuuming surfaces or wet washing
- Public notifications for:
    - Unplanned and planned shutdowns/turnarounds of specific equipment
    - Specific types of maintenance activity

Secondary Lead Controls on Dryers

The addition of secondary lead controls on dryers would require one of the two affected facilities to install a new baghouse. The new baghouse would require demolition of a 52 foot by 52 foot concrete area and removal of any contaminated soil, which is expected to be contaminated with lead. Since lead does not typically migrate any appreciable distance, SCAQMD staff estimates that soil would need to be removed to a depth of two feet at most. Based on discussion with facility operators, the lead contaminated concrete and soil would be hauled to the US Ecology Beatty Facility, Beatty Nevada.

After demolition, a new concrete pad would be poured to support the new control equipment. A new baghouse would then be installed and the dryer would be ducted to the new baghouse. Analysis of demolition and paving were added to the aesthetic, agriculture and forest resources, air quality, biological resources, cultural resources, energy, geology and soils, noise and solid/hazardous waste environmental topics.

Control Efficiency, Emission Rates and Specification of Filters and Bags

The lead control device efficiency in the version of PR 1420.1 that was circulated with the Draft EA has been replaced with emission rate limits for both the control devices and total facility. Specifications have been added for filters and bags. These changes were made to provide easier verification of compliance and to clarify the characteristics of the control devices expected to be used to comply with PR 1420.1. The purpose of the control efficiency or emission rate limits and filter and bag specifications would be to reduce emissions into the atmosphere, which contribute to ambient air concentrations of lead that exceed 0.15 micrograms per cubic meter averaged over any 30 consecutive days. No change in construction or operation that was analyzed in the Draft EA would be expected by the changes.

Removal of Vehicle Wet Wash Area Requirement

SCAQMD staff determined that the vehicle wet washing area requirement would be required as an additional lead reduction measure of the Compliance Plan if deemed necessary. Therefore, this proposed requirement was removed from PR 1420.1. Construction and water use from the

vehicle wet wash area were analyzed in the Draft EA circulated for public comment. Impacts from wet washing were removed from the analysis in the Final EA.

Change to Schedule in Roof Washing Requirements

The roof washing requirement in the version of PR 1420.1 circulated with the Draft EA for public comment required weekly washing of roof top structures.

The current proposal allows either wet washing or cleaning with a vacuum equipped with a filter rated by the manufacture to achieve a 99.97 percent capture efficiency for 0.3 micro particles. The current proposal requires immediate cleaning (no later than one hour) after any maintenance activity or event including, but not limited to accidents, process upsets or equipment malfunction that causes the deposition of fugitive lead dust onto roof tops or areas where lead-containing waste are generated from housekeeping areas are stored, disposed of, recovered or recycled. The weekly routine cleaning of areas where lead-containing waste are generated from housekeeping areas are stored, disposed of, recovered or recycled is the same as the version of PR 1420.1 circulated with the Draft EA for public comment. Immediate cleanings of roof tops would be required to be completed within 72 hours if the facility owners/operators can demonstrate that delays were due to safety or timing issues. Monthly cleaning of roof tops of structures equal or less than 45 feet in high that house areas associated with the storage, handling or processing of lead-containing materials would be required. Quarterly cleaning, no more than three calendar months apart, of roof tops of structures greater 45 feet in high that house areas associated with the storage, handling or processing of lead-containing materials would be required.

SCAQMD staff expects that wet washing and vacuuming as specified would result in similar fugitive lead-dust emission reductions. SCAQMD staff also expects that the requirement to immediately clean roofs and areas where lead-containing waste are generated from housekeeping areas are stored, disposed of, recovered or recycled after any maintenance activity or event with the monthly and quarterly routine roof top cleanings would result in less lead-dust emissions than the weekly routine cleaning presented in the version of PR 1420.1 circulated with the Draft EA for public comment since both routine and unscheduled events would be addressed.

The modifications to the requirements would reduce the amount of water used and disposed, since less roof top washings are likely to be required and vacuuming could be substituted for washing. Since both facilities currently wash roofs it is unlikely that vacuuming would replace roof top washing. However, vacuuming may replace wet washing of areas where lead-containing wastes are generated from housekeeping areas are stored, disposed of, recovered or recycled. Pressure washers and vacuums are expected to use similar amount of electricity so no change to energy is expected. Analysis of vacuuming has been added to the solid/hazardous waste environmental topics.

Notification and Recordkeeping

Reporting and recordkeeping changes are not expected to impact any environmental topic.

Weekly Washings of Ponds or Reservoir

Only one of the affected facilities has a surface impoundment pond. The analysis in the Draft EA assumed that the facility operators at the affected facility already comply with the pond/reservoir housekeeping requirements in PR 1420.1. While facility operators does comply with the requirements to remove lead-containing material and sludge within 24 hours after the

water level is less than one inch at any point above the bottom of the surface impoundment pond. Under PR 1420.1, facility operators would need to wash down the empty surface impoundment pond weekly until the pond/reservoir is used to store water again. Water use from weekly washings has been added to the hydrology/water quality section of PR 1420.1.

Changes to the Environmental Checklist

At the time the Draft EA was circulated, the environmental checklist did not include impacts to forest lands as a topic to be evaluated as part of a CEQA document. SCAQMD staff revised the Environmental Checklist to reflect amendments to the CEQA Guidelines adopted by the Natural Resources Agency which became effective on March 18, 2010. These amendments contained revisions, which included the consideration of impacts to forestry lands and greenhouse gases (GHGs) in the environmental analysis. The topic of "Agriculture Resources" in the checklist was revised and renamed as "Agriculture and Forest Resources" and questions were added to address the consideration of impacts to forest resources. The topic of "Air Quality" in the checklist was revised and renamed as "Air Quality and Greenhouse Gases, and questions were added to address the consideration of impacts to GHG resources.

Although the Draft EA did not include a preliminary analysis of forest resources, to make the analysis of environmental impacts consistent with the recent changes to the environmental checklist, a discussion of indirect impacts from the proposed project that could conflict with, or cause rezoning of forest land has been included in this section of the Final EA. No significant impacts on forest resources were identified.

The Draft EA already evaluated impacts from GHGs on the environment. No significant impacts from GHGs were identified in the Draft EA. The existing analysis was renumbered to correspond to the GHG questions in the checklist.

Conclusion

The modifications were analyzed and SCAQMD staff concluded that recirculation was not necessary per CEQA Guidelines §15073.5, because the modifications were determined not to be a substantial revision (i.e., a new, avoidable significant effect that requires mitigation measure or project revisions to reduce the effect to insignificance or that project effects cannot be reduced to insignificant and new measures or project revisions are required). Recirculation is not required, because mitigation is not required (because PR 1420.1 would have less than significant impacts for all environmental topics); the modifications were not a response to written or verbal comments on the proposed effects identified in the Draft EA (since no comments were received on the Draft EA); modifications were not required by CEQA (no modifications were made because of CEQA requirements), and do not create new significant environmental effects (because PR 1420.1 would have less than significant impacts for all environmental topics), and it is not necessary to mitigate an avoidable significant effect (because PR 1420.1 would have less than significant impacts for all environmental topics); and new information added to the proposed project makes insignificant modifications to the Draft EA (because PR 1420.1 would have less than significant impacts for all environmental topics).

ENVIRONMENTAL CHECKLIST AND DISCUSSION

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

Significance Criteria

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

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

Discussion

I. a), b), c), & d) PR 1420.1 would require the construction of enclosures, control technology, ~~vehicle washing stations~~ and paving of dirt areas at two existing large lead-acid battery recycling facilities in the district. All construction activities would occur on-site at these existing facilities and are not expected to require substantial earthmoving. Changes to operations would include additional housekeeping activities to reduce lead emissions. All changes to operation would also occur on-site, with the exception of off-site monitors. Most of the processes at the two affected facilities are enclosed. Construction would consist of enclosing existing raw material processing operations, dryers and smelting operations and venting the enclosures to air pollution control devices; installing, ~~and vehicle washing stations~~ and paving any remaining dirt areas.

The enclosure of the remaining open processing operations and paving of any remaining dirt areas on-site would be consistent with the industrial area where these facilities are located. The other processes (refining and casting) are already vented to air pollution control systems. The air pollution control systems used for the enclosures and secondary lead controls on dryers are expected to be similar to existing systems, and therefore, similar to the existing aesthetics of the facility. ~~Vehicle washing stations are not expected to be visible from outside of the affected facilities.~~ Any portions that are visible are expected to appear as partial enclosures or piping that is similar to other structures and equipment on site.

Both affected facilities are twenty-four hour operations. Therefore, additional lighting may be required on the outside of new structures. However, any new lighting is expected to be similar to

existing lighting; therefore, similar in character to existing lighting. The facilities are also located in industrial areas that are zoned for continuous operation.

Off-site monitors may be place around the affected facilities. Off-site monitors would be placed manually without heavy construction. The off-site monitors typically consist of a two foot by eight foot platform, two meters above the ground. The monitors are place one meter above the platform. The monitors are expected appear similar to the industrial area surrounding the existing affected facilities.

Because PR 1420.1 affects operations on-site at existing facilities in industrial areas, any new construction at these affected facilities is expected to be similar to existing buildings or other structures, and off-site air monitors are expected to appear similar to the surrounding industrial area, PR 1420.1 is not expected to obstruct scenic resources or degrade the existing visual character of a site, including but not limited to, trees, rock outcroppings, or historic buildings. Further, additional light or glare is expected to be similar to existing lighting. Therefore, PR 1420.1 is not expected to adversely affect day or nighttime views in the area.

Based upon these considerations, significant adverse aesthetics impacts are not anticipated and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant aesthetics impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that aesthetic impacts from the overall project are less than significant.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
II.	**AGRICULTURE ~~RESOURCES~~ AND FOREST RESOURCES.** Would the project:			
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☑

		Potentially Significant Impact	Less Than Significant Impact	No Impact
c)	~~Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?~~ Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104 (g))?	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest land	☐	☐	☑

Significance Criteria

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

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

Discussion

II. a), b), c) & ed) PR 1420.1 would require the construction of enclosures, control technology~~, vehicle washing stations~~ and air monitors at two existing large lead-acid battery recycling facilities in the district. All construction activities would occur on-site at these existing facilities and are not expected to require substantial earthmoving. A 52 foot by 52 foot section of concrete would be removed along with soil to a depth of two feet so a concrete pad could be poured to support the secondary control of a dryer. Since the affected facilities are located in industrial areas that have been previously disturbed the removal of the concrete and soil is not expected to adversely impact agricultural or forest resources. Changes to operations would include additional housekeeping activities to reduce lead emissions. All changes to operation would also occur on-site.

Air monitors may be place off-site of the facility in the surrounding industrial area. Air monitors are expected to be placed at industrial sites on paved surfaces that have also already been greatly disturbed.

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 agricultural use or a Williamson Act contract, conflict with zoning for or cause reszoning of forest land, timber land or loss of forest land, or conversion of forest land to non-forest ues. Since the proposed project would not substantially change the facility or process at the facility, there are no provisions in PR 1420.1 that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements relative to agricultural or forest resources would be altered by the proposed project.

Based upon these considerations, significant agricultural or forest resource impacts are not anticipated and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant agriculture or forest resources impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that agricultural and forest resource impacts from the overall project are less than significant.

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

	Potentially Significant Impact	Less Than Significant Impact	No Impact
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑

Significance Criteria
Potential significant adverse air quality impacts will be evaluated and compared to the significance criteria in Tables 2-1a and 2-1b. If impacts equal or exceed any of the following criteria, they will be considered significant.

Discussion
PR 1420.1 would require the construction of enclosures, control technology~~, vehicle washing stations~~ and paving of dirt areas at two existing large lead-acid battery recycling facilities in the district. All construction activities would occur on-site at these existing facilities. Air monitors would not require construction and would be placed at industrial sites around the affected facility. ~~Based on discussions with the facility operators construction would occur on existing paved surfaces and are not expected to require earthmoving.~~ A 52 foot by 52 foot section of concrete would be removed along with soil to a depth of two feet so a concrete pad could be poured to support the secondary control of a dryer.

Changes to operations would include additional housekeeping activities to reduce lead emissions. All changes to operation would also occur on-site. Most of the processes at the two affected facilities are enclosed. Construction would consist of enclosing existing raw material processing operations at both affected facilities, and smelting and drying operations at one of the facilities; venting the enclosure to air pollution control devices at both facilities; installing additional baghouses at one facility~~; installing vehicle washing stations at both facilities~~; and paving any remaining dirt areas at both facilities.

III. a) The SCAQMD is required by law to prepare a comprehensive districtwide 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, 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 CAAs, the SCAQMD is required to attain the state and federal ambient air quality standards for all criteria pollutants, including lead. PR 1420.1 will not obstruct or conflict with the implementation of the AQMP because, overall, PR 1420.1 achieves net lead emission reductions. Further, the SCAQMD approved an air toxics planning document in March 2000 called "Final Draft Air Toxics Control

Plan (ATCP) for the Next Ten Years." PR 1420.1 would reduce lead emissions and therefore, be consistent with the goals of both the AQMP and ATCP. Therefore, implementing PR 1420.1 would not conflict or obstruct implementation of the AQMP or ATCP.

Table 2-1a
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction [b]**	**Operation [c]**
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	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 Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 metric tons per year	
Ambient Air Quality for Criteria Pollutants [d]		
NO2 1-hour average annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.25 ppm (state) 0.053 ppm (federal)	
PM10 24-hour average annual geometric average annual arithmetic mean	 10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation) 1.0 μg/m^3 20 μg/m^3	
PM2.5 24-hour average	 10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation)	
Sulfate 24-hour average	 25 μg/m^3	
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) 9.0 ppm (state/federal)	

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

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ greater than or equal to

Table 2-1b
MDAQMD Air Quality Significance Thresholds

Mass Thresholds		
Pollutant	**Daily Threshold lb/day**	**Annual Threshold ton/year**
NOx	137	25
VOC	137	25
PM10	82	15
PM2.5	82	15
SOx	137	25
CO	548	100
H2S	54	10
Lead	0.6	3
Toxic Air Contaminants (TACs) Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Hazard Index ≥ 1.0 (project increment)	
Ambient Air Quality for Criteria Pollutants [a]		
NO2 1-hour average annual average	MDAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.25 ppm (state) 0.053 ppm (federal)	
Sulfate 24-hour average	1 ug/m^3	
CO 1-hour average 8-hour average	MDAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) 9.0 ppm (state/federal)	

KEY: lb/day = pounds per day ton/year = tons per day ppm = parts per million ug/m^3 = microgram per cubic meter ≥ greater than or equal to

III. b), c) d) & f) For a discussion of these items, refer to the following analysis:

Construction Air Quality Impacts

New Affected Facilities

SCAQMD staff is not aware of any new large lead recycling facilities planned to be constructed in the future. Construction related to PR 1420.1 at new facilities would be similar to construction of structures to support the new large lead recycling processes. The same construction equipment used to build the facility is expected to build enclosures and control equipment at new facilities. However, construction of new large lead recycling facilities is considered speculative according to CEQA Guidelines §15145 at this time and will not be evaluated further in this analysis.

Existing Affected Facilities

One of the two existing facilities affected by PR 1420.1 has been issued air quality permits to construct enclosures and to install an air pollution control system (exhaust system with two baghouses) from the battery breaking area. These permit applications were submitted to comply with existing agreements with SCAQMD and other agencies. ~~Although no permit applications have been submitted for the vehicle washing system at this facility, it was assumed to be included in the construction for this analysis. A permit application for a vehicle washing system would be expected to be filed, if PR 1420.1 is adopted.~~

The other existing facility affected by PR 1420.1 has submitted air quality permit applications for enclosures and air pollution control systems for the raw material preparation system, smelting and refining building system and rotary dryers. The air pollution control systems would consist of exhaust systems, a spark arrestor, high efficiency particulate absorbing (HEPA) filter mist eliminator for an existing scrubber~~, vehicle wash system~~ and sweeper. These permit applications were submitted to comply with existing agreements with SCAQMD and other agencies. A permit application for a secondary lead-control device for the rotary dryers would be expected to be filed, if PAR 1420.1 is adopted.

PR 1420.1 was modified subsequent to the circulation of the Draft EA for public comment. The modifications include a requirement to add secondary lead control device to the exhaust of primary lead controlled devices used for dryers. The addition of a secondary control device at one of the affected large lead-acid battery recycling facilities would require demolition of a 52 foot by 52 foot area of concrete. The soil under the concrete area may be contaminated with lead. Since lead dose not typically migrate over any appreciable distance through soil, SCAQMD staff assumed that two feet of soil at most would be required to be removed. Based on the dimensions of the area demolished and a depth of two feet, approximately 200 cubic yards of lead-contaminated debris would need to be removed. The concrete and soil would be considered hazardous waste and the facility owner/operators have stated that the debris would be sent to US Ecology Beatty Facility, Beatty Nevada. Based on a capacity of 30 cubic yards per haul truck, seven haul truck trips would be required to haul the concrete and soil debris. The distance traveled by haul trucks within SCAQMD jurisdiction (distance from the affected facility to Castaic) is approximately 68 miles one-way. The distance traveled by haul trucks within MDAQMD jurisdiction (distance from the Castaic to Nevada) is approximately 191 miles one-way. Emissions calculations for vehicle trips were based on two-way trips.

Even though enclosures~~,~~ and air pollution control systems ~~and vehicle wash system~~ at the affected facilities construction would be done to fulfill obligations other than PR 1420.1, construction emissions were estimated since these structures, control technology and housekeeping activities would be required by PR 1420.1. Based on discussions with owner/operators at the affected large lead-acid battery recycling facilities, construction at the two facilities is not expected to overlap. In addition, demolition, concrete paving and structure construction phase are not expected to overlap.

PR 1420.1 includes requirements for air monitors. Air monitors are placed on two meter height platforms that are two feet wide by eight feet long. Other than placing the monitors on the platforms, air monitors do not require construction. Therefore, no construction emissions are associated with the air monitors. The delivery of the air monitors would be less than the peak day emissions associated with construction of the enclosures, ducting and control systems.

PR 1420.1 includes a requirement to enclose turnaround and maintenance activities in negative air containment enclosures vented to a permitted negative air machine. These enclosures are expected to be tarps or plastic sheeting supported by frames. No construction emissions are expected to be generated by the assembly of the tarps or plastic sheeting for turnaround and maintenance activities.

Construction emissions related to PR 1420.1 are presented in Appendix B and summarized in Tables 2-2a and 2-2b. Construction emissions were estimated from construction equipment, delivery vehicles and worker vehicles. Construction equipment, delivery vehicles and worker vehicle types and numbers were estimated based on the enclosure sizes (3.1 acres for both sites) and information from sample construction scenarios posted on the SCAQMD webpage (http://www.aqmd.gov/ceqa/handbook/LST/LST.html). Demolition, concrete paving and structure construction would occur within SCAQMD's jurisdiction, these activities (including vehicle travel within SCAQMD's jurisdiction) are compared to SCAQMD significance thresholds. Since haul trucks containing demolition debris would travel through MDAQMD's jurisdiction, emissions from haul truck travel through MDAQMD's jurisdiction are compared to MDAQMD significance thresholds. All construction criteria emissions are below the significance thresholds presented in Tables 2-1a and 2-1b; therefore, PR 1420.1 is not expected to be significant for construction emissions.

Table 2-2a
Criteria Emissions from Construction in SCAQMD

Description	CO, lb/day	NOx lb/day	VOC lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day
Demolition Phase	26	59	6.4	0.06	3.3	2.9
Concrete Paving Phase	21	37	5.3	0.041	2.4	2.2
Structure Construction Phase ~~Emissions~~	34	80	9.0	0.08	4.2	3.8
SCAQMD Significance Threshold	*550*	*100*	*75*	*150*	*150*	*55*
Exceed Significance?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Operational Air Quality Impacts

PR 1420.1 requires enclosing and controlling emissions from lead recycling operations and additional housekeeping operations (encapsulation of all facility grounds, washing roof tops, paved surfaces and vehicles; replacing steel hot acid gas exhaust duct sections, pond or reservoir lead material management, and sweeping). PR 1420.1 also includes provisions for ambient air monitoring, sampling and source testing. Compliance plans would be required if any facility is found to exceed an early detection ambient air lead concentration of 0.12 microgram per cubic meter averaged over any 30 consecutive days measured by facility monitors set up pursuant to PR 1420.1.

Table 2-2b
Criteria Emissions from Construction in MDAQMD

Description	CO, lb/day	NOx lb/day	VOC lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day
Demolition Phase	30.5	97.5	7.8	0.1	4.7	4.1
MDAQMD Significance Threshold	*548*	*137*	*137*	*137*	*82*	*82*
Exceed Significance?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Enclosing and Controlling Emissions
Most operating processes at the two affected facilities are enclosed and already controlled. One facility would add one new enclosure and two new baghouses. The other facility would add new enclosures that would vent to existing control systems. The additional enclosures and lead emission control equipment would reduce lead emissions and is not expected to directly increase any other emissions (i.e., criteria, toxic or GHG emissions).

Secondary emissions ~~form~~ from vehicles may be generated by the transport of new and spent filters; however, filters are expected to be purchased and disposed with existing filters used at the facility and other hazardous wastes generated at the facility. Therefore, no new trips are expected.

Therefore, no new emissions are expected from operation of enclosures and lead control technology requirements.

Housekeeping Operations
The affected facilities already perform many of the housekeeping requirements of the proposed rule. Almost all unpaved areas are encapsulated, operators already wash down paved operating areas, lead material is managed in pond and reservoir areas, and operators already sweep affected facilities. PR 1420.1 would increase the frequency of housekeeping operations, increase roof top washing, and process area sweeping ~~and add vehicle wet washing~~. None of the housekeeping operations are expected to directly increase criteria, toxic or greenhouse gas emissions. Secondary criteria emissions may increase from the additional sweeping and aerial lifts used for roof washing. One affected facility operator sweeps three times a day with LNG sweepers, which complies with PR 1420.1, but washes low roofs monthly and high roofs semi-annually. The other affected facility operator sweeps once a day with a diesel sweeper, so sweeping would have to increase to three times a day to be compliant with PR 1420.1. This facility uses sprinklers to wash roofs every day so no new secondary emissions would be generated. Emissions were estimated for the two extra sweeping events required at the affected facility that currently only sweeps once per day and from increasing the use of aerial lifts to weekly at the other affected facility. Emissions from sweepers were estimated by assuming that sweepers would be nine feet wide, sweep over the entire outside area around the production site (i.e., not around administrative buildings) two additional times a day with two feet of overlap on the return path as the sweepers travel back and forth. Emissions from aerial lifts assumed that lifts were operated six hours per day for two days, fifty times more a year (52 weeks minus the existing two weeks, since roofs are washed semi annually).

Based on a 10 mile per gallon fuel consumption, 65 additional gallons of diesel would be required annually for the two additional sweepings at the facility that is swept only once per day. The additional consumption of 65 gallons of diesel per year is not expected to require an additional fueling trip, so no increase in emissions are expected from diesel delivery trips. No additional LNG fueling trips are expected because the facility operators currently comply with the PR 1420.1 requirement to sweep three times per day.

Roof washing is contracted out so aerial lifts are delivered to the affected facility. A single heavy-duty diesel truck round trip of 40 miles per day is expected to be required on a peak day.

Minor emissions from welding may be generated by increased replacement of steel hot acid gas exhaust duct sections; and the replacement of sections is expected to be infrequent. Welding equipment is expected to be electric, so emissions would be generated only from the welding process itself. Emissions from welding by increased replacement of steel hot acid gas exhaust duct sections are expected to be infrequent and less than significant.

Air monitors would be visited every other day. One affected facility is located 30 miles from the district; the other is located 10 miles from the district. Therefore, a total of 80 miles may be traveled round trip to visit the air monitors.

