

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Environmental Assessment for Proposed Amended Rule 1470 – Requirements For Stationary Diesel-Fueled Internal Combustion And Other Compression Ignition Engines

May 2007

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PREFACE

This document constitutes the Final Environmental Assessment (EA) for the Proposed Amended Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines. The Draft EA was released for a 30-day public review and comment period from April 10, 2007 to May 9, 2007. No comment letters were received from the public.

To ease in identification, modifications to the document are included as underlined text and text removed from the document is indicated by ~~striketrough~~. None of the modifications alter any conclusions reached in the Draft EA, nor provide new information of substantial importance relative to the Draft document. As a result, these minor revisions do not require recirculation of the document pursuant to CEQA Guidelines §15073.5. This document constitutes the Final EA for the Proposed Amended Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines.

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CHAPTER 1

PROJECT DESCRIPTION

Introduction

California Environmental Quality Act

Project Location

Project Objective

Project Background

Project Description

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977¹ as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin and Mojave Desert Air Basin referred to herein as the district. By statute, the SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the district². Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP³. The Draft 2007 AQMP concluded that major reductions in emissions of volatile organic compounds (VOCs), oxides of sulfur (SO_x) and oxides of nitrogen (NO_x) are necessary to attain the air quality standards for ozone (the key ingredient of smog) and particulate matter (PM₁₀ and PM_{2.5}). Ozone, a criteria pollutant, is formed when VOCs react with NO_x in the atmosphere and has been shown to adversely affect human health and to contribute to the formation of PM₁₀ and PM_{2.5}.

In addition to the extensive control program to reduce criteria pollutants, the SCAQMD also regulates toxic air contaminants (TAC). A substance is considered toxic if it has the potential to cause adverse health effects. TACs are identified on a list by state and federal agencies based on a review of available scientific evidence. Exposure to TACs can increase the risk of contracting cancer or produce other adverse health effects such as birth defects and other reproductive damage, neurological and respiratory health effects. A health risk assessment is used to estimate the likelihood that an individual would contract cancer or experience other adverse health effects as a result of exposure to listed TACs. In 1998, the California Air Resources Board (CARB) identified diesel particulate matter (DPM) as a TAC.

According to Health and Safety Code §39656, the California legislature delegated to the air districts, which includes the SCAQMD, authority to establish and implement a program to regulate TACs. The Health and Safety Code §39666(d) specifies that local air agencies must implement and enforce or propose regulations to enact an Airborne Toxics Control Measure (ATCM) no more than 120 days after CARB adopts or implements it, otherwise it will automatically go into effect.

In February 2004, CARB approved an ATCM for Stationary Compression Ignition Engines. To implement this ATCM and reduce the public's exposure to DPM, the SCAQMD Governing Board adopted Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines, on April 2, 2004. Rule 1470 also established more stringent requirements than the CARB ATCM for engines located on school grounds or within 100 meters of existing schools. The SCAQMD's authority to establish more stringent emission standards and operating requirements is consistent with the requirements of Health and Safety Code §39666(d), which gives the SCAQMD the authority to adopt a rule that is as stringent or more stringent than the ATCM.

Since the initial approval of the ATCM in February 2004, CARB adopted additional changes to the ATCM that went into effect on September 9, 2005. One of the adopted changes to the ATCM extended the time for direct-drive fire pump engines to meet Tier 3 Off-Road

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

² Health & Safety Code, §40460 (a).

³ Health & Safety Code, §40440 (a).

Compression Ignition Engine Standards pursuant to Title 13 §2423 of the California Code of Regulations (CCR). While Tier 3 engines are currently available for some applications, they are not available for direct-drive fire pumps.

As a result, Rule 1470 is being amended to address the lack of availability of Tier 3 emergency direct-drive fire pump engines. Specifically, proposed amended Rule (PAR) 1470 will extend the time owners/operators of direct-drive fire pump engines have when replacing existing engines with new engines in order to meet Tier 3 Off-Road Compression Ignition Engine Standards pursuant to Title 13 §2423 of the California Code of Regulations (CCR). In addition, PAR 1470 will add a requirement that new emergency engines used in demand response programs (DRP) shall meet best available control technology (BACT) standards and will clarify the intent of the existing school provision for complying with the requirements for new stationary emergency standby diesel-fueled engines greater than 50 horsepower. Other minor changes are proposed for clarity and consistency throughout the rule.

As a result of the proposed amendments to PAR 1470, only the changes pertaining to new direct-drive fire pumps are expected to delay emission reductions by approximately seven pounds of NO_x per day and one pound of VOC per day in year 2007, 15 pounds of NO_x per day and two pounds of VOC per day in 2008, 17 pounds of NO_x per day and two pounds of VOC per day in both 2009 and 2010. The quantity of emissions reductions foregone does not exceed the SCAQMD's air quality significance thresholds for NO_x and VOC. No other criteria pollutants are affected by the proposal.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PAR 1470 is a discretionary action, which has 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 ~~Draft~~](#) 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 [Final ~~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 [Final ~~Draft~~](#) EA to address the potential adverse environmental impacts associated with the proposed project. The [Final ~~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. [No comments were received on the Draft EA during the 30-day public review period \(from April 10, 2007 to May 9, 2007\). Prior to making a decision on the proposed amendments, the SCAQMD Governing Board must review and certify that the Final EA complies with CEQA as providing adequate information on the potential](#)

adverse environmental impacts of the proposed amended rule. Therefore, pursuant to CEQA Guidelines §15252, no alternatives or mitigation measures are required to be included in this Final Draft-EA. The analysis in Chapter 2 supports the conclusion of no significant adverse environmental impacts.

PROJECT LOCATION

PAR 1470 would affect facilities located throughout 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

The main purpose of PAR 1470 is to extend the compliance date that direct-drive fire pump engines would be required to meet Tier 3 Off-Road Compression Ignition Engine Standards pursuant to Title 13 §2423 of the CCR. The extension is necessary to allow time for the production and United Laboratory (UL) and FM Global safety certifications of Tier 3 compliant

direct-drive fire pump engines to become available on the market. PAR 1470 will allow engine owners/operators to purchase new Tier 2 direct-drive fire pump engines up until Tier 3 engines become commercially available for this application, but for no longer than three years. Further, the purpose of PAR 1470 is to add a requirement that new emergency diesel engines used in DRP programs shall meet BACT standards and to clarify the meaning of “existing school” requirements for new emergency engines installed on school grounds or near existing schools.

PROJECT BACKGROUND

Rule 1470 primarily regulates DPM emissions by establishing fuel use specifications, operating requirements and PM emission limits for existing diesel-powered engines. In addition, Rule 1470 also establishes emission standards for new stationary diesel engines less than or equal to 50 brake horsepower (bhp) installed after January 1, 2005 based on Title 13 §2423. Title 13 §2423 includes emission standards for NO_x, VOC, NO_x and VOC combined, CO and PM. Rule 1470 also includes recordkeeping, reporting and monitoring requirements, a compliance schedule, test methods and exemptions.

