SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Environmental Assessment for:

Proposed Amended Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II,
Proposed Amended Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

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SCAQMD No. 121017JK
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CHAPTER 1

EXECUTIVE SUMMARY

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INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977[1] 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. The SCAQMD Governing Board adopts policies and regulations that promote clean air within its jurisdiction. The SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Health and Safety Code §§ 40000, 40001, and 40440.

SCAQMD Regulation II consists of rules that guide the SCAQMD's permitting and filing systems. This regulation includes rules and requirements for submitting permit applications; content of permit applications, permits to construct and operate; denying, posting, transferring or voiding permits; plans required for permits; exemptions to written permits and filing requirements for specific sources not requiring a written permit.

SCAQMD Rule 219 currently provides an exemption from written permits for certain equipment, processes, or operations that produce small amounts of air contaminants. The exemption from a written permit requirement provided by Rule 219 is only applicable if the equipment, process, or operation is in compliance with subdivision (t) - recordkeeping.

SCAQMD Rule 222 currently provides an alternative to SCAQMD written permits by allowing certain emission sources that meet predetermined criteria to register the emission source in a filing program. Rule 222 requires owners and operators of specified emission sources to submit information regarding emissions, including, but not limited to; (1) a description of the emission source; (2) data necessary to estimate emissions from the emission source; and (3) information to determine whether the emission source is operating in compliance with applicable SCAQMD, state, and federal rules and regulations. Thus, the filing system allows the SCAQMD staff to develop accurate emissions in the emissions inventories for the respective source categories, and include operating conditions, while providing relief from the traditional detailed permitting system and its associated cost.

SCAQMD staff periodically evaluates permit data, performs technology surveys, or reviews information provided by a variety of affected equipment owners to determine if equipment should be removed or added to Rules 219 and 222. The most current evaluation of equipment identified several categories of equipment to be added to Rule 219, Rule 222, or both rules as described in the project description in Chapter 2 of this ~~Draft~~ Final Environmental Assessment. For this reason, SCAQMD staff is proposing amendments to Rules 219 and 222 that would add new equipment, processes, or operations, as applicable, that would either be exempt from requiring a permit or would be provided a streamlined filing process in lieu of a written permit.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The proposed amendments to Rules 219 and 222 are considered a "project" as defined by CEQA. CEQA requires that the potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented if feasible. The purpose of CEQA is to inform the project's decision making body, in the case of the currently proposed project the SCAQMD's Governing Board, public agencies, and interested parties of potential adverse environmental

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

impacts that could result from implementing the proposed project and to identify feasible mitigation measures or alternatives to lessen any significant impact.

California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written documents in lieu of an environmental impact report once the Secretary of the Resources Agency has certified the regulatory program. The SCAQMD's regulatory program was certified by the Secretary of the Natural Resources Agency on March 1, 1989, and is codified as SCAQMD Rule 110 (the rule which implements the SCAQMD's certified regulatory program). 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.

The SCAQMD, as Lead Agency for the proposed project, prepared a Notice of Preparation of a Draft Environmental Assessment (EA)/Initial Study (NOP/IS) which identified environmental topics to be analyzed in the ~~a Draft~~ EA. The IS identified the environmental topic "air quality and greenhouse gas (GHG) emissions," specifically operational air quality, as an area that may be adversely affected by the proposed project. No other potentially significant adverse environmental impacts were identified. The NOP/IS was circulated to solicit input from the public agencies and interested parties regarding the environmental analysis to be included in the ~~Draft~~ EA. The NOP/IS was circulated for a 30-day public review period from October 18, 2012, to November 16, 2012. During that public comment period, the SCAQMD received no comment letters. The NOP/IS is attached to this EA as Appendix B.

This ~~Draft~~ Final EA has been prepared as a public disclosure document intended to: (a) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental impacts of the proposed project; and, (b) be used as a tool by decision makers to facilitate decision making on the proposed project. As indicated in the IS, the only environmental topic identified in the IS that could be adversely affected by the proposed project is air quality and greenhouse gas (GHG) emissions, specifically operational air quality, which is further analyzed in this ~~Draft~~ Final EA to determine whether or not the potential impacts are significant.

~~Any comments received during the public review period on the analysis presented in this Draft Final EA will be responded to and included in the Final EA~~. During that public comment period, the SCAQMD received no comment letters. Prior to making a decision on the proposed amendments to Rules 219 and 222, the SCAQMD Governing Board must review and certify the Final EA~~, including responses to comments, if any comment letters are received~~.

PREVIOUS CEQA DOCUMENTATION

This ~~Draft~~ Final EA is a comprehensive environmental document that includes an analysis of potentially significant adverse environmental impacts from the proposed amendments to Rules 219 and 222. SCAQMD rules, as ongoing regulatory programs, have the potential to be revised over time due to a variety of factors (e.g., regulatory decisions by other agencies, new data, and lack of progress in advancing the effectiveness of control technologies to comply with requirements in technology forcing rules, etc.). Rule 219 was originally adopted on January 9, 1976, and has subsequently been amended seventeen times; the currently proposed amendment would be the eighteenth amendment to the rule. It was most recently amended on June 1, 2007. Rule 222 was originally adopted on September 11, 1998, and has been amended three times; the currently proposed amendment would be the fourth amendment to the rule. It was most recently amended on December 5, 2008. The amendments to Rules 219 and 222 would affect equipment

currently regulated by the February 1, 2008 amendments to Rule 1110.2 (piston-type internal combustion engines used at remote two-way radio transmission towers) and September 9, 2011 amendments to Rule 1147 (diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel-fueled heaters, and diesel-fueled boilers).

The following summarizes the previously prepared CEQA document for Rules 219, 222, 1110.2 and 1147 and is included for informational purposes. The following documents can be obtained by submitting a Public Records Act request to the SCAQMD's Public Records Unit. The following is a summary of the contents of these documents.

Previous Rule 219 and Rule 222 CEQA Documentation

Notice of Exemption for Proposed Amended Rule 219, June 3, 1988
The 1988 amendments to Rule 219 included adding equipment not requiring a written permit, e.g., internal combustion engines rated less than or equal to 50 brake horsepower, combustion equipment rated less than or equal to 2,000,000 British thermal units (Btu), plasma arc cutting, wax burnout kilns, shell and shell core molds, etc. Other modifications were made to standardize rule language to be consistent with other rules. No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Final Environmental Assessment, September 11, 1992, SCAQMD No. 920721
An EA was prepared for the 1992 amendments to Rule 219 to evaluate potential adverse impacts from equipment added to the permit system (e.g., equipment that emit carcinogenic air contaminants subject to Rule 1401, hazardous treatment systems, specific air conditioning equipment, etc.), exempt equipment currently subject to permit (e.g., boilers, process heaters and any combustion equipment with a heat input rate of no more than 2,000,000 Btu per hour; specific fuel cells, etc.) and clarification of language in one particular subdivision without changing its intent. The Draft EA was released for a 30-day public review and comment period from July 24, 1992, to August 24, 1992. No significant adverse impacts were identified. Two comment letters were received, and response to comments were included in the Final EA. No comments were received which change any of the conclusions reached in the draft document.

Notice of Exemption for Proposed Amended Rule 219, August 12, 1994
The 1994 amendments included adding the following equipment to Rule 219, which exempted them from permit requirements: dynamometers, test cells, and test stands; internal combustion engines used for training; emergency ventilation for ammonia refrigeration systems; automatic soldering equipment, plasma arc-cutting, vacuum metalizing chambers, coffee roasting equipment, textile dryers, polyester resin or gel coat spraying equipment, tin can hammermills, etc. No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Notice of Exemption for Proposed Amended Rule 219, December 13, 1996
The 1996 amendments to Rule 219 exempted from permit requirements specific equipment categories (e.g., CFC recovery and recycling systems and portable internal combustion engines) that were evaluated and found to emit negligible amounts of emissions and/or are regulated by other government agencies, such as the U.S. Environmental Protection Agency. The amendments also removed small degreasing units previously exempt from Rule 219, which requires them to obtain SCAQMD permits to operate. These units were regulated under federal National Emission Standards for Hazardous Air Pollutants (NESHAPs) and no further

requirements besides permitting were imposed. No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Final Environmental Assessment for: Proposed Amended Rule 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II, Proposed Rule 222 - Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II, Proposed Amended Rule 401 - Visible Emissions (August 20, 1998, SCAQMD No. 980421JDN)

The 1998 amendments established a pilot program to implement a permit streamlining project by removing commercial charbroilers and negative air machines from Rule 219 and placing them in PR 222, a filing informational program. PAR 219 exempted cleaning equipment using 50 g/L VOC content solvent from written permit requirements, which was consistent with amendments to Rules 1122 and 1171. Other types of equipment were exempted from written permits in PAR 219 due to negligible emissions. Wet gate printer and larger rubber presses were removed from PAR 219 and included into the written permit system due to emissions. These sources were determined to be associated with public nuisances potential and/or toxic emissions. Rule 401 was amended to provide three years for specific under-fired charbroilers to meet the less stringent state visibility standard, until such time as cost-effective control technology can be identified and installed. A Draft Environmental Assessment (EA) with no significant adverse impacts was prepared because, although the Draft EA concluded that the proposed rule has the potential to adversely affect air quality and other environmental areas, the impacts were not expected to be significant. The Draft EA was released for a 30-day review period (July 16, 1998, to August 14, 1998). Ten comment letters were received, and response to comments were included in the Final EA. No comments were received which change any of the conclusions reached in the draft document.

Final Environmental Assessment for Proposed Amended Rule 1401– New Source Review of Toxic Air Contaminants and Proposed Amended Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II (July 2, 1999, SCAQMD No. 990520MK)

The 1999 revisions included adding nine toxic compounds for which OEHHA established new acute risk values to Table I of Rule 1401. This project also included a recommendation by the Permit Streamlining Task Force to amend the applicability section of Rule 1401 and the preamble of Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II. These changes were intended to prevent bringing Rule 219 exempt equipment into the permit system unless emissions from the equipment caused an exceedance of the Rule 1401 health risk threshold requirements, thereby requiring permit actions to limit the health risk from the equipment. A Draft Environmental Assessment (EA) with no significant adverse impacts was prepared because, although the Draft EA concluded that the proposed rule has the potential to adversely affect air quality and other environmental areas, the impacts were not expected to be significant. The Draft EA was circulated for a 30-day public review and comment period which ended June 18, 1999. No written comments on the Draft EA were received.

Notice of Exemption for Proposed Amended Rule 219 and Rule 222, May 19, 2000

The May 2000 amendments to Rule 219 clarified requirements for categories of equipment that were exempt from operating permits. Specifically, the amendments clarified requirements for cleaning, combustion, food processing, powder coating, abrasive blasting, electrolytic plating, and anodizing equipment. The amendments to Rule 222 added boilers and process heater emission sources that are exempted from permit requirements pursuant to Rule 219 to Rule 222. This amendment added approximately 12,000 boilers and process heaters with a rated heat input

from 1,000,000 Btu per hour up to and including 2,000,000 Btu per hour to the filing program under Rule 222. This enabled staff to simplify and streamline the permitting process in a filing program for low-emitting equipment as an alternative to the conventional permitting process. No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Final Environmental Assessment for Proposed Amended Rules 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II, 481 - Spray Coating Operations, 1107 - Coating of Metal Parts and Products; 1141 - Control of Volatile Organic Compound Emissions from Resin Manufacturing; 1141.1 - Coatings and Ink Manufacturing, 1141.2 - Surfactant Manufacturing and 1162 - Polyester Resin Operations (November 9, 2000, SCAQMD No. 001006MK, SCAG Clearinghouse I20000499)

The November 2000 amendments to Rules 219, 481, 1107, 1141, 1141.1, 1141.2, and 1162 consisted of adding alternative monthly limits to the specified rules where there were daily limits. Adding the monthly limits allowed facilities subject to these rules to use the monthly recordkeeping option so long as they meet certain criteria. The project also included minor administrative changes that to update definitions and remove exemptions that had expired. A Draft Environmental Assessment (EA) with no significant adverse impacts was prepared because, although the Draft EA concluded that the proposed rule has the potential to adversely affect air quality and other environmental areas, the impacts were not expected to be significant. The Draft EA was released on October 10, 2000 for a 30-day public review and comment period ending November 8, 2000. No comment letters were received from the on the Draft EA.

Notice of Exemption for Proposed Amended Rule 219, July 11, 2003

The 2003 amendments to 219 exempted from permit requirements equipment and processes with low emission levels to maintain consistency with other SCAQMD rules and regulations (e.g. Rules 442, 1171 and 1122). No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Final Environmental Assessment for Proposed Rule 1148.1 - Oil and Gas Production Wells and Proposed Amended Rule 222 - Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II (February 26, 2004, SCAQMD No. 031120JK)

The purpose of Rule 1148.1 is to reduce VOC emissions from well cellars as well as from sources of untreated process gas located at oil and gas production facilities. The February 2004 amendments to Rule 222 required the operator of oil production wells to file and submit information about the source with the SCAQMD in lieu of a written permit. The Draft EA was released on October 10, 2000 for a 30-day public review and comment period from November 20, 2003, to December 19, 2003. Two comment letters were received, and responses to comments were included in the Final EA. No comments were received which change any of the conclusions reached in the draft document.

Notice of Exemption for Proposed Amended Rule 219, December 3, 2004

The Health and Safety Code-mandated written permits for certain agricultural sources. Amendments to Rule 102 included adding or amending definitions necessary to implement the Health and Safety Code requirements. The 2004 December amendments to Rules 201, 201.1, 202 and 203 established permitting procedures for these sources. Amendments to Rule 219 identified the agricultural sources that were no longer exempt from written permits and when permit applications were to be submitted. Rule 312 set the special permitting fees for existing

agricultural sources. No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Notice of Exemption for Proposed Amended Rule 219, May 5, 2006

The May 2006 amendments to Rule 219 included adding the following equipment categories to the list of equipment exempt from operating permits: test cell and test stands for burner testing; various control equipment venting basic equipment; flywheel type shot peening; curing equipment for printing and reproduction; etc. The amendments also clarified the applicability criteria and the intent of underlying requirements for the storage and transfer of liquefied gases. Other minor changes were made for clarity and consistency throughout the rule. No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Notice of Exemption for Proposed Amended Rule 219, July 14, 2006

The July 2006 amendments to Rule 219 clarified the applicability criteria and permit requirements for certain non-emergency internal combustion engines and gasoline transfer and dispensing equipment operated by agricultural sources. No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Notice of Exemption for Proposed Amended Rule 219, June 1, 2007

The 2007 amendments to Rule 219 harmonized the exemption levels applicable to UV/EB curable materials and other coating, ink and adhesive application operations in an equitable manner. Certain operations that are otherwise individually exempt from permits pursuant to Rule 219, but that emit four tons per year or more of VOCs in aggregate at any one facility were added to Rule 222. The amendments also exempted certain low emitting operations. Other minor changes were added to improve clarity and consistency throughout the rule. No potentially significant adverse environmental impacts were identified. Therefore, the project was determined to be exempt from the requirements of CEQA.