Criteria emissions are presented in Table 2-3 and detailed in Appendix B. These emissions are less than the significance thresholds in Table 2-1; therefore, are expected to be less than significant.

Compliance Plans

SCAQMD staff expects that the enclosure, control technology and housekeeping requirements detailed in proposed project would reduce lead emission concentrations at the affected facilities to below 0.15 microgram per cubic meter concentration averaged over any 30 consecutive days measured by facility monitors compliant with PR 1420.1. Under PR 1420.1 compliance plans are required if the facility exceeds 0.12 microgram per cubic meter concentration averaged over any 30 days. Implementation of the approved compliance plans would occur if the facility exceeds the 0.15 microgram per cubic meter concentration averaged over any 30 consecutive days. It is unknown what types of measures the facility operators would include in the compliance plans, if this requirement is triggered. It is possible that compliance plans would consist of more frequent housekeeping activities, which as can be seen from the above analysis, are not expected to generate direct criteria emissions and generate secondary criteria emissions far below the significance thresholds.

Any compliance options that would require additional control equipment would need air quality permits. All permitted equipment is evaluated under CEQA.

Since enclosure, control and housekeeping requirements are expected to reduce lead emission concentrations at facilities to below 0.15 microgram per cubic meter averaged over any 30 consecutive days measured by facility monitors and compliance plans would address specific emission sources that are not known at this time; adverse impacts from compliance plans are considered speculative according to CEQA Guidelines §15145 and will not be evaluated further in this analysis.

Table 2-3
Secondary Criteria Emissions from Housekeeping Operation

Description	CO, lb/day	NOx, lb/day	VOC, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day
Heavy-Duty Sweeper	0.39	0.43	0.05	0.001	0.02	0.01
Aerial Lift	1.26	2.2	0.40	0.002	0.15	0.14
Aerial Lift Delivery	0.96	3.06	0.24	0.003	0.15	0.13
Air Monitor Visit	0.66	0.07	0.07	0.0009	0.007	0.004
Total	3.3	5.7	0.77	0.007	0.32	0.28
Significant Thresholds	550	55	55	150	150	55
Significant?	No	No	No	No	No	No

Toxic Air Contaminants (TACs)
PR 1420.1 is designed to reduce lead emissions from lead-acid battery recycling facilities. PR 1420.1 is expected to reduce lead emission concentrations to below 0.15 microgram per cubic meter averaged over any 30 consecutive days.

Construction TACs
Since facilities currently sweep and would be required to sweep three times per day, and construction is expected to occur on existing paved surfaces; construction is not expected to generate lead dust emission from lead entrained in soils and on paved surfaces.

Secondary diesel exhaust particulate emissions are expected from construction equipment to build enclosures, ventilation for the enclosures and control equipment. Based on existing permit applications for the enclosures, ventilation for the enclosures and control equipment, construction should be completed within nine months at one affected facility and two months at the other affected facility. Since diesel exhaust particulates are carcinogenic TACs that are evaluated over 40 year exposure durations for off-site workers and 70-year exposure durations for sensitive receptors, construction projects lasting less than a year are not expected to be significant for toxic air contaminant emissions.

Operation TACs
PR 1420.1 is not expected to generate direct emissions from operations. The enclosures and control equipment are not expected to generate TAC emissions. Housekeeping is not expected to generate direct TAC emissions, and compliance plan requirements are considered to be speculative.

No additional quantifiable health risk is expected by one additional gasoline vehicle trip to each facility to visit air monitors every other day.

Secondary diesel exhaust particulate emissions are expected to be generated by sweeping requirements. One facility is currently swept three times a day with LNG sweepers, which complies with PR 1420.1. The other facility is swept once a day with diesel sweepers. Emissions were estimated for the two extra times sweeping would be required at the affected facility that currently only sweeps once per day.

Since the additional sweeping is only expected to require 65 gallons more fuel per year, no additional diesel fuel delivery is expected, so there would be no new health risk from diesel fuel delivery.

Secondary diesel exhaust particulate emissions are also expected to be generated by aerial lifts used to wash roofs. One facility uses sprinklers to wash roofs, so no additional health risk would be generated from this facility. The other facility uses aerial lifts to wash the tallest buildings twice a year. It takes two days to wash the tallest buildings with six hours of aerial lift use. PR 1420.1 would increase washing to every week. So, PR 1420.1 would increase building washing by 100 days per year (two days per washing, 50 weeks per year (52 weeks minus the two weeks when washing is currently done)).

Since health risk is localized, it must be evaluated at each of the affected facilities:

Health Risk from Facility A

Health risk was estimated based on diesel exhaust particulate emissions from increased roof washing at the other affected facility. Facility operators at this facility already sweep three times per day required by PR 1420.1, so no increased health risk would be caused by sweeping at this facility. Using SCAQMD Tier II health risk methodology, sensitive/residential receptor carcinogenic health risk would increase by 0.2 in one million. Off-site worker carcinogenic health risk would increase by 2.2 in one million according to air dispersion modeling using ISCST3. Both off-site worker and sensitive/residential receptor carcinogenic health risk are less than the significance threshold of 10 in one million; therefore, PR 1420.1 is not expected to cause a significant adverse health risk impact to receptors near this facility.

Health Risk from Facility B

Health risk was estimated based on diesel exhaust particulate emissions from sweeping two more times at the facility that currently only sweeps once a day. This facility uses sprinklers to wash roof tops, so no increased health risk would be caused by roof washing. Using SCAQMD Tier II health risk methodology, off-site worker receptor carcinogenic health risk would increase by 0.5 in one million and sensitive/residential receptor carcinogenic health risk would increase by 0.1 in one million. Both off-site worker and sensitive/residential receptor carcinogenic health risk are less than the significance threshold of 10 in one million; therefore, PR 1420.1 is not expected to cause a significant adverse health risk impact to receptors near this facility.

III. g) & h) Global Warming and Greenhouse Gases

In addition to criteria pollutant emissions, combustion processes generate GHG emissions that have the potential to affect global climate. Reducing the lead emission from lead-acid battery recycling facilities does not directly produce GHGs. However, sweepers used for housekeeping during the operational phase are expected to generate GHG emissions in combustion exhaust. The following GHG analysis focuses primarily on CO2 emissions because CO2 is the primary GHG pollutant emitted during the combustion process and is the GHG pollutant for which emission factors are most readily available. ARB EMFAC2007 emission factors for on-road mobile sources were used to determine carbon dioxide (CO2) and methane (CH4) emission factors. ARB OFFROAD2007 emission factors for off-road mobile sources were used to determine carbon dioxide (CO2) and methane (CH4) emission factors. EMFAC2007 and OFFROAD2007 does not include nitrous oxide (N2O) emission factors for the vehicles and

equipment assumed for this project, so NO2 emission factors were developed from the ratio of CH4 and NO2 emissions factors presented in ARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions for on-road mobile sources.

The analysis of GHGs is a much different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, significance thresholds are based on daily emissions because attainment or non-attainment is 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. Since the half-life of CO2 is approximately 100 years, the effects of GHGs are longer-term, affecting global climate over a relatively long time frame. As a result, GHG emission impacts are considered to be cumulative impacts rather than project-specific impacts.

Detailed calculations are presented in Appendix B. PR 1420.1 is expected to result in an incremental increase of 30 metric tons of CO2eq emissions per year from construction, which is 927 metric tons from construction amortized over a 30 year period as proscribed in the Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans[4] adopted by the SCAQMD Governing Board in December 2008. Operational CO2eq emissions are expected to be 54 metric tons per year (20 metric tons from sweeping, 11 metric tons from aerial lifts for roof washing, 15 tons from delivery of aerial lifts and 7.3 metric tons from ~~district~~ SCAQMD staff visiting air monitors). An incremental increase of 84 tons (30 metric tons from construction and 54 metric tons from operations) per year of CO2 emissions is less than the significance threshold of 10,000 metric tons of CO2 per year. PR 1420.1 would reduce lead emissions, which along with other control measures in the 2007 AQMP, are a comprehensive ongoing regulatory program that would reduce overall GHGs emissions. GHG emissions are summarized in Table 2-4. Based on the above analysis, PR 1420.1 would not generate GHG emissions either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Therefore, PR 1420.1 is not considered significant for adverse GHG impacts.

III. e) As previously noted, implementing PR 1420.1 is not expected to directly require construction to install control equipment or construction of new structures other than a secondary lead control device for a dryer ~~an additional vehicle washer~~, since permit applications for required structures and control equipment have been submitted to address other existing obligations. However, since PR 1420.1 also includes requirements for these structures and control equipment, odors related to construction and operation of these structures and control equipment are addressed here. Construction is expected to occur on-site ~~and is not expected to require the use of large earthmoving equipment~~. Also, the affected facilities are located in industrial facilities where heavy duty diesel trucks already operate. Therefore, the addition of several pieces of construction equipment is not expected to generate diesel exhaust odor greater than what is already present.

[4] Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, http://www.aqmd.gov/hb/2008/December/081231a.htm.

Table 2-4
Secondary GHG Emissions from the Proposed Project ~~Housekeeping~~ Operation

Description	CO2, Mton/year	CH4, Mton/year	N2O, Mton/year	CO2eq, Mton/year
Demolition	0.26	0.000012	0.000005	0.26
Concrete Paving	0.056	0.000007	0.000006	0.056
Structure Construction	30	0.0025	0.0021	30
Total Construction*	30	0.0025	0.0021	30
Sweepers	20	0.0009	0.00008	20
Aerial Lifts	11	0.0004	0.001	11
Aerial Lift Delivery	15	0.0005	0.00004	15
Air Monitor	7.3	0.0005	0.0007	7.3
Total Operation	54	0.0024	0.0015	54
Project Total	**84**	**0.005**	**0.004**	**84**

Construction emissions were estimated for construction equipment at both affected facilities. Construction emissions are spread evenly over 30 years per Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, http://www.aqmd.gov/hb/2008/December/081231a.htm .
Operational emissions were estimated for sweepers and air monitoring station visits.

PR 1420.1 would require additional sweeping and roof washing at the facilities. Heavy-duty diesel trucks are used to deliver used batteries and to ship recycled lead product. Additional exhaust from more frequent sweeping and roof washing activities is not expected to generate diesel exhaust odor greater than what is already present.

Therefore, no significant adverse odor impacts are expected from implementing PR 1420.1.

Based upon these considerations, the air quality impacts associated with increased emissions of criteria pollutants, toxic air contaminants and GHG emissions are not expected to be significant. Therefore, based on the analysis above, PR 1420.1 is not expected to generate significant air quality impacts and will not be evaluated further in this ~~Draft~~ Final EA. Since no significant adverse air resources impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that air quality and greenhouse gas emissions impacts from the overall project are less than significant.

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

Significance Criteria

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

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

Discussion

IV. a), b), c), & d) PR 1420.1 would require the construction of enclosures, control technology~~,~~ ~~vehicle washing stations~~ and monitors at two existing large lead-acid battery recycling facilities in the district. All construction activities would occur on-site at these existing facilities and are not expected to require substantial earthmoving. A 52 foot by 52 foot section of concrete would be removed along with soil to a depth of two feet so a concrete pad could be poured to support the secondary control of a dryer. Since the affected facilities are located in industrial areas that have been previously disturbed the removal of the concrete and soil is not expected to adversely impact biological resources. Changes to operations would include additional housekeeping activities to reduce lead emissions. All changes to operation would also occur on-site. The existing large lead-acid battery recycling facilities are located in areas zoned as industrial, which have already been greatly disturbed.

Air monitors may be place off-site of the facility in the surrounding industrial area. Air monitors are expected to be place at industrial sites on paved surfaces that have also already been greatly disturbed.

In general, the affected facilities and surrounding industrial areas currently do not support riparian habitat, federally protected wetlands, or migratory corridors. Additionally, special status plants, animals, or natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service are not expected to be found in close proximity to the affected facilities. Therefore, the proposed project would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely in the SCAQMD's jurisdiction.

Compliance with PR 1420.1 is expected to reduce lead emissions from operations at the affected facilities, which would improve not worsen present conditions of plant and animal life. PR 1420.1 does not require acquisition of additional land or further conversions of riparian habitats or sensitive natural communities where endangered or sensitive species may be found.

IV. e) & f) The proposed project is not envisioned to conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans because it will only affect two existing large lead-acid battery recycling located in industrial areas. PR 1420.1 is designed to reduce lead adverse impacts outside the boundaries of affected facilities. Land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by the proposed project. Additionally, the proposed project would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, and would not create divisions in any existing communities because all activities associated with complying with PR 1420.1 would occur at existing industrial facilities.

The SCAQMD, as the Lead Agency for the proposed project, has found that, when considering the record as a whole, there is no evidence that the proposed project will have potential for any new adverse effects on wildlife resources or the habitat upon which wildlife depends. Accordingly, based upon the preceding information, the SCAQMD has, on the basis of substantial evidence, rebutted the presumption of adverse effect contained in §753.5 (d), Title 14 of the California Code of Regulations. Further, in accordance with this conclusion, the

SCAQMD believes that this proposed project qualifies for the no effect determination pursuant to Fish and Game Code §711.4 (c).

Based upon these considerations, significant adverse biological resources impacts are not anticipated and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant adverse biological resources impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that biological resource impacts from the overall project are less than significant.

		Potentially Significant Impact	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 §15064.5?	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource, site, or feature?	☐	☐	☑
d)	Disturb any human remains, including those interred outside a formal cemeteries?	☐	☐	☑

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 to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

V. a), b), c), & d) PR 1420.1 would require the construction of enclosures, control technology~~, vehicle washing stations~~ and paving of dirt areas at two existing large lead-acid battery recycling facilities in the district. All construction activities would occur on-site at these existing facilities and are not expected to require substantial earthmoving. A 52 foot by 52 foot section of concrete would be removed along with soil to a depth of two feet so a concrete pad could be poured to support the secondary control of a dryer. Since the affected facilities are located in industrial areas that have been previously disturbed the removal of the concrete and soil is not expected to adversely impact cultural resources. Changes to operations would include additional

housekeeping activities to reduce lead emissions. All changes to operation would also occur on-site.

Air monitors may be place off-site of the facility in the surrounding industrial area. Air monitors are expected to be place at industrial sites on paved surfaces.

The existing large lead-acid battery recycling facilities are located in areas zoned as industrial, which have already been greatly disturbed. Areas used for air monitors are also expected to be zoned industrial and previously disturbed. Therefore, PR 1420.1 is not expected to require physical changes to the environment that could disturb paleontological or archaeological resources. Therefore, the proposed project has no potential to cause a substantial adverse change to a historical or archaeological resource, directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or disturb any human remains, including those interred outside a formal cemeteries. Finally, because the proposed project would involve construction activities in previously disturbed areas on-site at industrial facilities and are not expected to require substantial earthmoving, it is unlikely that the county coroner or that the Native American Heritage Commission would need to be contacted. The proposed project is, therefore, not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources in the district.

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing PR 1420.1 and will not be further assessed in this ~~Draft~~ Final EA. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that cultural resources impacts from the overall project are less than significant.

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

Significance Criteria
Impacts to energy and mineral 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
VI. a) & e) PR 1420.1 does not require any action which would result in any conflict with an adopted energy conservation plan or violation of any energy conservation standard. PR 1420.1 is not expected to conflict with adopted energy conservation plans because existing facilities would be expected to continue implementing any existing energy conservation plans.

PR 1420.1 is not expected to cause new development. The local jurisdiction or energy utility sets standards (including energy conservation) and zoning guidelines regarding new development and will approve or deny applications for building new facilities. During the local land use permit process, the project proponent may be required by the local jurisdiction or energy utility to undertake a site-specific CEQA analysis to determine the impacts, if any, associated with the siting and construction of new development.

As a result, PR 1420.1 would not conflict with energy conservation plans, use non-renewable resources in a wasteful manner, or result in the need for new or substantially altered power or natural gas systems. Accordingly these impact issues will not be further analyzed in the ~~Draft~~ Final EA.

VI. b), c) & d. PR 1420.1 would increase electric use from additional blowers associated with controlling new enclosures. Diesel fuel would be consumed from construction and additional sweeping.

Electricity Impacts
The owner/operators at the two affected facilities are currently enclosing their raw material/battery breaking, smelting and rotary dryer areas. Based on permit applications the enclosures are expected to require two 100-horsepower blowers at one facility serviced by Southern California Edison (Edison), and two 100-horsepower blowers and two 150-horsepower blowers at the other facility serviced by the Los Angeles Department of Water and Power (LADWP).

Air monitors are expected to be powered by electricity service near where the air monitors are placed (i.e., may not be powered from the affected lead-acid battery recycling facilities). The air monitors typically require 16 amps of service (six amps for the monitor and 10 amps for vacuum pumps), which would be approximately two kilowatts (16 amps x 110 voltage). The addition of two kilowatts is not expected to be significant.

California Energy Commission staff reports that the southern California area (Edison Planning Area) consumed 105,054 gigawatts ~~megawatts~~ in 2008 with a peak consumption of 23,272

~~gigawatts~~ megawatts per hour that year.[5] The 142 kilowatts per hour required to run blowers at the affected facilities would be 1.3E-7 percent of the 2008 consumption and 0.001 percent of the peak area consumption that was available in 2008 (Table 2-5). The CEC staff reports that LADWP consumed 25,921 gigawatts in 2008 with a peak consumption of 5,717 megawatts per hour in 2008. The 319 kilowatts per hour required to run the blowers at the affect facility would be 319 kilowatts-hour, which is 1.2E-6 percent of the 2008 consumption and 0.006 percent of the peak consumption. Therefore, SCAQMD staff concludes that the amount of electricity required to meet the incremental energy demand associated with PR 1420.1 would be sufficient and would not result in a significant adverse electricity energy impact.

Table 2-5
Electricity Use

Area	Combined Blower Rating, HP	Electricity Use, kW/hr	Area Consumption, GW	Percent of Area Consumption	Area Peak Consumption MW/hr	Percent of Area Peak Consumption
Edison	200	142	105,054	1.3E-07	23,727	0.001
LADWP	450	319	25,921	1.2E-06	5,717	0.006

Diesel Impacts

Construction Diesel Use

Approximately 317 gallons of diesel fuel per day would be expected to be consumed by construction equipment and delivery trucks on a peak day. Since construction is phased, the additional diesel consumption from the demolition and construction of new baghouse for secondary control of a dryer is within the 317 gallons of diesel expected on a peak construction day, which would occur during the construction of enclosures. According to the 2007 AQMP, 10 million gallons of diesel is consumed every day. Since 317 gallons of diesel per day is far less than one percent (0.003 percent) of the diesel available, the proposed project is not considered to have a significant adverse diesel fuel use impact from construction.

Operational Diesel Use

Sweeper Diesel Use

One facility is currently swept three times a day with LNG sweepers, which complies with PR 1420.1. The other facility is swept once a day with diesel sweepers. Diesel use was estimated for the two extra sweeping events that would be required at the affected facility that currently only swept once per day. Diesel use was estimated assuming that sweepers would be nine feet wide, sweep over the entire outside area around the production site (i.e., not around administrative buildings) two times a day with two feet of overlap on the return path as the sweepers travel back and forth. Assuming a ten mile per gallon of diesel fuel efficiency approximately 2.1 gallons of diesel would be consumed on a peak day.

[5] Supply from California Energy Commission's Energy Almanac at http://energyalmanac.ca.gov/naturalgas/natural_gas_receipts.html.

Since the additional sweeping is only expected to require 65 gallons more fuel per year, no additional diesel fuel delivery is expected, so there would be no additional diesel fuel use from diesel fuel delivery.

Aerial Lift Diesel Use
One facility uses sprinklers to wash roofs, so no fuel is required. The other facility uses aerial lifts to wash tall roof tops. The aerial lifts are used six hours per day. Diesel fuel use was estimated using a 1.4 gallon per hour fuel consumption from OFFROAD2007. The diesel fuel use from aerial lifts would be 8.4 gallons per day.

Roof washing is contracted out so aerial lifts are delivered. A single heavy-duty diesel truck round trip of 40 miles per day is expected to be required on a peak day. Assuming a ten mile per gallon of diesel fuel efficiency approximately eight gallons of diesel would be consumed on a peak day.

According to the 2007 AQMP, 10 million gallons of diesel is consumed every day in California. Since 18.5 gallons of diesel fuel per day (2.1 gallons from sweepers, 8.4 from aerial lifts and eight gallons from aerial lift delivery) is less than one percent (0.0002 percent) of the diesel available, the proposed project is not considered to have a significant adverse operational impact for diesel fuel use.

Gasoline Usage

Construction Gasoline Use
Nine construction worker trips are expected on a peak day. Based on a 20 mile round trip, and a 16 mile per gallon fuel efficiency, approximately 10 gallons of gasoline would be used on a peak day. The 2007 AQMP states that 44 million gallons of gasoline are consumed per day in California. An additional 10 gallons of gasoline consumed on a peak day (0.00002 percent of the daily consumption) is not expected to have an adverse impact on gasoline supplies.

Operational Gasoline Use
One trip to each facility to visit air monitors, based on 80 miles round trip (30 miles to one facility and 10 miles to the other from the district), and a 16 mile per gallon fuel efficiency, would consume approximately five gallons of gasoline on a peak day. An additional five gallons of gasoline consumed on a peak day (0.00001 percent of the daily consumption) is not expected to have an adverse impact on gasoline supplies.

Based upon the above considerations, the proposed project is not expected to use energy in a wasteful manner, would not substantially deplete energy resources.

Based upon the preceding analysis, it is not expected that PR 1420.1 would create any significant effects on peak and base period demands for electricity and other forms of energy, create any significant effects on local or regional energy supplies or requirements for additional energy, or result in the need for new or substantially altered power or natural gas utility systems since only insignificant use of electricity and diesel fuel are expected.

Based upon these considerations, significant adverse impacts to energy are not expected from implementation of PR 1420.1 and will not be evaluated further in this ~~Draft~~ Final EA. Since no

significant energy impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that energy impacts from the overall project are less than significant.

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

Significance Criteria

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

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.

- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

VII. a) PR 1420.1 would require the construction of enclosures, control technology~~, vehicle washing stations~~ and encapsulation of facility grounds at two existing large lead-acid battery recycling facilities in the district. All construction activities would occur on-site at these existing facilities and are not expected to require substantial earthmoving. A 52 foot by 52 foot section of concrete would be removed along with soil to a depth of two feet so a concrete pad could be poured to support the secondary control of a dryer. Since the affected facilities are located in industrial areas that have been previously disturbed and must be construction according to Uniform Building Code, the removal of the concrete and soil is not expected to cause risk of loss, injury or death involving rupture of an earthquake fault, seismic ground shaking or landslides.

Changes to operations would include additional housekeeping activities to reduce lead emissions. All changes to operation would also occur on-site.

Air monitors may be placed off-site. Air monitors are expected to be placed on existing paved surfaces; and therefore are not expect to affect soil or geology.

Because Southern California is an area of known seismic activity, existing facilities are expected to conform with the Uniform Building Code and all other applicable state and local building codes. 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.

Since all structures and control technology would be built according to the Uniform Building Code, the proposed project would not expose people or structures to risks of loss, injury, or death involving: rupture of an earthquake fault, seismic ground shaking, ground failure or landslides. Since the affect facilities already exist, PR 1420.1 is not expected to increase exposure to existing earthquake risk.

VII. b) Based on discussion with affected facility operators, construction related to PR 1420.1 is expected to occur on existing paved surfaces and is not expected to require ~~any~~ substantial earthmoving. A 52 foot by 52 foot section of concrete would be removed along with soil to a depth of two feet so a concrete pad could be poured to support the secondary control of a dryer.

A new concrete pad would be constructed in accordance with the Uniform Building Code, which would prevent soil erosion. PR 1420.1 also requires the encapsulation of all facility grounds to prevent lead contamination. Therefore, no soil erosion or loss of topsoil, unstable earth conditions or changes in geologic substructures are expected to occur at the affected facilities as a result of implementing the proposed project.