Rule 1470 applies to stationary compression ignition engines which are engines that remain in one location for 12 months or longer. These engines are typically categorized as either prime engines or emergency standby engines. Prime engines are stationary engines that are not used during emergencies, but are used regularly in routine operations for a wide variety of applications such as compressors, cranes, rock crushers, generators, and agricultural irrigation. Emergency standby engines are used for emergency back-up electric power generation or pumping of water during emergencies such as power failures or rolling blackouts. They provide emergency power for a variety of situations, including those which are critical to human life (e.g., hospital and convalescent facility medical support systems) and those which are less critical to human life and safety (e.g., heating and air conditioning systems, communication systems, ventilation and smoke removal systems, sewage disposal, lighting, and industrial processes).

Although Rule 1470 is based on CARB’s ATCM, it contains more stringent requirements for stationary diesel-fueled emergency standby and prime engines located on school grounds or 100 meters or less from existing schools, resulting in reduced emissions of DPM and cancer risk to neighboring schools. Rule 1470 also prohibits non-emergency use (e.g., testing) of diesel emergency standby engines located on school grounds or 100 meters or less from existing schools when school activities are taking place.

A wide variety of private and public entities owning and operating stationary diesel-fueled prime engines and emergency standby engines in the district are affected by Rule 1470. Industries and other affected entities including manufacturing, food processing and production, power generation, building management, hospitals, refineries, water treatment facilities, telecommunications and broadcasting facilities, quarries, military installations, and schools.

PROJECT DESCRIPTION

The proposed amendments to Rule 1470 primarily affect requirements when replacing existing direct-drive emergency standby fire pump engines with new engines. PAR 1470 would allow up to a three-year extension for owners/operators of direct-drive fire pump engines to purchase engines meeting Tier 2 standards in lieu of the Tier 3 standards until such time as these engines are manufactured, certified and commercially available on the open market. The Tier 2 and Tier 3 requirements that apply to new direct-drive emergency standby fire pump engines contain

standards that are designed to limit PM, VOC, NO_x and CO emissions. The standards for PM and CO are the same for both Tier 2 and Tier 3, so no change in emissions for those pollutants will result from PAR 1470. However, by extending the time to comply with the Tier 3 standards, PAR 1470 is expected to result in a delay of VOC and NO_x emission reductions.

PAR 1470 also makes clear that new stationary emergency diesel engines used in DRPs shall meet BACT standards for spark ignition engines. A DRP is a program for reducing electrical demand through the use of interruptible service contracts (ISC). An ISC is a contractual arrangement in which a utility distribution company provides lower energy costs to a nonresidential electrical customer in exchange for the ability to reduce or interrupt the customer's electrical service during a Stage 2 or Stage 3 alert⁴, or during a transmission emergency. This proposed change means that any diesel engine not able to meet the spark ignition engine BACT level of 1.5 grams of NO_x per brake horsepower-hour is prohibited from participating in ISCs.

PAR 1470 would also remove the obsolete compliance date from the requirements for the installation of new emergency standby engines that are either installed on school grounds or within 100 meters of existing schools. Instead, PAR 1470 clarifies that "existing schools" are schools that exist at the time an application for a SCAQMD Permit to Construct or Permit to Operate for a new emergency standby engine is deemed complete.

The following is a summary of the proposed amendments to Rule 1470. Other minor changes are also proposed for clarity and consistency throughout the rule. A copy of PAR 1470 can be found in Appendix A.

Subdivision (b) - Definitions

- The definition of "location" is clarified to be more consistent with the definition in Rule 1110.2 – Emissions From Gaseous- and Liquid-Fueled Engines. [paragraph (b)(40)]

Subdivision (c) - Requirements

- For new stationary emergency standby diesel-fueled compression ignition engines installed at an existing school or within 100 meters of school grounds, clarify that an existing school is based on the earlier date when the SCAQMD application for a Permit to Construct or Permit to Operate is deemed complete. [clauses (c)(2)(C)(i) and (c)(2)(C)(iii)]
- For new direct-drive emergency standby fire pump engines rated greater than 50 bhp, allow Tier 2 engines to operate up to three years beyond the compliance date for otherwise meeting the Tier 3 emission standards pursuant to Title 13 §2423 of the CCR provided that Tier 3 engines are not available. [subclause (c)(2)(C)(iv)(II)]
- Clarify that new emergency standby diesel-fueled compression ignition engines rated above 50 bhp used in DRPs must comply with the emission standards for spark ignition emergency internal combustion engines pursuant to the most current version of the SCAQMD BACT Guidelines for non-major polluting facilities. [subclause (c)(7)(C)(ii)(I)]

⁴ Stage 2 and Stage 3 alerts refer to the availability of electricity, not air quality. The California Independent System Operator, which runs 75 percent of California's electricity system, issues these alerts. A Stage 2 alert is called when power reserves fall below five percent and a Stage 3 alert is called when power reserves fall below 1.5 percent.

- Update the reference to the National Fire Protection Association (NFPA) 25 – Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems to reflect the 2002 edition or the most current edition of the NFPA standard. [subclauses (c)(2)(C)(i)(III) and (c)(2)(C)(ii)(II)]

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 Amended Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive, Diamond Bar, CA 91765
CEQA Contact Person:	Barbara Radlein, (909) 396-2716
PAR 1470 Contact Person:	Andrew Lee, (909)396-2643
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:	The purpose of PAR 1470 is to: 1) extend the time owners/operators of direct-drive fire pump engines have when replacing existing engines in order to purchase engines that meet Tier 3 Off-Road Compression Ignition Engine Standards pursuant to Title 13 §2423 of the California Code of Regulations; 2) add a requirement that new emergency diesel engines used in DRPs shall meet BACT standards for spark ignition engines; and 3) clarify the intent of the existing school provision for complying with the requirements for new stationary emergency standby diesel-fueled engines greater than 50 horsepower. Other minor changes are proposed for clarity and consistency throughout the rule. PAR 1470 is expected to result in emission reductions foregone of approximately seven pounds of NO _x per day and one pound of VOC per day in year 2007, 15 pounds of NO _x per day and two pounds of VOC per day in 2008, 17 pounds of NO _x per day and two pounds of VOC per day in both 2009 and 2010. The quantity of emissions reductions foregone does not exceed the SCAQMD's air quality significance thresholds for NO _x and VOC. No other criteria pollutants are affected by the proposal.
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.

- | | | |
|---|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Population and Housing |
| <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Public Services |
| <input checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Solid/Hazardous Waste |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Transportation./Traffic |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Noise | <input checked="" type="checkbox"/> 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 6, 2007

Signature: 

Steve Smith, Ph.D.
Program Supervisor

ENVIRONMENTAL CHECKLIST AND DISCUSSION

SCAQMD staff’s proposal to allow up to a three-year extension for owners/operators of direct-drive emergency standby fire pump engines to purchase new engines that meet Tier 2 standards in lieu of the Tier 3 standards is expected to result in a delay of VOC and NOx emission reductions. It is important to note, however, that the standards for DPM and CO are the same for both Tier 2 and Tier 3, so no change in emissions for these pollutants will result from PAR 1470. Also, the effect of extending the compliance timing for the specified engines will not result in the need for any physical changes that would require construction activities to occur at the existing affected facilities. Although there are other amendments proposed throughout PAR 1470 for continuity and clarity, they are not expected to have an effect on emissions and, thus, will not be addressed further in this [Final Draft](#)-EA. Therefore, the effects of implementing the compliance delay for emergency standby fire pump engines will be the main focus of the analysis in this [Final Draft](#)-EA.