Notice of Exemption for Proposed Amended Rule 222, December 5, 2008

New categories of equipment or operations were added to Rule 222 to incorporate certain requirements in SCAQMD Rule 219 and in the CARB ATCM for Compression Ignition Engines. The following categories of equipment or operations were added to Rule 222: printing and related coating and/or laminating equipment and associated dryers and curing equipment; roller to roller coating systems; coating or adhesive application or laminating equipment; drying equipment associated with coating or adhesive application or laminating equipment; stationary or certain portable emergency diesel-fired internal combustion engines at any agricultural operations; and stationary or portable non-emergency diesel-fired internal combustion engines rated greater than 50 brake horsepower (bhp) at agricultural operations with actual emissions less than the amounts listed in Rule 219; certain equipment, processes, or operations emitting in aggregate four tons or more of VOCs per year at a single facility and existing gasoline storage and dispensing equipment with a capacity greater than or equal to 251 gallons at agricultural operations. No potentially significant adverse environmental impacts were identified for the proposed project. Therefore, the project was determined to be exempt from the requirements of CEQA.

Related Rule 1110.2 CEQA Documentation

Related CEQA documents for Rule 1110.2 prepared in the past are summarized in this subsection because a number of equipment types being added to PARs 219 and 222 would be

removed from Rule 1110.2 and they would no longer be required to comply with rule requirements.

Final Environmental Assessment for Proposed Amended Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Internal Combustion Engines (ICEs) (December 2007, SCAQMD No. 280307JK)

The 2007 amendments to Rule 1110.2 were made to: 1) improve the compliance record of engines by requiring improved monitoring, recordkeeping and reporting; 2) achieve further emission reductions based on the cleanest available technologies; and 3) address rule changes recommended by U.S. EPA Region IX. PAR 1110.2 was determined to be significant for aesthetics, PM2.5 operational emissions, and hazardous impacts from accidental release of aqueous ammonia or liquefied natural gas. The Draft EA for the PAR 1110.2 was circulated for a 45-day public review and comment period from November 2, 2007 to December 18, 2007. One comment letter was received, and responses to comments were included in the Final EA. No comments were received which change any of the conclusions reached in the draft document.

Addendum to the 2007 Final Environmental Assessment for Proposed Amended Rule 1110.2 – Emissions from Gaseous - and Liquid-Fueled Engines (August 2012, SCAQMD No. 120817JK)

The 2012 amendments to Rule 1110.2 re-adopted the previously adopted (February 1, 2008) emission limits for biogas-powered internal combustion engines that never went into effect. The amendment also provided additional time for compliance; a compliance option for a longer averaging time for engines with superior performance in achieving lower mass emissions; and a compliance option that further extends the effective dates for certain engines based on a compliance flexibility fee. Analysis of the project indicated that an Addendum to the 2007 Final EA prepared pursuant to CEQA Guidelines §15164 was the appropriate CEQA document for this project, because SCAQMD staff has concluded that the proposed amendments only result in some changes or additions to the 2007 Final EA that did not trigger the conditions described in CEQA Guidelines §15162 calling for preparation of a subsequent CEQA document. Based on the analysis in the addendum, PAR 1110.2 was not expected to generate new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Since PAR 1110.2 was not expected generate new significant environmental effects or as substantial increase in the severity of previously identified significant effects, no new mitigation measures or alternatives have been proposed. No changes to existing mitigation measures or alternatives were proposed.

Related Rule 1147 CEQA Documentation

Related CEQA documents for Rule 1147 prepared in the past are summarized in this subsection because a number of equipment types being added to PARs 219 and 222 would be removed from Rule 1110.2 and they would no longer be required to comply with rule requirements.

Final Environmental Assessment for Proposed Rule 1147 – NOx Reductions from Miscellaneous Sources (December 2008, SCAQMD No. 081015JJI; State Clearinghouse No. 2008101082)

Rule 1147 was adopted to implement 2007 AQMP control measures CMB-01 (NOx Reductions from Non-RECLAIM Ovens, Dryers, and Furnaces) and MCS-01 (Facility Modernization) to achieve NOx reductions from miscellaneous gas and liquid fuel fired combustion equipment, including, but not limited to: ovens, dryers, dehydrators, heaters, kilns, calciners, furnaces, heated pots, cookers, roasters, fryers, closed and open heated tanks and evaporators, distillation units, degassing units, incinerators, and soil remediation units. A Draft EA for the adoption of

Rule 1147 was released for a 30-day public review and comment period from October 16, 2008 to November 14, 2008. No comment letters were received from the public relative to the Draft EA. The environmental analysis in the Draft EA concluded that the adoption of proposed Rule 1147 would not generate any significant adverse environmental impacts.

Final Subsequent Environmental Assessment for Proposed Amended Rule 1147 – NOx Reductions from Miscellaneous Sources August 2011 (SCAQMD No. 02012011BAR, State Clearinghouse No: 2011011088)

The 2011 amendments to Rule 1147 provided a delay in the NOx emission limit compliance dates for equipment subject to Rule 1147. The amendments also limited the requirements for fuel and time meters. Part of the intent of PAR 1147 was to reduce compliance costs due to emissions testing and clarified existing requirements. The proposed project was expected to result in delayed emissions reductions from equipment subject to this rule. Ultimately, however, PAR 1147 would achieve the same reductions as the existing rule by 2014. A Draft SEA was released for a 45-day public review and comment period from April 6, 2011 to May 20, 2011 which identified the topic of "air quality and greenhouse gas emissions," specifically operational air quality, as an environmental topic that would exceed the SCAQMD's significance thresholds associated with implementing the proposed project. One comment letter was received, and responses to comments were included in the Final EA. No comments were received which change any of the conclusions reached in the draft document.

INTENDED USES OF THIS DOCUMENT

In general, a CEQA document is an informational document that informs a public agency's decision-makers and the public generally of potentially significant adverse environmental effects of a project, identifies possible ways to avoid or minimize the significant effects, and describes reasonable alternatives to the project (CEQA Guidelines §15121). A public agency's decision-makers must consider the information in a CEQA document prior to making a decision on the project. Accordingly, this ~~Draft~~ Final EA is intended to: (a) provide the SCAQMD Governing Board and the public with information on the environmental effects of the proposed project; and, (b) be used as a tool by the SCAQMD Governing Board to facilitate decision making on the proposed project.

Additionally, CEQA Guidelines §15124(d)(1) requires a public agency to identify the following specific types of intended uses of a CEQA document:

1. A list of the agencies that are expected to use the EA in their decision-making;
2. A list of permits and other approvals required to implement the project; and,
3. A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

To the extent that local public agencies, such as cities, county planning commissions, etc., are responsible for making land use and planning decisions related to projects that must comply with the requirements in the proposed project, they could possibly rely on this EA during their decision-making process. Similarly, other single purpose public agencies approving projects at facilities complying with the proposed project may rely on this EA.

There are no permits or other approvals required to implement the proposed project. Moreover, the project is not subject to any other related environmental review or consultation requirements.

AREAS OF CONTROVERSY

CEQA Guidelines §15123(b)(2) requires a public agency to identify the areas of controversy in the CEQA document, including issues raised by agencies and the public. Over the course of developing the proposed project, the predominant concerns expressed by representatives of industry and environmental groups, either in public meetings or in written comments, regarding the proposed project are highlighted in Table 1-1.

Table 1-1
Areas of Controversy

	Area of Controversy	Topics Raised by the Public	SCAQMD Evaluation
1.	Permitting system is too burdensome for low-emitting sources	Business organizations and autobody shop owners with equipment currently subject to Rule 1147 have requested that any equipment that emits less than one pound per day of NOx should be exempt from the rule's NOx control requirements.	NOx is not the only pollutant of concern. For example, paint spray booths with heaters or small ovens subject to Rule 1147 may also generate VOC or toxic air contaminant (TAC) emissions, as well as NOx emissions that may require emissions control or offsets under the written permit system. SCAQMD staff evaluates specific types of equipment to ensure that Rule 219 and 222 sources do not have criteria pollutant or TAC consequences that might be of concern. SCAQMD staff has not identified any other equipment that would be suitable for exemption from written permit other than those in PARs 219 and 222.
2.	Limit on rating of new gas turbines (including microturbines)	There is no limit on the number of microturbines that can be installed under the existing Rule 219. PARs 219 and 222 propose adding a two megawatt limit per facility on microturbines. Microturbines are considered to be a clean technology and only generate small amounts of criteria pollutants; therefore, certain owner/operators believe that the proposed two megawatt per facility limit is not needed	Unlike most equipment in Rules 219 and 222, microturbines, typically involve multiple sources installed at a single facility. Rule 219 and 222 was not designed for the installation of multiple sources at a single facility. The proposed two megawatt limit per facility in PAR 219 and 222 would prevents circumvention of the intent of Rules 219/222 by preventing a facility operator from installing a large number of low megawatt microturbines instead of one microturbine greater than two megawatts.
	The volume of the passive carbon adsorbers without mechanical ventilation would be increased from 55 gallons to 120 gallons	SCAQMD staff has had several meetings with local city and county agencies in regard to the use of passive carbon adsorption systems that are used to control hydrogen sulfide (H_2S) odors at truck lines, sewer connections and transfer stations.	The exemption would address local city and county agencies concerns about exempting passive carbon adsorbers without mechanical ventilation from written permits.

Pursuant to CEQA Guidelines §15131(a), "Economic or social effects of a project shall not be treated as significant effects on the environment." CEQA Guidelines §15131(b) states further, "Economic or social effects of a project may be used to determine the significance of physical changes caused by the project." Physical changes caused by the proposed project have been evaluated in Chapter 4 of this EA. No direct or indirect physical changes resulting from economic or social effects have been identified as a result of implementing the proposed project.

Of the topics discussed to address the concerns raised relative to CEQA and the secondary impacts that would be associated with implementing the proposed project, to date, no other controversial issues were raised as a part of developing the proposed project.

EXECUTIVE SUMMARY

CEQA Guidelines §15123 requires a CEQA document to include a brief summary of the proposed actions and their consequences. In addition, areas of controversy including issues raised by the public must also be included in the executive summary (see preceding discussion). This ~~Draft~~ Final EA consists of the following chapters: Chapter 1 – Executive Summary; Chapter 2 – Project Description; Chapter 3 – Existing Setting, Chapter 4 – Potential Environmental Impacts and Mitigation Measures; Chapter 5 – Project Alternatives; Chapter 6 - Other CEQA Topics and various appendices. The following subsections briefly summarize the contents of each chapter.

Summary of Chapter 1 – Executive Summary

Chapter 1 includes a discussion of the legislative authority that allows the SCAQMD to amend and adopt air pollution control rules, identifies general CEQA requirements and the intended uses of this CEQA document, and summarizes the remaining five chapters that comprise this ~~Draft~~ Final EA.

Summary of Chapter 2 - Project Description

PAR 219 would provide an exemption to a written permit or filing requirements for certain additional equipment, processes, or operations that produce small amounts of air contaminants. Sources added only to PAR 219 would not be issued operating parameters from the SCAQMD. PAR 222 would provide access to a simple and efficient filing system for certain additional low-emitting emission sources. Sources added to PAR 222 would continue to be subject to existing written permit conditions and would be issued operating parameters. SCAQMD staff is also proposing to add some types of equipment to both PAR 219 (to exempt them from permit requirements) and PAR 222 (to track equipment by imposing filing requirements). Equipment added to both PARs 219 and 222 include certain types of equipment currently regulated by Rule 1110.2 and Rule 1147: pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel-fueled heaters, diesel-fueled boilers, and piston-type internal combustion engines located at remote two-way radio transmission towers. These sources would no longer be subject to Rules 1110.2 or 1147. Sources that would be added to PAR 219, but not PAR 222, include air pollution control devices for Rule 219 equipment; cosmetic filling stations and related filling equipment; laser cutting, etching and engraving equipment; and aerosol can recycling systems. Text would also be added to PAR 219 and PAR 222 to clarify the intent of existing provisions and the enforceability of the conditions imposed by PAR 222.

Other minor changes are also proposed for clarity and consistency throughout the rule. A copy of PARs 219 and 222 can be found in Appendix A of this ~~Draft~~ Final EA.

Summary of Chapter 3 - Existing Setting

Pursuant to the CEQA Guidelines §15125, Chapter 3 – Existing Setting, includes descriptions of those environmental areas that could be adversely affected by the proposed project as identified in the NOP/IS (Appendix C). The following subsection briefly highlights the existing setting for the topic of air quality and GHG emissions which has been identified as having potentially significant adverse affects from implementing the proposed project.

Air Quality and GHG Emissions

Air quality in the area of the SCAQMD's jurisdiction has shown substantial improvement over the last two decades. Nevertheless, some federal and state air quality standards are still exceeded frequently and by a wide margin. Of the National Ambient Air Quality Standards (NAAQS) established for seven criteria pollutants (ozone, lead, sulfur dioxide, nitrogen dioxide, carbon monoxide, PM10 and PM2.5), the area within the SCAQMD's jurisdiction is only in attainment with carbon monoxide, sulfur dioxide, and nitrogen dioxide standards. Air monitoring for PM10 indicates that SCAQMD has attained the NAAQS but USEPA has not yet approved the SCAQMD's request for re-designation. Effective December 31, 2010, the Los Angeles County portion of the SCAQMD has been designated as non-attainment for the new federal standard for lead, based on emissions from two specific facilities. Chapter 3 provides a brief description of the existing air quality setting for each criteria pollutant, as well as the human health effects resulting from exposure to each criteria pollutant. In addition, this section includes a discussion on greenhouse gases (GHGs), climate change and toxic air contaminants (TACs).

Summary of Chapter 4 - Environmental Impacts

CEQA Guidelines §15126(a) requires that a CEQA document shall identify and focus on the "significant environmental effects of the proposed project." Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects.