VII. c) Since the proposed project would affect existing facilities and all demolition and construction is expected to follow the Universal Building Code, it is expected that the soil types present at the affected facilities would not be further susceptible to expansion or liquefaction. Furthermore, subsidence is not anticipated to be a problem since no substantial excavation, grading, or filling activities are expected occur at affected facilities. Additionally, the affected areas are not envisioned to be prone to landslides or have unique geologic features since the affected facilities are existing facilities that are located in industrial areas.

VII. d) & e) Since PR 1420.1 would affect existing facilities located in industrial zones and all demolition and construction is expected to follow the Universal Building Code, it is expected that people or property would not be exposed to expansive soils or soils incapable of supporting water disposal. Though each affected facility has an existing wastewater treatment systems that would continue to be used, these systems have the capacity to support this proposed project. Sewer systems are available to handle wastewater produced and treated by each affected facility. PR 1420.1 would not require the installation of septic tanks or alternative wastewater disposal systems at each existing facility affected by the proposed project. As a result, PR 1420.1 would not require operators to utilize septic systems or alternative wastewater disposal systems. Thus, the proposed project would not adversely affect soils associated with a septic system or alternative wastewater disposal system.

Based upon these considerations, significant geology and soils impacts are not expected from the implementation of PR 1420.1 and would not be further analyzed in this ~~Draft~~ Final EA. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that geology and soils impacts from the overall project are less than significant.

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

Significance Criteria

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

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.

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

Discussion

VIII. a) PR 1420.1 would require the construction of enclosures, control technology~~, vehicle washing stations~~ and paving of dirt areas at two existing large lead-acid battery recycling facilities in the district. Changes to operations would include additional housekeeping activities to reduce lead emissions. All changes to operation would also occur on-site. Since the goal of PR 1420.1 would be to reduce direct and indirect sources of lead, the proposed project would reduce the emissions of hazardous emissions

PR 1420.1 would not affect the amount of lead recycled, so it is not expected to directly affect operations. Indirectly, PR 1420.1 would reduce the amount of fugitive lead that is emitted by enclosing all lead recycling operations, additional air pollution control systems and through additional housekeeping requirements.

PR 1420.1 may increase the amount of lead disposed of by capturing additional fugitive emissions through enclosures, control technology, and housekeeping activities (see Section XVI. Solid/Hazardous Waste), but the increase amount of lead captured would be the lead that currently is emitted as fugitive emission. The capture of these fugitive emissions would reduce lead exposure to the public and environment.

Therefore, PR 1420.1 is not expected to create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous material.

VIII. b) PR 1420.1 requirements (enclosure, control, housekeeping and monitoring) would not increase the frequency or magnitude of lead emissions through reasonably foreseeable upset and accident conditions. The enclosure, control, housekeeping and monitoring would reduce existing potential adverse impacts from upset and accident conditions, since additional monitoring would alert owner/operators earlier to upsets and accidents, additional operations would be enclosed and controlled, and additional housekeeping requirements would assist in capturing fugitive lead emissions.

VIII. c) No schools are located within a quarter mile of either affected facility. Therefore, PR 1420.1 would not result in hazardous emissions, handling of hazardous or acutely hazardous materials, substances or wastes within one-quarter mile of an existing or proposed school.

VIII. d) Government Code §65962.5 refers to hazardous waste handling practices at facilities subject to the Resources Conservation and Recovery Act (RCRA). Though some of the affected facilities subject to PR 1420.1 may be included on the list of the hazardous materials sites compiled pursuant to Government Code §65962.5, compliance with the proposed project is expected to enhance current hazardous waste handling practices by requiring enclosures or use of closed containers to store or transport lead containing material. Hazardous wastes from the existing facilities are required to be managed in accordance with applicable federal, state, and local rules and regulations.

PR 1420.1 would further reduce fugitive emissions from lead-acid battery existing recycling facilities. Lead emissions from point sources are already controlled at these facilities. Lead emissions collected from air pollution control systems connected to enclosures and housekeeping activities required by PR 1420.1 would be placed in the lead recycling process to be formed into lead product (see Tables 1-2 and 1-2 for list of existing and PR 1420.1 fugitive emission control and housekeeping activities). Accordingly, significant hazards impacts from the disposal/recycling of hazardous materials are not expected from the implementation of PR 1420.1.

VIII. e) & f) One affected facility is not near any airports or private airstrips. The other facility is within six miles of the El Monte Airport. PR1420.1 is not expected to affect any airport or private airstrip since the proposed project is not expected to cause the construction of any object that would exceed the height of existing buildings or equipment. PR 1420.1 would result in the reduction of lead emissions. Secondary TAC emissions from sweeping were addressed in the Air Quality section of this EA and found to be less than significant. Therefore, no new hazards are expected to be introduced at affected facilities that could create safety hazards at local airports or private airstrips. Therefore, PR 1420.1 is not expected to result in a safety hazard for people residing or working in the project area even within the vicinity of an airport.

VIII. g) Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public (surrounding local communities), but the facility employees as well. The proposed project would not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. The two existing affected facilities already have emergency response plans in place. Thus, PR 1420.1 is not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

VIII. h) & i) 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 potential risk of upset.

The air pollution control systems for the new enclosures would not involve increase fire risk because it would not involve flammable materials. The enclosure for the smelter area would be vented to a scrubber. The water in the existing wet scrubber reduces the risk of fire from smelting emissions. The air pollution control system for the rotary driers includes a spark arrestor which would reduce the risk of fire on-site.

The proposed project would not increase the existing risk of fire hazards in areas with flammable brush, grass, or trees. No substantial or native vegetation typically exists on or near the affected

facilities (specifically because such areas could allow the accumulation of fugitive lead dust), the proposed project requires the encapsulating (paving or asphalting) of all facility grounds. So the proposed project is not expected to expose people or structures to wild fires. Therefore, no significant increase in fire hazards is expected at any of the affected facilities associated with the proposed project.

Based upon these considerations, significant hazards and hazardous materials impacts are not expected from the implementation of PR 1420.1 and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant hazards and hazardous materials impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that hazards and hazardous materials impacts from the overall project are less than significant.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:			
a)	Violate any water quality standards or waste discharge requirements?	☐	☑	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☑
d)	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 flooding on- or off-site?	☐	☐	☑

		Potentially Significant Impact	Less Than Significant Impact	No Impact
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☑	☐
f)	Otherwise substantially degrade water quality?	☐	☑	☐
g)	Place housing 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?	☐	☐	☑
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flaws?	☐	☐	☑
i)	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?	☐	☐	☑
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☑
k)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☑	☐
l)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑
m)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☑	☐
n)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑
o)	Require in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☑

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

Water 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.

Water Demand:
- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use a substantial amount of potable water.
- The project increases demand for water by more than five million gallons per day.

Discussion
The following discussion addresses weekly roof washing and wheel washing. PR 1420.1 was modified after the Draft EA was circulated for public review to remove the wheel washing requirement and the roof top washing requirement was modified. Roof washing was reduced to monthly cleanings of roof tops on structures less than 45 feet in height that house areas associated with the storage, handling or processing of lead-containing materials; and quarterly cleanings, no more than three calendar months apart, of roof tops on structures greater than 45 feet in height that house areas associated with the storage, handling or processing of lead-containing materials. Owner/operators would be required to initiate immediate cleaning, no later than one hour, after any maintenance activity or event including, but not limited to, accidents, process upsets, or equipment malfunction, that causes deposition of fugitive lead-dust onto areas specified above (roof tops and areas where wastes from housekeeping activities are stored, disposed of, recovered or recycled). Immediate cleanings of roof tops would be completed within 72 hours if the facility can demonstrate that delays were due to safety or timing issues. The hydrology and water quality analysis has been revised to reflect these changes.

IX. a), f), & k) The two existing affected facilities already have wastewater treatment operations on-site. The wastewater treatment systems are comprised of settling and equalization tanks. Lead collected in the wastewater treatment systems is placed into the lead recycling operation to be recycled. Water from the wastewater treatment systems is discharged to publicly owned treatment works (POTWs). The water discharge complies with existing lead water quality standards. Based on conversations with facility operators, the existing wastewater systems would be able to treat additional wastewater generated by the proposed project from the ~~vehicle washers and~~ housekeeping requirements. Therefore, PR 1420.1 is not expected to have significant adverse affects on water quality standards or waste discharge requirements, otherwise

degrade water quality or exceed wastewater treatment requirements of the Regional Water Quality Control Board.

IX. b), l), n) &o)

Surface Impoundment Pond

Only one of the affected facilities has a surface impoundment pond. PR 1420.1 includes a requirement that would prevent the surface impoundment pond from drying while holding lead-containing materials. PR 1420.1 would also require that the pond be washed until used again for holding water. ~~Facility operators comply with surface impoundment pond requirements in PR 1420.1. Therefore, water use associated with the surface impoundment pond is considered part of the existing setting and would not increase the amount of water used.~~ The analysis in the Draft EA assumed that the facility operators at the affected facility already comply with the pond/reservoir housekeeping requirements in PR 1420.1. While facility operators does comply with the requirements to remove lead-containing material and sludge within 24 hours after the water level is less than one inch at any point above the bottom of the surface impoundment pond. Under PR 1420.1, facility operators would need to wash down the empty surface impoundment pond weekly until the pond/reservoir is used to store water again. It was assumed that the affected facility operator would wash the entire surface area of the surface impoundment pond in a day with $1/16^{th}$ inch of water. Based on the surface impoundment pond area of one acre that would be washed, approximately 1,697gallons of water would be used to wash the impoundment pond area.

Facility Process Area Washing

Based on discussions with existing affected facility operators PR 1420.1 ~~1120.1~~ would not increase water used in existing wet scrubber and wet ESP. It was assumed that the facilities wash the entire surface area of each affected site minus non-process buildings and areas on the same day with $1/16^{th}$ inch of water. Based on a combined area of 170,000 square feet that would be washed, approximately 6,623 gallons of water would be used to wash facility surfaces on a worst-case day.

The facility process area washing analysis in the Draft EA included roof washing. One affected facility operator currently washes roofs daily; therefore, already meets the roof washing requirement of PR 1420.1 The other facility operator washes roofs of structures less than 45 feet in height monthly, which meets the requirements of PR 1420.1. Roofs that are greater than 45 feet are washed semi-annually, so two more washings of these roofs per year would be required to comply with quarterly roof washing requirement in PR 1420.1. Therefore, the modified amendments to Rule 1420.1 would result in greater roof washings for roofs greater than 45 feet than are currently done at one of the affected facilities, but fewer roof top washings than the weekly washings previously proposed in the Draft EA that was circulated for public comment.

In addition owner operators are offered the choice whether to wet wash roofs and storage areas or to use a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97 percent capture efficiency for 0.3 micron particles. If facilities use vacuums to clean roofs, then cleaning the roofs would not involve water use.

The "worst-case" under the modification would the same as that analyzed in the Draft EA, i.e., when all surfaces (roofs, ground, etc.) are washed in a single day. Therefore, the "worst-case"

water usage would remain approximately 6,623 gallons of water would be used to wash facility surfaces on a worst-case day.

Wheel Washing

The wheel washing requirement was removed from PR 1420.1; therefore, adverse impacts from the requirement were removed from this analysis. ~~Approximately 100 trucks per day may be washed between both facilities. Based on the assumption that a truck is 15 feet tall by 75 feet long by nine feet wide and washed with 1/16th inch of water, approximately 15,078 gallons of water per day would be used.~~

The total water use of ~~21,701~~ 8,320 gallons per day is less than the significance threshold of five million gallons per day. Even though the total potential increase in water use of the proposed project is below the SCAQMD's five million gallons per day significance threshold, it may be helpful to consider other criteria for evaluating what would be considered a substantial use of potable water, especially since California is in a State of Emergency for Drought. For example, CEQA Guidelines §15155 – City or County Consultation with Water Agencies, defines a "water-demand" project in several ways. While the criteria for defining water demand are not significance thresholds per se, the criteria can provide some insight as to how city or county lead agencies evaluate water-demand impacts. Most of the criteria in this part of the CEQA Guidelines do not have a bright line or direct way to correlate the criteria in terms of gallons per day for a direct comparison to SCAQMD's significance criteria for potable water use. However, CEQA Guidelines §15155 (a)(1)(C) defines a water-demand project as: "A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space." To estimate what this means in terms of water demand per person relative to the square footage (sf) of the floor area of the plant, commercial water usage rates[6] and average employment levels[7] (i.e. the number of employees per square foot) can be applied as follows:

$$\frac{\text{(123 GAL WATER)}}{\text{(YEAR) (SF OF BUILDING)}} \times \frac{\text{(1,000 SF OF BUILDING)}}{\text{(1.8 EMPLOYEES)}} \times \frac{\text{(1 YEAR)}}{\text{(260 DAYS)}} \times \text{(1,000 EMPLOYEES)} = \text{262,820 GAL/DAY}$$

This water demand estimate can then be applied to industrial sources because CEQA Guidelines §15155 (a)(1)(E) uses the same 1,000 employee level to defines a water-demand project as: "An industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acre of land, or having more than 650,000 square feet of floor area."

The total water use of ~~21,701~~ 8,320 gallons per day is also below 262,820 gallons of potable per day. Therefore, PR 1420.1 would not significantly deplete groundwater supplies or interfere substantially with groundwater recharge, and sufficient water supplies are available to serve existing entitlements and resources. With water use less than significance threshold of five million gallons per day and 262,820 gallons of potable water per day, PR 1420.1 would not

[6] California Commercial End-Use Survey, Consultant Report, Table 8-1, p 150. Prepared For: California Energy Commission, Prepared by: Itron, Inc. March 2006. http://www.energy.ca.gov/2006publications/CEC-400-2006-005/CEC-400-2006-005.pdf

[7] Urban Land Use Institute Data, Wausau West Industrial Park Expansion, Development Impact Analysis, Average Employment Levels, p.4, Prepared by Vierbicher Associates, January 5, 2001.

require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Further, because water use is less than the significance threshold of five million gallons per day and 262,820 gallons of potable water per day the proposed project is not expected to require a determination by the wastewater treatment provider which serves or may serve the project's projected demand in addition to the provider's existing commitments.

IX. c), d), g), h), i), and j) PR 1420.1 would affect operations at two existing lead-acid battery recycling facilities. These facilities are mostly paved. PR 1420.1 would enclose all operations related to lead-acid battery recycling and require the encapsulation of all facility grounds by paving or asphalting. Since the affected facilities already exist and are essentially fully paved, and the areas the facilities are located in are zoned industrial, PR 1420.1 is not expected to alter the existing draining pattern of the site or area, including through alteration of the course of a stream or river that would result substantial erosion or siltation on- or off-site; place housing within a 100-year flood hazard area; place structures within a 100-year flood hazard area which would impede or redirect flood flaws; exposure 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 a dam; or inundation by seiche, tsunami or mudflow.

IX. e) & m) ~~PR 1420.1 includes a requirement for vehicle wet washing areas.~~ PR 1420.1 requires that all water used for the washing process be collected, handled and treated such that further releases of lead emissions are avoided. Other housekeeping requirements involving washing roofs and areas where lead-containing wastes associated with storage, handling or processing of lead materials, and lead material management at ponds and reservoirs are already occurring to comply with orders for abatement. Since new washing requirements under PR 1420.1 require that all water used for the washing process be collected, handled and treated, the proposed project is not expected to create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems; provide substantial additional sources of polluted runoff; or require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant effects.

Based upon these considerations, significant hydrology and water quality impacts are not expected from the implementation of PR 1420.1 and would not be further analyzed in this ~~Draft~~ Final EA. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that hazards and hydrology and water quality impacts from the overall project are less than significant.

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

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

X. a) PR 1420.1 would require the construction of enclosures, and control technology~~, and vehicle washing stations~~ at two existing large lead-acid battery recycling facilities in the district. All construction activities would occur on-site at these existing facilities and are not expected to require substantial earthmoving. Changes to operations would include additional housekeeping activities to reduce lead emissions. All changes to operations would also occur on-site. Therefore, the proposed project would not create divisions in any existing communities.

X. b) Land use and other planning considerations are determined by local governments. PR 1420.1 would restrict the construction or operation of large lead recycling facilities in areas that are zoned for residential or mix use. In addition, any new facility would be required to be located further than 1,000 feet from the boundary of a sensitive receptor, school under construction or any area that is zoned for residential or mixed use. The new facility requirements are not designed to impede or conflict with existing land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, but to assist in avoiding or mitigating lead impacts from large lead recycling facilities. Operations at affected facilities would still be expected to comply, and not interfere, with any applicable land use plans, zoning ordinances.

X. c) Large lead recycling facilities are expected to be restricted to industrial zoned areas. Since zoning is established in general plans, which undergo CEQA analysis, no industrial zoned areas are expected to conflict with an applicable habitat conservation or natural community conservation plan. Therefore, PR 1420.1 affects existing and new large lead recycling facilities which exist or would be build in industrial areas no significant adverse impacts to applicable habitat conservation or natural community conservation plan are expected.

Based upon these considerations, significant land use and planning impacts are not expected from the implementation of PR 1420.1 and would not be further analyzed in this ~~Draft~~ Final EA. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that land use and planning impacts from the overall project are less than significant.

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

Significance Criteria

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

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

Discussion

XI. a) & b) There are no provisions in PR 1420.1 that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as aggregate, coal, clay, shale, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Based upon these considerations, significant mineral resources impacts are not expected from the implementation of PR 1420.1 and will not be further analyzed in this ~~Draft~~ Final EA. Since no significant mineral resources impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that mineral resources impacts from the overall project are less than significant.

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

Significance Criteria

Impacts on noise 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

XI. a) & f) Noise is usually defined as sound that is undesirable because it interferes with speech communication and hearing, is intense enough to damage hearing, or is otherwise annoying (unwanted noise). Sound levels are measured on a logarithmic scale in decibels (dB). The universal measure for environmental sound is the "A" weighted sound level, dBA, which is the sound pressure level in decibels as measured on a sound level meter using the A-weighted

filter network. "A" scale weighting is a set of mathematical factors applied by the measuring instrument to shape the frequency content of the sound in a manner similar to the way the human ear responds to sounds.

Federal, state and local agencies regulate environmental and occupational, as well as, other aspects of noise. Federal and state agencies generally set noise standards for mobile sources, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of General Plan policies and Noise Ordinance standards, which are general principles, intended to guide and influence development plans. Noise Ordinances set forth specific standards and procedures for addressing particular noise sources and activities. The Occupational Safety and Health Administration (OSHA) sets and enforces noise standards for worker safety.

One example of local jurisdiction requirements might be the City of Los Angeles. Existing operational noise generated from lead acid battery recycling in Los Angeles would be subject to the City of Los Angeles Noise Element of the General Plan and/or the City of Los Angeles Municipal Code. Table 2-6 summarizes these requirements. Other local jurisdictions typically have similar requirements.

Table 2-6
City of Los Angeles Noise Requirements

Requirement	Construction Limit (dBA)	Operational Limit (exterior dBA except where noted)
Noise Element of the General Plan of the City of Los Angeles	65 dBA CNEL or less - considered "conditionally acceptable" for residential use. 70-75 dBA CNEL - considered "conditionally acceptable for industrial use".	65 dBA CNEL or less - considered "conditionally acceptable" for residential use. 70-75 dBA CNEL - considered "conditionally acceptable" for industrial use.
City of Los Angeles Municipal Code Chapter XI, Article 2, §112.05	Requires that noise levels generated by construction equipment within a residential zone not exceed 75 dBA.	Not applicable.
City of Los Angeles Municipal Code Chapter IV, Article 1, §41.40	Construction activities prohibited without a special permit between the hours of 10:00 p.m. and 7:00 a.m.	Not applicable.

The proposed project affects existing facilities and would not generate excessive noise levels outside the boundaries of the affected facilities, or expose people residing or working in the project area to excessive noise levels. The proposed project requires no additional equipment to the existing facilities which would cause noise level to exceed ambient levels.

Construction-Related Noise

One of the two existing facilities affected by PR 1420.1 has been issued air quality permits to construct for enclosing and air pollution control system (exhaust system with two baghouses) from the battery breaking area. These permit applications were submitted to comply with existing agreements with SCAQMD and other agencies. ~~No permit applications have been submitted for the vehicle washing system at this time.~~

The other existing facility affected by PR 1420.1 has submitted air quality permit applications for enclosures and air pollution control systems for the raw material preparation system, smelting and refining building system and rotary dryers. The air pollution control systems would consist of exhaust systems, a spark arrestor, high efficiency particulate absorbing (HEPA) filter mist eliminator for an existing scrubber~~, vehicle wash system~~ and sweeper. These permit applications were submitted to comply with existing agreements with SCAQMD and other agencies. A permit for a secondary lead control device for the dryers is expected to be filed, if PR 1420.1 is adopted.

Existing sites are paved and most of the construction is expected to occur on these existing paved surfaces~~; therefore, large potentially noise intensive construction equipment would not be needed to prepare the site, build enclosures and install control equipment.~~ A 52 foot by 52 foot section of concrete would be removed along with soil to a depth of two feet at most and a new concrete pad could be poured to support the secondary control of a dryer. Table 2-6 presents construction noise levels from typical construction equipment. The affected facility operations currently include diesel truck traffic to deliver recycled batteries and ship recycled lead product. Based on Table 2-6, truck noise levels are around 82 dBA at 50 feet. Construction would increase the noise levels to around 85 dBA at 50 feet from the center of construction activity. The closest resident to either facility is about 850 feet. Using an estimated six dBA reduction for every doubling in distance, the noise levels at the closest resident would be indistinguishable from background. In general, given ambient noise levels near affected facilities, noise attenuation (the lowering of noise levels over distances), and compliance with local noise ordinances, potential construction noise impacts are not expected to be significant.

Table 2-~~6~~7
Construction Noise Sources

Equipment	Typical Range (decibel)	Analysis Value (decibel)
Cranes	75-89	85
Tractors/Loaders/Backhoes	73-98	85
Pavers	85-88	75
Generator Sets	71-83	85
Truck	82-92	82

Typical ranges are from the City of Los Angeles, 1998. Levels are in dBA at 50-foot reference distance.
Analysis values are intended to reflect noise levels from equipment in good condition, which appropriate mufflers, air intake silencers, etc. In addition, these values assume averaging of sound level over all directions from the listed piece of equipment.

Operational Noise

Noise is a by-product of lead-acid battery recycling operations. Employees and equipment at existing affected facilities currently perform activities which create noise, such as, raw material processing (battery breaking/crushing, charger preparation, rotary drying, sweating), smelting (furnaces), refining and casting, and truck loading/unloading. Noise ordinances and noise general plan requirements typically govern activities at existing facilities. Contributors to ambient noise levels at typical facilities include onsite equipment and mobile sources. PR 1420.1 does not require the installation of any equipment which could be defined as a major contributor to ambient noise levels. Enclosing existing open processes, such as, raw material handling and rotary dryers would reduce noise produced during these processes. The affected facilities already comply with the types of housekeeping requirements in PR 1420.1 due to other requirements and obligations; therefore, the types of housekeeping activities that are done are expected to remain unchanged, the frequency of housekeeping activities is expected to increase ~~and vehicle wet washers would be added~~. Since housekeeping activities are already done~~, with the exception of vehicle wet washing,~~ only the duration of the noise from these activities is expected to increase, since PR 1420.1 would increase the frequency which housekeeping activities are done. ~~Wet washing of vehicles is not expected to generate substantial noise.~~ Therefore, PR 1420.1 is not expected to cause an increase in noise above current existing ambient noise levels.

Also, local noise levels are usually governed by noise elements within a local jurisdiction's General Plan, and/or local noise ordinances. Because of the attenuation rate of noise based on distance from the source, it is unlikely that noise levels exceeding local noise ordinances would occur beyond a facility's boundaries.