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

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) Of the proposed amendments to Rule 1470, none would involve physical changes to existing equipment at existing facilities. The main effect of PAR 1470 would extend the amount of time owners/operators would have to purchase new direct-drive emergency standby fire pump engines that comply with the Tier 3 standards. Thus, no physical changes are anticipated as a result of implementing PAR 1470.

Because PAR 1470 affects operations at existing facilities, it would not result in any new construction of buildings or other structures that would 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 would not be created which would adversely affect day or nighttime views in the area since no light generating equipment would be required to comply with proposed amended rule.

Based upon these considerations, significant adverse aesthetics impacts are not anticipated and will not be further analyzed in this [Final Draft](#) EA. Since no significant aesthetics impacts were identified, no mitigation measures are necessary or required

	Potentially Significant Impact	Less Than Significant Impact	No Impact
II. AGRICULTURE RESOURCES. Would the project:			
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural uses.

Discussion

II. a), b), & c) As discussed previously under “Aesthetics,” neither modification of existing structures nor construction of new structures is anticipated to result from implementing PAR 1470. Further, the proposed rule amendments will not require any installation of emission control devices. PAR 1470 simply allows additional time for owners/operators of direct-drive emergency standby fire pump engines to comply with Tier 3 requirements when purchasing new engines. 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. Since the proposed project would not substantially change the facility or process for which these engines are utilized, there are no provisions in PAR 1470 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 resources will be altered by the proposed project.

Based upon these considerations, significant agricultural resource impacts are not anticipated and will not be further analyzed in this ~~Final Draft~~ EA. Since no significant agriculture resources impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

**Table 2-1
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) and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk \geq 10 in 1 million Hazard Index \geq 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
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 $\mu\text{g}/\text{m}^3$ (construction) ^e & 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$ 20 $\mu\text{g}/\text{m}^3$	
PM2.5 24-hour average	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^e & 2.5 $\mu\text{g}/\text{m}^3$ (operation)	
Sulfate 24-hour average	25 $\mu\text{g}/\text{m}^3$	
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 $\mu\text{g}/\text{m}^3$ = microgram per cubic meter \geq greater than or equal to

Discussion

Upon examination of the proposed amendments to Rule 1470, the portion of the proposed project that is the main focus of this analysis pertains to the extension of time owners/operators of direct-drive emergency standby fire pump engines will have when purchasing new engines to comply with Tier 3 requirements. The other proposed amendments are administrative in nature and will

not result in an adverse air quality impact. Specifically, PAR 1470 contains a proposal to allow operators to purchase engines that comply with Tier 2 requirements up to three additional years. PAR 1470 will not require any construction activities such as the installation of emission control devices.

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 NO_x and PM₁₀. PAR 1470 will not obstruct or conflict with the implementation of the AQMP because, overall, Rule 1470 achieves net emission reductions and the delay in the compliance date for purchasing engines that comply with Tier 3 standards is temporary. 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." The current version of Rule 1470 satisfies the following two mobile source control measures outlined in the ATCP: AT-MBL-03 – Control of Diesel Particulate Emissions Through After-Treatment, and AT-MBL-04 – Control of Diesel Particulate Emissions Through Engine Design Modification, by recommending different technologies and/or adjusting various parameters in engines to reduce diesel particulate emissions. Examples of after-treatment technologies include diesel oxidation catalysts and diesel particulate filters. High-pressure fuel injection, advanced timing, in-cylinder combustion modifications, air management, and fuel management are a few examples of engine modifications.

Although PAR 1470 has the potential to result in VOC and NO_x emission reductions foregone, the quantities of these pollutants are not expected to exceed the air quality significance thresholds. Further, implementation of all other SCAQMD VOC and NO_x rules along with AQMP control measures, when considered together, is expected to reduce VOC and NO_x emissions throughout the region overall by 2024 such that PAR 1470 is not inconsistent with the AQMP or ATCP. Therefore, implementing PAR 1470 will not conflict or obstruct implementation of the AQMP or ATCP.

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

Operational Air Quality Impacts

The main objective of the proposed project is to extend the time owners/operators of new direct-drive emergency standby fire pump engines will have to comply with Tier 3 requirements when purchasing new engines. This means that when purchasing these engines owners/operators will be able to purchase engines that comply with Tier 2 emission levels for an additional three years or when a Tier 3 direct-drive fire pump becomes commercially available, whichever is sooner. As a result of the proposed changes to Rule 1470, emission reductions foregone of VOC and NO_x emissions will occur. In accordance with the data provided in the following analyses, PAR 1470 is estimated to have a total quantity of projected emission reductions foregone of approximately seven pounds of NO_x per day and one pound of VOC per day in year 2007, 15 pounds of NO_x per day and two pounds of VOC per day in 2008, 17 pounds of NO_x per day and

two pounds of VOC per day in both 2009 and 2010. The quantity of emissions reductions foregone does not exceed the SCAQMD's air quality significance thresholds for NO_x and VOC. No other criteria pollutants are affected by the proposal.

Due to the administrative nature of the other changes proposed and discussed in Chapter 2 - Project Description, the remaining components of PAR 1470 are not expected to have any environmental impacts. Therefore, the extension of time that would be allowed before owner/operators of new direct-drive emergency standby fire pump engines would have before they have to comply with Tier 3 requirements will be the main focus of the analysis in this [Final Draft EA](#).

The following discussion will address the estimated emission reductions foregone based on the proposed changes to PAR 1470 that pertain to new direct-drive emergency standby fire pump engines. This [Final Draft EA](#) estimates the emissions reductions foregone from operating new direct-drive emergency standby fire pump engines at Tier 2 levels for three additional years past the effective date of the Tier 3 standards.

To provide a reasonable "worst-case" analysis of the emission reductions foregone, SCAQMD staff evaluated historical permit data for direct-drive emergency fire pump engines. These data are necessary to determine the difference in emissions between Tier 2 and Tier 3 engines for each category of engines. The data also provide information that is used to project the number of permit applications expected to be received over the future three-year delayed compliance years. To ensure that the number of future projected permit applications received does not underestimate potential air quality impacts, the number of permits anticipated in the future is scaled up approximately 33 percent. Finally, to provide a worst-case analysis of emissions during testing in the future, it is assumed that 50 percent of the total number of future permitted engines will undergo testing on the same day.