The proposed project could cause significant adverse environmental impacts to operational air quality emissions from NOx emission reductions foregone. Specifically, analysis of these environmental impacts revealed that potentially significant operational air quality impacts may result from exempting PARs 219 and 222 equipment from requirements under Rule 1110.2 and Rule 1147. Implementation of PARs 219 and 222 means that the NOx concentration limits for affected Rule 1110.2 and Rule 1147 equipment would no longer be required. Because NOx concentration limits required by Rule 1110.2 and Rule 1147 would no longer apply, no additional physical changes requiring construction would be required for PARs 219 and 222 equipment under the proposed project.

PARs 219 and 222 would result in 139 pounds of NOx emission reductions foregone. NOx emissions reductions foregone are not direct NOx emissions, but the loss of expected emission reductions. For this analysis, to be conservative, NOx emission reductions foregone are treated as NOx emissions and compared to the operational air quality NOx significance threshold. The amount of NOx emission reductions foregone is expected to exceed the operational air quality NOx significance threshold of 55 pounds per day. For these reasons, operational air quality impacts associated with implementation of PARs 219 and 222 are potentially significant.

Cumulative air quality impacts from the proposed project and all other AQMP control measures considered together are not expected to be significant because the amount of NOx emission reductions to be achieved by the AQMP are expected to meet the emission reduction projections

and commitments made by control measures in the 2012 AQMP[2]. The reason for this conclusion is that, overall, both Rules 1147 and 1110.2 are expected to result in net NOx emission reductions from affected equipment. Thus, despite the NOx emission reductions foregone, cumulative air quality impacts are not expected.

Thus, in consideration of the total net accumulated emission reductions projected overall, the loss of NOx emission reductions would not interfere with the air quality progress and attainment demonstration projected in the AQMP. Indeed, the 2012 AQMP indicated that, based on future anticipated overall reduction in emissions, the Basin would demonstrate attainment with the federal eight-hour ozone ambient air quality standard in 2023 for the 88 parts per billion concentration standard and demonstrate attainment with the federal 24-hour PM2.5 35 microgram per meter cubed concentration standard in 2014 (SCAQMD, 2012). Therefore, cumulative air quality impacts from the proposed project and all other AQMP control measures, when considered together, are not expected to be significant because implementation of all AQMP control measures is expected to result in net emission reductions and overall air quality improvement.

Potential Environmental Impacts Found Not To Be Significant

The Initial Study for the proposed project includes an environmental checklist of approximately 17 environmental topics to be evaluated for potential adverse impacts from a proposed project. Review of the proposed project at the NOP/IS stage identified one topic (air quality and GHG emissions) for further review. The Initial Study concluded that the project would have no significant direct or indirect adverse effects on the remaining environmental topic areas. No comment letters were received on the NOP/IS and none of the comments for the public hearings requested the analysis of any of the other topic areas. The screening analysis concluded that the following environmental areas would not be significantly adversely affected by the proposed project:

- aesthetics
- air quality and greenhouse gases during construction (and greenhouse gases during operation)
- agriculture and forestry resources
- biological resources
- cultural resources
- energy
- geology and soils
- hazards and hazardous materials
- hydrology and water quality
- land use and planning
- mineral resources
- noise
- population and housing
- public services
- recreation
- solid/hazardous waste
- transportation/traffic

[2] SCAQMD, 2012 AQMP, http://www.aqmd.gov/aqmp/2012aqmp/index.htm.

Consistency

The Southern California Association of Governments (SCAG) and the SCAQMD have developed, with input from representatives of local government, the industry community, public health agencies, the USEPA-Region IX and the California Air Resources Board (CARB), guidance on how to assess consistency within the existing general development planning process in the Basin. Pursuant to the development and adoption of its Regional Comprehensive Plan Guide (RCPG), SCAG has developed an Intergovernmental Review Procedures Handbook (June 1, 1995). The SCAQMD also adopted criteria for assessing consistency with regional plans and the AQMP in its CEQA Air Quality Handbook. The proposed project is considered to be consistent with SCAG's RCPG because it does not interfere with achieving any of the goals identified in any of the RCPG policies.

Other CEQA Topics

CEQA documents are required to address the potential for irreversible environmental changes, growth-inducing impacts and inconsistencies with regional plans. Consistent with the Final Program Environmental Impact Report (EIR)[3] prepared for the 2012AQMP, additional analysis of the proposed project confirms that it would not result in irreversible environmental changes or the irretrievable commitment of resources, foster economic or population growth or the construction of additional housing, or be inconsistent with regional plans.

Summary Chapter 5 - Alternatives

Three alternatives to the proposed project are summarized in Table 1-2: Alternative A (No Project), Alternative B (Reduction in Size), and Alternative C (Excluded Equipment). Pursuant to the requirements in CEQA Guidelines §15126.6 (b) to mitigate or avoid the significant effects that a project may have on the environment, a comparison of the potentially significant adverse operational air quality impacts from each of the project alternatives for the individual rule components that comprise the proposed project is provided in Table 1-3. Aside from operational air quality impacts, no other potentially significant adverse impacts were identified for the proposed project or any of the project alternatives. The proposed project is considered to provide the best balance between emission reductions and meeting the objectives of the project. Therefore, the proposed project is preferred over the project alternatives.

Table 1-2
Summary of PARs 219 and 222 and Project Alternatives

Project	Project Description
Proposed Project	Existing list of affected equipment that contribute to significant adverse operation NOx air quality impacts would include power pressure washers, asphalt day tankers, tar pots, food ovens, portable diesel-fueled heaters, diesel-fueled boilers, and piston-type internal combustion engines used at remote two-way radio transmission towers.
Alternative A (No Project)	PARs 219 and 222 would not be amended. The net result is that equipment would still be subject to permitting requirements and Rule 1110.2 and Rule 1147 equipment would continue to be subject to their respective rules.

[3] SCAQMD, 2012b, Final Program Environmental Impact report for the 2012 AQMP

Table 1-2 (Continued)
Summary of PARs 219 and 222 and Project Alternatives

Project	Project Description
Alternative B (Reduction in Size)	The affected equipment size for asphalt day tankers and tar pots would be lowered.
Alternative C (Excluded Equipment)	Power pressure washers and food ovens would not be included in PARs 219 and 222.

Table 1-3
Comparison of Adverse Environmental Impacts of the Alternatives

Category	**Proposed Project**	**Alternative A:** No Project	**Alternative B:** Reduction in Size	**Alternative C:** Excluded Equipment
Operational NOx Air Quality Impacts	139 pounds of NOx emission reductions foregone per day.	No change from existing setting, (i.e., 139 pounds of NOx emission reductions from affected Rule 1110.2 and 1147 equipment)	136 pounds of NOx emission reductions foregone per day.	103 pounds of NOx emission reductions foregone per day.
Significant?	Yes	No	Yes	Yes

CHAPTER 2

PROJECT DESCRIPTION

Project Location
Project Background
Project Objective
Project Description

PROJECT LOCATION

The SCAQMD has jurisdiction over an area of 10,473 square miles (referred to hereafter as the District), consisting of the four-county South Coast Air Basin and the Riverside County portions of the Salton Sea Air Basin (SSAB) and the 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. The 6,745 square-mile Basin includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB and MDAB 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 both Riverside County and the SSAB and is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (Figure 2-1).

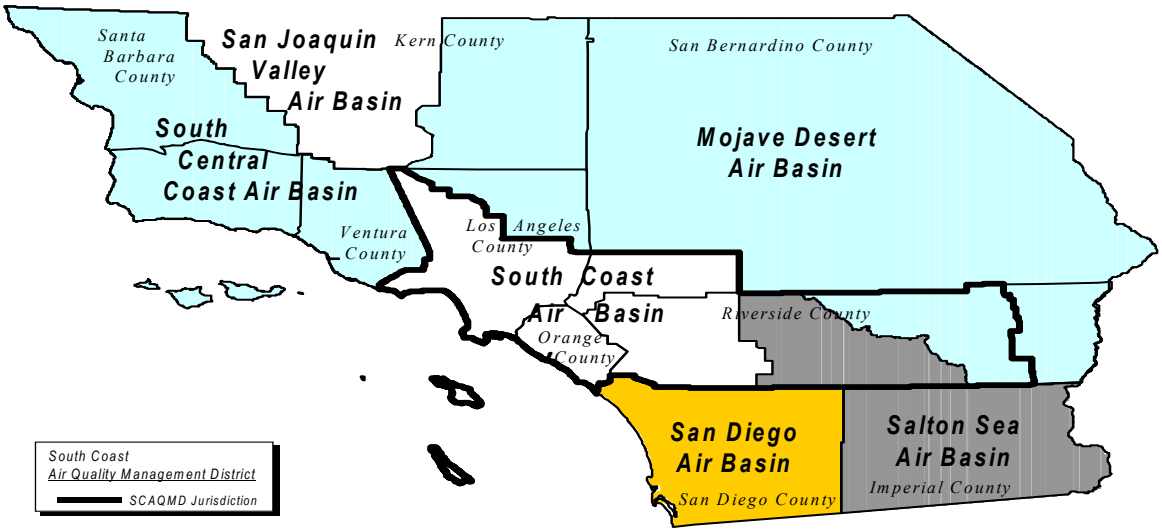

Figure 2-1
Boundaries of the South Coast Air Quality Management District

PROJECT BACKGROUND

Rule 219

Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II - is an administrative rule that identifies equipment, processes, or operations that emit small amounts of air contaminants that do not require written permits, unless such equipment, process or operation is subject to subdivision (s) - Exceptions. In addition, an exemption from a written permit requirement provided by this rule is only applicable if the equipment, process, or operation is in compliance with subdivision (t) - Recordkeeping.

Rule 219 was adopted on January 9, 1976, and has subsequently been amended seventeen times to add low-emitting equipment identified by the public or by SCAQMD staff through routine evaluation of permitted equipment; this proposed amendment would be the eighteenth amendment to the rule. It was most recently amended on June 1, 2007.

Rule 219 affects any industry that uses equipment, processes, or operations that produce small amounts of air contaminants by providing an exemption to requiring a written permit for certain types of equipment included in the Rule as written. These types of equipment, processes, or operations that emit small amounts of air contaminants can be at small business operations or large source operations. Rule 219 equipment is still subject to any applicable Regulation IV and XI rules.

Rule 222

Rule 222 - Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant To Regulation II - provides an alternative to SCAQMD written permits by allowing certain emission sources that meet predetermined criteria to register the emission source in the Rule 222 filing program. Affected emission sources are smaller emitters and less complex sources than those typically requiring permits. Rule 222-affected emission sources do not require a written permit, but do require filing pursuant to the Rule 222 filing program. Rule 222-affected equipment is also subject to written operating conditions, which result in limiting unnecessary or excessive air contaminant emissions. The Rule 222 filing program offers simplicity and efficiency in processing the applications for the emission sources for these low-emitting emission sources when compared to the traditional written permit, which typically includes permit pre-screening, permit analysis, and permit evaluation, originally designed to evaluate more complex, higher emitting emission sources. In addition, the filing program for such equipment allows the SCAQMD staff to develop accurate emissions inventories for the respective source categories. Finally, the owner/operator would benefit from the faster turnaround time for processing a filing form and the reduced cost when compared to a typical written permit.

The current Rule 222 requires owners and operators of specified emission sources to submit information regarding emissions, including, but not limited to; (1) a description of the emission source; (2) data necessary to estimate emissions from the emission source; and (3) information to determine whether the emission source is operating in compliance with applicable SCAQMD, state, and federal rules and regulations.

Rule 222 was adopted on September 11, 1998, and has been amended three times; this proposed amendment would be the fourth amendment to the rule. It was most recently amended on December 5, 2008.

PROJECT OBJECTIVE

The objectives of PARs 219 and 222 are to:

1. Provide regulatory relief to operators of small NOx emitting equipment that would otherwise be subject to the NOx emission control requirements of Rule 1147 because no feasible retrofit NOx emission control equipment is currently available for these categories of equipment, so the only compliance option would be limited to equipment replacement. Equipment replacement is inconsistent with the intent of Rule 1147, which was promulgated as an equipment retrofit rule not an equipment replacement rule.

2. Provide regulatory relief to operators of piston-type internal combustion engines used exclusively to generate electricity for remote two-way radio transmission towers and that meet the definition of this type of equipment in PAR 219 and PAR 222, that would otherwise be subject to Rule 1110.2, For the following reasons:
   a. This type of equipment is located in remote locations typically at high elevations and diesel fuel is the only type of fuel that can last for sufficiently long periods of time in the event of inclement weather compared to other types of fuel; therefore, compliance options such as electricity (electricity lines are not typically available in remote areas) or fuels other than diesel fuel are not feasible; and
   b. Maintenance and operation of air pollution control technologies and associated monitoring systems may not be possible during inclement weather at these remote stations.
3. Public safety requires consistent operation of piston-type internal combustion engines used exclusively to generate electricity for remote two-way radio transmission towers; therefore, because of the issues identified in #2 above, exempting this equipment from the requirements of Rule 1110.2 would ensure that two-way radio transmission towers would be available during emergencies.
4. Provide administrative relief for low-emitting equipment by not requiring a written permit pursuant to Rule 219, because the low emissions from affected equipment would not justify the administrative cost of processing and issuing written permits.
5. Provide administrative relief for low-emitting equipment by requiring simplified filing pursuant to Rule 222, because the low emissions from affected equipment would not justify the administrative costs of processing and issuing written permits for these types of equipment, which are substantially greater than Rule 222 filing fees.

PROJECT DESCRIPTION

The following is a summary of the proposed amendments to PARs 219 and 222. A copy of PARs 219 and 222 can be found in Appendix A.

PAR 219

Subdivision - Purpose

No change.

Subdivision (a) – Mobile Equipment

- (a)(5) This new paragraph would exempt pavement heating machines from written permits and clarification provided that this type of equipment consists of asphalt pavement heaters, which are any mobile equipment used for the purposes of road maintenance and new road construction provided a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer.

Subdivision (b) – Combustion and Heat Transfer Equipment

- (b)(1) – This paragraph has been modified to also exempt piston type internal combustion engines, which are engines used exclusively for electrical generation at remote two-way radio transmission towers where no utility, electricity or natural gas is available within one half mile radius, with a manufacturer's rating of 100 brake horsepower or less and fired exclusively on diesel #2 fuel from written permits. Stationary gas turbine engines, including micro-turbines, with a rated maximum heat input capacity of 3,500,000 British thermal units (Btu) per hour or less would be exempted, provided that the cumulative power output of all

such engines at a facility is less than two megawatts, and that the engines are certified at the time of installation with the state of California or were in operation prior to the date of amendment provided a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer. The proposal also would increase the rated maximum heat input capacity of gas turbine engines, including micro-turbines, exempted from written permits from 2,975,000 Btu per hour or less to 3,500,00 Btu per hour or less.