Based upon these considerations, significant noise impacts are not expected from the implementation of PR 1420.1 and will not be further evaluated in this ~~Draft~~ Final EA. Since no significant noise impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that noise impacts from the overall project are less than significant.

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

		Potentially Significant Impact	Less Than Significant Impact	No Impact
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☑

Significance Criteria
Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:
- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion
XIII. a) PR 1420.1 would require the construction of enclosures, control technology~~, vehicle washing stations~~ and paving of dirt areas at two existing large lead-acid battery recycling facilities in the district. Changes to operations would include additional housekeeping activities to reduce lead emissions. All changes to operation would also occur on-site. The proposed project is not anticipated to generate any significant effects, either direct or indirect, on the district's population or population distribution as no additional workers are anticipated to be required to comply with the proposed amendments. Human population within the jurisdiction of the SCAQMD is anticipated to grow regardless of implementing PR 1420.1. It is expected that any construction activities at affected facilities would use construction workers from the local labor pool in southern California. As such, PR 1420.1 would not result in changes in population densities or induce significant growth in population.

XIII. b) & c) Because the proposed project affects operations at two existing lead-acid battery recycling facilities, PR 1420.1 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly, induce the construction of single- or multiple-family units, or require the displacement of people elsewhere.

Based upon these considerations, significant population and housing impacts are not expected from the implementation of PR 1420.1 and are not further evaluated in this ~~Draft~~ Final EA. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that population or housing impacts from the overall project are less than significant.

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

Significance Criteria

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

Discussion

XIV. a) & b) PR 1420.1 would not involve the use of flammable or combustible materials. As a result, no new fire hazards or increased use of hazardous materials would be introduced at existing affected facilities that would require emergency responders such as police or fire departments. Thus, no new demands for fire or police protection are expected from PR 1420.1 since the proposed rule amendments will not require construction activities associated with the installation of emission control devices.

XIV. c) & d) As noted in the "Population and Housing" discussion, implementation of the proposed project would not require new employees for construction because construction workers from the local labor pool in southern California would be used. Similarly, no new employees would be required to comply with PR 1420.1 because the control equipment and housekeeping operations required by the proposed project are similar to existing equipment and housekeeping requirements which are done by existing employees. As a result, PR 1420.1 would have no direct or indirect effects on population growth in the district. Therefore, there would be no increase in local population and thus no impacts are expected to local schools or parks.

XIV. e) Because the proposed project involves requirements that are similar to existing operations and the facilities are already heavily regulated, PR 1420.1 is not expected to require the need for additional government services. Permits for the enclosures and air pollution control

equipment required to comply with PR 1420.1 have already been issued or are in the process of being issued to comply with other requirements or obligations; therefore, additional permit staff would not be needed. Enforcement of PR 1420.1 is expected to be performed by the existing SCAQMD inspector. Further, the proposed project would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives. There will be no increase in population and, therefore, no need for physically altered government facilities.

Based upon these considerations, significant public services impacts are not expected from the implementation of PR 1420.1 and are not further evaluated in this ~~Draft~~ Final EA. Since no significant public services impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that public resources impacts from the overall project are less than significant.

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

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 effects existing recreational opportunities.

Discussion

XV. a) & b) As previously discussed under "Land Use," there are no provisions in PR 1420.1 that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments; no land use or planning requirements will be altered by the proposed project. Further, implementation of PR 1420.1 would not increase the use of existing neighborhood and regional parks or other recreational facilities or include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment because the proposed project is not expected to induce population growth.

Based upon these considerations, significant recreation impacts are not expected from the implementation of PR 1420.1 and are not further evaluated in this ~~Draft~~ Final EA. Since no significant recreation impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that recreation impacts from the overall project are less than significant.

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

Significance Criteria

The proposed project impacts on solid/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

XVI.a) Landfills are permitted by the local enforcement agencies with concurrence from the California Integrated Waste Management Board (CIWMB). Local agencies establish the maximum amount of solid waste which can be received by a landfill each day and the operational life of a landfill. PR 1420.1 would generate additional waste from the disposal of lead contaminated baghouse filters, HEPA filters for an existing wet scrubber.

Construction

~~No demolition is expected to comply with PR 1420.1; therefore, no construction solid waste is expected from the proposed project.~~ PR 1420.1 was modified subsequent to the circulation of the Draft EA for public comment. The modifications include a requirement to add secondary lead control device to the exhaust of primary lead controlled devices used for dryers. The addition of a secondary control device at one of the affected large lead-acid battery recycling facilities would require demolition of a 52 foot by 52 foot area of concrete. The soil under the concrete area may be contaminated with lead. However, since lead is not likely to migrate through soil, SCAQMD staff estimated that two feet of soil would be required to be removed. Based on the dimensions of the area demolished and a depth of two feet, approximately 200 cubic yards of lead-contaminated debris would need to be removed. The concrete and soil would be considered hazardous waste and the facility owners/operators have stated that the debris would be sent to US Ecology Beatty Facility, Beatty Nevada.

US Ecology Beatty facility has approximately 1,300,000 cubic yards available capacity for the remaining 10 to 12 year life expectancy (108,000 to 110,000 cubic yards per year). A single disposal of 200 cubic yards of debris would be less than 0.2 percent of the annual capacity. Based on the above analysis, the additional construction waste would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. Therefore, PR 1420.1 is not expected to be significant for solid/hazardous waste construction waste.

Control Technology Requirements

One of the two affected facilities has been granted permits and is construction of enclosures and air pollution control systems (exhaust systems and two baghouses). Additional hazardous waste would be generated from disposing filters from the two new baghouses. The filter bags and HEPA filters are approximately 1,280 cubic yards in size are assumed to be replaced every two years. Secondary filters for the dryer are about one cubic yard in size and would be replaced annually.

The other affected facility has submitted permit applications to construct enclosures which would be controlled by existing air pollution control systems (exhaust systems, spark arrestor, and HEPA filter mist eliminator for existing scrubber). The owner/operators of this facility have stated filters would not need to be replaced more frequently because of the new enclosures, because the existing systems are currently designed to handle the additional load. Therefore, the addition of the enclosures would not alter existing hazardous waste from the baghouses. The HEPA filter for the mist eliminator is already in place, so hazardous waste from the HEPA filters for the mist eliminator is considered existing hazardous waste and not part of PR 1420.1.

Lead contaminated filters from the new baghouses would be disposed as hazardous waste, in a fashion similar to the disposal of existing filter waste, but in larger volumes.

Housekeeping Requirements

~~With the exception of vehicle washing requirements, the~~ The two existing lead-acid battery recycling facilities currently comply with the types of housekeeping requirements in PR 1420.1; however, the proposed project is expected to increase the frequency of housekeeping activities. Lead would be removed from new housekeeping operation ~~vehicle wet washing~~ wastewater by existing wastewater systems used for existing housekeeping operations at the affected facilities. The lead recovered from the wastewater treatment system is placed into the lead-acid battery recovery process to be recycled; therefore, lead from the wastewater treatment system would not be disposed at solid waste landfills. So, no new hazard waste is expected to be generated from housekeeping requirements of PR 1420.1. Therefore, it is not expected that PR 1420.1 would substantially change hazardous waste handling and disposal volumes from housekeeping requirements.

Dust from the sweepers is placed into the lead recycling process, so additional sweeping is not expected to increase hazardous solid waste.

PR 1420.1 would not alter lead management activities associated with surface impoundment ponds or reservoirs holding stormwater. PR 1420.1 includes a requirement to prevent the impoundment ponds or reservoirs holding stormwater from drying while holding lead-containing

materials. One only one existing affected facility has a surface impoundment pond. Facility operators are already required to prevent the surface impoundment pond from drying out and to wash it down until used again to hold water. Therefore, lead-containing solid waste from the surface impoundment pond is considered part of the existing setting; and no increase in hazardous waste from the management of lead-containing material at surface impoundment pond is expected from PR 1420.1

Hazardous solid waste from the affected facilities are currently sent to three Class I landfills ~~in California~~: Chemical Waste Management Kettleman Hills in Kettleman City, California, Allied Waste La Paz County Landfill in Parker, Arizona and US Ecology Beatty Facility, Beatty Nevada.

Analysis of Operational Solid/Hazardous Waste Impact ~~Noise~~ Impacts

Chemical Waste Management Kettleman Hills has a remaining capacity of 7,360,000 cubic yards with an estimated closure date of 2037. The Allied Waste La Paz County Landfill has approximately 20,000,000 cubic yards of capacity remaining for the 50 year life expectancy. US Ecology Beatty facility has approximately 1,300,000 cubic yards available capacity for the remaining 10 to 12 year life expectancy. Dividing the remaining fill capacities by life expectancies yields approximately 802,593 cubic yards available annually.

The addition of 1,280 cubic yards of lead contaminated filters every two years ~~(643~~ and one cubic yard annually~~)~~ would be 0.08 percent of the annual hazardous solid waste capacity at the three Class I landfills currently used by the affected facilities. Therefore, it is assumed that the additional hazardous solid waste from PR 1420.1 would have less than significant adverse impacts to the capacity at the three Class I landfills.

XVI.b) Existing affected facility operators currently dispose of lead contaminated baghouse filters. It is assumed that facility operators at these affected facilities comply with all applicable local, state, or federal waste disposal regulations.

Implementing PR 1420.1 is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations. Since no solid/hazardous waste impacts were identified, no mitigation measures are necessary or required.

Based on these considerations, PR 1420.1 is not expected to increase the volume of solid or hazardous wastes that cannot be handled by existing municipal or hazardous waste disposal facilities, or require additional waste disposal capacity. Further, implementing PR 1420.1 is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations. Since no solid/hazardous waste impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that solid/hazardous waste impacts from the overall project are less than significant.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
XVII.	**TRANSPORTATION/TRAFFIC.** Would the project:			
a)	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☑
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☑
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☑
f)	Result in inadequate parking capacity?	☐	☐	☑
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	☐	☐	☑

Significance Criteria

Impacts on transportation/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.
- 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

XVII. a), b) & f) As noted in the "Discussion" sections of other environmental topics, compliance with PR 1420.1 is expected to require minor construction activities (i.e., without ~~heavy~~ substantial earthmoving activities) with the installation of enclosures, ventilation and control equipment. PR 1420.1 was estimated to need 10 deliveries of equipment or other construction materials and to need nine construction worker trips on a peak construction day. Construction onsite is not expected to affect on-site traffic or parking. The additional nineteen construction trips are less than the significance threshold of 350 round trips, therefore construction activities are not expected to cause a significance adverse impact to traffic or transportation.

All operational requirements are expected to occur on-site so no additional off-site impacts from PR 1420.1. PR 1420.1 is expected to require additional sweeping; however, sweeping three times a day is not expected to affect traffic or parking on-site.

XVII. c) One affected facility is not near any airports or private airstrips. The other facility is within six miles of the El Monte Airport. Any actions that would be taken to comply with the proposed project are not expected to influence or affect air traffic patterns or navigable air space. Thus, PR 1420.1 would not result in a change in air traffic patterns including an increase in traffic levels or a change in location that results in substantial safety risks.

XVII. d) & e) The proposed project does not involve construction of any roadways or other transportation design features, so there would be no change to current roadway designs that could increase traffic hazards. The siting of each affected facility is consistent with surrounding land uses and traffic/circulation in the surrounding areas of the affected facilities. Thus, the proposed project is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the affected facilities. Emergency access at each affected facility is not expected to be impacted by the proposed project. Further, each affected facility is expected to continue to maintain their existing emergency access. Since PR 1420.1 involves only minor construction activities and sweeping three times a day would be the only operational impact, the proposed project is not expected to alter the existing long-term circulation patterns. 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.

XVII. g) 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). Since all PR 1420.1 compliance activities would occur on-site, PR 1420.1 would not hinder compliance with any applicable alternative transportation plans or policies.

Based upon these considerations, PR 1420.1 is not expected to generate significant adverse transportation/traffic impacts and, therefore, this topic will not be considered further. Since no significant transportation/traffic impacts were identified, no mitigation measures are necessary or required. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that transportation/traffic impacts from the overall project are less than significant.

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

Discussion

XVIII. a) As discussed in the "Biological Resources" section, PR 1420.1 is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because construction and operations related to the proposed project would be located entirely within the boundaries of existing facilities in industrial areas which have already been greatly disturbed and that currently do not support any species of concern or the habitat on which they rely. PR 1420.1 is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past. Each site affected by the proposed project is part of an existing facility, which has been previously graded, such that PR 1420.1 is not expected to extend into environmentally sensitive areas.

XVIII. b) Based on the foregoing analyses, since PR 1420.1 will not result in significant adverse project-specific environmental impacts, it is not expected to cause cumulative impacts in conjunction with other projects that may occur concurrently with or subsequent to the proposed project. Furthermore, potential adverse impacts from implementing PR 1420.1 will not be "cumulatively considerable" because there are no, or only minor incremental impacts and there will be no contribution to a significant cumulative impact caused by other projects that would exist in absence of the proposed project. Therefore, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by the proposed project.

XVIII. c) Based on the foregoing analyses, PR 1420.1 is not expected to cause adverse effects on human beings. Significant adverse impacts to air quality, energy, hazards and hazardous materials, hydrology and water quality, land use/planning, solid/hazardous waste are not expected from the implementation of PR 1420.1. No impacts to aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, mineral resources, noise, population and housing, public services, recreation, and transportation/traffic are expected as a result of the implementation of PR 1420.1.

As previously discussed in items I through XVIII, the proposed project has no potential to cause significant adverse environmental effects. Based on SCAQMD staffs' review of the proposed modifications to PR 1420.1, it is concluded the modifications do not alter the determination that impacts from the overall project to any of the environmental topics presented in the environmental checklist are less than significant.

APPENDIX A

PROPOSED RULE 1420.1

(Adopted November 5, 2010)

RULE 1420.1. EMISSIONS STANDARD FOR LEAD FROM LARGE LEAD-ACID BATTERY RECYCLING FACILITIES

(a) Purpose

(1) The purpose of this rule is to protect public health by reducing exposure and emissions of lead from large lead-acid battery recycling facilities, and to help ensure attainment of the National Ambient Air Quality Standard for Lead.

(b) Applicability

(1) This rule applies to all persons who own or operate a lead-acid battery recycling facility that has processed more than 50,000 tons of lead a year in any one of the five calendar years prior to November 5, 2010, or annually thereafter, hereinafter a large lead-acid battery recycling facility. Applicability shall be based on facility lead processing records required under subdivision (m) of this rule, and Rule 1420 – Emissions Standards for Lead. Compliance with this rule shall be in addition to other applicable rules such as Rule 1420.

(c) Definitions

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

(1) AGGLOMERATING FURNACE means a furnace used to melt flue dust that is collected from a lead control device, such as a baghouse, into a solid mass.

(2) AMBIENT AIR for purposes of this rule means outdoor air.

(3) BATTERY BREAKING AREA means the plant location at which lead-acid batteries are broken, crushed, or disassembled and separated into components.

(4) DRYER means a chamber that is heated and that is used to remove moisture from lead-bearing materials before they are charged to a smelting furnace.

(5) DRYER TRANSITION PIECE means the junction between a dryer and the charge hopper or conveyor, or the junction between the dryer and the smelting furnace feed chute or hopper located at the ends of the dryer.

(6) DUCT SECTION means a length of duct including angles and bends which is contiguous between two or more process devices (e.g., between a

furnace and heat exchanger; baghouse and scrubber; scrubber and stack; etc.).

(7) EMISSION COLLECTION SYSTEM means 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 District.

(8) FUGITIVE LEAD-DUST means any solid particulate matter containing lead that is in contact with ambient air and has the potential to become airborne.

(9) FURNACE AND REFINING/CASTING AREA means any area of a large lead-acid battery recycling facility in which:

(a) Smelting furnaces or agglomerating furnaces are located; or

(b) Refining operations occur; or

(c) Casting operations occur.

(10) LEAD-ACID BATTERY RECYCLING FACILITY means any facility, operation, or process in which lead-acid batteries are disassembled and recycled into elemental lead or lead alloys through smelting.

(11) LEAD means elemental lead, alloys containing elemental lead, or lead compounds, calculated as elemental lead.

(12) LEAD CONTROL DEVICE means any equipment installed in the ventilation system of a lead point source or emission collection system for the purposes of collecting and containing lead emissions.

(13) LEAD POINT SOURCE means any process, equipment, or total enclosure used in the lead-acid battery recycling operation, including, but not limited to, agglomerating furnaces, dryers, and smelting furnaces, that pass through a stack or vent designed to direct or control its exhaust flow prior to release to the atmosphere.

(14) LEEWARD WALL means the furthest exterior wall of a total enclosure that is opposite the windward wall.

(15) MAINTENANCE ACTIVITY means any of the following activities conducted outside of a total enclosure that generates fugitive lead-dust:

(a) building construction, renovation, or demolition;

(b) replacement or repair of refractory, filter bags, or any internal or

external part of equipment used to process, handle, or control lead-containing materials;

(c) replacement of any duct section used to convey lead-containing exhaust;

(d) metal cutting or welding that penetrates the metal structure of any equipment, and its associated components, used to process lead-containing material, such that lead dust within the internal structure or its components can become fugitive lead-dust; or

(e) resurfacing, repair, or removal of ground, pavement, concrete, or asphalt.

(16) MATERIALS STORAGE AND HANDLING AREA means any area of a large lead-acid battery recycling facility in which lead-containing materials including, but not limited to, broken battery components, reverberatory furnace slag, flue dust, and dross, are stored or handled between process steps. Areas may include, but are not limited to, locations in which materials are stored in piles, bins, or tubs, and areas in which material is prepared for charging to a smelting furnace.

(17) MEASURABLE PRECIPITATION means any on-site measured rain amount of greater than 0.01 inches in any complete 24-hour calendar day (i.e., midnight to midnight).

(18) PARTIAL ENCLOSURE for purposes of this rule means a structure comprised of walls or partitions on at least three sides or three-quarters of the perimeter that surrounds areas where maintenance activity is conducted, in order to prevent the generation of fugitive lead-dust.

(19) PROCESS means using lead or lead-containing materials in any operation including, but not limited to, the charging of lead-containing materials to smelting furnaces, lead refining and casting operations, and lead-acid battery breaking.

(20) RENOVATION for purposes of this rule means the altering of a building or permanent structure, or the removal of one or more of its components that generates fugitive lead-dust emissions.

(21) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care

hospitals, hospices, prisons, and dormitories or similar live-in housing.

(22) SLAG means the inorganic material by-product discharged, in molten state, from a lead smelting furnace that has a lower specific gravity than lead metal and contains lead compounds. This shall include, but 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 means the chemical reduction of lead compounds to elemental lead or lead alloys through processing in high temperatures greater than 980° C.

(24) SMELTING FURNACE means any furnace where smelting takes place including, but not limited to, blast furnaces, reverberatory furnaces, rotary furnaces, and electric furnaces.

(25) TOTAL ENCLOSURE means a permanent containment building/structure, completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), with limited openings to allow access and egress for people and vehicles, that is free of cracks, gaps, corrosion, or other deterioration that could cause or result in fugitive lead-dust.

(26) WINDWARD WALL means the exterior wall of a total enclosure which is most impacted by the wind in its most prevailing direction determined by a wind rose using data required under paragraph (j)(5) of this rule, or other data approved by the Executive Officer.

(d) General Requirements

The owner or operator of a large lead-acid battery recycling facility shall be subject to the following requirements:

(1) Prior to January 1, 2012, emissions shall not be discharged into the atmosphere which contribute to ambient air concentrations of lead that exceed 1.5 micrograms per cubic meter ($\mu g/m^3$) pursuant to District Rule 1420.

(2) On and after January 1, 2012, emissions shall not be discharged into the atmosphere which contribute to ambient air concentrations of lead that exceed 0.15 $\mu g/m^3$ averaged over any 30 consecutive days. The ambient air concentrations of lead shall be determined by monitors pursuant to subdivision (j) or at any District-installed monitor.

(3) No later than July 1, 2011, install, maintain, and operate total enclosures pursuant to subdivision (e) and lead point source emission control devices pursuant to subdivision (f). The owner or operator of a large lead-acid battery recycling facility shall comply with both subparagraphs (d)(3)(A) and (d)(3)(B):

(A) Submit complete permit applications for all construction and necessary equipment within 30 days of November 5, 2010.

(B) Complete all construction within 180 days of receiving Permit to Construct approvals from the Executive Officer, or by July 1, 2011, whichever is earlier.

(C) The Executive Officer may approve a request for an extension of the compliance deadline date if the facility can demonstrate that it timely filed all complete permit applications and is unable to meet the deadline due to reasons beyond the facility's control. The request shall be submitted to the Executive Officer no less than 30 days before the compliance deadline date.

(4) On and after July 1, 2011 submit a Compliance Plan pursuant to subdivision (g) if emissions are discharged into the atmosphere which contribute to ambient air concentrations of lead that exceed 0.12 ($\mu g/m^3$) averaged over any 30 consecutive days determined by monitors pursuant to subdivision (j) or at any District-installed monitor.

(e) Total Enclosures

(1) Enclosure Areas

The owner or operator of a large lead-acid battery recycling facility shall enclose within a total enclosure the following areas in groups or individually:

(A) Battery breaking areas;

(B) Materials storage and handling areas, excluding areas where unbroken lead-acid batteries and finished lead products are stored;

(C) Dryer and dryer areas including transition pieces, charging hoppers, chutes, and skip hoists conveying any lead-containing material;

(D) Smelting furnaces and smelting furnace areas charging any lead-containing material;

(E) Agglomerating furnaces and agglomerating furnace areas charging

any lead-containing material; and

(F) Refining and casting areas.

(2) Total Enclosure Lead Emissions Control

The owner or operator of a large lead-acid battery recycling facility shall vent each total enclosure to an emission collection system that ducts the entire gas stream to a lead control device pursuant to subdivision (f).

(3) Total Enclosure Ventilation

Ventilation of the total enclosure at any opening including, but not limited to, vents, windows, passages, doorways, bay doors, and roll-ups shall continuously be maintained at a negative pressure of at least 0.02 mm of Hg (0.011 inches H_2O) measured pursuant to paragraph (e)(4).

(4) Digital Differential Pressure Monitoring Systems

The owner or operator of a large lead-acid battery recycling facility shall install, operate, and maintain a digital differential pressure monitoring system for each total enclosure as follows:

(A) A minimum of one building digital differential pressure monitoring system shall be installed and maintained at each of the following three walls in each total enclosure having a total ground surface area of 10,000 square feet or more:

(i) The leeward wall;

(ii) The windward wall; and

(iii) An exterior wall that connects the leeward and windward wall at a location defined by the intersection of a perpendicular line between a point on the connecting wall and a point on its furthest opposite exterior wall, and intersecting within plus or minus ten ($\pm$10) meters of the midpoint of a straight line between the two other monitors specified in clauses (e)(4)(A)(i) and (e)(4)(A)(ii). The midpoint monitor shall not be located on the same wall as either of the other two monitors described in clauses (e)(4)(A)(i) or (e)(4)(A)(ii).

(B) A minimum of one building digital differential pressure monitoring system shall be installed and maintained at the leeward wall of each total enclosure that has a total ground surface area of less than 10,000 square feet.

(C) Digital differential pressure monitoring systems shall be certified

by the manufacturer to be capable of measuring and displaying negative pressure in the range of 0.01 to 0.2 mm Hg (0.005 to 0.11 inches H_2O) with a minimum accuracy of plus or minus 0.001 mm Hg (0.0005 inches H_2O).

(D) Digital differential pressure monitoring systems shall be equipped with a continuous strip chart recorder or electronic recorder approved by the Executive Officer. If an electronic recorder is used, the recorder shall be capable of writing data on a medium that is secure and tamper-proof. The recorded data shall be readily accessible upon request by the Executive Officer. If software is required to access the recorded data that is not readily available to the Executive Officer, a copy of the software, and all subsequent revisions, shall be provided to the Executive Officer at no cost. If a device is required to retrieve and provide a copy of such recorded data, the device shall be maintained and operated at the facility.