Historical SCAQMD permitting data show that there are approximately 635 facilities with approximately 850 existing direct-drive emergency fire pump engines. Further, the data show that over the past three years, there have been approximately 30 to 40 applications submitted each year to obtain permits to construct or permits to operate for new direct-drive emergency standby fire pump engines with varying engine ratings. Since the Tier 3 standards are specific to the engine rating (in bhp) and have staggered implementation dates, PAR 1470 will not affect all of the applications for these engines at the same time. Table 2-2 shows the estimated number of engines and the average engine rating per category based on 30 applications submitted per year.

Table 2-2
Estimated Distribution of
New Direct-Drive Emergency Standby Fire Pump Engines

Tier 2/Tier 3 Engine Rating Range (bhp)	Average Engine Rating (bhp)	Estimated Number of New Engines per Year per Range
50 – 100	79	2
101 – 175	145	13
176 – 300	234	12
301 – 600	386	3
		30

An extension of implementing Tier 2 standards for three years or until 2010, will affect the applications received for these engines between 2007 and 2010 as shown in Table 2-3.

Table 2-3
Proposed Extension of Tier 2 Dates in PAR 1470 for
New Direct-Drive Emergency Standby Fire Pump Engines

Engine Rating (bhp)	Current Tier 2 Dates**	Proposed Extension in PAR 1470
50 – 100	2004 – 2007	2008 – 2010
101 – 175	2003 – 2006	2007 – 2009
176 – 300	2003 – 2005	2006 – 2008
301 – 600	2001 – 2005	2006 – 2008
601 – 750*	2002 – 2005	2006 – 2008

* Engines rated at > 750 bhp have no Tier 3 standards

** Reference: Title 23 CCR Section 2423

Over the three-year extension period where compliance with Tier 2 emissions standards will be allowed, the calculation estimates for emission reductions foregone focus on VOC and NOx emissions, because the emission standards do not change between Tier 2 and Tier 3 for CO and PM10 (including DPM) emissions. Further, with no change in PM10 emission standards between Tier 2 and Tier 3, no change in cancer risk from DPM emissions expected to result from implementation of PAR 1470. Table 2-4 shows the change in emission standards per engine rating category for NOx and VOC emissions.

Table 2-4
NOx and VOC Emission Changes Per Engine from Tier 2 to Tier 3 Standards
for New Direct-Drive Emergency Standby Fire Pump Engines

Engine Rating Category (bhp)	NOx Standard			VOC Standard		
	Tier II (g/bhp-hr)	Tier III (g/bhp-hr)	Change (g/bhp-hr)	Tier II (g/bhp-hr)	Tier III (g/bhp-hr)	Change (g/bhp-hr)
50-100	4.92	3.1	1.82	0.67	0.42	0.25
101-175	4.33	2.62	1.71	0.59	0.36	0.23
176-300	4.33	2.62	1.71	0.59	0.36	0.23
301-600	4.2	2.62	1.58	0.57	0.36	0.21

Under Rule 1470, direct-drive fire pump engines are allowed to operate their engines for testing and maintenance purposes consistent with NFPA requirements. NFPA requirements recommend that these engines be exercised for thirty minutes per week or 26 hours per year. Thus, the analysis assumes that these engines will operate 30 minutes per week. As shown in Tables 2-5 and 2-6, if 30 new applications are submitted each year, the emission reductions foregone will be approximately 11 pounds of NOx per day and 1.5 pounds of VOC per day.

Table 2-5
NOx Emission Reductions Foregone from Tier 2 to Tier 3 Standards
for 30 New Direct-Drive Emergency Standby Fire Pump Engines

Engine Rating Category (bhp)	Estimated Number of New Engines per Year per Range	Average Engine Rating (bhp)	Change in NOx Standard (g/bhp-hr)	Engine Operating Time During Testing (hr/day)	NOx Emission Reductions Foregone (g/day)	NOx Emission Reductions Foregone (lb/day)*
50-100	2	79	1.82	0.5	144	0.32
101-175	13	145	1.71	0.5	1,612	3.55
176-300	12	234	1.71	0.5	2401	5.29
301-600	3	386	1.58	0.5	915	2.02

* The conversion is 454 grams per one pound.

Table 2-6
VOC Emission Reductions Foregone from Tier 2 to Tier 3 Standards
for 30 New Direct-Drive Emergency Standby Fire Pump Engines

Engine Rating Category (bhp)	Estimated Number of New Engines per Year per Range	Average Engine Rating (bhp)	Change in VOC Standard (g/bhp-hr)	Engine Operating Time During Testing (hr/day)	VOC Emission Reductions Foregone (g/day)	VOC Emission Reductions Foregone (lb/day)*
50-100	2	79	0.25	0.5	20	0.04
101-175	13	145	0.23	0.5	217	0.48
176-300	12	234	0.23	0.5	323	0.71
301-600	3	386	0.21	0.5	122	0.27

* The conversion is 454 grams per one pound.

However, the emission standards vary from year to year, and engine rating. Tables 2-7 and 2-8 summarize how the NOx and VOC emission reductions foregone adjust between 2007 and 2010 based on the allowed emission standard for the engine rating.

**Table 2-7
NOx Emission Reductions Foregone For Compliance Years 2007 through 2010
for 30 New Direct-Drive Emergency Standby Fire Pump Engines**

Year	Engine Rating Category (bhp)								TOTAL NOx FOREGONE (lb/day)
	50 - 100		101 - 175		176 - 300		301 - 600		
	No. of Engines	NOx Foregone (lb/day)	No. of Engines	NOx Foregone (lb/day)	No. of Engines	NOx Foregone (lb/day)	No. of Engines	NOx Foregone (lb/day)	
2007*	0	0	13	3.55	12	5.29	3	2.02	10.85
2008	2	0.32	26	7.10	24	10.58	6	4.03	22.02
2009	4	0.63	39	10.65	24	10.58	6	4.03	25.89
2010	6	0.95	39	10.65	24	10.58	6	4.03	26.21

* Based on 28 engines per year.

**Table 2-8
VOC Emission Reductions Foregone For Compliance Years 2007 through 2010
for 30 New Direct-Drive Emergency Standby Fire Pump Engines**

Year	Engine Rating Category (bhp)								TOTAL VOC FOREGONE (lb/day)
	50 - 100		101 - 175		176 - 300		301 - 600		
	No. of Engines	VOC Foregone (lb/day)	No. of Engines	VOC Foregone (lb/day)	No. of Engines	VOC Foregone (lb/day)	No. of Engines	VOC Foregone (lb/day)	
2007*	0	0	13	0.48	12	0.71	3	0.27	1.46
2008	2	0.04	26	0.95	24	1.42	6	0.54	2.96
2009	4	0.09	39	1.43	24	1.42	6	0.54	3.48
2010	6	0.13	39	1.43	24	1.42	6	0.54	3.52

* Based on 28 engines per year.