- (b)(2) – The maximum heat input rate would be changed to the rated maximum heat input capacity. This paragraph would include adding to the list of equipment exempt from written permits diesel-fueled boilers, process heater or any combustion equipment that have a rated maximum heat input capacity of 2,0000,000 Btu per hour or less; are fueled exclusively with diesel #2 fuel; are located more than 4,000 feet above sea level or more than 15 miles offshore from the mainland, and the maximum NOx emission output of the equipment is less than one pound per day, uses less than 50 gallons of fuel per day, and the equipment has been in operation prior to the date of PAR 219 adoption, provided a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer. This provision would not apply to piston type internal combustion engines or turbines. This provision would not apply whenever there are emissions other than products of combustion, unless the equipment is specifically exempt from written permits under another section of Rule 219, except for food ovens with a rated maximum heat input capacity of 2,000,000 Btu per hour or less that are fired exclusively on natural gas and where VOC emissions from yeast fermentation are less than one pound per day provided a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer.

- (b)(3) – This new paragraph would add to the list of equipment exempt from written permits portable diesel fueled heaters with a rated maximum heat capacity of 250,000 Btu per hour or less and that are equipped with burner(s) fired exclusively on diesel fuel only provided a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer.

- (b)(4) – This new paragraph would add to the list of equipment exempt from written permits power pressure washers and hot water or steam washers and cleaners equipped with a heater or burner that is designed to be fired on diesel fuel, has a rated maximum heat input capacity of 550,000 Btu per hour or less, is equipped with a non-resettable chronometer, the maximum NOx emission output of the equipment is less than one pound per day, and uses no more than 50 gallons of fuel per day provided a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer.. The exemption would not apply to piston-type internal combustion engines or turbines. Electrically heated burners would be exempted from permit and the Rule 222 filing requirements.

- (b)(5) – The existing fuel cell exemption from written permits would be clarified by adding associated heating equipment, including heaters that have a rated maximum heat input capacity of greater than 2,000,000 Btu per hour provided that the supplemental heat used is 90,000 therms per year or less and a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer. The process by which fuel cells produce electricity would also be clarified to be in an electro-chemical reaction.

Subdivision (c) – Structures and Equipment
No change.

Subdivision (d) – Utility Equipment - General

- (d)(10) – The volume of the passive carbon adsorbers without mechanical ventilation would be increased from 55 gallons to 120 gallons. Wastewater treatment plants would be added to this exemption from requirements for permits.

Subdivision (e) – Glass, Ceramic, Metallurgical Processing and Fabrication Equipment

- (e)(2)(G) – This provision for exempting glass processes from written permits would be expanded to include ceramic materials, such as glass and porcelain in order to clarify that ceramic material including porcelain is covered by this exemption. The exemption would also be expanded to include control equipment used to exclusively vent crucible furnaces, pot furnaces or induction furnaces.
- (e)(8) – This paragraph would be amended to add laser etching or engraving of metal (excluding stainless steel and alloys containing chromium, nickel, cadmium or lead) in the exemption from written permits for welding equipment exemption. The exemption would also state that laser cutters used to cut stainless steel or alloys of chromium, nickel cadmium or lead or laser cutters rated more than 400 watts and control equipment venting such equipment would not be included in the exemption. The exemption previously did not include plasma arc-cutting equipment that that were rated 136 amperes or more. The exemption would now not include any plasma arc-cutting equipment that is used to cut alloys containing chromium, nickel, cadmium or lead, as well as, stainless steel.

Subdivision (f) – Abrasive Blasting Equipment

No change.

Subdivision (g) – Machining Equipment

No change.

Subdivision (h) – Printing and Reproduction Equipment

- (h)(1) – The printing and related coating and/or laminating equipment exemption from written permits would be clarified to include associated air pollution control equipment provided that the air pollution control equipment is not required for source specific rule compliance.
- (h)(7) – The exemption from written permits for hand application of materials used in printing operations would be clarified to include associated air pollution control equipment unless the air pollution control equipment is required for source specific rule compliance.

Subdivision (i) – Pharmaceuticals, Cosmetics, Food Processing and Preparation Equipment

- (i)(7) The phrase "all of the product" would be changed to "the entire product" for clarification.
- (i)(9) Equipment used exclusively for packaging vitamins would be added to the exemption. The exemption would be clarified to be equipment specific, not facility specific, and would add the provision that the exemption includes waterborne solutions that contain a maximum VOC content of no more than 25 grams per liter.
- (i)(10) The exemption from written permits would be clarified to be equipment specific, not facility specific, and a provision would be added that the exemption is applicable only when waterborne solutions that contain a maximum VOC content of no more than 25 grams per liter are used.

- (i)(13) – An exemption would be added for charbroilers used for multi-family residential units used by owners/occupants for non-commercial purposes.

Subdivision (j) – Plastics, Composite and Rubber Processing Equipment
Minor modifications have been made to paragraphs (j)(1) and (j)(6) to improve clarity.

Subdivision (k) – Mixing, Blending and Packaging Equipment
- (k)(1) - The exemption from written permits for batch mixers would be clarified to include associated filling equipment.
- (k)(2) - The exemption from written permits for mixing and blending of materials would be clarified to include associated filling equipment.
- (k)(4) – This provision would be modified as follows; "to which powders are added" would be changed to "to which powders may be added" for clarification.
- (k)(5) – This new paragraph would provide an exemption from written permits for cosmetics filling stations where the filling equipment is hard piped to the cosmetics mixer or the holding tank feeding the filling equipment provided the mixer and holding tank would be added.
- (k)(8) – The exemption from written permits for equipment used exclusively to package sodium hypochlorite-based household cleaning and pool products would be clarified to state that the exemption applies to sodium hypochlorite-based pool products or sodium hypochlorite-based household cleaning products.

Subdivision (l) – Coating and Adhesive Process/Equipment
- (l)(6) – Air brushes would be added to the list of equipment exempt from written permits.
- (l)(8) – For clarification "hand applications" would replace "hand work."

Subdivision (m) – Storage and Transfer Equipment
- (m)(7) – Hydraulic oils would be added to the exemption from written permits for refined lubricating oils. The exemption would be clarified to include associated control equipment used to exclusively vent such equipment.
- (m)(8) - The exemption from written permits would be clarified to include associated control equipment used to exclusively vent such equipment.
- (m)(9) – This exemption from written permits would be extended to include equipment used exclusively for natural gas, propane, and oil odorant storage, of less than 950 liters (251 gallons) capacity and associated transfer and control equipment used exclusively for such equipment provided a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer would be exempted from written permits.

- (m)(11) – Tar pots (or tar kettles) would be added to this exemption from requirements for permits. This provision would be expanded to include equipment including tar pots with a maximum holding capacity of less than 600 liters (159 gallons) or more, but less than 3,785 liters (1,000 gallons) and equipped with burner(s) designed to fire exclusively on LPGs provided a filing pursuant to Rule 222 is submitted to the SCAQMD Executive Officer.

- (m)(23) – This new paragraph would exempt from written permits equipment, including asphalt day tankers, used exclusively for the storage, holding, melting and transfer of asphalt or coal tar pitch, that is mounted on a motor vehicle, with a maximum holding capacity of 600 liters (159 gallons) or less or equipment, including asphalt day tankers, with a maximum

holding capacity of 600 liters (159 gallons) or more, but less than 18,925 liters (5,000 gallons) or less and equipped with burner(s) designed to fire exclusively on LPGs only provided a filling pursuant to Rule 222 is submitted to the SCAQMD Executive Officer.

Subdivision (n) – Natural Gas and Crude Oil Production Equipment
No change.

Subdivision (o) – Cleaning
(o)(4) – The exemption from written permits for hand application of solvents for cleaning purposes would be clarified to include associated air pollution control equipment, unless the air pollution control equipment is required for source specific rule compliance.

Subdivision (p) – Miscellaneous Process Equipment
- (p)(10) – Carpet and paper shearing would be added to the paper shredding exemption from written permits.

- (p)(22) – A new exemption from written permits would be added for equipment used to recycle aerosol cans by puncturing the can in an enclosed system which is vented through an activated carbon filter would be added. This exemption would only apply to aerosol recycling systems where the product within the aerosol can to be recycled would be used as part of their operation at the facility or facilities under common ownership.

Subdivision (q) – Agricultural Sources
No change.

Subdivision (r) – Registered Equipment and Filing Program
No change.
Subdivision (s) – Exemptions
No change.

Subdivision (t) – Recordkeeping
No change.

Subdivision (u) – Compliance Date
No change.

Additional changes would be made to improve readability.

PAR 222

Subdivision (a) – Purpose
No change.

Subdivision (b) – Applicability
- (b)(1) Language would be added requiring that owners/operators authorized to operate emission sources pursuant to Rule 222 would be required to operate those emission sources in compliance with any and all operating conditions imposed by the SCAQMD.
- Table I – The text pertaining to boiler or steam generators and process heaters would be modified as follows: "and produce less than one pound of NOx emissions per day."

- Table I would be expanded to extended the applicability of Rule 222 to the following sources/equipment:
  - Asphalt day tankers, with a maximum capacity greater than 600 liters (159 gallons) but no more than 18,925 liters (5,000 gallons) and equipped with a demister and burner(s) that are designed to fire exclusively on LPGs only;
  - Asphalt pavement heaters used for road maintenance and new road construction;
  - Diesel-fueled boilers that have a rated maximum heat input capacity of no more than 2,000,000 Btu/hour or less, are fired exclusively with diesel #2 fuel, and are located more than 4,000 feet above sea level or more than 15 miles offshore from the mainland and have been in operation prior to date of amendment;
  - Food ovens with a rated maximum heat input capacity of 2,000,000 Btu per hour or less, are fired exclusively on natural gas and where the VOC emissions from yeast fermentation are less than one pound per day;
  - Fuel cells, which produce electricity in an electro-chemical reaction and use phosphoric acid, molten carbonate, proton exchange membrane or solid oxide technologies and associated heating equipment, including heaters that have a rated maximum heat input capacity of 2,000,000 Btu per hour, provided that the supplemental heat used is 90,000 therms per year or less;
  - Micro-turbines, with a rated maximum heat input capacity of 3,500,000 Btu per hour or less, provided that the cumulative power output of all such engines at a facility is less than two megawatts, and that the engines are certified at the time of installation with the state of California or were in operation prior to date of amendment;
  - Natural gas, propane, and oil odorant storage, of less than 950 liters (251 gallons) and associated transfer and control equipment.
  - Piston-type internal combustion engines used exclusively for electrical generation at remote two-way radio transmission towers where no utility, electricity or natural gas is available within a one half mile radius, has a manufacturer's rating of 100 brake horsepower or less, and are fired exclusively on diesel #2 fuel.
  - Portable diesel fueled heaters, with a rated maximum heat input capacity of 250,000 Btu per hour or less and are equipped with burner(s) designed to fire exclusively on diesel #2 fuel only;
  - Power pressure washers and hot water or steam washers and cleaners that are equipped with a heater or burner that is designed to be fired on diesel fuel, has a rated maximum heat input capacity of 550,000 Btu per hour or less, is equipped with a non-resettable chronometer, and the maximum NOx emission output of the equipment is less than one pound per day and uses no more than 50 gallons of fuel per day;
  - Tar pots with a maximum storage capacity greater than 600 liters (159 gallons) but no more than 3,785 liters (1,000 gallons) and are equipped with burner(s) designed to fire exclusively on LPGs only

Subdivision (c) – Definitions

Definitions for asphalt day tankers;, asphalt pavement heaters; diesel-fueled boilers; food ovens; fuel cells;, micro-turbines; natural gas, propane and oil odorant storage equipment; piston-type internal combustion engines; portable diesel fueled heaters, ;power pressure washers and hot water or steam washers, and tar pots would be added.

Subdivision (d) – Requirements

- (d)(1)(B) This new subparagraph would require owners and operators of sources subject to PAR 222 to comply with all operating conditions imposed on the emissions source.

- (d)(1)(C) The requirement to periodically submit applicable information would be clarified to include all air pollution control equipment and pertinent data as necessary to estimate emissions from the source and determine that the emission source or equipment meets all compliance requirements with applicable rules and regulations for each emissions source subject the PAR 222.
- (d)(1)(D) This new subparagraph would require that on January 1, and each year thereafter, records be kept and made available to the SCAQMD upon request to provide operations data and any updated information on the emission sources or equipment applicable to PAR 222.
- (d)(1)(E) This subparagraph would be clarified to state that "all required" fees be paid pursuant to Rule 301.
- (d)(1)(F) This subparagraph would be modified to that a copy of the filing receipt for all emissions sources and equipment applicable to PAR 222 would be maintained "on-site" and for the "life of the emission sources or equipment and made available to the Executive Officer upon request."
- (d)(1)(G) This subparagraph would be modified to require maintenance of records sufficient to verify the description of the emissions sources or equipment would also require data necessary to estimate output of emission sources, and records used to demonstrate compliance with operating conditions and with all applicable rules and regulations. The records would be required to be maintained for five years and made available to the Executive Officer upon request.
- (d)(1)(H) This condition prohibiting removal of any air pollution control equipment associated with applicable equipment subject to PAR 222 would be clarified to state "unless it can be demonstrated that the replacement" air pollution control equipment would reduce emissions at equal to or greater efficiency that the prior unit. The replacement air pollution control equipment would also need to be first approved in writing by the Executive Officer.
- (d)(3) This new paragraph makes it clear that "failure to comply with the provisions set forth in subparagraphs (d)(1)(A), (B), (C), (E), and (F) shall constitute a violation" of PAR 222.

Subdivision (e) – Compliance Dates

- (e)(4) This new paragraph would make it clear that "failure to comply with the provisions set forth in subparagraphs (b)(1), (b)(2), (e)(1) through, (e)(3), shall constitute a violation" of PAR 222.

CHAPTER 3

EXISTING SETTING

Introduction
Existing Setting

INTRODUCTION

In order to determine the significance of the impacts associated with a proposed project, it is necessary to evaluate the project's impacts against the backdrop of the environment as it exists at the time the NOP/IS is published. The CEQA Guidelines define "environment" as usually "the physical conditions that exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance" (CEQA Guidelines §15360; see also Public Resources Code §21060.5). Furthermore, a CEQA document must include a description of the physical environment in the vicinity of the project, as it exists at the time the NOP/IS is published, from both a local and regional perspective (CEQA Guidelines §15125). Therefore, the "environment" or "existing setting" against which a project's impacts are compared consists of the immediate, contemporaneous physical conditions at and around the project site (Remy, et al; 1996).