(E) Digital differential pressure monitoring systems shall be calibrated in accordance with manufacturer's specifications at least once every 12 calendar months or more frequently if recommended by the manufacturer.

(F) Digital differential pressure monitoring systems shall be equipped with a backup, uninterruptible power supply to ensure continuous operation of the monitoring system during a power outage.

(5) In-draft Velocity

The in-draft velocity of the total enclosure shall be maintained at $\geq$ 300 feet per minute at any opening including, but not limited to, vents, windows, passages, doorways, bay doors, and roll-ups. In-draft velocities for each total enclosure shall be determined by placing an anemometer, or an equivalent device approved by the Executive Officer, at the center of the plane of any opening of the total enclosure.

(f) Lead Point Source Emissions Controls

(1) The owner or operator of a large lead-acid battery recycling facility shall vent emissions from each lead point source to a lead control device that meets the requirements of this subdivision and is approved by the Executive Officer.

(2) The total facility mass lead emissions from all lead point sources shall not exceed 0.045 pounds of lead per hour. The maximum emission rate for any single lead point source shall not exceed 0.010 pounds of lead per hour. The total facility and maximum emission rates shall be determined using the most recent source tests conducted by the facility or the District.

(3) The owner or operator of a large lead-acid battery recycling facility shall install a secondary lead control device that controls lead emissions from the exhaust of the primary lead control device used for a dryer. The secondary lead control device shall be fitted with dry filter media, and the secondary lead control device shall only be used to vent the primary lead control device used for the dryer. An alternative secondary lead control method that is equally or more effective for the control of lead emissions may be used if a complete application is submitted as part of the permit application required under paragraph (d)(3) and approved by the Executive Officer.

(4) For any lead control device that uses filter media other than a filter bag(s), including, but not limited to, HEPA and cartridge-type filters, the filter(s) used shall be rated by the manufacturer to achieve a minimum of 99.97% capture efficiency for 0.3 micron particles.

(5) For any lead control device that uses a filter bag(s), the filter bag(s) used shall be polytetrafluoroethylene membrane-type, or any other material that is equally or more effective for the control of lead emissions, and approved for use by the Executive Officer.

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

(g) Compliance Plan

On and after July 1, 2011, the owner or operator of a large lead-acid battery recycling facility shall submit a Compliance Plan if emissions are discharged into the atmosphere which contribute to ambient air concentrations of lead that exceed 0.12 $\mu g/m^3$ averaged over any 30 consecutive days determined by monitors pursuant to subdivision (j) or at any District-installed monitor shall:

(1) Notify the Executive Officer in writing within 72 hours of when the facility knew or should have known of exceeding an ambient air lead concentration of 0.12 $\mu g/m^3$ averaged over any 30 consecutive days.

Notification shall only be required for the first time the ambient air lead concentration of 0.12 µg/m^3 is exceeded;

(2) Submit, within 30 calendar days of exceeding an ambient air lead concentration of 0.12 µg/m^3 averaged over any 30 consecutive days, a complete Compliance Plan to the Executive Officer for review and approval, subject to plan fees as specified in Rule 306. The Compliance Plan shall, at a minimum, include the following:

(A) A description of additional lead emission reduction measures to achieve the ambient lead concentration of 0.15 µg/m^3 averaged over any 30 consecutive days, as required under paragraph (d)(2), including, but not limited to, requirements for the following:

(i) Housekeeping, inspection, and maintenance activities;

(ii) Additional total enclosures;

(iii) Modifications to lead control devices;

(iv) Installation of multi-stage lead control devices;

(v) Process changes including reduced throughput limits; and

(vi) Conditional curtailments including, at a minimum, information specifying the curtailed processes, process amounts, and length of curtailment.

(B) The locations within the facility and method(s) of implementation for each lead reduction measure of subparagraph (g)(2)(A); and

(C) An implementation schedule for each lead emission reduction measure of subparagraph (g)(2)(A) to be implemented if lead emissions discharged from the facility contribute to ambient air concentrations of lead that exceed 0.15 µg/m^3 averaged over any 30 consecutive days measured at any monitor pursuant to subdivision (j) or at any District-installed monitor. The schedule shall also include a list of the lead reduction measures of subparagraph (g)(2)(A) that can be implemented immediately prior to plan approval.

(3) The Executive Officer shall notify the owner or operator in writing whether the Compliance Plan is approved or disapproved. Determination of approval status shall be based on, at a minimum, submittal of information that satisfies the criteria set forth in paragraph (g)(2). If the Compliance Plan is disapproved, the owner or operator shall resubmit the Compliance Plan, subject to plan fees specified in Rule 306, within 30

calendar days after notification of disapproval of the Compliance Plan. The resubmitted Compliance Plan shall include any information necessary to address deficiencies identified in the disapproval letter. If the resubmitted Compliance Plan is denied, the operator or owner may appeal the denial by the Executive Officer to the Hearing Board under Rule 216 – Appeals and Rule 221 - Plans.

(4) The owner or operator shall implement measures based on the schedule in the approved Compliance Plan if lead emissions discharged from the facility contribute to ambient air concentrations of lead to exceed 0.15 $\mu g/m^3$ averaged over any 30 consecutive days measured at any monitor pursuant to subdivision (j) or at any District-installed monitor.

(5) The owner or operator may make a request to the Executive Officer to modify or update an approved Compliance Plan.

(h) Housekeeping Requirements

No later than 30 days after November 5, 2010, the owner or operator of a large lead-acid battery recycling facility shall control fugitive lead-dust by conducting all of the following housekeeping practices:

(1) Clean by wet wash or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% capture efficiency for 0.3 micron particles in a manner that does not generate fugitive lead-dust, the following areas at the specified frequencies, unless located within a total enclosure vented to a lead control device. Days of measurable precipitation in the following areas occurring within the timeframe of a required cleaning frequency may be counted as a cleaning:

(A) Monthly cleanings of roof tops on structures $\leq$ 45 feet in height that house areas associated with the storage, handling or processing of lead-containing materials; and

(B) Quarterly cleanings, no more than 3 calendar months apart, of roof tops on structures > 45 feet in height that house areas associated with the storage, handling or processing of lead-containing materials; and

(C) Weekly cleanings of all areas where lead-containing wastes generated from housekeeping activities are stored, disposed of, recovered or recycled.

(D) Initiate immediate cleaning, no later than one hour, after any

maintenance activity or event including, but not limited to, accidents, process upsets, or equipment malfunction, that causes deposition of fugitive lead-dust onto areas specified in subparagraph (h)(1)(A) through (h)(1)(C). Immediate cleanings of roof tops shall be completed within 72 hours if the facility can demonstrate that delays were due to safety or timing issues associated with obtaining equipment required to implement this requirement.

(2) Inspect all total enclosures and facility structures that house, contain or control any lead point source or fugitive lead-dust emissions at least once a month. Any gaps, breaks, separations, leak points or other possible routes for emissions of lead or fugitive lead-dust to ambient air shall be permanently repaired within 72 hours of discovery. The Executive Officer may approve a request for an extension beyond the 72-hour limit if the request is submitted before the limit is exceeded.

(3) Upon receipt, any lead-acid battery that is cracked or leaking shall be immediately sent to the battery breaking area for processing or stored pursuant to paragraph (h)(6).

(4) Pave, concrete, asphalt, or otherwise encapsulate all facility grounds as approved by the Executive Officer. Facility grounds used for plant life that are less than a total surface area of 100 square feet shall not be subject to encapsulation. Facility grounds requiring removal of existing pavement, concrete, asphalt or other forms of encapsulation, necessary for maintenance purposes shall not require encapsulation while undergoing work, and shall be re-encapsulated immediately after all required work is completed. All work shall be conducted in accordance with subdivision (i).

(5) Remove any weather cap installed on any stack that is a source of lead emissions.

(6) 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 housekeeping requirements of subdivision (h) and maintenance activities of subdivision (i), in sealed, leak-proof containers, unless located within a total enclosure.

(7) Transport all materials capable of generating any amount of fugitive lead-dust including, but not limited to, slag and any other waste generated from

housekeeping requirements of subdivision (h), within closed conveyor systems or in sealed, leak-proof containers, unless located within a total enclosure.

(8) Initiate removal of any lead-containing material, including sludge, from the entire surface area of any surface impoundment pond or reservoir holding storm water runoff or spent water from housekeeping activities within 1 hour after the water level is $\leq$ 1 inch above the bottom of the pond or reservoir. Removal of lead-containing material is required to be completed as soon as possible, and no later than six calendar days after the time initiation of the removal was required. Thereafter, surfaces shall be washed down weekly in a manner that does not generate fugitive lead-dust until the pond or reservoir is used again for holding water.

(9) Maintain and Use an Onsite Mobile Vacuum Sweeper or Vacuum

The owner or operator of a large lead-acid battery recycling facility shall maintain an onsite mobile vacuum sweeper that is in compliance with District Rule 1186, or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% capture efficiency for 0.3 micron particles to conduct the following sweeping activities:

(A) Vacuum sweep all paved, concreted or asphalted facility areas subject to vehicular or foot traffic three times per day and occurring at least once per operating shift with each event not less than four hours apart, unless located within a total enclosure vented to a lead control device.

(B) Immediately vacuum sweep any area specified in subparagraph (h)(9)(A), no later than one hour after any maintenance activity or event including accidents, process upsets, or equipment malfunction that results in the deposition of fugitive lead-dust.

(C) Vacuum sweeping activities specified in paragraph (h)(9) shall not be required during days of measurable precipitation.

(i) Maintenance Activity

(1) Beginning November 5, 2010, the owner or operator of a large lead-acid battery recycling facility shall conduct any maintenance activity in a negative air containment enclosure, vented to a permitted negative air machine equipped with a filter(s) rated by the manufacturer to achieve a 99.97% capture efficiency for 0.3 micron particles, that encloses all

affected areas where fugitive lead-dust generation potential exists, unless located within a total enclosure or approved by the Executive Officer. Any maintenance activity that cannot be conducted in a negative air containment enclosure due to physical constraints, limited accessibility, or safety issues when constructing or operating the enclosure shall be conducted:

(A) In a partial enclosure, barring conditions posing physical constraints, limited accessibility, or safety issues;

(B) Using wet suppression or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% capture efficiency for 0.3 micron particles, at locations where the potential to generate fugitive lead-dust exists prior to conducting and upon completion of the maintenance activity. Wet suppression or vacuuming shall also be conducted during the maintenance activity barring safety issues;

(C) While collecting 24-hour samples at monitors for every day that maintenance activity is occurring notwithstanding paragraph (j)(2); and

(D) Shall be stopped immediately when instantaneous wind speeds are $\geq$ 25 mph. Maintenance work may be continued if it is necessary to prevent the release of lead emissions.

(2) Store or clean by wet wash or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% capture efficiency for 0.3 micron particles, all lead-contaminated equipment and materials used for any maintenance activity immediately after completion of work in a manner that does not generate fugitive lead-dust.

(j) Ambient Air Monitoring and Sampling Requirements

Prior to January 1, 2011, ambient air monitoring and sampling shall be conducted pursuant to District Rule 1420. No later than January 1, 2011, the owner or operator of a large lead-acid battery recycling facility shall conduct ambient air monitoring and sampling as follows:

(1) Collect samples from a minimum of four sampling sites. Locations for sampling sites shall be approved by the Executive Officer.

(A) Locations for sampling sites shall be based on maximum expected ground level lead concentrations, at or beyond the property line, as

determined by 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.

(B) The Executive Officer may require one or more of the four 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.

(C) 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.

(2) Collect 24-hour, midnight-to-midnight, samples at all sites for 30 consecutive days from the date of initial sampling, followed by one 24-hour, midnight-to-midnight, sample collected at least once every three calendar days, on a schedule approved by the Executive Officer.

(3) Submit samples collected pursuant to paragraphs (j)(1) and (j)(2) 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 24-hour samples within 15 calendar days of the end of the calendar month in which the samples were collected. Duplicate samples shall be made available and submitted to the District upon request by the Executive Officer.

(4) 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)*, or U.S. EPA-approved equivalent methods, 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.

(5) Continuously record wind speed and direction data at all times using equipment approved by the Executive Officer at a minimum of one location and placement approved by the Executive Officer.

(6) 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 U.S. EPA-referenced methods.

(7) All ambient air quality monitoring systems required by this subdivision shall be equipped with a backup, uninterruptible power supply to ensure continuous operation of the monitoring system during a power outage.

(8) Cleaning activities including, but not limited to, wet washing and misting, that result in damage or biases to samples collected shall not be conducted within 10 meters of any sampling site required under this subdivision.

(9) On and after January 1, 2012, if the owner or operator of a large lead-acid battery recycling facility exceeds an ambient air lead concentration 0.15 $\mu g/m^3$ measured pursuant to paragraph (d)(2), the owner or operator shall:

(A) Begin daily ambient air monitoring and sampling no later than three calendar days of the time the facility knew or should have known of the exceedance. Conduct daily ambient air monitoring and sampling for sixty (60) consecutive days at each sampling site that measured an exceedance with paragraph (d)(2).

(B) The 60 consecutive-day period shall be restarted for any subsequent exceedance.

(k) Source Tests

(1) The owner or operator of a large lead-acid battery recycling facility shall conduct a source test of all lead point sources at least annually to demonstrate compliance with the control standards specified in subdivision (f). If the results of the most recent source test for a lead point source demonstrating compliance with the lead emission standard of subdivision (f) demonstrate emissions of 0.0025 pounds of lead per hour or less, the next test for that lead point source shall be performed no later than 24 months after the date of the most recent test.

(2) The owner or operator of a large lead-acid battery recycling facility with an existing lead control device in operation before November 5, 2010 shall conduct a source test for it no later than January 1, 2011. The owner or operator of a large lead-acid battery recycling facility with a new or modified lead control device with initial start-up on or after November 5, 2010 shall conduct the initial source test for it within 60 calendar days after initial start-up.

(3) Prior to the owner or operator of a large lead-acid battery recycling facility conducting a source test pursuant to paragraph (k)(1) or (k)(2),

shall submit a pre-test protocol to the Executive Officer for approval at least 60 calendar days prior to conducting the source test. The pre-test protocol shall include the source test criteria of the end user and all assumptions, required data, and calculated targets for testing the following:

(A) Target lead control standard;

(B) Preliminary lead analytical data;

(C) Planned sampling parameters; and

(D) Information on equipment, logistics, personnel, and other resources necessary for an efficient and coordinated test.

(4) The owner or operator of a large lead-acid battery recycling facility shall notify the Executive Officer in writing one week prior to conducting any source test required by paragraph (k)(1) or (k)(2).

(5) The owner or operator of a large lead-acid battery recycling facility shall notify the Executive Officer within three business days, including Mondays, of when the facility knew or should have known of any source test result that exceeds any of the emission standards specified in paragraph (f)(2). Notifications shall be made to 1-800-CUT-SMOG.

(6) Source tests shall be conducted while operating at a minimum of 80% of equipment maximum 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) ARB Method 12 – *Determination of Inorganic Lead Emissions from Stationary Sources*

(C) EPA Method 12 – *Determination of Inorganic Lead Emissions from Stationary Sources*

(D) ARB Method 436 – *Determination of Multiple Metal Emissions from Stationary Sources*

(7) The average of triplicate samples, obtained according to approved test methods specified in paragraph (k)(6), shall be used to determine compliance.

(8) The operator may use alternative or equivalent source test methods as defined in U.S. EPA 40 CFR 60.2, approved in writing by the Executive Officer, the Air Resources Board, and the U.S. EPA.

(9) The 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.

(10) 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.

(11) An existing source test conducted on or after January 1, 2009 for lead control devices existing before November 5, 2010 may be used as the initial source test specified in paragraph (k)(1) to demonstrate compliance with the control standard of subdivision (f) upon Executive Officer approval. The source test shall meet, at a minimum, the following criteria:

(A) The test is the most recent conducted since January 1, 2009;

(B) The test demonstrated compliance with the control standard of subdivision (f); and

(C) The test is representative of the method to control emissions currently in use; and

(D) The test was conducted using applicable and approved test methods specified in paragraphs (k)(6), (k)(8), or (k)(9).

(l) New Facilities

The owner or operator of a large lead-acid battery recycling facility beginning construction or operations on or after November 5, 2010 shall:

(1) Demonstrate to the satisfaction of the Executive Officer that the facility is not located in an area that is zoned for residential or mixed use; and

(2) Demonstrate to the satisfaction of the Executive Officer that the facility is not located within 1,000 feet from the property line of a sensitive receptor, a school under construction, park, or any area that is zoned for residential or mixed use. The distance shall be measured from the property line of the new facility to the property line of the sensitive

receptor.

(3) Submit complete permit applications for all equipment required by this rule prior to beginning construction or operations, and otherwise on or before the time required by District rules.

(m) Recordkeeping

(1) The owner or operator of a large lead-acid battery recycling facility shall keep records of the following:

(A) Daily records indicating amounts of lead-containing material processed, including, but not limited to, purchase records, usage records, results of analysis, or other District-approved verification to indicate processing amounts;

(B) Results of all ambient air lead monitoring, meteorological monitoring, and other data specified by subdivision (j); and

(C) Records of housekeeping activities completed as required by subdivision (h), maintenance activities of subdivision (i), and lead control device inspection and maintenance requirements of paragraph (f)(6), including the name of the person performing the activity, and the dates and times on which specific activities were completed.

(D) Records of unplanned shutdowns of any smelting furnace including the date and time of the shutdown, description of the corrective measures taken, and the re-start date and time.

(2) The owner or operator of a large lead-acid battery recycling facility shall maintain all records for five years, at least two years onsite.

(n) Reporting

(1) Ambient Air Monitoring Reports

(A) Beginning no later than January 1, 2011, the owner or operator of a large lead-acid battery recycling 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 24-hour samples and 30-day averages for each day within the reporting period.

(B) Any exceedances of ambient air lead concentrations specified in

paragraph (d)(2) 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 (j)(3), followed by a written report to the Executive Officer no later than three calendar days after the notification. The written report shall include the causes of the exceedance and the specific corrective actions implemented.

(2) Shutdown, Turnaround, and Maintenance Activity Notification

The owner or operator of a large lead-acid battery recycling facility shall:

(A) Notify the Executive Officer and the public within one hour after an unplanned shutdown of any lead control device has occurred. The notification shall include the associated processes or equipment vented by the shutdown lead control device. If the unplanned shutdown involves a breakdown pursuant to Rule 430, the breakdown notification report required by Rule 430 shall serve in lieu of this notification to the Executive Officer.

(B) Notify the Executive Officer and the public at least ten calendar days prior to a planned turnaround or shutdown of any smelting furnace, battery breaker, or lead control device that result in lead emissions. The notification shall specify the subject equipment and the start and end date of the turnaround or shutdown period.

(C) Notify the Executive Officer at least ten calendar days prior to the beginning of maintenance activity, as defined in paragraph (c)(15), that is conducted routinely on a monthly or less frequent basis. The notification and report required under subparagraph (n)(2)(E) shall include, at a minimum, the following:

(i) Dates, times, and locations of activities to be conducted;

(ii) Description of activities;

(iii) Name of person(s)/company conducting the activities;

(iv) Lead abatement procedures, including those specified in subdivision (i), to be used to minimize fugitive lead-dust emissions; and

(v) Date of expected re-start of equipment.

(D) Notify the public at least ten calendar days prior to the beginning of building construction, renovation, or demolition, and resurfacing, repair, or removal of ground pavement, concrete or asphalt if such activities are conducted outside of a total enclosure

and generate fugitive lead-dust. The notification shall include, at a minimum, the following:

(i) Dates, times, and locations of activities to be conducted;

(ii) Description of activities;

(iii) Date of expected re-start of equipment.

(E) Provide the notification to the Executive Officer required under subparagraphs (n)(2)(A), (n)(2)(B), and (n)(2)(C) to 1-800-CUT-SMOG followed by a written notification report to the Executive Officer no later than three business days, including Mondays, after the unplanned shutdown occurred.

(F) Provide notification to the public required under subparagraphs (n)(2)(A), (n)(2)(B), and (n)(2)(D) through a facility contact or pre-recorded notification center that is accessible 24 hours a day, 7 days a week, and through electronic mail using a list of recipients provided by the Executive Officer. Another method of notification to the public may be used provided it is approved by the Executive Officer.

(G) Install a sign indicating the phone number for the facility contact or pre-recorded notification center that meets the following requirements, unless otherwise approved in writing by the Executive Officer:

(i) Installed within 50 feet of the main entrance of the facility and in a location that is visible to the public;

(ii) Measures at least 48 inches wide by 48 inches tall;

(iii) Displays lettering at least 4 inches tall with text contrasting with the sign background; and

(iv) Located between 6 and 8 feet above grade from the bottom of the sign.

(3) Initial Facility Status Report

(A) Initial Facility Status Report Due Date

The owner or operator of a large lead-acid battery recycling facility existing before November 5, 2010 shall submit an initial facility status report to the Executive Officer no later than January 1, 2011. Large lead-acid battery recycling facilities beginning construction or initial operations after November 5, 2010 shall submit the initial compliance status report upon start-up.

(B) The initial facility status report shall contain the information identified in Appendix 1.

(4) Ongoing Facility Status Report

The owner or operator of a large lead-acid battery recycling facility shall submit a summary report to the Executive Officer to document the ongoing facility status.

(A) Frequency of Ongoing Facility Status Reports

The report shall be submitted annually on or before February 1 for all sources and shall include information covering the preceding calendar year.

(B) The content of ongoing facility status reports shall contain the information identified in Appendix 2.

(5) Adjustments to the Timeline for Submittal and Format of Reports

The Executive Officer may adjust the timeline for submittal of periodic reports, allow consolidation of multiple reports into a single report, establish a common schedule for submittal of reports, or accept reports prepared to comply with other state or local requirements. Adjustments shall provide the same information and shall not alter the overall frequency of reporting.

(o) On and after July 1, 2011, if emission are discharged into the atmosphere which contribute to ambient air concentrations of lead that exceed 0.12 $\mu g/m^3$, averaged over any 30 consecutive days, determined by monitors pursuant to subdivision (j) or at any District-installed monitor, the owner or operator of a large lead-acid battery recycling facility shall submit a study addressing the technical, economic and physical feasibility of achieving a total facility mass lead emission rate of 0.003 pounds per hour from all lead point sources. The study shall be submitted within 30 calendar days after exceeding 0.12 $\mu g/m^3$, averaged over any 30 consecutive days.

Appendix 1 – Content of Initial Facility Status Reports

Initial compliance status reports shall contain, at a minimum, the following information:

1. Facility name, District Facility ID number, facility address, owner/operator name, and telephone number.
2. The distance from the property line of the facility to the property line of the nearest commercial/industrial building and sensitive receptor.
3. Worker and sensitive receptor locations, if they are located within one-quarter mile from the center of the facility.
4. Building parameters
    - Stack heights in feet (point sources); or
    - Building area in square feet (volume sources).
5. A description of the types of lead processes performed at the facility.
6. The following information shall be provided for each of the last five calendar years prior to November 5, 2010:
    - Annual amount of lead-containing material processed;
    - The maximum and average daily and monthly operating schedules;
    - The maximum and average daily and monthly lead-processing rates for all equipment and processes;
    - The maximum and average daily and annual emissions of lead from all emission points and fugitive lead-dust sources.
7. The approximate date of intended source tests for all lead control devices, as required by subdivision (k) of this rule.
8. Engineering drawings, calculations or other methodology to demonstrate compliance with paragraphs (d)(1) through (d)(3) and (k).
9. Air dispersion modeling calculations using procedures approved by the Executive Officer to determine the location of sampling sites as required by subdivision (j).
10. All information necessary to demonstrate means of compliance with subdivision (j).
11. The name, title, and signature of the responsible official certifying the accuracy of the report, attesting to whether the source has complied with the provisions of this rule.
12. The date of the report.