For a more conservative analysis, scaling up the estimates from Tables 2-7 and 2-8 to the equivalent of 40 applications per year, the total emission reductions foregone could be up to 15 pounds of NOx per day and two pounds of VOC per day in year 2007, 29 pounds of NOx per day and four pounds of VOC per day in 2008, 35 pounds of NOx per day and five pounds of VOC per day in both 2009 and 2010. However, it is highly unlikely that all 40 engines would be tested on the same day because there is no requirement in PAR 1470 that specifies a given day for testing. Therefore, for a worst-case analysis, fifty percent of the engines are assumed to be tested on the same day. As a result, the worst-case emission reductions foregone are estimated to be seven pounds of NOx per day and one pound of VOC per day in year 2007, 15 pounds of NOx per day and two pounds of VOC per day in 2008, 17 pounds of NOx per day and two pounds of VOC per day in both 2009 and 2010. The quantity of emissions reductions foregone does not exceed the SCAQMD's air quality significance thresholds for NOx and VOC. No other criteria pollutants are affected by the proposal. The estimates of the worst-case NOx and VOC emission reductions foregone are summarized in Table 2-9.

Table 2-9
Worst-Case NO_x and VOC Emission Reductions Foregone For Compliance Years
2007 through 2010 for 40 New Direct-Drive Emergency Standby Fire Pump Engines

Year	NO _x Emission Reductions Foregone			VOC Emission Reductions Foregone		
	At 30 Applications per Year (lb/day)	At 40 Applications per Year (lb/day)	Worst-Case: At 40 Applications per Year but with 50% testing on same day (lb/day)	At 30 Applications per Year (lb/day)	At 40 Applications per Year (lb/day)	Worst-Case: At 40 Applications per Year but with 50% testing on same day (lb/day)
2007*	10.85	14.47	7.24	1.46	1.95	0.98
2008	22.02	29.36	14.68	2.96	3.95	1.98
2009	25.89	34.52	17.26	3.48	4.64	2.32
2010	26.21	34.95	17.48	3.52	4.69	2.35

* Based on 28 engines per year.

Construction Air Quality Impacts

PAR 1470 will not require any construction activities such as the installation of emission control devices so there are no air quality impacts for construction. Since PAR 1470 does not require the installation of new fire pumps, replacement of existing engines would likely occur on an as needed basis at the end of the useful life of the existing engines, similar to how replacements occur in accordance with the current version of Rule 1470. When a replacement does occur, the size of the new direct-drive emergency standby fire pump engine is expected to be about the same size and profile as the existing equipment such that no modifications to the structure that houses the fire pump would be needed. While the current version of Rule 1470 contains emission standards applicable to existing fire pumps, it does not require existing fire pumps to be replaced. Thus, no construction activities associated with replacing existing fire pumps in response to PAR 1470 are expected so there would be no air quality impacts for construction. Further, the installation of a direct-drive fire pump at a new facility would not create additional construction impacts since installation of the fire pump is not a requirement in PAR 1470.

Global Warming and Greenhouse Gases

Global warming is the observed increase in average temperature of the earth's surface and atmosphere. The primary cause of global warming is an increase of greenhouse gas (GHG) emissions in the atmosphere. The six major types of GHG emissions are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), haloalkanes (HFCs), and perfluorocarbons (PFCs). The GHG emissions absorb longwave radiant energy emitted by the earth, which warms the atmosphere. The GHGs also emit longwave radiation both upward to space and back down toward the surface of the earth. The downward part of this longwave radiation emitted by the atmosphere is known as the "greenhouse effect."

The current scientific consensus is that the majority of the observed warming over the last 50 years can be attributable to increased concentration of GHG emissions in the atmosphere due to human activities. Events and activities, such as the industrial revolution and the increased consumption of fossil fuels (e.g., combustion of gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHG emissions. As reported by the

California Energy Commission (CEC), California contributes 1.4 percent of the global and 6.2 percent of the national GHG emissions (CEC, 2004). Further, approximately 80 percent of GHG emissions in California are from fossil fuel combustion (e.g., gasoline, diesel, coal, etc.).

The SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the AQMP. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

- phase out the use and corresponding emissions of chlorofluorocarbons (CFCs), methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;
- phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons (HCFCs) by the year 2000;
- develop recycling regulations for HCFCs;
- develop an emissions inventory and control strategy for methyl bromide; and,
- support the adoption of a California greenhouse gas emission reduction goal.

In June 2005, Governor Schwarzenegger signed Executive Order #S-3-05 which established the following greenhouse gas targets:

- By 2010, Reduce to 2000 Emission Levels
- By 2020, Reduce to 1990 Emission Levels
- By 2050, Reduce to 80 percent Below 1990 Levels

In September 2006, Governor Schwarzenegger signed California's Global Warming Solutions Act of 2006 (AB32), which expanded on Executive Order #S-3-05. AB32 will require CARB to:

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions, by January 1, 2008;
- Adopt mandatory reporting rules for significant sources of GHG by January 1, 2008;
- Adopt an emissions reduction plan by January 1, 2009, indicating how emissions reductions will be achieved via regulations, market mechanisms, and other actions; and,
- Adopt regulations to achieve the maximum technologically feasible and cost-effective reductions of GHGs by January 1, 2011.

The emission levels in California were estimated to be 426 million metric tons CO₂ equivalent for 1990, 473 million metric tons CO₂ equivalent for 2000, 532 million metric tons CO₂ equivalent for 2010, and 600 million metric tons CO₂ equivalent for 2020. AB32's goals for emission reductions were estimated to be approximately 59 and 174 million tons CO₂ equivalent by 2010 and 2020, respectively.

Currently, analytical tools have not been developed to determine the effect on worldwide global warming from a particular increase in greenhouse gas emissions or the resulting effects on climate change in a particular locale. The scientific tools needed to evaluate the impacts that a specific project may have on the environment are even farther in the future. Accordingly, there is as yet no significance threshold developed to evaluate the impacts of proposed projects, or individual projects, on global climate change or on the environment in California. Therefore,

until appropriate scientific tools are available to evaluate the global effects of specific project and significance thresholds are developed and adopted, the SCAQMD will only report greenhouse gas emissions to the extent greenhouse gas emission factors are available, but will, in general not make any conclusions regarding significance.

As part of the effort to reduce greenhouse gas emissions, PAR 1470 was evaluated to determine if the three-year extension period, during which owners/operators will be allowed to purchase emergency stand-by fire pump engines that comply with Tier 2 requirements, will alter the quantities of CO₂ emissions from these engines. As previously discussed in this [Final Draft-EA](#), since the emission standards do not change between Tier 2 and Tier 3 for CO and PM₁₀ (including DPM) emissions, consequently there will be no change in the quantity of CO and PM₁₀ emissions from these engines. However, the amount of CO₂ that is produced, relative to the amount of CO produced, depends on how the engine is operated. For example, the difference between rich, lean, and stoichiometric engine operation (i.e., fuel combustion) and how much CO₂ is produced is determined by the air-to-fuel ratio. For a stoichiometric or theoretical combustion, the proportionately correct amount of air relative to the amount of fuel in the combustion chamber would be considered ideal or perfect combustion that would result in the complete conversion of fuel and air mix to only CO₂ and water. However, in the “real” world combustion produces by-products such as CO, and carbon soot in addition to CO₂ and water⁵. Therefore, the quantity of CO₂ produced is based upon the efficiency and the air-to-fuel ratio of the combustion process. A rich-burn engine is characterized by excess fuel in the combustion chamber during combustion. A lean-burn engine, on the other hand, is characterized by excess air in the combustion chamber during combustion which results in oxygen-rich exhaust. Diesel engines inherently operate lean, whereas internal combustion engines that burn natural gas, gasoline, or propane can be operated in all three modes of operation.