The following section summarizes the existing setting for air quality and GHG emissions which is the only environmental topic identified in the NOP/IS that may be adversely affected by the proposed project. The Final Program EIR for the 2012 AQMP also contains comprehensive information on existing and projected environmental settings for the topic of air quality and GHG emissions. Copies of the referenced document are available from the SCAQMD's Public Information Center by calling (909) 396-2039.

EXISTING SETTING

There are two main components to the proposed project: 1) proposed modifications/clarifications to equipment currently in Rule 219 or addition of equipment to Rule 219 only that are currently regulated by Rules 404, 405, 463, or 1171; and 2) the proposed addition of new equipment to both rules 219 and 222 that are currently regulated either Rule 1110.2 or Rule 1147. Rule 1110.2 currently limits NOx emissions to 11 parts per million by volume, while equipment regulated by Rule 1147 must meet an emission limit of 30 ppm to 60 ppm of NOx based on the type of equipment. Alternatively, equipment may meet a NOx limit between 0.036 pound per million Btu and 0.080 pound per million Btu based on the type of equipment. The analysis of potentially significant adverse air quality impacts in Chapter 4 of this document is based solely on impacts from the new equipment categories that would be added to both Rules 219 and 222 because this equipment would no longer be subject to existing emission control requirements. It was also concluded in Chapter 4 that the remaining equipment categories, i.e., those that are already in Rule 219 or are being added only to Rule 219, would not generate any air quality impacts. Therefore, the following subsections briefly summarize information about those categories of equipment that would be added to both Rules 219 and 222.

Asphalt Day Tankers

Asphalt day tankers are currently subject to Rule 1147 and are proposed to be added to Rules 219 and 222 because, individually, their emissions are typically less than or equal to 0.5 pound per day. The SCAQMD database shows 72 permitted asphalt day tankers. Based on the review of the SCAQMD database, the maximum holding capacities of the asphalt day tankers range in size from 830 to 25,000 gallons and have a rated maximum input heat capacity ranging from 100,000 to 1,400,000 Btu/hour. The database also shows that 49 of these units are fired using LPGs, 21 units are fired with propane, one unit is fired with natural gas and one unit is fired with diesel fuel. Fifty-eight of the existing units would meet the PARs 219 and 222 criteria for

maximum holding capacity (600 liters (159 gallons), but less than 18,925 liters (5,000 gallons)) and fuel type (LPGs).

Diesel-fueled Boilers
Diesel-fueled boilers are currently subject to Rule 1147 and are proposed to be added to Rules 219 and 222 because, individually, their emissions are typically less than or equal to 0.5 pound per day. SCAQMD staff has identified five permitted portable diesel-fueled boilers in the district that would meet the parameters proposed in PARs 219 and 222, and are currently subject to Rule 1147.

Food Ovens
Food ovens are currently subject to Rule 1147 and are proposed to be added to Rules 219 and 222 because, individually, their emissions are typically less than or equal to 0.5 pound per day. SCAQMD staff has identified 55 permitted food ovens in the district.

Portable Diesel-fueled Heaters
Portable diesel-fueled heaters are currently subject to Rule 1147 and are proposed to be added to Rules 219 and 222 because, individually, their emissions are typically less than or equal to 0.5 pound per day. SCAQMD staff has identified nine permitted portable diesel heaters in the district that would meet the parameters proposed in PARs 219 and 222, and are currently subject to Rule 1147. Portable diesel fueled heaters are typically used in large areas where comfort heat is required but electricity and natural gas pipe lines are not available in the immediate area. In addition, propane and other gaseous fueled heaters prompt safety concerns should they leak fuel, which is heavier than air and can saturate the immediate area surrounding the heater. The portable diesel fueled heaters are common and can be obtained in variety of ratings (Btu). Based on the review of the SCAQMD database, the rated maximum heat input capacities of the portable diesel fueled heaters universe ranges from 160,000 to 219,000 Btu per hour. All nine of these units were fired on diesel fuel.

Power Pressure Washers
SCAQMD staff has identified 258 permitted power washers and hot water or steam washers and cleaners in the district that are considered to be small emission sources. The SCAQMD database also shows that 245 of these units were use diesel fuel, two units use LPG, three units use kerosene, and 26 units use a combination of diesel fuel, kerosene and fuel oil. Power pressure washers and hot water or steam washers and cleaners are quite popular in cleaning operations as they can be used to wash or steam clean machinery, buildings, pavement, and many other washing or cleaning uses with high-pressure spray. Power pressure washers and hot water or steam washers and cleaners normally consist of a reciprocating internal combustion piston-type engine, typically fueled by gasoline, which is used to drive the compressor pump to pressurize the water into a spray or a stream. The power pressure washers and hot water or steam washers and cleaners also employ a heater or burner that heats the water before it is dispensed from the equipment. The typical fuel used for the heater or burner is diesel fuel. The power pressure washer and hot water or steam washer and cleaner equipment incorporates a rubber hose that extends from the equipment to a spray wand that is equipped with a trigger for the operator to discharge the pressurized spray.

Currently power pressure washers and hot water or steam washers and cleaners are not exempt unless they are equipped with a heater or burner that is fired on natural gas. Since the majority of the pressure washers do not have natural gas fired heaters or burners they do not qualify for the exemption for combustion and heat transfer equipment in Rule 219.

Based on the review of the SCAQMD database, the rated maximum heat input capacities of the entire universe of pressure washers and hot water or steam washers and cleaners ranges from 100,000 to 1,500,000 Btu per hour. SCAQMD staff determined that out of the entire universe of power washers and hot water or steam washers and cleaners 96 percent of the 271 total units had rated maximum heat input capacities less than 550,000 Btu per hour. Therefore, SCAQMD staff is proposing a 550,000 Btu per hour ceiling.

Tar Pots

Tar Pots, also commonly known as tar kettles, are used in roofing construction and repair operations, from residential single-family homes to apartment buildings and office buildings. The purpose of the tar pot is two-fold, one to transport a volume of tar to a jobsite and two, to melt the asphalt or coal tar pitch using an onboard burner that directs heat to the tar continuously to melt the tar and keep it in a molten state. Roofing contractors need to keep the tar in a molten state so it can be removed from the tar pot and directly applied to the working surface. Tar pots normally range in maximum holding capacities and can range from 100 gallons and can be as large as 1,000 gallons. The burners for the tar pots are fired on various fuels such as LPG and diesel-based fuels and can produce maximum heat input capacities from 38,000 Btu per hour up to 2,400,000 Btu per hour.

The SCAQMD database currently shows 163 permitted tar pots. Based on the review of the SCAQMD database, the staff found that the maximum holding capacities of the tar pots range from 200 to 1,665 gallons and the rated maximum heat input capacities range from 38,188 to 2,400,000 Btu per hour. The SCAQMD database also shows that 104 of these units are fired on LPG, 52 units are fired on propane, two units are fired on diesel fuel, and five units show an undeclared fuel source. One hundred forty-seven of the existing units would meet the PARs 219 and 222 criteria for maximum holding capacity (600 liters (159 gallons), but less than 3,785 liters (1,000 gallons)) and fuel type (LPGs).

Piston-type Internal Combustion Engines

There are 16 piston-type internal combustion engines used at remote two-way radio transmission towers, currently subject to Rule 1110.2, that are solely diesel fueled and are operating in rural areas where there are no provisions for natural gas, electricity or alternate fuels. Two engines are operated at each affected facility. Each engine is used alternately for a combined operation of 24 hours a day, seven days per week, and 52 weeks a year.

Information on Other Types of Equipment Affected by the Proposed Project

The following paragraphs provide information on other types of equipment affect by the proposed project, that do not contribute to potentially significant adverse air quality impacts

Asphalt Pavement Heaters: The SCAQMD database shows two permitted asphalt pavement heaters. One asphalt pavement heater has a rated maximum heat input capacity of 180,000

British thermal units (Btu) per hour, with kerosene-fired burners, and the other one has a rated maximum heat input capacity of 660,938 Btu per hour, with propane-fired burners. Asphalt pavement heaters are mobile equipment and are used by road construction personnel to heat asphalt or coal tar pitch for purposes of road maintenance or new road construction operations.

Micro-turbines: There are currently 16 permitted micro-turbines operating in the district. The micro-turbines are much smaller internal combustion turbines when compared to conventional turbines, and like the conventional turbines they typically drive a generator which produces electrical power. The electrical power can be used by the facility or sold back to the electrical provider responsible for servicing the grid. Micro-turbines can run on a variety of fuels such as natural gas, diesel fuel, gasoline, landfill gases, and digester gases. The micro-turbines are generally grouped in numbers and a typical landfill permit, where they are most used. Up to ten micro-turbines have been permitted at a single site, each rated at 420,000 Btu/hour, using landfill gas as the fuel source and each micro-turbine driving 30 kilowatt generator. If the micro-turbines use landfill gas or digester gas as a fuel source, they require a written permit. Staff reviewed the SCAQMD inventory for the micro-turbines and found that all 16 micro-turbines use landfill gas as a fuel source.

SCAQMD staff received information from one manufacturer of micro-turbines that the 3,500,000 Btu per hour micro-turbines operated more efficiently than the older units that were up to 2,975,000 Btu per hour which is the reason for the Btu per hour ceiling limit for this proposed exemption. In an effort to provide equity among different distributed energy generation sources, SCAMD staff is also proposing to restrict the micro-turbines that are eligible for the Rule 222 filing program by allowing micro-turbines, with a maximum heat input capacity 3,500,000 British thermal units (Btu) per hour or less, provided that the cumulative power output of all such engines at a facility is less than two megawatts, and that the engines are certified at the time of installation with the state of California or were in operation prior to date of amendment.

Fuel Cells: SCAQMD staff has identified two permitted fuel cells in the district that would be included in in PARs 219 and 222. The SCAQMD database currently shows that both fuel cells use molten carbonate technology that use supplemental heaters to accelerate the heat required to control the heat up phase for the carbonate bed before the fuel cells can be used to produce electrical power generation. Currently, both fuel cells are in the application phase with SCAQMD permit engineers.

SCAQMD staff is proposing to clarify the exemption for fuel cells based on the supplemental heater usage rate of 90,000 therms per year. SCAQMD staff based the 90,000 therms per year on a worst case scenario where the total NOx emissions for a start-up heater were equivalent to 30 ppm, which is equivalent to 0.0363 lbs per million Btu. The 90,000 therms equate to 326.7 pounds per year of NOx emissions or less than one pound per day, on average.

Laser Cutters or Etchers: SCAQMD staff has identified 36 permitted laser cutters or etchers in the district that would meet the conditions proposed in PARs 219 and 222. LASER – Light Amplification by Stimulated Emission of Radiation – is a process where light energy is converted into heat energy and is focused into a point or laser beam, which is directed onto the working surface of an object. The laser beam of a laser cutting machine melts, burns, vaporizes

away or is blown away by a jet of gas which provides a desirable high quality surface finish in materials such as flat sheet metal. There are three types of laser cutters that are used in industrial manufacturing applications:

1. The CO_2 laser is used to cut, bore, and engrave materials such as mild steel, aluminum, stainless steel, titanium, paper, wax, plastics, wood, and fabrics.
2. The neodymium (Nd) laser provides high-energy pulsing low repetition speeds and is typically used for boring.
3. The neodymium yttrium-aluminum-garnet (Nd-YAG) laser, which provides very high-energy pulse, is used for boring, engraving, and trimming operations.

Laser etching or engraving equipment is commonly used on metals, plastics, wood, and any other surface that can be etched or engraved. The laser beam etches or engraves by heating up the surface of the object so that the surface of the material will either vaporize or surface fracture and the heated surface flakes off, resulting in the desired engraving on the surface of the object. Staff has observed several industries that use laser etching or engraving in place of the more conventional mechanical etching and engraving. The laser etching or engraving equipment is offered in many sizes, based on maximum power output, with many of the units being very small and thus is a small emissions source. The emissions inventory for 31 permitted laser engravers and etchers shows three pounds per day of particulate matter, less than 10 microns (PM10). In addition, the five permitted laser cutters shows 1.9 pounds per day of PM10 and combined, laser cutters, engravers and etchers account for 4.9 pounds of PM10 per day. Currently, there are no PM emission limits for these types of equipment. These 36 laser cutters, engravers and etchers do not process certain metals such as stainless steel, or alloyed materials that contain chromium, cadmium, nickel or lead; these metals when subjected to the intense heat of the laser flash off toxic materials. Laser cutters that process these type metals must go through a complete engineering evaluation before a written permit is considered.

Odorant Storage Tanks: SCAQMD staff has observed odorant storage tanks at multiple public utility natural gas transfer facilities. Officials from the public utilities informed SCAQMD staff that the Department of Transportation (DOT) regulations require that natural gas be odorized before it's transferred to end users. The larger facilities typically have 1,000 and 1,500 gallon odorant storage tanks, which are permitted with SCAQMD, but there are several facilities that have smaller odorant storage tanks. Currently, one facility has a 120 gallon capacity odorant storage tank, whereas, sixteen other facilities have 60 gallon capacity odorant storage tanks. The odorant storage tanks contain a blend of 50 percent tertiary-butyl mercaptain and 50 percent tetrahydrothiophene. The odorant storage tanks are refilled every other year and the odorant is typically dispensed into gas lines at a rate of seven pounds per million cubic feet (7 lb/MMft3). SCAQMD staff has determined that the smaller odorant tanks would be viable candidates for exemption in PAR 219, which would then be transitioned into the PA 222 filing program along with any appropriate operating conditions.

Aerosol Can Disposal Recycling System: Aerosol paint cans and aerosol solvent cans such as engine degreasers, brake cleaners, and electrical component cleaners are very popular and convenient sources for small painting and repair operations that require application of solvents. Both aerosol types are frequently used in plants as well as out in field to perform routine

maintenance and repair operations for various types of equipment. These small aerosol cans, typical in sizes from 12 fluid ounces to approximately 18 fluid ounces, are easily carried in the pockets of workers, which has promoted their popularity in industrial uses. However, when the aerosol cans are emptied, workers typically dispose the empty can in a common refuse container. The emptied aerosol cans still retain a small amount of residual paint or solvent and propellant inside and presents an environmental concern when the empty can is disposed.