Appendix 2 – Content of Ongoing Facility Status Reports

Ongoing facility status reports shall, at a minimum, contain the following information:

1. Facility name, District Facility ID number, facility address, owner/operator name, and telephone number.
2. The beginning and ending dates of the calendar year for the reporting period.
3. The following information shall be provided for each of the last 12 calendar months of the reporting period:
    - Annual amounts of lead-containing material processed;
    - The maximum and average daily and monthly lead-processing rates for all equipment and processes;
    - The maximum and average daily and annual emissions of lead from all emission points and fugitive lead-dust sources.
4. Worker and sensitive receptor distances, if they are located within ¼ of mile from the center of the facility and facility maximum operating schedule, if changed since submittal of the initial compliance status report or prior year's ongoing compliance status and emission reports.
5. A description of any changes in monitoring, processes, or controls since the last reporting period.
6. The name, title, and signature of the responsible official certifying the accuracy of the report.
7. The date of the report.

APPENDIX B

ASSUMPTIONS AND CALCULATIONS

Table B-1
Enclosure Sizes from Permit Applications

Building	Width, m	Length, m	Height, m	Area, ft2	Area, acre	Construction Days	Construction Months
Total Enclosure 1	125	329	75	41,125	0.94	71.4	3.2
Total Enclosure 2	140	500	25	70,000	1.61	121.5	5.5
Total Enclosure 3	45	140	25	6,300	0.14	10.9	0.5
Total Enclosure 4	15	45	17	675	0.02	1.2	0.1
Total Enclosure 5	90	180	54	16,200	0.37	28.1	1.3
Totals				134,300	3.1	233	

Source: Permit applications

Table B-2a
Concrete Demolition for Lead Control Device Foundation Construction Emissions

Construction Activity			
Demolition of concrete	2,704	Square Foot Area[a]	
Demolition Schedule	**1**	**days[a]**	

Equipment Type[a,b]	No. of Equipment	hr/day	Crew Size
Concrete/Industrial Saws	1	8.0	6
Tractors/Loaders/Backhoes	2	8.0	
Rubber Tired Dozers	1	2.0	

Construction Equipment Emission Factors

Equipment Type[c]	CO lb/hr	NOx lb/hr	VOC lb/hr	SOX lb/hr	PM10 lb/hr	PM2.5 lb/hr	CO2 lb/hr	CH4 lb/hr	N2O lb/hr
Concrete/Industrial Saws	0.427	0.657	0.127	0.001	0.055	0.051	58.5	0.011	0.011
Tractors/Loaders/Backhoes	0.393	0.675	0.102	0.001	0.052	0.048	66.8	0.009	0.009
Rubber Tired Dozers	1.413	2.989	0.338	0.002	0.129	0.118	239	0.030	0.029

Table B-2a (Continued)
Concrete Demolition for Lead Control Device Foundation Construction Emissions

Demolition Dimensions

Description[a]	Width of Area	Length of Area	Depth of Area
	ft	ft	ft
Total Project	52	52	2

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[d]	Mean Wind Speed[e]	Moisture Content[f]	Debris Handled[g]
	mph		ton/day
0.35	10	2.0	249

Construction Vehicle (Mobile Source) Emission Factors

	CO	NOx	VOC	SOX	PM10	PM2.5	CO2	CH4	N2O
	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile
Heavy-Duty Truck[h]	0.01195456	0.03822102	0.00304157	0.00004131	0.00183062	0.00160083	4.21120578	0.00014201	0.0000106
Worker Vehicles	0.00826276	0.00091814	0.00091399	0.00001077	0.00008698	0.00005478	1.09568235	0.00008146	0.0001076

On-Site Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day[i]	One-Way Trip Length[j] (miles)
Haul Truck	7	68
Construction Workers	6	20

Table B-2a (Continued)
Concrete Demolition for Lead Control Device Foundation Construction Emissions

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

Equipment Type	CO lb/day	NOx lb/day	VOC lb/day	SOX lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day	N2O lb/day
Concrete/Industrial Saws	3.4	5.3	1.0	0.01	0.44	0.41	468	0.09	0.09
Tractors/Loaders/Backhoes	6.3	10.8	1.6	0.01	0.83	0.77	1,069	0.15	0.14
Rubber Tired Dozers	2.83	6.0	0.68	0.00	0.26	0.24	478	0.06	0.06
Total	**12.5**	**22.0**	**3.3**	**0.02**	**1.5**	**1.41**	**2,015**	**0.30**	**0.28**

Incremental Increase in Onsite Fugitive Dust Emissions from Construction Equipment

Material Handling[k]: (0.0032 x Aerodynamic Particle Size Multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x debris handled (ton/day)) x (1 - control efficiency) = PM10 Emissions (lb/day)

Description	Control Efficiency %	PM10[m] lb/day
Material Handling (Demolition)[l]	61	0.27
Material Handling (Debris)	61	0.27
Total		**0.54**

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

Vehicle	CO lb/day	NOx lb/day	VOC lb/day	SOX lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day	N2O lb/day
Haul Truck	11.4	36.4	2.9	0.039	1.7	1.5	4,009	0.14	0.010
Worker Vehicles	2.0	0.2	0.2	0.003	0.0	0.0	263	0.02	0.026
Total	**13.4**	**36.6**	**3.1**	**0.042**	**1.8**	**1.5**	**4,272**	**0.15**	**0.036**

Table B-2a (Concluded)
Concrete Demolition for Lead Control Device Foundation Construction Emissions

Total Incremental Localized Emissions from Construction Activities

Sources	**CO** lb/day	**NOx** lb/day	**VOC** lb/day	**SOX** lb/day	**PM10** lb/day	**PM2.5** lb/day	**CO2** Mton/project/ 30 yrs	**CH4** Mton/project/ 30 yrs	**N2O** Mton/project/ 30 yrs
On-site Emissions	**25.9**	**58.6**	**6.4**	**0.1**	**3.3**	**2.9**	**0.10**	**0.0000069**	**0.0000048**
Significance Threshold[n]	***550***	***100***	***75***	***150***	***150***	***55***			
Exceed Significance?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**			

Notes:

a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled. N2O values estimated from ratio of N2O and CH4 EF presented for on-road vehicles in the ARB Regulation for Mandatory Reporting of GHG Emissions.

d) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

e) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

f) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, equation 2-13, p 2-28

g) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, p 2-28. Debris weight to area ratio = 0.046 ton/sq ft (2,704 sq ft x 0.046 ton/sq ft)/1 days = 249 ton/day

h) 2010 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html. N2O-values from ARB Regulation for Mandatory Reporting of GHG Emissions.

i) Assumed 30 cubic yd truck capacity [(249 ton/day x 2,000 lb/ton x cyd/1,620 lb = 307 cyd)/30 cyd/truck = 11 one-way truck trips/day, building debris density is assumed to be 1,620 lb/cyd] Multiple trucks can be used.

j) Assumed trucks travel to the US Ecology, Beatty, NV facility per conversations with the affected facility. It is 68 miles from facility to Cajon pass.

k) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, equation 2-13, p 2-28.

l) EPA suggests using the material handling equation for demolition emission estimates.

m) Includes watering at least three times a day per Rule 403 (61% control efficiency)

n) SCAQMD Regional Significant Thresholds

o) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Table B-2b
Haul Truck Travel Through Mojave Desert Air Quality Management District

EMFAC2007 Emission Factors

CO, lb/mile	NOx, lb/mile	VOC, lb/mile	SOx, lb/mile	PM10, lb/mile	PM2.5, lb/mile	CO2, lb/mile	CH4, lb/mile	N2O, lb/mile
0.01195456	0.03822102	0.00304157	0.00004131	0.00183062	0.00160083	4.21120578	0.00014201	0.00001058

2010 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html. N2O-values from ARB Regulation for Mandatory Reporting of GHG Emissions.

Haul Truck Emissions

Debris Hauled, yard3/ day	Truck Haul Capacity, yard3/ day	Daily Number of Trucks	One-way VMT, mile	CO, lb/day	NOx, lb/day	VOC, lb/day	SOx, lb/day	PM10, lb/day	PM2.5, lb/day	CO2, lb/day	CH4, lb/day	N2O, lb/day	CO2eq, lb/day
200	30	7	191	30.5	97.5	7.8	0.1	4.7	4.1	10,740	0.36	0.027	10,804
MDAQMD Significance Thresholds, lb/day				548	137	137	137	82	82				
Significant?				No	No	No	No	No	No				

Table B-2c
Concrete Paving for Lead Control Device Foundation Construction Emissions

Construction Activity	
Concrete Paving	
Construction Schedule	**1 days[a]**

Equipment Type[a,b]	No. of Equipment	hr/day	Crew Size
Pavers	1	5.0	8
Cement and Mortar Mixers	4	6.0	
Rollers	1	5.0	
Tractors/Loaders/Backhoes	1	5.0	

Table B-2c (Continued)
Concrete Paving for Lead Control Device Foundation Construction Emissions

Construction Equipment Combustion Emission Factors

Equipment Type[c]	CO lb/hr	NOx lb/hr	VOC lb/hr	SOX lb/hr	PM10 lb/hr	PM2.5 lb/hr	CO2 lb/hr	CH4 lb/hr	N2O lb/hr
Pavers	0.564	0.987	0.177	0.001	0.071	0.065	77.9	0.016	0.015
Cement and Mortar Mixers	0.043	0.060	0.010	0.000	0.004	0.003	7.2	0.001	0.001
Rollers	0.421	0.775	0.118	0.001	0.055	0.050	67.1	0.011	0.010
Tractors/Loaders/Backhoes	0.393	0.675	0.102	0.001	0.052	0.048	66.8	0.009	0.009

Construction Vehicle (Mobile Source) Emission Factors

	CO lb/mile	NOx lb/mile	VOC lb/mile	SOX lb/mile	PM10 lb/mile	PM2.5 lb/mile	CO2 lb/mile	CH4 lb/mile	N2O lb/mile
Heavy-Duty Truck[d]	0.01195456	0.03822102	0.00304157	0.00004131	0.00183062	0.00160083	4.21120578	0.0001420	0.00001058
Worker Vehicles	0.00826276	0.00091814	0.00091399	0.00001077	0.00008698	0.00005478	1.09568235	0.0000814	0.00010753

On-Site Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One-Way Trip Length (miles)
Delivery Truck[e]	3	40
Worker Vehcile	8	20

Table B-2c (Continued)
Concrete Paving for Lead Control Device Foundation Construction Emissions

Incremental Increase in Onsite Idling Emissions from Onroad Mobile Vehicles

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

Equipment Type	**CO** lb/day	**NOx** lb/day	**VOC** lb/day	**SOX** lb/day	**PM10** lb/day	**PM2.5** lb/day	**CO2** lb/day	**CH4** lb/day	**N2O** lb/day
Pavers	2.8	4.9	0.9	0.00	0.35	0.33	390	0.08	0.08
Cement and Mortar Mixers	10.1	18.6	2.8	0.0	1.3	1.2	1,609	0.25	0.24
Rollers	0.22	0.30	0.05	0.00	0.0	0.0	36	0.00	0.00
Tractors/Loaders/Backhoes	1.96	3.37	0.51	0.00	0.26	0.24	334	0.05	0.04
Total	**15.1**	**27.2**	**4.3**	**0.0**	**1.9**	**1.8**	**2,369**	**0.39**	**0.36**

Incremental Increase in Offsite Combustion Emissions from Construction Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

Vehicle	**CO** lb/day	**NOx** lb/day	**VOC** lb/day	**SOX** lb/day	**PM10** lb/day	**PM2.5** lb/day	**CO2** lb/day	**CH4** lb/day	**N2O** lb/day
Flatbed Truck	2.9	9.2	0.73	0.010	0.44	0.38	1,011	0.034	0.0025
Worker Vehicle	2.6	0.29	0.29	0.003	0.028	0.018	351	0.026	0.0344
Total	**5.5**	**9.5**	**1.02**	**0.013**	**0.47**	**0.40**	**1,361**	**0.060**	**0.0369**

Total Incremental Combustion Emissions from Construction Activities

Sources	**CO** lb/day	**NOx** lb/day	**VOC** lb/day	**SOX** lb/day	**PM10** lb/day	**PM2.5** lb/day	**CO2** Mton/project/ 30 yrs	**CH4** Mton/project/ 30 yrs	**N2O** Mton/project/ 30 yrs
On-Site Emissions	**20.6**	**36.7**	**5.3**	**0.041**	**2.4**	**2.2**	**0.056**	**0.0000067**	**0.0000060**
Significance Threshold[f]	***550***	***100***	***75***	***150***	***150***	***55***			
Exceed Significance?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Table B-2c (Concluded)
Concrete Paving for Lead Control Device Foundation Construction Emissions

Notes:

a) SCAQMD, estimated from survey data, Sept 2004.

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled. N2O values estimated from ratio of N2O and CH4 EF presented for on-road vehicles in the ARB Regulation for Mandatory Reporting of GHG Emissions.

d) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html. N2O-values from ARB Regulation for Mandatory Reporting of GHG Emissions.

e) Assumed haul truck travels 40 miles.

f) SCAQMD Regional Significant Thresholds

g) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Table B-2d
Structure Construction Emissions

Example	Construction Activity					
Three Acre Site	Building	134,300	Square Foot Structure[a]	Duration	234	days

Construction Schedule Unknown

Equipment Type[a,b]	No. of Equipment	hr/day	Crew Size
Forklifts	2	7.0	9
Cranes	2	8.0	
Tractors/Loaders/Backhoes	2	6.0	
Generator Sets	2	8.0	
Electric Welders	4	8.0	

Table B-2d (Continued)
Structure Construction Emissions

Construction Equipment Combustion Emission Factors

Equipment Type[c]	CO lb/hr	NOx lb/hr	VOC lb/hr	SOX lb/hr	PM10 lb/hr	PM2.5 lb/hr	CO2 lb/hr	CH4 lb/hr	N2O lb/hr
Forklifts	0.232	0.516	0.069	0.001	0.028	0.026	54.4	0.006	0.006
Cranes	0.543	1.451	0.159	0.001	0.064	0.059	128.7	0.014	0.014
Tractors/Loaders/Backhoes	0.393	0.675	0.102	0.001	0.052	0.048	66.8	0.009	0.009
Generator Sets	0.329	0.644	0.096	0.001	0.040	0.036	61.0	0.009	0.008
Electric Welders	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Construction Vehicle (Mobile Source) Emission Factors

	CO lb/mile	NOx lb/mile	VOC lb/mile	SOX lb/mile	PM10 lb/mile	PM2.5 lb/mile	CO2 lb/mile	CH4 lb/mile	N2O lb/mile
Heavy-Duty Truck[d]	0.01195456	0.03822102	0.00304157	0.00004131	0.00183062	0.00160083	4.21120578	0.00014201	0.00001058
Worker Vehicles	0.00826276	0.00091814	0.00091399	0.00001077	0.00008698	0.00005478	1.09568235	0.00008146	0.00010753

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	Trip Length (miles)
Flatbed Truck[e]	10	40
Construction Workers	9	20

Table B-2d (Continued)
Structure Construction Emissions

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

	CO	NOx	VOC	SOX	PM10	PM2.5	CO2	CH4	NO2
Equipment Type	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Fork Lifts	3.25	7.23	0.96	0.01	0.39	0.36	762	0.09	0.08
Cranes	8.69	23.22	2.55	0.02	1.03	0.95	2,058	0.23	0.22
Tractors/Loaders/Backhoes	4.72	8.10	1.22	0.009	0.62	0.57	802	0.11	0.10
Generator Sets	5.27	10.30	1.54	0.01	0.63	0.58	976	0.14	0.13
Electric Welders	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	**21.9**	**48.9**	**6.3**	**0.05**	**2.7**	**2.5**	**4,598**	**0.57**	**0.53**

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	NOx	VOC	SOX	PM10	PM2.5	CO2	CH4	N2O
Vehicle	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Flatbed Truck	9.56	30.6	2.43	0.0330	1.46	1.28	3,369	0.11	0.01
Worker Vehicles	2.97	0.33	0.33	0	0.03	0.02	394	0.03	0.04
Total	**12.5**	**30.9**	**2.76**	**0.03**	**1.49**	**1.30**	**3,763**	**0.14**	**0.05**

Total Incremental Combustion Emissions from Construction Activities

	CO	NOx	VOC	SOX	PM10	PM2.5	CO2[g]	CH4[g]	N2O[g]
Sources	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	Mton/project/ 30 yrs	Mton/project/ 30 yrs	Mton/project/ 30 yrs
On-Site Emissions	**34**	**80**	**9.0**	**0.08**	**4.2**	**3.8**	**30**	**0.003**	**0.002**
Significance Threshold[f]	***550***	***100***	***75***	***150***	***150***	***55***	10,000 Mton/year	10,000 Mton/year	10,000 Mton/year
Exceed Significance?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**			

Table B-2d (Concluded)
Structure Construction Emissions

Notes:
a) Based on permit applications
b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.
c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled except the welders which are powered by the generator. N2O values estimated from ratio of N2O and CH4 EF presented for on-road vehicles in the ARB Regulation for Mandatory Reporting of GHG Emissions.
d) 2010 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html. N2O values from ARB Regulation for Mandatory Reporting of GHG Emissions.
e) Assumed haul truck travels 40 miles round trip
f) SCAQMD Regional Significance Thresholds
g) GHGs are reported in metric tons (Mton) over 30 years.

Table B-3
Estimation of Area Swept

Area, m2	Area, ft2	Area, acres	Width of Sweeper Path, ft	Linear Feet Traveled, ft	Linear Feet Traveled, miles
36,000	387,501	8.9	7	55,357	10.48

Table B-4
EMFAC2007 On-Road Emission Factors

Description	CO, lb/mile	NOx, lb/mile	VOC, lb/mile	SOX, lb/mile	PM10, lb/mile	PM2.5, lb/mile	CO2, lb/mile	CH4, lb/mile	N2O, lb/mile
Heavy-Duty Truck	0.01195456	0.03822102	0.00304157	0.00004131	0.00183062	0.00160083	4.21120578	0.00014201	0.00001058
Medium-Duty Truck	0.018438	0.020625	0.002590	0.000027	0.000751	0.000642	2.732222	0.000126	0.000011
Gasoline Vehicles	0.00826276	0.00091814	0.00091399	0.00001077	0.00008698	0.00005478	1.09568235	0.00008146	0.00010753

Table B-5
Additional Emissions from Visiting Air Monitors

Description	VMT, mile/day	CO, lb/day	NOx, lb/day	VOC, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day	CO2, Mton/year	CH4, Mton/year	N2O, Mton/year
Gasoline vehicle	80	0.66	0.07	0.07	0.0009	0.007	0.0044	7.3	0.0005	0.000712

Assumes sweeping twice more per day
EMFAC2007 emission factors, except for NO2, which is from ARB's Regulation for the Mandatory Reporting of Greenhouse Gases

Table B-6
Additional Emissions from Sweeping

Description	VMT, mile/day	CO, lb/day	NOx, lb/day	VOC, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day	CO2, Mton/year	CH4, Mton/year	N2O, Mton/year
Medium-Duty Truck	21.0	0.39	0.43	0.05	0.0006	0.016	0.013	9.5	0.00044	0.000037

Assumes sweeping twice more per day
EMFAC2007 emission factors, except for NO2, which is from ARB's Regulation for the Mandatory Reporting of Greenhouse Gases

Table B-7
Additional Emissions from Aerial Lifts

Description	Usage, hr/day	CO, lb/day	NOx, lb/day	VOC, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day	CO2, Mton/year	CH4, Mton/year	N2O, Mton/year
Aerial Lift	6	1.26	2.16	0.40	0.002	0.15	0.14	11.3	0.0004	0.0007

Assumes weekly roof washing over 50 days per year (52 weeks minus existing semi-annual washing).
Offroad2007 emission factors, except for NO2, which is from ARB's Regulation for the Mandatory Reporting of Greenhouse Gases

Table B-8
Additional Emissions from Delivery of Aerial Lifts

Description	VMT, mile/day	CO, lb/day	NOx, lb/day	VOC, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day	CO2, Mton/year	CH4, Mton/year	N2O, Mton/year
Heavy-Duty Truck	80.0	0.96	3.06	0.24	0.00	0.15	0.13	15.3	0.0005	0.000038

Assumes weekly roof washing over 50 days per year (52 weeks minus existing semi-annual washing).
EMFAC2007 emission factors, except for NO2, which is from ARB's Regulation for the Mandatory Reporting of Greenhouse Gases

Table B-9
Additional Health Risk from Sweeping

Receptor Type	PM10, ton/yr	CP (mg/kg-day)-1	X/Q, (ug/m3)/(ton/yr)	Afann	MET	DBR, L/kg-day	EVF	MP	Health Risk in a Million
Worker	0.0029	1.1	60.5	1	0.53	149	0.38	1	5.7
Sensitive/Residential	0.0029	1.1	1.57	1	0.53	302	0.96	1	0.8

SCAQD Teir II analysis used to evaluate health risk.
Off-site worker assumed to be within shortest downwind distance of 25 meters.
Nearest sensitive/residential receptor 260 meters downwind from source.

Table B-10
Additional Sensitive/Residential Health Risk from Aerial Lifts

Aerial Lift PM10, ton/yr	CP (mg/kg-day)-1	X/Q, (ug/m3)/(ton/yr)	Afann	MET	DBR, L/kg-day	EVF	MP	Health Risk in a Million
0.0074	1.1	41.5	1	0.55	149	0.38	1	10.6

SCAQD Teir II analysis used to evaluate health risk.
Nearest sensitive/residential receptor 670 meters downwind from source.