Title 13, Division 3, Chapter 9, Article 4, §2423 of the CCR lists exhaust emission standards for each tier for all engine ratings. As previously mentioned, for all engine ratings, the CO emissions for Tier 2 and Tier 3 standards are identical. Additionally, since there is no federal or state mandate which requires an increase in fuel or energy efficiency from these affected engines which would otherwise affect the amount of both CO and CO₂ as well as other by-products of combustion, no change in CO₂ emissions is expected from allowing owners/operators to purchase emergency stand-by fire pump engines that comply with the Tier 2 standards, instead of Tier 3 standards.

Conclusion

Based on the previous discussions, the proposed project would not result in significant adverse air quality impacts. However, the proposed project is expected to result in permanent emission reductions foregone of seven pounds of NO_x per day and one pound of VOC per day in year 2007, 15 pounds of NO_x per day and two pounds of VOC per day in 2008, 17 pounds of NO_x per day and two pounds of VOC per day in both 2009 and 2010, and into the future. The quantity of emissions reductions foregone does not exceed the SCAQMD’s air quality significance thresholds for NO_x and VOC. No other criteria pollutants are affected by the proposal. Further, PAR 1470-affected facilities will be required to continue to comply with all other relevant SCAQMD rules and regulations, which may include any or all of the following: source specific rules (Regulation XI); prohibitory rules (Regulation IV); toxic rules (Regulation

⁵ Other by-products of combustion are non-methane hydrocarbons, NO_x and PM as diesel PM.

XIV); New Source Review (Regulation XIII); and Title V (Regulation XXX). As such, the proposal would not significantly diminish an existing air quality rule or future compliance requirement, nor conflict with or obstruct implementation of the applicable air quality plan. The proposal has no provision that would cause a violation of any air quality standard or directly contribute to an existing or projected air quality violation. Since air quality impacts from implementing PAR 1470 do not exceed any air quality significance thresholds (Table 2-1) pursuant to CEQA Guidelines §15130(a)(3), air quality impacts are not considered to be cumulatively considerable as defined in CEQA Guidelines §15065(c). Therefore, the proposed project is not expected to result in a cumulatively considerable net increase of any criteria pollutant.

III. e) As previously noted, implementing PAR 1470 is not expected to require construction to install control equipment or construction of new structures. Aside from allowing the continued purchase of new direct-drive emergency standby fire pump engines to operate at Tier 2 emission standards over the next three years, typical operations are expected to remain the same, including the level of diesel exhaust emissions and their associated odors. Since PAR 1470 is not affecting the diesel PM emissions rate from these engines, odors are not expected to change (i.e. improve or worsen) from current conditions. Since the affected engines are for emergency use only (i.e., during a fire), emergency operations of the affected engines are uncertain and unpredictable and only the operating hours for testing and maintenance purposes can be predicted based on the half-hour weekly testing requirements from the NFPA. Since the affected engines are located throughout the district, odors associated with maintaining current operations are not expected to create a substantial concentrated nuisance. Therefore, no significant adverse odor impacts are expected from implementing PAR 1470.

Based upon these considerations, the air quality impacts associated with increased emissions of criteria pollutants and toxic air contaminants during the operation phase of the proposed project will be evaluated further in this [Final Draft EA](#).

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

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

Discussion

IV. a), b), c), & d) PAR 1470 will primarily affect the allowable PM emission standard for operating new direct-drive emergency standby fire pump engines. Compliance with PAR 1470 will not worsen the current operations at the affected facilities or worsen present conditions of plant and animal life. PAR 1470 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.

Since PAR 1470 will not require the installation of emission control devices, no construction activities or construction of new structures is expected from implementing the proposed project. The proposed project would only affect existing facilities located in the district. All of the affected existing facilities are located in industrial, commercial and institutional areas, which have already been greatly disturbed. In general, these 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.

The current and expected future land use development to accommodate population growth is primarily due to economic considerations or local government planning decisions. A conclusion in the Draft Program Environmental Impact Report (EIR) for the Draft 2007 AQMP was that population growth in the region would have greater adverse effects on plant species and wildlife dispersal or migration corridors in the basin than SCAQMD regulatory activities, (e.g., air quality control measures or regulations). The current and expected future land use development to accommodate population growth is primarily due to economic considerations or local government planning decisions.

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 existing facilities located in industrial or commercial areas. For this reason, effects outside the boundaries of affected facilities are not anticipated. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by the proposed project. Additionally, the proposed project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, and would not create divisions in any existing communities because all activities associated with complying with PAR 1470 will occur at existing industrial, commercial and institutional 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 [Final Draft EA](#). Since no significant adverse biological resources impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource, site, or feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside a formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance 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) There are existing laws in place that are designed to protect and mitigate potential impacts to cultural resources. Since no construction-related activities associated with the implementation of PAR 1470 are expected, no impacts to historical resources are expected to occur as a result of implementing the proposed project.

V. b), c), & d) Implementation of PAR 1470 does not entail any construction activities such as installing add-on controls and other associated equipment to comply with the proposed project and, thus, will not require disturbance of previously disturbed areas (i.e., existing facilities). Since no construction-related activities are expected, PAR 1470 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 does not require construction activities, 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 PAR 1470 and will not be further assessed in this ~~Final Draft~~-EA. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

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

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) The proposed project is not subject to any existing energy conservation plans. Further, the proposed project will not require construction activities and the operation activities will not change the current energy use at the affected facilities; thus, the proposed project will not utilize energy resources in a wasteful or inefficient manner.

Implementation of PAR 1470 would not entail any construction activities such as installing add-on controls and other associated equipment to comply with the proposed project and, thus, will not impose a demand on energy sources to fuel the operation of any construction equipment. PAR 1470 would allow new direct-drive emergency standby fire pump engines to meet the Tier 2 emission standards for an additional three years. Thus, PAR 1470 will not conflict with adopted energy conservation plans and is expected to comply with existing energy conservation standards, to the extent that affected engines are subject to energy conservation standards.

VI. b), c) & d. Implementation of PAR 1470 will not result in the need for new or substantially altered power or natural gas utility systems. Effects of the proposed project on the electricity capacity are not expected to change from the current setting because affected engines are typically operated in emergency situations, so no significant adverse impacts on peak or base demands for electricity are anticipated.

Based upon these considerations, significant adverse impacts to energy are not expected from implementation of PAR 1470 and will not be evaluated further in this ~~Final Draft~~ EA. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

VII. a) 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.

New direct-drive emergency standby fire pump engines would be installed at existing affected facilities so PAR 1470 will not expose people to substantial geological effects greater than what they are exposed to already. Since compliance with PAR 1470 will not require any physical modifications that would involve construction activities, the proposed project will 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.