Several facilities have been using the Aerosolv Aerosol Can Disposal Recycling System to recycle the remaining content left inside the empty aerosol can. The Aerosolv recycling system has two components, the press and the filter, and these two components are installed onto a common 30 to 55 gallon drum container lid. The press simply threads into the two-inch bung fitting while the filter threads into the ¾-inch bung fitting. The filter contains an activated carbon canister that adsorbs the VOCs that would otherwise emit from the drum to the atmosphere. The press is used by an operator who places an aerosol can in the press by inverting the aerosol can so the spray head points downward, into the sleeve. The securing clamp is then adjusted to secure the aerosol can firmly, and then the operator pushes down on the lever which then drives a punch pin into the dome area of the aerosol can thus allowing the contents to discharge inside the drum. The depressurized aerosol is then stockpiled for metal recycling. The Aerosolv Aerosol Can Disposal Recycling System is the only aerosol can recycling technology of its type and is certified by the U.S. EPA's Environmental Technology Verification Program. This program is described by the U.S. EPA as a "*Program [that] verifies the performance of innovative technologies that have the potential to improve protection of human health and the environment.*"

Baseline Emission Inventory

Most of the PAR 219 and/or PAR 222 affected equipment would be operated in the same fashion as under the existing permit system. The two exceptions to this are the piston-type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that are used exclusively for electrical generation at remote two-way radio transmission towers, which are currently regulated by Rule 1110.2; and Rule 1147 equipment (affected portable pressure washers, asphalt day tankers, tar pots, small food ovens, portable diesel-fueled heaters, and diesel-fueled boilers). Actual existing NOx emissions from PAR 219 and PAR 222 affected equipment are presented in Table 3-1. Detailed calculations are included in Appendix C.

Table 3-1
NOx Baseline Emission Inventory for Rules 219 and 222 Equipment

Equipment Categories Potentially Affected by the Proposed Project	Number of Existing Permitted Units	Actual Existing Emissions (lb/day)
Power Pressure Washers	258	24
Asphalt Day Tankers	58	22
Tar Pots	147	76
Small Ovens	55	32
Portable Diesel-fueled Heaters	9	2.2
Diesel-fueled Boiler	5	1.5
Piston-type Internal Combustion Engines Used at Remote Two-Way Radio Transmission Towers	16	59
Total Daily NOx Emissions		**224**

Air Quality and Greenhouse Gas Emissions
This section provides an overview of air quality in the district. A more detailed discussion of current and projected future air quality in the district, with and without additional control measures can be found in the Final Program EIR for the 2012 AQMP (Chapter 3).

It is the responsibility of the SCAQMD to ensure that state and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone, CO, NO2, PM10, PM2.5 SO2 and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the federal standards and in the case of PM10 and SO2, far more stringent. California has also established standards for sulfates, visibility reducing particles, hydrogen sulfide, and vinyl chloride. The state and national ambient air quality standards for each of these pollutants and their effects on health are summarized in Table 3-2. The SCAQMD monitors levels of various criteria pollutants at 34 monitoring stations. The 2011 air quality data from SCAQMD's monitoring stations are presented in Table 3-3.

TABLE 3-2
State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard[a]	Federal Primary Standard[b]	Most Relevant Effects
Ozone (0_3)	1-hour	0.09 ppm (180 $\mu g/m^3$)	No Federal Standard	(a) Short-term exposures: 1) Pulmonary function decrements and localized lung edema in humans and animals; and, 2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; and, (d) Property damage.
	8-hour	0.070 ppm (137 $\mu g/m^3$)	0.075 ppm (147 $\mu g/m^3$)	
Suspended Particulate Matter (PM10)	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; and (b) Excess seasonal declines in pulmonary function, especially in children.
	Annual Arithmetic Mean	20 $\mu g/m^3$	No Federal Standard	
Suspended Particulate Matter (PM2.5)	24-hour	No State Standard	35 $\mu g/m^3$	(a) Increased hospital admissions and emergency room visits for heart and lung disease; (b) Increased respiratory symptoms and disease; and (c) Decreased lung functions and premature death.
	Annual Arithmetic Mean	12 $\mu g/m^3$	15.0 $\mu g/m^3$	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and, (d) Possible increased risk to fetuses.
	8-Hour	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	

TABLE 3-2 (Concluded)
State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard[a]	Federal Primary Standard[b]	Most Relevant Effects
Nitrogen Dioxide (NO_2)	1-Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and, (c) Contribution to atmospheric discoloration.
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	
Sulfur Dioxide (SO_2)	1-Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)–	Broncho-constriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
	24-Hour	0.04 ppm (105 µg/m^3)		
Sulfates	24-Hour	25 µg/m^3	No Federal Standard	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and, (f) Property damage
Hydrogen Sulfide (H_2S)	1-Hour	0.03 ppm (42 µg/m^3)	No Federal Standard	Odor annoyance.
Lead (Pb)	30-Day Average	1.5 µg/m^3	No Federal Standard	(a) Increased body burden; and (b) Impairment of blood formation and nerve conduction.
	Calendar Quarter	No State Standard	1.5 µg/m^3	
	Rolling 3-Month Average	No State Standard	0.15 µg/m^3	
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standard	The Statewide standard is intended to limit the frequency and severity of visibility impairment due to regional haze. This is a visibility based standard not a health based standard. Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent.
Vinyl Chloride	24-Hour	0.01 ppm (26 µg/m^3)	No Federal Standard	Highly toxic and a known carcinogen that causes a rare cancer of the liver.

a The California ambient air quality standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and PM_{25} are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

b The national ambient air quality standards, other than O3 and those based on annual averages, are not to be exceeded more than once a year. The O3 standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standards is equal to or less than one.

KEY: ppb = parts per billion parts of air, b volume; ppm = parts per million parts of air, volume; µg/m^3 = micrograms per cubic met; mg/ m^3 = milligrams per cubic met

TABLE 3-3
2011 Air Quality Data – South Coast Air Quality Management District

CARBON MONOXIDE (CO)[a]				
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. ppm, 1-hour	Max. Conc. ppm, 8-hour
LOS ANGELES COUNTY				
1	Central Los Angeles	365	2.8	2.4
2	Northwest Coastal Los Angeles County	360	3.0	1.3
3	Southwest Coastal Los Angeles County	364	2.3	1.8
4	South Coastal Los Angeles County 1	365	3.2	2.6
4	South Coastal Los Angeles County 2	--	--	--
4	South Coastal LA County 3	354	3.7	3.3
6	West San Fernando Valley	355	3.2	2.8
7	East San Fernando Valley	365	2.8	2.4
8	West San Gabriel Valley	365	2.9	2.2
9	East San Gabriel Valley 1	365	2.4	1.4
9	East San Gabriel Valley 2	362	1.4	1.1
10	Pomona/Walnut Valley	364	2.1	1.6
11	South San Gabriel Valley	365	2.7	2.4
12	South Central Los Angeles County	364	6.0	4.7
13	Santa Clarita Valley	363	1.2	0.8
ORANGE COUNTY				
16	North Orange County	365	3.4	2.1
17	Central Orange County	365	2.7	2.1
18	North Coastal Orange County	344	2.9	2.2
19	Saddleback Valley	365	1.4	0.8
22	Norco/Corona	--	--	--
23	Metropolitan Riverside County 1	365	2.0	1.4
23	Metropolitan Riverside County 2	365	2.7	1.5
23	Mira Loma	361	2.2	1.4
24	Perris Valley	--	--	--
25	Lake Elsinore	365	1.7	0.7
29	Banning Airport	--	--	--
30	Coachella Valley 1**	--	--	--
30	Coachella Valley 2**	350	1.1	0.6
SAN BERNARDINO COUNTY				
32	Northwest San Bernardino Valley	365	1.8	1.3
33	Southwest San Bernardino Valley	--	--	--
34	Central San Bernardino Valley 1	365	1.6	1.1
34	Central San Bernardino Valley 2	365	1.9	1.7
35	East San Bernardino Valley	--	--	--
37	Central San Bernardino Mountains	--	--	--
38	East San Bernardino Mountains	--	--	--
DISTRICT MAXIMUM			6	4.7
SOUTH COAST AIR BASIN			6	4.7

KEY:

ppm = parts per million -- = Pollutant not monitored ** Salton Sea Air Basin

[a] The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded. The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded either.

TABLE 3-3 (Continued)
2011 Air Quality Data – South Coast Air Quality Management District

OZONE (O_3)										
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. in ppm 1-hr	Max. Conc. in ppm 8-hr	4th High Conc. ppm 8-hr	No. Days Standard Exceeded				
						Health Advisory	Federal		State	
						≥ 0.15 ppm 1-hr	Old > 0.12 ppm 1-hr	Current >0.075 ppm 8-hr	Current > 0.09 ppm 1-hr	Current > 0.070 ppm 8-hr
LOS ANGELES COUNTY										
1	Central Los Angeles	365	0.087	0.080	0.065	0.060	0	0	0	0
2	Northwest Coastal Los Angeles County	360	0.098	0.095	0.071	0.061	0	0	2	0
3	Southwest Coastal Los Angeles County	360	0.078	0.076	0.067	0.062	0	0	0	0
4	South Coastal Los Angeles County 1	363	0.073	0.072	0.061	0.059	0	0	0	0
4	South Coastal Los Angeles County 2	--	--	--	--	--	--	--	--	--
4	South Coastal LA County 3	360	0.074	0.066	0.063	0.057	0	0	0	0
6	West San Fernando Valley	365	0.130	0.129	0.103	0.091	3	26	17	35
7	East San Fernando Valley	364	0.120	0.111	0.084	0.081	0	6	8	10
8	West San Gabriel Valley	365	0.107	0.101	0.084	0.077	0	5	5	13
9	East San Gabriel Valley 1	365	0.111	0.108	0.092	0.082	0	12	13	19
9	East San Gabriel Valley 2	362	0.134	0.133	0.111	0.095	4	30	35	40
10	Pomona/Walnut Valley	364	0.119	0.111	0.096	0.086	0	16	15	24
11	South San Gabriel Valley	362	0.096	0.086	0.074	0.061	0	0	1	1
12	South Central Los Angeles County	362	0.082	0.080	0.065	0.061	0	0	0	0
13	Santa Clarita Valley	363	0.144	0.129	0.122	0.101	3	31	31	52
ORANGE COUNTY										
16	North Orange County	365	0.095	0.091	0.074	0.069	0	0	1	3
17	Central Orange County	365	0.088	0.085	0.072	0.064	0	0	0	1
18	North Coastal Orange County	360	0.093	0.084	0.077	0.063	0	1	0	2
19	Saddleback Valley	365	0.094	0.092	0.083	0.074	0	2	0	5
RIVERSIDE COUNTY										
22	Norco/Corona	-	-	-	-	-	-	-	-	-
23	Metropolitan Riverside County 1	--	--	--	--	--	--	--	--	--
23	Metropolitan Riverside County 2	365	0.128	0.127	0.115	0.106	4	67	52	92
23	Mira Loma	--	--	--	--	--	--	--	--	--
24	Perris Valley	362	0.126	0.117	0.104	0.096	1	36	32	63
25	Lake Elsinore	364	0.125	0.125	0.112	0.094	2	54	44	77
29	Banning Airport	365	0.133	0.123	0.106	0.092	1	28	19	45
30	Coachella Valley 1**	355	0.105	0.094	0.085	0.073	0	14	1	27
30	Coachella Valley 2**	362	0.127	0.127	0.111	0.100	3	41	35	59
SAN BERNARDINO COUNTY										
32	Northwest San Bernardino Valley	365	0.145	0.134	0.122	0.098	5	36	36	45
33	Southwest San Bernardino Valley	--	--	--	--	--	--	--	--	--
34	Central San Bernardino Valley 1	365	0.144	0.140	0.124	0.105	5	39	39	53
34	Central San Bernardino Valley 2	365	0.135	0.125	0.121	0.101	2	39	40	66
35	East San Bernardino Valley	364	0.151	0.135	0.133	0.113	7	80	64	96
37	Central San Bernardino Mountains	360	0.160	0.135	0.136	0.106	8	84	58	103
38	East San Bernardino Mountains	--	--	--	--	--	--	--	--	--
	DISTRICT MAXIMUM		0.160	0.140	0.136	0.113	8	84	64	103
	SOUTH COAST AIR BASIN		0.160	0.140	0.136	0.113	16	106	90	125

KEY:

ppm = parts per million -- = Pollutant not monitored ** Salton Sea Air Basin

TABLE 3-3 (Continued)
2011 Air Quality Data – South Coast Air Quality Management District

NITROGEN DIOXIDE (NO_2)[b]					
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	1-hour Max. Conc. ppb, 1,	1-hour 98th Percentile Conc. ppb,	Annual Average AAM Conc. ppb
LOS ANGELES COUNTY					
1	Central Los Angeles	365	109.6	67.0	23.1
2	Northwest Coastal Los Angeles County	360	81.3	58.2	13.9
3	Southwest Coastal Los Angeles County	365	97.6	64.8	13.4
4	South Coastal Los Angeles County 1	365	106.4	67.6	17.7
4	South Coastal Los Angeles County 2	--	--	--	--
4	South Coastal LA County 3	359	90.0	74.0	21.2
6	West San Fernando Valley	359	56.1	53.8	14.9
7	East San Fernando Valley	365	67.8	56.2	22.1
8	West San Gabriel Valley	359	87.3	72.8	20.3
9	East San Gabriel Valley 1	356	79.5	65.1	19.0
9	East San Gabriel Valley 2	361	77.6	53.9	12.9
10	Pomona/Walnut Valley	364	87.3	66.7	24.6
11	South San Gabriel Valley	362	90.6	72.0	23.7
12	South Central Los Angeles County	361	75.4	65.3	18.6
13	Santa Clarita Valley	360	60.1	46.8	13.3
ORANGE COUNTY					
16	North Orange County	365	69.8	60.7	17.7
17	Central Orange County	365	73.8	60.8	16.8
18	North Coastal Orange County	350	60.5	52.8	10.0
19	Saddleback Valley	--	--	--	--
RIVERSIDE COUNTY					
22	Norco/Corona	--	--	--	--
23	Metropolitan Riverside County 1	359	63.3	56.5	16.6
23	Metropolitan Riverside County 2	364	57.1	50.4	16.9
23	Mira Loma	364	58.8	51.8	15.3
24	Perris Valley	--	--	--	--
25	Lake Elsinore	365	50.3	41.3	9.6
29	Banning Airport	--	--	--	--
30	Coachella Valley 1**	350	60.7	50.2	9.5
30	Coachella Valley 2**	350	44.7	39.4	8.0
SAN BERNARDINO COUNTY					
32	Northwest San Bernardino Valley	353	68.5	60.1	19.6
33	Southwest San Bernardino Valley	--	--	--	--
34	Central San Bernardino Valley 1	365	76.4	64.6	21.1
34	Central San Bernardino Valley 2	365	61.9	52.9	16.9
35	East San Bernardino Valley	--	--	--	--
37	Central San Bernardino Mountains	--	--	--	--
38	East San Bernardino Mountains	--	--	--	--
DISTRICT MAXIMUM			109.6	72.8	24.6
SOUTH COAST AIR BASIN			109.6	72.8	24.6

KEY:

ppb = parts per billion AAM = Annual Arithmetic Mean -- = Pollutant not monitored ** Salton Sea Air Basin

b The NO2 federal 1-hour standard is 100 ppb and the annual standard is annual arithmetic mean NO_2 > 0.0534 ppm. The state 1-hour and annual standards are 0.18 ppm and 0.030 ppm.