Table B-11
ISCST Input File for Off-Site Worker Health Risk from Aerial Lifts

```
**
**************************************
**
** ISCST3 Input Produced by:
** AERMOD View Ver. 6.4.0
** Lakes Environmental Software Inc.
** Date: 4/23/2010
** File: C:\Users\jkoizumi\Documents\Lakes\ISCARMOD\2010\Exide\Exide\Exide.INP
**
**************************************
**
**
**************************************
** ISCST3 Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\jkoizumi\Documents\Lakes\ISCARMOD\2010\Exide\Exide\Exide.is
   MODELOPT CONC  URBAN NOCALM
   AVERTIME PERIOD
   POLLUTID OTHER
   TERRHGTS ELEV
   RUNORNOT RUN
CO FINISHED
**
**************************************
** ISCST3 Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION 1 AREA 389700.000 3763500.000 0.000
** Source Parameters **
   SRCPARAM 1 9.047E-09 0.000 139.000 167.000 5.870
   SRCGROUP ALL
SO FINISHED
**
**************************************
** ISCST3 Receptor Pathway
**************************************
**
**
RE STARTING
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   DISCCART    389612.72   3764009.78    0.00
   DISCCART    389662.72   3764009.78    0.00
   DISCCART    389712.72   3764009.78    0.00
   DISCCART    389762.72   3764009.78    0.00
   DISCCART    389812.72   3764009.78    0.00
   DISCCART    389862.72   3764009.78    0.00
   DISCCART    389912.72   3764009.78    0.00
   DISCCART    389962.72   3764009.78    0.00
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   DISCCART    390112.72   3764009.78    0.00
   DISCCART    390162.72   3764009.78    0.00
   DISCCART    390212.72   3764009.78    0.00
   DISCCART    390262.72   3764009.78    0.00
** Discrete Cartesian Plant Boundary - Primary Receptors
** Plant Boundary Name PLBN1
** DESCRREC "FENCEPRI" "Cartesian plant boundary Primary Receptors"
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   DISCCART    389856.29   3763373.55    0.00
   DISCCART    389671.49   3763390.12    0.00
** Discrete Cartesian Plant Boundary - Intermediate Receptors
** Plant Boundary Name PLBN1
** DESCRREC "FENCEINT" "Cartesian plant boundary Intermediate Receptors"
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   SURFDATA 52132 1981
   UAIRDATA 91919 1981
ME FINISHED
**
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** ISCST3 Output Pathway
**************************************
**
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OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL Exide.IS\PE00GALL.PLT
OU FINISHED
**
**************************************
** Project Parameters
**************************************
```

Table B-12
Additional Off-Site Worker Health Risk from Aerial Lifts

Conc., ug/m3	CP (mg/kg-day)-1	DBR, L/kg-day	EF, day/yr	ED, yr	AT, day	Health Risk in a Million
0.0344	1.1	149	245	40	25,550	2.16

Table B-13
GHG Emission Summary

Description	**CO2, Mton/year**	**CH4, Mton/year**	**N2O, Mton/year**	**CO2eq, Mton/year**
Demolition	0.26	0.000012	0.000005	0.26
Concrete Paving	0.056	0.0000067	0.0000060	0.056
Structure Construction	30	0.0025	0.0021	30
Total Construction*	30	0.0025	0.0021	30
Sweeping	20	0.0009	0.00008	20
Aerial Lift	11	0.0004	0.001	11
Aerial Lift Delivery	15	0.0005	0.00004	15
Air Monitor Visit	7.3	0.0005	0.0007	7.3
Total Operation	54	0.0024	0.0015	54
Total	84	0.005	0.004	84

CO2 GHG potential – 1; CH4 GHG potential – 21; N2O GHG potential 310

Table B-14
Electricity Use from New Blowers

Area	Combined Blower Rating, HP	Electricity Use, kW/hr	Electricity Use, MW/year	Area Consumption, GWH	Percent of Area Consumption	Area Peak Consumption MW	Percent of Area Peak Consumption
Edison	200	142	1,241	105,054	1.3E-07	23,727	0.6
LADWP	450	319	2,793	25,921	1.2E-06	5,717	5.6

Table B-15b
Diesel Fuel Use from Demolition Equipment

Equipment	No. of Equipment	Usage hr/day	Consumption (gal/hr)	Fuel Use (gal/day)
Concrete/Industrial Saws	1	8.0	2.68	21
Tractors/Loaders/Backhoes	2	8.0	2.68	43
Rubber Tired Dozers	1	2.0	11.8	24
				88

Table B-15b
Diesel Fuel Use from Construction Equipment

Equipment	No. of Equipment	Usage hr/day	Consumption (gal/hr)	Fuel Use (gal/day)
Forklifts	2	7.0	2.5	35
Cranes	2	8.0	9.8	157
Tractors/Loaders/Backhoes	2	6.0	3.4	41
Generator Sets	2	8.0	2.8	45
Electric Welders	4	8.0	0	0
				277

Table B-16
Fuel Use from Construction Vehicles

Vehicle	Phase	Fuel	No. of One-Way Trips/Day	Trip Length (miles)	Distance Traveled (miles)	Consumption (mpg)	Fuel Use (gal/day)
Heavy-Duty Truck	Demolition	Diesel	7	259	1,813	10	181
Worker Vehicles	Demolition	Gasoline	6	20	120	16	8
Heavy-Duty Truck	Structure	Diesel	10	40	400	10	40
Worker Vehicles	Structure	Gasoline	8	20	160	10	16

Table B-17
Additional Diesel Fuel Use from Sweepers

VMT, mile/day	Fuel Efficiency miles/gal	Usage, gal/day
21.0	10	2.1

Table B-18
Additional Gasoline Fuel Use from Visiting Monitors

VMT, mile/day	Fuel Efficiency miles/gal	Usage, gal/day
80	16	5.0

Table B-19
Additional Gasoline Fuel Use from Aerial Lifts

Consumption, (gal/hr)	Usage, hr/day	Usage, gal/day
1.4	6	8.4

Table B-20
Additional Gasoline Fuel Use from Aerial Lifts Delivery

Distance Traveled miles	Consumption mpg	Usage, gal/day
80	10	8.0

Table B-21
Water Use for Buildings

Surface Area, ft2	Area, acres	Depth of Water Applied, ft	Volume of Water, ft3/area	Volume of Water, gal/area	Daily Number of Washings	Volume of Water, gal/day
753,424	17.3	0.005	3,924	29,354	1	29,354

Surface area of both affected facilities added together
Assumed 1/16 inch depth of water applied per washing
PR 1420.1 requires washing areas weekly. Assumed all washing occurs on single day

~~**Table B-22**~~
~~**Water Use for Trucks**~~

~~Truck Height, ft~~	~~Truck Length ft~~	~~Truck Width ft~~	~~Surface Area of Rectangular Box, ft2~~	~~Depth of Water Applied, ft~~	~~Volume of Water, ft3/truck~~	~~Volume of Water, gal/truck~~	~~Daily Number of Trucks~~	~~Volume of Water, gal/day~~
~~15~~	~~75~~	~~9~~	~~3,870~~	~~0.005~~	~~20~~	~~151~~	~~100~~	~~15,078~~

~~Assumed 1/16 inch depth of water applied per washing~~
~~Daily Number of Trucks from both affected facilities added together~~

Table B-22
Water Use for Washing Pond Area

Area of Pond, acre	Area of Pond, ft2	Depth of Water Applied, feet	Volume, ft3/ washing	Volume, gal/day
1	43,560	0.005	227	1,697

Assumed 1/16 inch depth of water applied per washing

Table B-23
Water Use from Washing Process Areas

Facility	Area, ft2	Area, acres	Depth of Water Applied, ft	Volume of Water, ft3/area	Volume of Water, gal/area	Daily Number of Washings	Volume of Water, gal/day
Facility A	50,000	1.1	0.005	260	1,948	1	1,948
Facility B	120,000	2.8	0.005	625	4,675	1	4,675
Total	**170,000**	**3.9**	**0.005**	**885**	**6,623**	**1**	**6,623**

Table B-24
Volume of Spend Filters from New Baghouses

Control	No of Control Units	Diameter, ft	Width, ft	Length, ft	Height, ft	Area, ft2	Volume, ft3
Filter bags	196	0.52		13			543
HEPA filters	25		2	1	2		100
Filter bags	196	0.52		13			543
HEPA filters	25		2	1	2		100
Total							**1,286**

Baghouse filters and filter bags are disposed every two years.

Table B-25
Volume of Spend Secondary Filters for Dryer

No of Filters	Filter Length, ft	Filter Height, ft	Filters Width, ft	Waste Volume, ft3	Waste Volume, yd3
18	2	2	0.33	24	0.89

Dryer secondary filters are disposed annually.

APPENDIX C

COMMENT LETTERS AND RESPONSE TO COMMENTS

SHEPPARD MULLIN
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ATTORNEYS AT LAW

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Writer's Direct Line: 213-617-4144
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October 12, 2010

Our File Number: 18NJ-137726

VIA EMAIL AND OVERNIGHT DELIVERY

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

Attention: Elaine Chang, DrPH
Deputy Executive Officer

Ms. Susan Nakamura
Planning & Rules Manager

Re: Exide's Supplemental Response and Comments to 1420.1 Rulemaking

Dear Mses. Chang and Nakamura:

A. Introduction.

On behalf of Exide Technologies, Inc., we are submitting these comments in order to address both the District's inclusion of a mass emissions rate limit in Rule 1420.1 and the impact of the recent proposal by Quemetco to lower the mass emissions rate limit from 0.045 pounds of lead per hour to 0.003 pounds per hour. As explained in Exide's September 21 and September 30, 2010 letters, the inclusion of the mass emissions rate limit in section 1420.1(f)(2) is legally and scientifically inappropriate. By establishing a mass emissions limit focusing entirely on stack emissions, the District improperly forecloses a facility from proposing cost-effective alternatives to satisfy the NAAQS ambient air standard. In addition, to lower the mass emissions rate limit from 0.045 lbs/hr to 0.003 lbs/hr as recently proposed is a substantial change which will threaten the economic viability of Exide's Vernon Facility to remain operating in Southern California. This would result in significant adverse economic and environmental impacts not presently evaluated in the proposed rule's existing impact assessments, necessitating subsequent or supplemental socio-economic and environmental impact assessments.

1-1

Please include these comments and the District's response to these comments in the administrative rulemaking record. We appreciate your consideration.

B. <u>If the District Imposes A Facility Mass Emissions Rate Limit, the District Must Provide For, And Allow Exide To Propose, Alternative Methods To Comply With The Lead NAAQS.</u>

The District includes a mass facility emissions rate limit of 0.045 pounds per hour as a core requirement in section 1420(f)(2), citing a need to "ensure [that] point sources are controlled to allow a 30 percent margin for fugitive emissions." [October 2010 Staff Report, 2-6]. Exide contends that Health & Safety Code Sections 40001(d), 39666(f), 40406 and 40440.8 – all statutes cited by the District for legal support – require the District to consider facility-specific alternatives to the stack mass emissions rate limit that are designed to achieve compliance with the 0.15 ug/m^3 lead NAAQS. Recognizing these legal requirements to provide for compliance flexibility, the District recently amended section 1420(f)(3) to allow a facility to apply for "an alternative [dryer] secondary lead control method that is equally or more effective for the control of lead emissions." Though Exide opposes the inclusion of any facility stack mass emissions rate limit as a core rule requirement, at a minimum, Exide requests that language similar to that added in subsection (f)(3) be included in subsection (f)(2) as follows:

1-2

> *The total facility mass lead emissions from all lead point sources shall not exceed 0.045 pounds of lead per hour. The maximum emission rate for any single lead point source shall not exceed 0.010 pounds of lead per hour. The total facility and maximum emission rates shall be based on the most recent source tests conducted pursuant to subdivision (k).* ***An alternative method that is equally or more effective to satisfy the ambient air concentration requirement in paragraph (d)(2) may be used if a complete application is submitted as part of the permit application required under paragraph (d)(3) and approved by the Executive Officer.***

This language would preserve the purpose of Rule 1420.1 while allowing the facility to design alternative cost-effective solutions to comply with the NAAQS. The District is not legally or equitably justified in mandating one method of compliance, especially since, as stated by the District in its recent response to comments, "the ambient monitors will be the ultimate test of [NAAQS] compliance." What may be appropriate or feasible for one facility may not be appropriate or feasible for another. In the end, the facility is responsible for the outcome and, thus, must have the flexibility to determine – with District approval and enforcement authority – the method by which it satisfies the NAAQS standard.

1. The District is Required to Consider Alternatives Under Health & Safety Code Section 40001.

H&S Code Section 40001(d)(1)-(3), which governs all district rulemaking to achieve the federal NAAQS, sets forth the appropriate balance between NAAQS compliance and allowing a facility to design the method by which it will comply. As stated in the statute: "A district shall allow the implementation of alternative methods of emission reduction, emissions monitoring, or recordkeeping if a facility demonstrates to the satisfaction of the district that those alternative methods will provide equivalent performance." [H&S Code § 40001(d)(1)]. If the District specifies an "emissions limit," the District shall allow the facility to include operational and effectiveness measurement elements "that can be included as permit conditions by the District to ensure compliance with, and enforcement of, the equivalent performance requirements . . . ." [H&S Code § 40001(d)(3)]. The District's mandated facility mass emissions rate limit here functions both as an emissions limit and control method. Though Exide opposes any mass emissions rate limit, at the very least Rule 1420.1 must provide for, and allow, Exide an alternative compliance method in accordance with H&S Code § 40001(d).

1-3

2. The District is Required to Consider Alternatives Under Health & Safety Code Section 39666

Attempting to impose an ATCM emissions limit on stack emissions to achieve the NAAQS lead standard, the District cites H&S Code Section 39666 as legal authority for proposed Rule 1420.1. [*See, e.g.*, Resolution]. If the District relies on section 39666, then it must satisfy its requirements. The statute provides that, where an ATCM measure "requires the use of a specified method or methods to reduce, avoid, or eliminate the emissions of a toxic air contaminant, a source may submit to the District an alternative method or methods that will achieve an equal or greater amount of reduction in emissions of, and risk associated with, that toxic air contaminant." [H&S Code § 39666(f)]. The District "shall approve" the alternative method if it is demonstrated to be enforceable and effective. [*Id.*]

1-4

As currently written, Rule 1420.1 forecloses any alternative methods of compliance, regardless of whether other methods may be equally effective. The District may not mandate a facility mass emissions rate limit without allowing the facility to propose alternatives. Again, Exide requests inclusion of the above language to rule Section(f)(2) to correct this flaw in the existing proposed rule.

3. The District Must Provide a BARCT Analysis, Considering Facility-Specific Economic and Environmental Impacts.

1-5

In its recent staff response, the District stated that Rule 1420.1 "is a Best Available Retrofit Technology (BARCT) Rule for Lead." [Staff Response to Comment 45]. BARCT is defined as "an emissions limitation that is based on the maximum degree of reduction achievable,

taking into account environmental, energy, and economic impacts by each class or category of source." [H&S Code § 40406] Exide agrees with the District that Quemetco's recent proposal to limit the mass emissions rate to 0.003 lbs/hr is unnecessary to achieve the NAAQS lead standard and cost prohibitive and, thus, does not satisfy BARCT, for the Exide facility. However, Exide contends that the District's rulemaking record is presently inadequate to even allow for Governing Board consideration as to whether the 0.045 lbs/hr facility mass emissions rate limit is BARCT under H&S Code Section 40920.6.

1-5 Cont.

Because the District states that Rule 1420.1 is a BARCT rule, Exide contends that the District must fully evaluate the rule's technical and economic feasibility, identify different control options that can achieve the emissions reduction objectives of the regulation, review the cost-effectiveness of each potential control option, make findings as to the cost-effectiveness of each option, and allow alternative means of producing equivalent reductions at any equal or lesser dollar amount per ton reduced. [H&S Code § 40920.6]. Even if Section 40920.6 does not apply directly, the District has determined that BARCT requires a 0.045 lbs/hr facility limit without properly considering the technical, economic and environmental impacts of that limit as required by Sections 40406, 40440.8 and 40922.

4. <u>The District's Socioeconomic Analysis is Insufficient Because It Does Not Adequately Consider Relative Cost-Effectiveness.</u>

The District's Socioeconomic Assessment estimates the annual total cost to comply with Rule 1420.1 will be $0.41 million for the first year and $0.32 million annually thereafter. Though the District purports to consider economics, the District does not properly consider the "availability and cost-effectiveness of alternatives" to the mass emissions rate limit as required by H&S Code Sections 40440.8 and 40922. Section 40922 (made applicable here by Section 40440.8) requires the District to consider "an assessment of the cost-effectiveness of available and proposed control measures" and states that the District's analysis "shall contain a list of the control measures from the least cost-effective to the most cost-effective." The District must also consider relative cost-effectiveness, in addition to technological feasibility and other factors. [H&S Code § 40922].

1-6

The District avoids a relative cost-effectiveness analysis and does not cite to section 40922, presumably because the District takes the position that section 40922 only applies to rules meant to control ozone, CO, NOx and SOx. The District's interpretation ignores that section 40440.8 requires a socioeconomic assessment without limit to designated criteria pollutants, and section 40440.8 (requiring a socio-economic analysis) cites to and requires analysis under section 40922. Indeed, when implementing rules designed to limit emissions of PM and ammonia from refineries (constituents other than ozone, CO, NOx and SOx), the District engaged in the 40922 incremental cost analysis that it fails to conduct here. [*Western States Petroleum Association v. SCAQMD*, 136 Cal. App. 4th 1012].

Furthermore, Section 40703 states that "in adopting any regulation, the district shall consider, pursuant to Section 40922, and make available to the public, its findings related to the cost-effectiveness of the control measure, as well as the basis for the findings and the considerations involved." The law also requires that the District "shall make reasonable efforts, to the extent feasible within existing budget constraints, to make specific reference to the direct costs expected to be incurred by regulated parties, including businesses and individuals." [H&S Code § 40703]. Here, while the District generally considered certain compliance costs to reach its $0.41/$0.32 million per year estimate, it did not adequately consider the economic impact to Exide, particularly as to the newly-proposed alternative of a 0.003 lbs/hr facility mass emissions rate limit, and the District did not properly consider cost-effective alternatives that would still result in NAAQS compliance.

1-6 Cont.

5. <u>The Clean Air Act Does Not Prohibit Increased Stack Height as a Control Option</u>.

The District rejected Exide's proposal to increase stack heights, stating that "the Clean Air Act, Section 123, prohibits using stack heights in lieu of emissions controls." [October 2010, Staff Response to Comment 8]. The District is incorrect. Under the CAA, a facility can take full credit for improved dispersion provided by any stack height up to 65 meters (200+ ft.) without any justification required as dictated by good engineering practice. Good engineering practice means "the height necessary to insure that emissions from the stack do not result in excessive concentrations of any pollutant in the immediate vicinity of the source as a result of atmospheric downwash." "In no event may the Administrator prohibit any increase in any stack height or restrict in any manner the stack height of any source." [CAA, Section 123(c); 40 CFR Part 51; *see, also*, District Rule 1401(a)(1) defining "Acceptable Stack Height" in conformance with CAA Section 123.] For the reasons summarized in its September 21, 2010 letter, Exide is significantly impacted by downwash at its stacks, which are barely taller than the facility buildings. Increasing the stack height is a legally viable alternative to satisfy the NAAQS.

1-7

C. <u>The Proposed 0.003 lbs/hr Facility Mass Emissions Rate Limit Alternative Threatens The Economic Viability Of Exide's Facility To Remain Operating In Southern California, Resulting In Significant Adverse Economic and Environmental Impacts Not Previously Considered That Require Subsequent Or Supplemental Socio-Economic and Environmental Impact Assessments</u>.

1-8

Quemetco recently proposed that the District reduce the rule's facility mass emissions rate limit from 0.045 lbs/hr to 0.003 lbs/hr, a substantial change to the existing proposed rule. For the District to consider this proposal for adoption, it must fully evaluate the proposal's significant adverse economic and environmental impacts. The District estimates a $15-20 million cost for Exide (based solely on Quemetco costs) to reduce mass emissions to this level. Exide believes this cost to be prohibitive and that it will threaten its economic viability to continue operating in Southern California, with Exide considering the option of expanding operations in facilities out

1-8 Cont.

of State [*See* concurrently submitted October 11, 2010 Exide letter]. Exide's closure as a result of "substantial changes" to the Rule (*i.e.*, a 15-fold emissions reduction above the amounts already proposed) will result in significant adverse economic impacts and direct and indirect significant adverse environmental impacts necessitating the District prepare subsequent or supplemental socio-economic environmental impact assessments. [14 CCR § 15162].

As noted by the District, Exide has an average production of 100,000 to 120,000 tons of lead per year, equivalent to approximately 11 million automotive batteries. Exide and Quemetco are the only two large lead battery recyclers in the Western United States, with the closest comparable facility in Texas. [Staff Report, at 1-7.] If Exide is forced to discontinue its Vernon Facility operations, Exide's departure would reasonably result in "significant adverse effects" not previously considered in the existing rulemaking documents, including but not limited to:

1-9

- Loss of approximately 125+ union jobs at the Vernon Facility and additional jobs in industries servicing the Vernon Facility.
- Substantial loss of lead acid battery recycling capacity in the District.
- Increased truck traffic and pollution (including diesel particulate and GHG emissions) from shipping batteries out of California or to Mexico.
- Increased risk of illegal or improper disposal of lead batteries in the District.
- Increased lead, diesel particulate and GHG and other emissions including truck traffic from Quemetco's facility closer to a residential community environment.

These impacts would require subsequent or supplemental socio-economic and environmental impact assessments; the District's existing assessments are presently inadequate and fail to analyze those foreseeable adverse impacts. [*See, e.g., Bakersfield Cit. Loc. Con, v. City of Bakersfield*, 124 Cal. App. 4th 1184 (2004) (agency must conduct a CEQA analysis if economic harm is reasonably likely to result in direct or indirect environmental impact). H&S Code § 40440.8(b)(2).] To properly consider for adoption a 0.003 lbs/hr facility mass emissions rate limit, the District must evaluate these potentially significant adverse economic and environmental impacts (which it has not done in the existing rulemaking documents) through preparation of subsequent or supplemental socio-economic and environmental impact assessments. Re-circulation and allowance for comment is also required. Obviously, this will further delay the approval of an applicable rule.

D. <u>Conclusion</u>.

1-10

In conclusion, Exide contends that the mass emissions rate limit is untenable and unjustified, particularly because the District has not considered cost-effective alternatives designed to satisfy the NAAQS. In addition, District consideration of Quemetco's proposal to

1-10 Cont.

lower the mass limit to 0.003 lbs/hr will threaten the economic viability of Exide's Vernon Facility, requiring further analysis of the rule's potentially significant adverse socio-economic and environmental impacts, not previously evaluated or considered in the existing rulemaking documents. We appreciate your consideration of these comments.

Very truly yours,

Randolph C. Visser

for SHEPPARD, MULLIN, RICHTER & HAMPTON LLP

W02-WEST:1OFTI\402975458.1

cc: Mr. Barry R. Wallerstein (***Via Email***)
Laki Tisopulos, Ph.D., P.E.
Ms. Cheryl Marshall (***Via Email***)
Kurt Wiese, Esq. (***Via Email***)
William Wong, Esq. (***Via Email***)
Christine Graessle, Esq. (***Via Email***)
Robert L. Collings, Esq. (***Via Email***)

PROPOSED ALTERNATIVE 3 FOR CONSIDERATION AT THE NEXT HEARING BOARD MEETING

AGENDA NO. 36 — Adopt Rule 1420.1 – Emissions Standard for Lead from Large Lead-acid Battery Recycling Facilities

Modify subparagraph (f)(2) of Proposed Rule 1420.1

"(2) ~~The total facility mass lead emissions from all lead point sources shall not exceed 0.045 pounds of lead per hour. The maximum emission rate for any single lead point source shall not exceed 0.010 pounds of lead per hour. The total facility and maximum emission rates shall be based on the most recent source tests conducted pursuant to subdivision (k)."~~

Modify subparagraph (g)(2)(A) of Proposed Rule 1420.1

(A) A description of additional lead emission reduction measures including, but not limited to, requirements for the following:

(i) Housekeeping, inspection, and maintenance activities;

(ii) Additional total enclosures;

(iii) Modifications to lead control devices and installation of multi-stage lead control devices necessary to achieve a total facility lead emission rate of 0.045 pounds per hour from all lead point sources and a maximum emission rate of 0.010 pounds of lead per hour for any single lead point source;

~~(iv) Installation of multi-stage lead control devices;~~

(iv) Process changes including reduced throughput limits; and

(vi) Conditional curtailments including, at a minimum, information specifying the curtailed processes, process amounts, and length of curtailment.

Add subparagraph (g)(2)(D) of Proposed Rule 1420.1

(D) An implementation schedule for (g)(2)(A)(iii) to achieve a total lead emission rate of 0.045 pounds per hour from all lead point sources and a maximum emission rate of 0.010 pounds of lead per hour for any single lead point source if lead emissions discharged from the facility contribute to ambient air concentrations of lead to exceed 0.15 $\mu g/m^3$ averaged over any 30 consecutive days measured at any monitor pursuant to subdivision (j) or at any District-installed monitor no later than one year after the date of exceeding the 0.15 $\mu g/m^3$ average.

Modify paragraph (g)(4) of Proposed Rule 1420.1

(4) ~~The owner or operator shall implement measures based on the schedule in the approved Compliance Plan if~~ If lead emissions discharged from the facility contribute to ambient air concentrations of lead to exceed 0.15 $\mu g/m^3$ averaged over any 30 consecutive days measured at any monitor pursuant to subdivision (j) or at any District-installed monitor, the owner or operator shall:.