VII. b) Since implementation of PAR 1470 will not require construction activities (e.g., grading, trenching, refilling and repaving), no potential impacts to existing geophysical conditions are anticipated. Because the affected engines are located at existing facilities on established foundations, no soil will be disrupted as part of complying with PAR 1470. 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 will affect existing facilities, it is expected that the soil types present at the affected facilities will not be further susceptible to expansion or liquefaction. Furthermore, subsidence is not anticipated to be a problem since no 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 typically located in industrial, commercial and institutional areas.

VII. d) & e) Since PAR 1470 will affect existing facilities located in industrial, commercial or institutional zones, it is expected that people or property will not be exposed to expansive soils or soils incapable of supporting water disposal. Though each affected facility has some degree of existing wastewater treatment systems that will continue to be used, these systems will be unaffected by the proposed project. Sewer systems are available to handle wastewater produced and treated by each affected facility. PAR 1470 does not require the installation of septic tanks or alternative wastewater disposal systems at each existing facility affected by the proposed project. As a result, PAR 1470 will not require operators to utilize septic systems or alternative wastewater disposal systems. Thus, the proposed project will 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 PAR 1470 and will not be further analyzed in this [Final Draft-~~EA~~](#). Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Significantly increased fire hazard in areas with flammable materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

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

Discussion

VIII. a), b) & c) Implementation of PAR 1470 means that engine owners/operators will be allowed to purchase and operate new Tier 2 direct-drive fire pump engines for no longer than three additional years or until Tier 3 engines become commercially available for this application, whichever comes first. Relative to the overall amount of time the affected engines could operate during an emergency, plus the time allowed for conducting testing and maintenance activities, the amount of diesel-fuel burned is expected to remain unchanged such that the current amount of diesel fuel purchased and the current number of daily fuel delivery/transport trips should be sufficient to handle the current operating demands. Further since PAR 1470 will not require any installations of emission control devices, no additional transport of control equipment or waste from control equipment will result from implementing the proposed project. Consequently, PAR 1470 will not create a significant new hazard to the public or create a reasonably foreseeable upset condition involving the release of hazardous materials.

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 PAR 1470 may be included on the list of the hazardous materials sites

compiled pursuant to Government Code §65962.5, compliance with the proposed project is not expected to affect in any way any facility's current hazardous waste handling practices. Hazardous wastes from the existing facilities are required to be managed in accordance with applicable federal, state, and local rules and regulations. However, since PAR 1470 would not require construction such as the installation of control equipment utilizing catalysts (that could later be processed as hazardous waste), no additional waste is expected to be generated from the proposed project. Further, for those affected facilities which already use catalyst, the collected spent catalyst will continue to be handled in the same manner under PAR 1470 as currently handled such that it will be disposed/recycled at approved facilities. Accordingly, significant hazards impacts from the disposal/recycling of hazardous materials are not expected from the implementation of PAR 1470.

VIII. e) & f) Regardless of whether or not affected facilities are located near airports or private airstrips, PAR1470 will not create new safety hazards because the proposed project will only allow engine owners/operators to purchase and operate new Tier 2 direct-drive fire pump engines for three additional years, depending on the engine rating. No new hazards will be introduced at affected facilities that could create safety hazards at local airports or private airstrips. Therefore, PAR 1470 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. Any existing facilities affected by the proposed project would typically already have their own emergency response plans in place. Thus, PAR 1470 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 proposed project will 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 they could be a fire hazard) 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 PAR 1470 and will not be further analyzed in this ~~Final Draft~~ EA. Since no significant hazards and hazardous materials impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
n) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

IX. a), b), f), n) & o) PAR 1470 will not require any construction activities such as the installation of emission control devices. Instead, the primary focus of the proposed project is to allow engine owners/operators to purchase and operate new Tier 2 direct-drive fire pump engines for three additional years, depending on the engine rating. Thus, PAR 1470 will have no direct or indirect impact on hydrology and water quality because these affected engines typically do not involve the use of water. Therefore, PAR 1470 will not adversely affect water resources, water quality standards, groundwater supplies, water quality degradation, existing water supplies or wastewater treatment facilities.

IX. c), d), & e) The proposed project would primarily affect the emission standards for new direct-drive emergency standby fire pump engines. Consequently, no construction activities will be necessary to comply with PAR 1470, so watering for fugitive dust control pursuant to Rule 403 is not necessary. As a result, PAR 1470 will not alter any existing drainage patterns, increase the rate or amount of surface runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

IX. g) & h) PAR 1470 does not involve construction activities of any kind, including those associated with building housing, so it will not result in placing housing in a 100-year flood hazard areas that could create new flood hazards. The proposed project would affect the emission standards of new direct-drive emergency standby fire pump engines at existing facilities, so any flood hazards would be part of the existing setting.

IX. i) & j) Since the main focus of PAR 1470 is to allow engine owners/operators to purchase and operate new Tier 2 direct-drive fire pump engines for three additional years, depending on the engine rating, no new facilities are expected to be constructed as part of the proposed project. Thus, no new flood risks or risks from seiches, tsunamis or mudflow conditions will result from the implementation of PAR 1470. Further, any risks from seiches, tsunamis, or mudflows would be part of the existing setting.

IX. k) Because the engines subject to PAR 1470 do not utilize water for their operations, no changes to any existing wastewater treatment permits would be necessary. As a result, the proposed project is not expected to affect any affected facility's ability to comply with existing wastewater treatment requirements or conditions from any applicable Regional Water Quality Control Board or local sanitation district.

IX. l) & m) Because the engines subject to PAR 1470 do not utilize water for their operations or for their emissions control equipment or processes, no increase in wastewater that could exceed the capacity of existing stormwater drainage systems or require the construction of new wastewater or stormwater drainage facilities would be expected as a result of complying with the proposed project.

Based upon these considerations, significant hydrology and water quality impacts are not expected from the implementation of PAR 1470 and will not be further analyzed in this [Final Draft](#) EA. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

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

Significance Criteria

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

Discussion

X. a) Since PAR 1470 affects new direct-drive emergency standby fire pump engines operated at existing facilities and does not involve any construction activities such as building new structures, the proposed project will not create divisions in any existing communities.

X. b) & c) There are no provisions in PAR 1470 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 will be altered by the proposed project. Further, PAR 1470 would be consistent with the typical industrial, commercial, and institutional zoning of the affected facilities. Operations at facilities with new direct-drive emergency standby fire pump engines would still be expected to comply, and not interfere, with any applicable land use plans, zoning ordinances, habitat conservation or natural community conservation plans.

Based upon these considerations, significant land use and planning impacts are not expected from the implementation of PAR 1470 and will not be further analyzed in this [Final Draft](#)-EA. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

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

Discussion

XI. a) & b) There are no provisions in PAR 1470 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 PAR 1470 and will not be further analyzed in this [Final Draft](#)-EA. Since no significant mineral resources impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

XII. a), b), c), & d) Operation of diesel engines typically results in the generation of a certain amount of noise. However, it is expected that each affected facility that operates direct-drive emergency fire pump engines is already in compliance with all existing noise control laws or ordinances. Further, Occupational Safety and Health Administration (OSHA) and California-OSHA (Cal/OSHA) have established noise standards to protect worker health. The noise level is

not expected to change as result of the delay of three additional years for engine owners/operators to purchase and operate new Tier 3 direct-drive fire pump engines, or the hours that engines that are operated solely for testing and maintenance purposes. Therefore, implementation of PAR 1470 will not generate additional or new noise, excessive groundborne vibration, or substantially increase ambient noise levels beyond existing levels.