TABLE 3-3 (Continued)
2011Air Quality Data – South Coast Air Quality Management District

SULFUR DIOXIDE (SO_2)[c]				
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Maximum Conc. ppb, 1-hour	Maximum Conc. ppb, 24-hour
LOS ANGELES COUNTY				
1	Central Los Angeles	331	19.8	5.6
2	Northwest Coastal Los Angeles County	--	--	
3	Southwest Coastal Los Angeles County	365	11.5	3.3
4	South Coastal Los Angeles County 1	365	14.8	4.3
4	South Coastal Los Angeles County 2	--	--	
4	South Coastal LA County 3	350	43.3	11.6
6	West San Fernando Valley	--	--	
7	East San Fernando Valley	363	9.0	
8	West San Gabriel Valley	--	--	
9	East San Gabriel Valley 1	--	--	
9	East San Gabriel Valley 2	--	--	
10	Pomona/Walnut Valley	--	--	
11	South San Gabriel Valley	--	--	
12	South Central Los Angeles County	--	--	
13	Santa Clarita Valley	--	--	
ORANGE COUNTY				
16	North Orange County			
17	Central Orange County	--	--	
18	North Coastal Orange County	--	--	2.0
19	Saddleback Valley	357	7.7	
RIVERSIDE COUNTY				
22	Norco/Corona	--	--	
23	Metropolitan Riverside County 1	365	51.3	11.4
23	Metropolitan Riverside County 2	--	--	
23	Mira Loma	--	--	
24	Perris Valley	--	--	
25	Lake Elsinore	--	--	
29	Banning Airport	--	--	
30	Coachella Valley 1**	--	--	
30	Coachella Valley 2**	--	--	
32	Northwest San Bernardino Valley	--	--	
33	Southwest San Bernardino Valley	--	--	
34	Central San Bernardino Valley 1	365	12.3	4.0
34	Central San Bernardino Valley 2	--	--	
35	East San Bernardino Valley	--	--	
37	Central San Bernardino Mountains	--	--	
38	East San Bernardino Mountains	--	--	
DISTRICT MAXIMUM			51.3	11.6
SOUTH COAST AIR BASIN			51.3	11.6

KEY:

ppb = parts per billion -- = Pollutant not monitored ** Salton Sea Air Basin

[c] The federal SO2 1-hour standard is 75 ppb (0.075 ppm). The state standards are 1-hour average SO_2 > 0.25 ppm and 24-hour average SO_2 > 0.04 ppm.

TABLE 3-3 (Continued)
2011 Air Quality Data – South Coast Air Quality Management District

SUSPENDED PARTICULATE MATTER PM10[d]						
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. µg/m^3, 24-hour	No. (%) Samples Exceeding Standard		Annual Average AAM Conc. µg/m^3
				Federal > 150 µg/m^3, 24-hour	State > 50 µg/m^3, 24-hour	
LOS ANGELES COUNTY						
1	Central Los Angeles					
2	Northwest Coastal Los Angeles County	59	53	0	1(2%)	29.0
3	Southwest Coastal Los Angeles County	--	--	--	--	--
4	South Coastal Los Angeles County 1	59	41	0	0	21.6
4	South Coastal Los Angeles County 2	60	43	0	0	24.2
4	South Coastal LA County 3	60	50	0	0	28.7
6	West San Fernando Valley	--	--	--	--	--
7	East San Fernando Valley	--	--	--	--	--
8	West San Fernando Valley	55	61	0	2(4%)	29.0
9	East San Gabriel Valley 1					
9	East San Gabriel Valley 2	61	65	0	9(15%)	32.9
10	Pomona/Walnut Valley	--	--	--	--	--
11	South San Gabriel Valley	--	--	--	--	--
12	South Central Los Angeles County	--	--	--	--	--
13	Santa Clarita Valley	--	--	--	--	--
ORANGE COUNTY						
16	North Orange County	--	--	--	--	--
17	Central Orange County	60	53	0	2(3%)	24.8
18	North Coastal Orange County	--	--	--	--	--
19	Saddleback Valley	61	48	0	0	19.2
RIVERSIDE COUNTY0						
22	Norco/Corona	59	60	0	2(3%)	27.8
23	Metropolitan Riverside County 1	112	82	0	14(13%)	33.7
23	Metropolitan Riverside County 2	--	--	--	--	--
23	Mira Loma	59	79	0	25(42%)	41.1
24	Perris Valley	60	65	0	3(5%)	29.3
25	Lake Elsinore	--	--	--	--	--
29	Banning Airport	--	--	--	--	--
30	Coachella Valley 1**	59	51	0	1(2%)	19.5
30	Coachella Valley 2**	61 [f)]	42 [f)]	0 [f)]	0 [f)]	18.6 [f)]
SAN BERNARDINO COUNTY						
32	Northwest San Bernardino Valley	--	--	--	--	--
33	Southwest San Bernardino Valley	60	70	0	3(5%)	31.3
34	Central San Bernardino Valley 1	60	84	0	4(7%)	31.8
34	Central San Bernardino Valley 2	58	56	0	3(5%)	31.5
35	East San Bernardino Valley	58	71	0	2(3%)	25.5
37	Central San Bernardino Mountains	59	43	0	0	19.2
38	East San Bernardino Mountains	--	--	--	--	--
	DISTRICT MAXIMUM	106	0	25	41.1	106
	SOUTH COAST AIR BASIN	84 [g)]	0	35	41.1	84 [f)]

KEY:

µg/m^3 = micrograms per cubic meter of air AAM = Annual Arithmetic Mean -- = Pollutant not monitored ** Salton Sea Air Basin

d Federal Reference Method (FRM) PM10 samples were collected every 6 days at all sites except for Station Numbers 4144 and 4157, where samples were collected every three days. PM10 statistics listed above are for the FRM data only. Federal Equivalent Method (FEM) PM10 continuous monitoring instruments were operated at some of the above locations. Max 24-hour average PM10 concentrations at sites with FEM monitoring in 2011 was 152 µg/m^3, at Mira Loma

e Federal annual PM10 standard (AAM > 50 µg/m^3) was revoked in 2006. State standard is annual average (AAM) > 20 µg/m^3

f High PM10 and PM2.5 data samples occurred due to special events (i.e., high wind, firework activities, etc.) were excluded in accordance with the EPA Exceptional Event Regulation. Excluded PM10 data: 396 and 265 µg/m^3 on July 3 and August 28, at Palm Springs (FEM); 344 and 375 µg/m^3 on July 3 and August 28, at Indio (FEM); 323 µg/m^3 on August 28, at Indio (FRM). Excluded PM2.5 data: 94.6 µg/m^3 on July 5, at Azusa.

TABLE 3-3 (Continued)
2011 Air Quality Data – South Coast Air Quality Management District

SUSPENDED PARTICULATE MATTER PM2.5 [g]						
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. µg/m^3, 24-hour	98th Percentile Conc. in µg/m^3 24-hr	No. (%) Samples Exceeding Federal Std > 35 µg/m^3, 24-hour	Annual Average AAM Conc. µg/m^3
LOS ANGELES COUNTY						
1	Central Los Angeles	59	53	0	1(2%)	29.0
2	Northwest Coastal Los Angeles County	--	--	--	--	--
3	Southwest Coastal Los Angeles County	59	41	0	0	21.6
4	South Coastal Los Angeles County 1	60	43	0	0	24.2
4	South Coastal Los Angeles County 2	60	50	0	0	28.7
4	South Coastal LA County 3	--	--	--	--	--
6	West San Fernando Valley	--	--	--	--	--
7	East San Fernando Valley	55	61	0	2(4%)	29.0
8	West San Gabriel Valley					
9	East San Gabriel Valley 1	61	65	0	9(15%)	32.9
9	East San Gabriel Valley 2	--	--	--	--	--
10	Pomona/Walnut Valley	--	--	--	--	--
11	South San Gabriel Valley	--	--	--	--	--
12	South Central Los Angeles County	--	--	--	--	--
13	Santa Clarita Valley	58	45	0	0	20.7
ORANGE COUNTY						
16	North Orange County	--	--	--	--	--
17	Central Orange County	60	53	0	2(3%)	24.8
18	North Coastal Orange County	--	--	--	--	--
19	Saddleback Valley	61	48	0	0	19.2
RIVERSIDE COUNTY						
22	Norco/Corona	59	60	0	2(3%)	27.8
23	Metropolitan Riverside County 1	112	82	0	14(13%)	33.7
23	Metropolitan Riverside County 2	--	--	--	--	--
23	Mira Loma	59	79	0	25(42%)	41.1
24	Perris Valley	60	65	0	3(5%)	29.3
25	Lake Elsinore	--	--	--	--	--
29	Banning Airport	--	--	--	--	--
30	Coachella Valley 1**	59	51	0	1(2%)	19.5
30	Coachella Valley 2**	61 [f]	42 [f]	0 [f]	0 [f]	18.6 [f]
SAN BERNARDINO COUNTY						
32	Northwest San Bernardino Valley	--	--	--	--	--
33	Southwest San Bernardino Valley	60	70	0	3(5%)	31.3
34	Central San Bernardino Valley 1	60	84	0	4(7%)	31.8
34	Central San Bernardino Valley 2	58	56	0	3(5%)	31.5
35	East San Bernardino Valley	58	71	0	2(3%)	25.5
37	Central San Bernardino Mountains	59	43	0	0	19.2
38	East San Bernardino Mountains	--	--	--	--	--
DISTRICT MAXIMUM		106	0	25	41.1	106
SOUTH COAST AIR BASIN		84 [f]	0	35	41.1	84 [f]

KEY:

µg/m^3 = micrograms per cubic meter of air AAM = Annual Arithmetic Mean -- = Pollutant not monitored ** Salton Sea Air Basin

[g] PM2.5 samples were collected every three days at all sites except for station numbers 069, 072, 077, 087, 3176, 4144 and 4165, where samples were taken daily, and station number 5818 where samples were taken every six days. Federal annual PM2.5 standard is annual average (AAM) > 15.0 µg/m^3. State standard is annual average (AAM) > 12.0 µg/m^3.

TABLE 3-3 (Continued)
2011 Air Quality Data – South Coast Air Quality Management District

TOTAL SUSPENDED PARTICULATES TSP				
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. µg/m^3, 24-hour	Annual Average AAM Conc. µg/m^3
LOS ANGELES COUNTY				
1	Central Los Angeles	60	84	53.7
2	Northwest Coastal Los Angeles County	59	155	49.3
3	Southwest Coastal Los Angeles County	55	69	36.1
4	South Coastal Los Angeles County 1	61	91	44.0
4	South Coastal Los Angeles County 2	56	81	43.9
4	South Coastal LA County 3	--	--	--
6	West San Fernando Valley	--	--	--
7	East San Fernando Valley	--	--	--
8	West San Gabriel Valley	59	74	44.1
9	East San Gabriel Valley 1	57	154	72.5
9	East San Gabriel Valley 2	--	--	--
10	Pomona/Walnut Valley	--	--	--
11	South San Gabriel Valley	59	140	64.4
12	South Central Los Angeles County	57	112	52.8
13	Santa Clarita Valley	--	--	--
ORANGE COUNTY				
16	North Orange County	-	-	-
17	Central Orange County	-	-	-
18	North Coastal Orange County	-	-	-
19	Saddleback Valley	-	-	-
RIVERSIDE COUNTY				
22	Norco/Corona	--	--	--
23	Metropolitan Riverside County 1	60	107	62.7
23	Metropolitan Riverside County 2	59	83	43.8
23	Mira Loma	--	--	--
24	Perris Valley	--	--	--
25	Lake Elsinore	--	--	--
29	Banning Airport	--	--	--
30	Coachella Valley 1**	--	--	--
30	Coachella Valley 2**	--	--	--
SAN BERNARDINO COUNTY				
32	Northwest San Bernardino Valley	58	94	47.2
33	Southwest San Bernardino Valley	--	--	--
34	Central San Bernardino Valley 1	54	131	64.7
34	Central San Bernardino Valley 2	61	97	51.4
35	East San Bernardino Valley	--	--	--
37	Central San Bernardino Mountains	--	--	--
38	East San Bernardino Mountains	--	--	--
DISTRICT MAXIMUM			155	72.5
SOUTH COAST AIR BASIN			155	72.5

KEY:

µg/m^3 = micrograms per cubic meter of air AAM = Annual Arithmetic Mean -- = Pollutant not monitored ** Salton Sea Air Basin

TABLE 3-3 (Concluded)
2011 Air Quality Data – South Coast Air Quality Management District