(A) Implement lead emission reduction measures based on the schedule in the approved Compliance Plan; and

(B) Notwithstanding paragraph (f)(2), meet a total facility emission rate of 0.045 pounds per hour from all lead point sources and a maximum emission rate of 0.010 pounds of lead per hour for any single lead point source no later than one year after the date of exceedance. The total facility emission rate shall be determined using the most recent source tests conducted by the facility or the District

EXIDE TECHNOLOGIES

October 12, 2010

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

Attention: Elaine Chang, DrPH
Deputy Executive Officer

Ms. Susan Nakamura
Planning & Rules Manager

Re: Comments on Proposed Rule 1420.1

Dear Mses. Chang and Nakamura:

Exide provides the following additional comments on proposed Rule 1420.1, and requests SCAQMD's consideration of, and response to, them prior to adopting a final rule.

With regard to the Quemetco, Inc. comments submitted to the District Board on September 22, 2010, Exide agrees with AQMD staff that the proposed lower emission rate limit of 0.003 lbs/hr of lead is unnecessary, cost prohibitive and should not be included in the final rule [October 2010 Staff Report, Appendix A, Page A-17 and 18.].

Since the proposal for the 0.003 lb/hr facility-wide lead emission rate was only submitted a little more than a week before the rule was to be approved, Exide has had little time to fully evaluate such a proposal and has the following concerns with it.

First, Exide is unsure if the control technology installed at the Quemetco facility is technically feasible and compatible with Exide's process. The Exide facility uses a fundamentally different furnace technology (blast furnace) than what Quemetco uses (electric arc furnace) to process reverberatory furnace slag. Exide has no basis for assuming that this fundamental difference is amenable to the wet electrostatic precipitator (WESP) emission control technology. Exide is aware of no other emission control technology that even claims to be able to reach the 0.003 lb/hr facility-wide level. At this point, Exide could only speculate (at best) that the WESP technology is technically feasible and could be employed at our facility. Whether emissions from our facility would also remain below 0.003 lb/hr with implementation of the WESP is unknown.

Additionally, it has been reported that Quemetco spent $18 million on installation of its emission control system, inclusive of the WESP. We have no way of knowing what portion of these costs are attributable to the regenerative thermal oxidizer (RTO) that was also installed as part of Quemetco's project. Organic emissions are not an issue from a risk perspective from our facility and we presume, therefore, that installation of a WESP to achieve the 0.003 lb/hr lead emission rate would not also require installation of an RTO. Thus, we can, at best, "guess" that the cost to achieve a 0.003 lb/hr Pb rate would be on the order of $18 million on the basis of no site or process-specific analysis.

Finally, at a cost of this magnitude, and from what we know of this control technology at this time, this proposal will threaten the economic viability of the Exide Vernon, CA recycling facility and Exide would have to consider the alternative of expanding operations at its other recycling facilities outside of California. Such would result in previously unconsidered significantly adverse socio-economic and environmental consequences including loss of jobs, loss of Basin lead acid battery recycling capacity and related air emission increases.

In follow-up to Exide's original comments on the reasons a 0.045 lb./hr. lead emission rate is not the proper control methodology for this rule, is not needed to ensure compliance with the ambient standard and should not be included in the final rule, Exide provides the following proposed alternative by which a mass emission rate could be included in the rule. Exide proposes that if compliance with the 0.15 ug/m3 ambient standard cannot be achieved by the compliance deadline of January 1, 2012, then the facility wide and individual point source mass emission rate limits would go into effect as a component of the required contingency compliance plan. [*See* enclosed Proposed Rule Alternative 3.] As the proposed rule already incorporates a compliance plan "safety valve" trigger of 0.12 ug/m^3 (80% of the 0.15 ug/m^3 NAAQS), the use of emissions rate limit as a core requirement is unnecessary. If a facility mass emission rate limit is to be considered at all, please submit this proposal to the Governing Board for consideration as well.

The SCAQMD first proposed a facility mass emissions rate of 0.045 lb./hr. in its August 31, 2010 proposed rule. At the Governing Board hearing on October 1, 2010 an alternative facility mass emissions rate of 0.003 lb./hr. was proposed. Exide has evaluated its compliance options with the Proposed Rule based on the 0.15 ug/m3 standard in the NAAQS that was amended in 2008. Neither Exide, nor the SCAQMD have had sufficient time to review the technical feasibility and economic aspects of meeting an facility Pb emission rate of 0.003 lb./hr. from stationary sources. Exide's proposal provides for existing control measures and housekeeping activities to be implemented and take effect. If additional emission reduction measures are then required to meet the 0.15 ug/m3 standard, Exide can evaluate which measures will be effective in complying with the standard, rather than relying on an arbitrary emission rate or control technology that would not be practicable for Exide's overall equipment configuration.

Exide has extensively evaluated the issue of its facility's ambient lead concentration impacts and finds that the REAL impacts are predominantly caused by two effects – fugitive emissions and stacks that are being affected by building downwash.

Several of the facility stacks are just barely taller than their adjacent buildings. Stacks that are legitimately subject to downwash in this manner can legitimately be improved by simply increasing the stack height to avoid the downwash zone. That is, the "problem" with these stacks is NOT that their emissions are too great or in any way indicative of inadequate control effectiveness, but that they are simply too short. Contrary to the Staff response on this issue [October 2010 Staff Report, Appendix A, Page A-3], neither the federal Clean Air Act nor relevant California or District rules would in any way "prohibit" the use of stack height increases to resolve adverse building downwash influences. We would be happy to provide full citations of the relevant statutes and regulations on this point.

On 6-25-2009 Exide signed a consent order with the SCAQMD that required the construction of additional total enclosures, venting them to existing control equipment, and additional housekeeping activities such as the installation of a vehicle wash station. When Exide completes the requirements of this consent order the emission rate from fugitive sources should be substantially reduced and contribute to Exide's compliance with the NAAQS.

The ultimate goal here is to help to protect public health by reducing their ambient concentrations. For heavily downwash-influenced stacks, the prescription is a redesign of the geometry rather than wasting resources on essentially unachievable emission limitations. The District's dispersion modeling exercise used to derive and back-calculate the new Subsection (f)(2) emission rate limits gave no consideration to the possibility of alternate stack physical geometries and the impact of fugitive emissions and only considered alternate emission rate scenarios to achieve modeled compliance. The District does not have the authority to impose such a narrow compliance standard, and has not properly considered all possible methods for achieving the standard. We believe that this lack of consideration of reasonable and appropriate alternatives has resulted in a proposed rule which would serve to distract and misdirect resources from the primary focus for achieving the revised NAAQS – reduction in fugitive emissions.

We respectfully request due consideration of the comments outlined above and acceptance by the District of Exide's requested revisions.

Please contact Fred Ganster at 610-921-4052 with any questions you may have regarding this submittal.

Sincerely,
EXIDE TECHNOLOGIES

Corey Vodvarka

Corey Vodvarka
Plant Manager

cc: Mr. Barry R. Wallerstein
Laki Tisopulos, Ph.D., P.E.
Ms. Cheryl Marshall
Kurt Wiese, Esq.
William Wong, Esq.
Christine Graessle, Esq.
Robert L. Collings, Esq.

COMMENT LETTER NO. 1
SHEPPARD MULLIN
OCTOBER 12, 2010

Response to Comment 1-1

Thank you for your comments. Detailed responses to comments regarding inclusion of a mass emission rate limit in PR 1420.1(f)(2), reducing the facility mass emission rate limit for point sources in PR 1420.1 from 0.045lbs/hr to 0.003 lbs/hr, and the anticipated closure of any facilities subject to PR 1420.1 are addressed below.

Response to Comment 1-2

PR 1420.1 does not specify the method or control approach that a facility must use to meet either the total facility lead point source emission rate of 0.045 lb/hr or individual point source lead emission rate of 0.010 lb/hr. Furthermore, Health and Safety Code Section 40001(d)(3) states that "if a district rule specifies an emission limit for a facility or system, the district shall not set operational or effectiveness requirements for any specific control equipment operating on a facility or system under that limit." PR 1420.1 simply requires achieving an emission rate limit and does not set any operational or effectiveness requirements for any specific emission control equipment operating on a facility or system under the proposed emission rate limit.

Regarding the commenter's objection to the facility mass emissions rate limit for point sources: based on air dispersion modeling using the most recent source tests results and stack parameters, the stack emissions of one facility subject to PR 1420.1 would exceed the ambient lead standard of 0.15 micrograms per cubic meter averaged over 30 days. As a result, Proposed Rule 1420.1 establishes a point source emission rate of 0.045 lbs/hour as a core requirement. This facility-wide emission level was derived from modeling, which demonstrates that at the point of maximum impact, the ambient concentration would be about 30 percent below the new ambient lead standard. The 30 percent "buffer" is necessary so the facility has an emissions budget for fugitive emissions. Staff believes that if the 0.045 lbs/hr emission rate limit is not established as a core requirement, at least one of the facilities subject to PR 1420.1 would most likely exceed the standard based on point source emissions alone, and would be well above the standard when fugitive emissions are included. As a result, implementation of controls would be delayed if the 0.045 lbs/hr emission rate is not required. Thus, staff's proposal of the emission rate limit as a core requirement stands.

Response to Comment 1-3

Please see response to comment 1-2.

Response to Comment 1-4

The commenter's reference to the Health & Safety Code Section 39666(f) states, "Where an airborne toxic control measure requires the use of a specified method or methods to reduce, avoid, or eliminate the emissions of a toxic air contaminant, a source may submit to the district an alternative method or methods that will achieve an equal or greater amount of reduction in emissions of, and risk associated with, that toxic air contaminant…" PR 1420.1 does not

implement an ATCM. As a result, the reference to Health and Safety Code Section 39666(d) is removed.

Response to Comment 1-5

The staff response has been revised in Response to Comment #45 in Appendix A of the Staff Report, reflecting that PR 1420.1 is not a BARCT rule. The response no longer states that PR 1420.1 is a BARCT rule. The intent of PR 1420.1 is to achieve attainment with the revised NAAQS for lead.

The commentator states that the environmental impacts of the 0.045 pound per hour facility limit were not considered as required by Health and Safety Code §40406. SCAQMD staff disagrees with this statement. Control strategies are presented in Chapter 1 of the Final EA. Each control strategy is presented and a statement is made as to whether the control strategy is expected to be used for the proposed project. Baghouses, wet scrubbers and HEPA filters are listed as control strategies that would be used. Electrostatic precipitators/wet electrostatic precipitators are strategies that are not expected to be used. No comment was received on this section of the Draft EA.

Construction and operation of the control technologies were analyzed in the aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, mineral resources, noise, population and housing, public services, recreation and transportation and traffic sections of Chapter 2 of the Final EA and found to have no impacts on these environmental topics. Construction and operation of the control technologies were analyzed in the air quality, energy, hazards and hazardous materials, hydrology and water quality, land use and planning, and solid/hazardous waste sections of Chapter 2 of the Final EA and found to have no significant impacts.

Response to Comment 1-6

Regarding requirements for availability and cost-effectiveness analyses required by the Health and Safety Code Sections referenced by the commenter, the District continues to take the position that section 40922 does not pertain to lead. Although Health and Safety Code Sections 40440.8 and 40703 require these analyses, both require the analyses pursuant to section 40922 which again only pertains to ozone, CO, SOx, and NOx. It should also be noted that staff's proposal remains at the 0.045 lb/hr and 0.010 lb/hr lead emission rate for total facility and individual point sources, respectively.

Response to Comment 1-7

The commenter is correct in that stack heights legally may be altered up to the specified maximum in order to change the dispersion of lead emissions from the point sources. Staff's position, however, is that increasing the stack height or buoyancy would just be a dilution of fence line monitor concentrations, and that the same amount of lead emissions are being dispersed in the atmosphere. Lead is a persistent and would continue to accumulate on the ground in areas of dispersion. Simply changing the air dispersion of emissions without overtly reducing emissions is not in the best interest for air quality and public health.

Response to Comment 1-8

PR 1420.1 requires affected facilities to meet an emission rate of 0.045 lbs/hr total mass emission rate from all point sources of lead at the facility. The Staff Report, Environmental Analysis and Socioeconomic Analysis are based on PR 1420.1, which requires a total stack mass emission rate of 0.045 lbs/hr from all point sources of lead emissions at a facility. If the Governing Board were to direct staff to incorporate a total stack emission rate of 0.003 lbs/hr of lead, either as a core requirement, or in the contingency Compliance Plan, additional environmental and economic analyses would be needed. The Board could, however, select an option that would require the facility to evaluate the feasibility of a total stack emission rate of 0.003 lb/hr of lead if the facility triggered the need for a compliance plan. If it is determined that it is technically and environmentally feasible to lower the total stack emission rate, Rule 1420.1 could be amended and the appropriate environmental and socioeconomic analyses would be conducted.

Response to Comment 1-9

Staff's proposal is a total facility mass emission rate limit of 0.045 lb/hr and not the 0.003 lb/hr rate. This comment requests the analysis of the closure of an affected facility. As stated in Response to Comment 1-8, the closure of affected facilities because of PR 1420.1 is not expected. Therefore no analysis will be prepared for the closure of affected facilities.

Response to Comment 1-10

See response to comment 1-2 regarding the applicability of the facility mass emission rate limit. See response to comment 1-8 regarding the inclusion of a lower (i.e. 0.003 lbs/hr) facility mass emission rate limit in PR 1420.1, and the expected closure of any facilities subject to PR 1420.1.

EXIDE TECHNOLOGIES

October 12, 2010

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

Attention: Elaine Chang, DrPH
Deputy Executive Officer

Ms. Susan Nakamura
Planning & Rules Manager

Re: Comments on Proposed Rule 1420.1

Dear Mses. Chang and Nakamura:

Exide provides the following additional comments on proposed Rule 1420.1, and requests SCAQMD's consideration of, and response to, them prior to adopting a final rule.

With regard to the Quemetco, Inc. comments submitted to the District Board on September 22, 2010, Exide agrees with AQMD staff that the proposed lower emission rate limit of 0.003 lbs/hr of lead is unnecessary, cost prohibitive and should not be included in the final rule [October 2010 Staff Report, Appendix A, Page A-17 and 18.].

2-1 Since the proposal for the 0.003 lb/hr facility-wide lead emission rate was only submitted a little more than a week before the rule was to be approved, Exide has had little time to fully evaluate such a proposal and has the following concerns with it.

First, Exide is unsure if the control technology installed at the Quemetco facility is technically feasible and compatible with Exide's process. The Exide facility uses a fundamentally different furnace technology (blast furnace) than what Quemetco uses (electric arc furnace) to process reverberatory furnace slag. Exide has no basis for assuming that this fundamental difference is amenable to the wet electrostatic precipitator (WESP) emission control technology. Exide is aware of no other emission control technology that even claims to be able to reach the 0.003 lb/hr facility-wide level. At this point, Exide could only speculate (at best) that the WESP technology is technically feasible and could be employed at our facility. Whether emissions from our facility would also remain below 0.003 lb/hr with implementation of the WESP is unknown.

2-2 Additionally, it has been reported that Quemetco spent $18 million on installation of its emission control system, inclusive of the WESP. We have no way of knowing what portion of these costs are attributable to the regenerative thermal oxidizer (RTO) that was also installed as part of Quemetco's project. Organic emissions are not an issue from a risk perspective from our facility and we presume, therefore, that installation of a WESP to achieve the 0.003 lb/hr lead emission rate would not also require installation of an RTO. Thus, we can, at best, "guess" that the cost to achieve a 0.003 lb/hr Pb rate would be on the order of $18 million on the basis of no site or process-specific analysis.

Finally, at a cost of this magnitude, and from what we know of this control technology at this time, this proposal will threaten the economic viability of the Exide Vernon, CA recycling facility and Exide would have to consider the alternative of expanding operations at its other recycling facilities outside of California. Such would result in previously unconsidered significantly adverse socio-economic and environmental consequences including loss of jobs, loss of Basin lead acid battery recycling capacity and related air emission increases.

2-3

In follow-up to Exide's original comments on the reasons a 0.045 lb./hr. lead emission rate is not the proper control methodology for this rule, is not needed to ensure compliance with the ambient standard and should not be included in the final rule, Exide provides the following proposed alternative by which a mass emission rate could be included in the rule. Exide proposes that if compliance with the 0.15 ug/m3 ambient standard cannot be achieved by the compliance deadline of January 1, 2012, then the facility wide and individual point source mass emission rate limits would go into effect as a component of the required contingency compliance plan. [*See* enclosed Proposed Rule Alternative 3.] As the proposed rule already incorporates a compliance plan "safety valve" trigger of 0.12 ug/m^3 (80% of the 0.15 ug/m^3 NAAQS), the use of emissions rate limit as a core requirement is unnecessary. If a facility mass emission rate limit is to be considered at all, please submit this proposal to the Governing Board for consideration as well.

The SCAQMD first proposed a facility mass emissions rate of 0.045 lb./hr. in its August 31, 2010 proposed rule. At the Governing Board hearing on October 1, 2010 an alternative facility mass emissions rate of 0.003 lb./hr. was proposed. Exide has evaluated its compliance options with the Proposed Rule based on the 0.15 ug/m3 standard in the NAAQS that was amended in 2008. Neither Exide, nor the SCAQMD have had sufficient time to review the technical feasibility and economic aspects of meeting an facility Pb emission rate of 0.003 lb./hr. from stationary sources. Exide's proposal provides for existing control measures and housekeeping activities to be implemented and take effect. If additional emission reduction measures are then required to meet the 0.15 ug/m3 standard, Exide can evaluate which measures will be effective in complying with the standard, rather than relying on an arbitrary emission rate or control technology that would not be practicable for Exide's overall equipment configuration.

2-4

Exide has extensively evaluated the issue of its facility's ambient lead concentration impacts and finds that the REAL impacts are predominantly caused by two effects – fugitive emissions and stacks that are being affected by building downwash.

Several of the facility stacks are just barely taller than their adjacent buildings. Stacks that are legitimately subject to downwash in this manner can legitimately be improved by simply increasing the stack height to avoid the downwash zone. That is, the "problem" with these stacks is NOT that their emissions are too great or in any way indicative of inadequate control effectiveness, but that they are simply too short. Contrary to the Staff response on this issue [October 2010 Staff Report, Appendix A, Page A-3], neither the federal Clean Air Act nor relevant California or District rules would in any way "prohibit" the use of stack height increases to resolve adverse building downwash influences. We would be happy to provide full citations of the relevant statutes and regulations on this point.

On 6-25-2009 Exide signed a consent order with the SCAQMD that required the construction of additional total enclosures, venting them to existing control equipment, and additional housekeeping activities such as the installation of a vehicle wash station. When Exide completes the requirements of this consent order the emission rate from fugitive sources should be substantially reduced and contribute to Exide's compliance with the NAAQS.

2-5

The ultimate goal here is to help to protect public health by reducing their ambient concentrations. For heavily downwash-influenced stacks, the prescription is a redesign of the geometry rather than wasting resources on essentially unachievable emission limitations. The District's dispersion modeling exercise used to derive and back-calculate the new Subsection (f)(2) emission rate limits gave no consideration to the possibility of alternate stack physical geometries and the impact of fugitive emissions and only considered alternate emission rate scenarios to achieve modeled compliance. The District does not have the authority to impose such a narrow compliance standard, and has not properly considered all possible methods for achieving the standard. We believe that this lack of consideration of reasonable and appropriate alternatives has resulted in a proposed rule which would serve to distract and misdirect resources from the primary focus for achieving the revised NAAQS – reduction in fugitive emissions.

2-6

We respectfully request due consideration of the comments outlined above and acceptance by the District of Exide's requested revisions.

Please contact Fred Ganster at 610-921-4052 with any questions you may have regarding this submittal.

Sincerely,
EXIDE TECHNOLOGIES

Corey Vodvarka

Corey Vodvarka
Plant Manager

cc: Mr. Barry R. Wallerstein
Laki Tisopulos, Ph.D., P.E.
Ms. Cheryl Marshall
Kurt Wiese, Esq.
William Wong, Esq.
Christine Graessle, Esq.
Robert L. Collings, Esq.

COMMENT LETTER NO. 2
EXIDE COMMENT LETTER
OCTOBER 12, 2010

Response to Comment 2-1

Staff understands that Wet Electrostatic Precipitator (WESP) control technology installed at the commenter's facility may result in different emission rates than those achieved at another facility subject to PR 1420.1 utilizing the WESP technology. AQMD staff agrees that additional time is needed to further evaluate the technical feasibility, potential environmental impacts and economic impacts of such a proposal. Staff's proposal is to retain the total facility lead emission rate of 0.045 lb/hr.

Response to Comment 2-2

Proposed Rule 1420.1 requires as a core requirement that affected facilities achieve a total stack emission rate of 0.045 lbs/hr. AQMD staff agrees that additional time is needed further evaluate the technical feasibility, potential environmental impacts and economic impacts of lowering the stack emission rate to 0.003 pounds per hour. Staff's proposal is to retain the total facility lead emission rate of 0.045 lbs/hr.

Response to Comment 2-3

PR 1420.1 requires affected facilities to meet an emission rate of 0.045 lbs/hr total mass emission rate from all point sources of lead at the facility. The Staff Report, Environmental Analysis and Socioeconomic Analysis are based on PR 1420.1, which requires a total stack mass emission rate of 0.045 lbs/hr from all point sources of lead emissions at a facility. If the Governing Board were to direct staff to incorporate a total stack emission rate of 0.003 lbs/hr of lead, either as a core requirement, or in the contingency Compliance Plan, additional environmental and economic analyses would be needed. The Board could, however, select an option that would require the facility to evaluate the feasibility of a total stack emission rate of 0.003 lb/hr of lead if the facility triggered the need for a compliance plan. If it is determined that it is technically and environmentally feasible to lower the total stack emission rate, Rule 1420.1 could be amended and the appropriate environmental and socioeconomic analyses would be conducted.

Response to Comment 2-4

Based on air dispersion modeling using the most recent source tests results and stack parameters, the stack emissions of one facility subject to PR 1420.1 would exceed the ambient lead standard of 0.15 micrograms per cubic meter averaged over 30 days. As a result, Proposed Rule 1420.1 establishes a point source emission rate of 0.045 lbs/hour as a core requirement. This facility-wide emission level was derived from modeling, which demonstrates that at the point of maximum impact, the ambient concentration would be about 30 percent below the new ambient lead standard. The 30 percent "buffer" is necessary so the facility has an emissions budget for fugitive emissions. Staff believes that if the 0.045 lbs/hr emission rate limit is not established as a core requirement, at least one of the facilities subject to PR 1420.1 would most likely exceed the standard based on point source emissions alone, and would be well above the standard when

fugitive emissions are included. As a result, implementation of controls would be delayed if the 0.045 lbs/hr emission rate is not required. Thus, staff's proposal of the emission rate limit as a core requirement stands.

Regarding the comments on stack height, staff agrees that stack heights may be legally altered up to the specified maximum in order to change the dispersion of lead emissions from the point sources. Staff's position, however, is that increasing the stack height or buoyancy would just result in a dilution of fence line monitor concentrations, and that the same amount of lead emissions are being dispersed in the atmosphere. Lead is a persistent and would continue to accumulate on the ground in areas of dispersion. Simply changing the air dispersion of emissions without overtly reducing emissions is not in the best interest for air quality and public health.

Response to Comment 2-5

AQMD staff agrees that the completion of additional total enclosures, vented to existing control equipment as well as additional housekeeping activities should help to reduce fugitive emissions.

Response to Comment 2-6

See response to comment 2-4 regarding stack height. Air dispersion modeling conducted in support of this rulemaking used the most recent stack parameters. The AQMD maintains that it does have the authority to set an emission standard. Furthermore, Health and Safety Code Section 40001(d)(3) states that "if a district rule specifies an emission limit for a facility or system, the district shall not set operational or effectiveness requirements for any specific control equipment operating on a facility or system under that limit." PR 1420.1 simply requires achieving an emission rate limit and does not set any operational or effectiveness requirements for any specific emission control equipment operating on a facility or system under the proposed emission rate limit. See response to comment 1-2 in the letter from Sheppard Mullin dated October 12, 2010.