XII. e) & f) Though some of the facilities affected by PAR 1470 are located at sites within an airport land use plan, or within two miles of a public airport, implementation of the proposed project would not expose people residing or working in the project area to the same degree of excessive noise levels associated with airplanes. All noise producing equipment must comply with local noise ordinances and applicable OSHA or Cal/OSHA workplace noise reduction requirements. Further, affected engines operate only during emergencies, which means that they would generate noise infrequently.

Based upon these considerations, significant noise impacts are not expected from the implementation of PAR 1470 and are not further evaluated in this [Final Draft EA](#). Since no significant noise impacts were identified, no mitigation measures are necessary or required.

	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

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

Discussion

XIII. a), b) & c) Human population in the SCAQMD’s jurisdiction is anticipated to grow regardless of implementing PAR 1470. The proposed project would allow engine owners/operators to purchase and operate new Tier 2 direct-drive fire pump engines for three additional years, depending on the engine rating. No component of PAR 1470 will require

additional employees since no physical changes (i.e., construction) to the existing equipment will be required. Similarly, additional employees would not be required during operation because the proposed project will have little effect on the current or future day-to-day operations of affected equipment. District population will not be affected directly or indirectly as a result of adopting and implementing PAR 1470. Further, PAR 1470 will not indirectly induce growth in the area of facilities with affected engines. The construction of single- or multiple-family housing units would not be required as a result of implementing the proposed project since no new employees will be required at affected facilities. The proposed project will not require relocation of affected engines or facilities, so existing housing or populations in the district are not anticipated to be displaced necessitating the construction of replacement housing elsewhere. As a result, the proposed project is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth in the district or population distribution.

Based upon these considerations, significant population and housing impacts are not expected from the implementation of PAR 1470 and are not further evaluated in this [Final Draft](#)-EA. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

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

Discussion

XIV. a) & b) PAR 1470 will not involve the use of acutely hazardous 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 PAR 1470 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 will not require new employees for construction because no additional construction activities would be necessary to comply with PAR 1470 for affected emergency engines beyond what would be required during normal replacement of these engines. Similarly, no new employees will be required to maintain operation of the affected engines. As a result, PAR 1470 will have no direct or indirect effects on population growth in the district. Therefore, there will be no increase in local population and thus no impacts are expected to local schools or parks.

XIV. e) Because the proposed project does not involve construction activities that would require new or altered permits, implementation of PAR 1470 will not trigger a need for additional government services. 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 PAR 1470 and are not further evaluated in this [Final Draft-~~EA~~](#). Since no significant public services impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts to recreation will be considered significant if:

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

Discussion

XV. a) & b) As previously discussed under “Land Use,” there are no provisions in PAR 1470 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 PAR 1470 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 PAR 1470 and are not further evaluated in this [Final Draft- EA](#). Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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) The proposed project does not require replacement of affected engines, but rather it determines what type of engine can be purchased when replacing engines at the end of their useful lives. To the extent that replaced engines or parts of the replaced engines are disposed of, the proposed project will not change in any way solid wastes that might be generated when replacing affected engines. Since PAR 1470 will not require any construction activities or installation of emission control devices, implementation of the proposed project will not change the affected facilities’ current solid waste disposal needs.

XVI. b) Implementing PAR 1470 not expected to hinder in any way any affected facility’s ability to comply with existing federal, state, and local regulations related to solid and hazardous

wastes. Consequently, it is anticipated that operators of affected facilities would continue to comply with federal, state, and local statutes and regulations related to solid and hazardous waste handling and disposal.

Based on these considerations, PAR 1470 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 PAR 1470 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.

	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 PAR 1470 is not expected to require construction activities or the installation of control equipment. Since implementation of PAR 1470 will not require the installation of emission control devices, PAR 1470 will not require additional deliveries of equipment or other construction materials or transport for construction workers. Since PAR 1470 will allow engine owners/operators to purchase and operate new Tier 2 direct-drive fire pump engines for three additional years, depending on the engine rating, the work force at each affected facility is not expected to change so there will be no potential for new employee-related trips.

XVII. c) Though some of the facilities that will be affected by PAR 1470 may be 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, 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, PAR 1470 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) Since PAR 1470 will not require the installation of emission control devices, the proposed project would not substantially change the way the new direct-drive emergency standby fire pump engine engines will operate. 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 gates. Since PAR 1470 does not involve any construction activities, 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 PAR 1470 will not require any installation of emission control devices, PAR 1470 will not hinder compliance with any applicable alternative transportation plans or policies.

Based upon these considerations, PAR 1470 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.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

XVIII. a) As discussed in the “Biological Resources” section, PAR 1470 is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because the affected engines will be located entirely within the boundaries of existing facilities in industrial or commercial areas which have already been greatly disturbed and that currently do not support any species of concern or the habitat on which they rely. PAR 1470 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 PAR 1470 is not expected to extend into environmentally sensitive areas.

XVIII. b) Based on the foregoing analyses, since PAR 1470 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 PAR 1470 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, PAR 1470 is not expected to cause adverse effects on human beings. Significant adverse air quality, are not expected from the implementation of PAR 1470. As a result of the proposed amendments to PAR 1470, the direct impact to direct-drive fire pumps will be a delay in emission reductions by approximately seven pounds of NO_x per day and one pound of VOC per day in year 2007, 15 pounds of NO_x per day and two pounds of VOC per day in 2008, 17 pounds of NO_x per day and two pounds of VOC per day in both 2009 and 2010. The quantity of emissions reductions foregone does not exceed the SCAQMD's air quality significance thresholds for NO_x and VOC. No other criteria pollutants are affected by the proposal. No impacts to aesthetics, agricultural resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use/planning, solid/hazardous waste, mineral resources, noise, population and housing, public services, recreation, and transportation/traffic are expected as a result of the implementation of PAR 1470.

As previously discussed in items I through XVIII, the proposed project has no potential to cause significant adverse environmental effects.

APPENDIX A

PROPOSED AMENDED RULE 1470

In order to save space and avoid repetition, please refer to the latest version of proposed amended Rule 1470 located elsewhere in the rule amendment package.

The version “PAR 1470c – May 4, 2007” of the proposed amended rule was circulated with the Draft Environmental Assessment that was released on April 10, 2007 for a 30-day public review and comment period ending May 9, 2007.

Original hard copies of the Draft Environmental Assessment, which include the version “PAR 1470c – May 4, 2007” of the proposed amended rule, can be obtained through the SCAQMD Public Information Center at the Diamond Bar headquarters or by calling (909) 396-2039.