Source Receptor Area No.	Location of Air Monitoring Station	LEAD[h]			SULFATES (SOx)[i]	
		Max. Monthly Average Conc. [m] µg/m^3	Max. 3-Months Rolling Averages, µg/m3	Max. Quarterly Average Conc. [m] µg/m^3	Max. Conc. µg/m^3, 24-hour	No. (%) Samples Exceeding State Standard ≥ 25 µg/m^3, 24-hour
	LOS ANGELES COUNTY					
1	Central Los Angeles	0.012	0.011	0.011	58	8.0
2	Northwest Coastal Los Angeles County	--	--	--	--	--
3	Southwest Coastal Los Angeles County	0.008	0.006	0.005	58	5.9
4	South Coastal Los Angeles County 1	0.010	0.007	0.007	59	6.1
4	South Coastal Los Angeles County 2	0.013	0.010	0.010	60	5.9
4	South Coastal LA County 3	--	--	--	--	--
6	West San Fernando Valley	--	--	--	--	--
7	East San Fernando Valley	--	--	--	54	7.4
8	West San Gabriel Valley	--	--	--	--	--
9	East San Gabriel Valley 1	--	--	--	60	6.6
9	East San Gabriel Valley 2	--	--	--	--	--
10	Pomona/Walnut Valley	--	--	--	--	--
11	South San Gabriel Valley	0.011	0.010	0.010	--	--
12	South Central Los Angeles County	0.014	0.011	0.010	--	--
13	Santa Clarita Valley	--	--	--	58	6.1
	ORANGE COUNTY					
16	North Orange County	--		--	--	--
17	Central Orange County	--		--	60	6.5
18	North Coastal Orange County	--		--	--	--
19	Saddleback Valley	--		--	61	4.8
	RIVERSIDE COUNTY					
22	Norco/Corona	--	--	--	56	5.1
23	Metropolitan Riverside County 1	0.007	0.007	0.007	178	5.3
23	Metropolitan Riverside County 2	0.007	0.006	0.006	--	--
23	Mira Loma	--	--	--	58	5.4
24	Perris Valley	--	--	--	58	4.4
25	Lake Elsinore	--	--	--	--	--
29	Banning Airport	--	--	--	--	--
30	Coachella Valley 1**	--	--	--	59	4.4
30	Coachella Valley 2**	--	--	--	61	4.4
	SAN BERNARDINO COUNTY					
32	Northwest San Bernardino Valley	0.009	0.008	0.007	--	--
33	Southwest San Bernardino Valley	--	--	--	116	5.5
34	Central San Bernardino Valley 1	--	--	--	59	6.0
34	Central San Bernardino Valley 2	0.008	0.007	0.007	59	5.5
35	East San Bernardino Valley	--	--	--	57	4.9
37	Central San Bernardino Mountains	--	--	--	57	4.0
38	East San Bernardino Mountains	--	--	--	--	--
DISTRICT MAXIMUM		0.014	0.011	0.011		8.0
SOUTH COAST AIR BASIN		0.014	0.011	0.011		8.0

KEY:

µg/m^3 = micrograms per cubic meter of air -- = Pollutant not monitored ** Salton Sea Air Basin

[h] Federal lead standard is 3-months rolling average > 0.15 µg/m^3; and state standard is monthly average ≥ 1.5 µg/m^3. No regular monitoring location exceeded lead standards. Standards exceeded at special monitoring sites immediately downwind of stationary lead sources. Maximum monthly and 3-month rolling averages at special monitoring sites were 0.52 µg/m3 and 0.45 µg/m3, respectively..

[i] State sulfate standard is 24-hour ≥ 25 µg/m^3. There is no federal standard for sulfate.

Carbon Monoxide

CO is a colorless, odorless, relatively inert gas. It is a trace constituent in the unpolluted troposphere, and is produced by both natural processes and human activities. In remote areas far from human habitation, carbon monoxide occurs in the atmosphere at an average background concentration of 0.04 ppm, primarily as a result of natural processes such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline. According to the 2007 AQMP, in 2002, the inventory baseline year, approximately 98 percent of the CO emitted into the Basin's atmosphere was from mobile sources. Consequently, CO concentrations are generally highest in the vicinity of major concentrations of vehicular traffic.

CO is a primary pollutant, meaning that it is directly emitted into the air, not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the Basin exhibit large spatial and temporal variations due to variations in the rate at which CO is emitted and in the meteorological conditions that govern transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. The highest concentrations frequently occur on weekdays at times consistent with rush hour traffic and late night during the coolest, most stable portion of the day.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart.

Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Reductions in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include pre-term births and heart abnormalities.

Carbon monoxide concentrations were measured at 26 locations in the Basin and neighboring SSAB areas in 2011. Carbon monoxide concentrations did not exceed the standards in 2010. The highest one-hour average carbon monoxide concentration recorded (6.0 ppm in the South Central Los Angeles County area) was 17 percent of the federal one-hour carbon monoxide standard of 35 ppm. The highest eight-hour average carbon monoxide concentration recorded (4.7 ppm in the South Central Los Angeles County area) was 52 percent of the federal eight-hour carbon monoxide standard of 9.0 ppm. The state one-hour standard is also 9.0 ppm. The highest eight-hour average carbon monoxide concentration is 23.5 percent of the state eight-hour carbon monoxide standard of 20 ppm.

The 2003 AQMP revisions to the SCAQMD's CO Plan served two purposes: it replaced the 1997 attainment demonstration that lapsed at the end of 2000; and it provided the basis for a CO maintenance plan in the future. In 2004, the SCAQMD formally requested the U.S. EPA to re-designate the Basin from non-attainment to attainment with the CO National Ambient Air Quality Standards. On February 24, 2007, U.S. EPA published in the Federal Register its proposed decision to re-designate the Basin from non-attainment to attainment for CO. The comment period on the re-designation proposal closed on March 16, 2007 with no comments received by the U.S. EPA. On May 11, 2007, U.S. EPA published in the Federal Register its final decision to approve the SCAQMD's request for re-designation from non-attainment to attainment for CO, effective June 11, 2007.

Ozone

Ozone (O3), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High ozone concentrations exist naturally in the stratosphere. Some mixing of stratospheric ozone downward through the troposphere to the earth's surface does occur; however, the extent of ozone transport is limited. At the earth's surface in sites remote from urban areas ozone concentrations are normally very low (e.g., from 0.03 ppm to 0.05 ppm).

While ozone is beneficial in the stratosphere because it filters out skin-cancer-causing ultraviolet radiation, it is a highly reactive oxidant. It is this reactivity which accounts for its damaging effects on materials, plants, and human health at the earth's surface.

The propensity of ozone for reacting with organic materials causes it to be damaging to living cells and ambient ozone concentrations in the Basin are frequently sufficient to cause health effects. Ozone enters the human body primarily through the respiratory tract and causes respiratory irritation and discomfort, makes breathing more difficult during exercise, and reduces the respiratory system's ability to remove inhaled particles and fight infection.

Individuals exercising outdoors, children and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities. Elevated ozone levels are also associated with increased school absences.

Ozone exposure under exercising conditions is known to increase the severity of the abovementioned observed responses. Animal studies suggest that exposures to a combination of pollutants which include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

In 2011, the SCAQMD regularly monitored ozone concentrations at 31 locations in the Basin and SSAB. Maximum ozone concentrations for all areas monitored were below the stage 1 episode level (0.20 ppm) and below the health advisory level (0.15 ppm). Maximum ozone concentrations in the SSAB areas monitored by the SCAQMD were lower than in the Basin and were below the health advisory level.

In 2011, the maximum ozone concentrations in the Basin continued to exceed federal standards by wide margins. Maximum one-hour and eight-hour average ozone concentrations were 0.160 ppm and 0.136 ppm, respectively (the maximum one-hour and eight-hour concentrations were recorded in the Central San Bernardino Mountains area). The federal one-hour ozone standard was revoked and replaced by the eight-hour average ozone standard effective June 15, 2005. U.S. EPA has revised the federal eight-hour ozone standard from 0.84 ppm to 0.075 ppm, effective May 27, 2008. The maximum eight-hour concentration was 181 percent of the new federal standard. The maximum one-hour concentration was 178 percent of the one-hour state ozone standard of 0.09 ppm. The maximum eight-hour concentration was 194 percent of the eight-hour state ozone standard of 0.070 ppm.

The objective of the 2012 AQMP is to attain and maintain ambient air quality standards. Based upon the modeling analysis described in the Program Environmental Impact Report for the 2007 AQMP, implementation of all control measures contained in the 2012 AQMP is anticipated to bring the district into compliance with the federal eight-hour ozone standard by 2023 and the state eight-hour ozone standard beyond 2023.

Nitrogen Dioxide

NO2 is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N2) and oxygen (O2) in air under conditions of high temperature and pressure which are generally present during combustion of fuels; NO reacts rapidly with the oxygen in air to form NO2. NO2 is responsible for the brownish tinge of polluted air. The two gases, NO and NO2, are referred to collectively as NOx. In the presence of sunlight, NO2 reacts to form nitric oxide and an oxygen atom. The oxygen atom can react further to form ozone, via a complex series of chemical reactions involving hydrocarbons. Nitrogen dioxide may also react to form nitric acid (HNO3) which reacts further to form nitrates, components of PM2.5 and PM10.

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO2 at levels found in homes with gas stoves, which are higher than ambient levels found in southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. More recent studies have found associations between NO2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms and emergency room asthma visits.

In animals, exposure to levels of NO2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO2.

In 2011, nitrogen dioxide concentrations were monitored at 26 locations. No area of the Basin or SSAB exceeded the federal or state standards for nitrogen dioxide. The Basin has not exceeded the federal standard for nitrogen dioxide (0.0534 ppm) since 1991, when the Los Angeles County portion of the Basin recorded the last exceedance of the standard in any county within the United States.

In 2011, the maximum annual average concentration was 24.6 ppb recorded in the Pomona/Walnut Valley area. Effective March 20, 2008, CARB revised the nitrogen dioxide one-hour standard from 0.25 ppm to 0.18 ppm and established a new annual standard of 0.30 ppm. In addition, U.S. EPA has established a new federal one-hour NO2 standard of 100 ppb (98th percentile concentration), effective April 7, 2010. The highest one-hour average concentration recorded (109.6 ppb in Central Los Angeles) was 61 percent of the state one-hour standard and the highest annual average concentration recorded was 8.2 percent of the state annual average standard. NOx emission reductions continue to be necessary because it is a precursor to both ozone and PM (PM2.5 and PM10) concentrations.

Sulfur Dioxide

SO2 is a colorless gas with a sharp odor. It reacts in the air to form sulfuric acid (H2SO4), which contributes to acid precipitation, and sulfates, which are components of PM10 and PM2.5. Most of the SO2 emitted into the atmosphere is produced by burning sulfur-containing fuels.

Exposure of a few minutes to low levels of SO2 can result in airway constriction in some asthmatics. All asthmatics are sensitive to the effects of SO2. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, is observed after acute higher exposure to SO2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO2.

Animal studies suggest that despite SO2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO2 levels. In these studies, efforts to separate the effects of SO2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

No exceedances of federal or state standards for sulfur dioxide occurred in 2011 at any of the seven district locations monitored. The maximum one-hour sulfur dioxide concentration was 51.3 ppb, as recorded in the Metropolitan Riverside County 1 area. The maximum 24-hour sulfur dioxide concentration was 11.6 ppb, as recorded in South Coastal Los Angeles County 3

area. The U.S. EPA revised the federal sulfur dioxide standard by establishing a new one-hour standard of 0.075 ppm and revoking the existing annual arithmetic mean (0.03 ppm) and the 24-hour average (0.14 ppm), effective August 2, 2010. The state standards are 0.25 ppm for the one-hour average and 0.04 ppm for the 24-hour average. Though sulfur dioxide concentrations remain well below the standards, sulfur dioxide is a precursor to sulfate, which is a component of fine particulate matter, PM10, and PM2.5. Historical measurements showed concentrations to be well below standards and monitoring has been discontinued.

Particulate Matter (PM10 and PM2.5)

Of great concern to public health are the particles small enough to be inhaled into the deepest parts of the lung. Respirable particles (particulate matter less than about 10 micrometers in diameter) can accumulate in the respiratory system and aggravate health problems such as asthma, bronchitis and other lung diseases. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of PM10 and PM2.5.

A consistent correlation between elevated ambient fine particulate matter (PM10 and PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. Studies have reported an association between long-term exposure to air pollution dominated by fine particles (PM2.5) and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in fine particulate matter concentration levels have also been related to hospital admissions for acute respiratory conditions, to school and kindergarten absences, to a decrease in respiratory function in normal children and to increased medication use in children and adults with asthma. Studies have also shown lung function growth in children is reduced with long-term exposure to particulate matter. In addition to children, the elderly, and people with pre-existing respiratory and/or cardiovascular disease appear to be more susceptible to the effects of PM10 and PM2.5.

The SCAQMD monitored PM10 concentrations at 21 locations in 2011. The federal 24-hour PM10 standard (150 µg/m3) was not exceeded at any of the locations monitored in 2010. The maximum 24-hour PM10 concentration of 106 µg/m3 was recorded in the Coachella Valley No. 2 area and was 71 percent of the federal standard and 212 percent of the much more stringent state 24-hour PM10 standard (50 µg/m3). The state 24-hour PM10 standard was exceeded at 14 of the 21 monitoring stations. The maximum annual average PM10 concentration of 41.3 µg/m3 was recorded in Mira Loma. The maximum annual average PM10 concentration in Mira Loma was 207 percent of the state standard of 20 µg/m3. The federal annual PM10 standard has been revoked.

In 2011, PM2.5 concentrations were monitored at 20 locations throughout the district. U.S. EPA revised the federal 24-hour PM2.5 standard from 65 µg/m3 to 35 µg/m3, effective December 17, 2006. In 2011, the maximum PM2.5 concentrations in the Basin exceeded the new federal 24-hour PM2.5 standard in all but five locations. The maximum 24-hour PM2.5 concentration of 65 µg/m3 was recorded in the Central San Bernardino Valley 2 area, which represents 186 percent of the federal standard of 35 µg/m3. The maximum annual average concentration of 15.3 µg/m3

was recorded in Mira Loma, which represents 102 percent of the federal standard of 15 µg/m3 and 128 percent of the state standard of 12 µg/m3.

Similar to PM10 concentrations, PM2.5 concentrations were higher in the inland valley areas of San Bernardino and Metropolitan Riverside counties. However, PM2.5 concentrations were also high in Central Los Angeles County and East San Gabriel Valley. The high PM2.5 concentrations in Los Angeles County are mainly due to the secondary formation of smaller particulates resulting from mobile and stationary source activities. In contrast to PM10, PM2.5 concentrations were low in the Coachella Valley area of SSAB. PM10 concentrations are normally higher in the desert areas due to windblown and fugitive dust emissions.

Lead

Lead in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric lead in the Basin over the past three decades.

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Lead poisoning can cause anemia, lethargy, seizures, and death. It appears that there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early-age environmental exposure, and elevated blood lead levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland), and osteoporosis (breakdown of bone tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.

The old federal and current state standards for lead were not exceeded in any area of the district in 2011. There have been no violations of these standards at the SCAQMD's regular air monitoring stations since 1982, as a result of removal of lead from gasoline. The maximum quarterly average lead concentration (0.011 µg/m3 at monitoring stations in Central Los Angeles) was 0.7 percent of the old federal quarterly average lead standard (1.5 µg/m3). The maximum monthly average lead concentration (0.014 µg/m3 in South Central Los Angeles County), measured at special monitoring sites immediately adjacent to stationary sources of lead was 0.9 percent of the state monthly average lead standard. No lead data were obtained at SSAB and Orange County stations in 2011. Because historical lead data showed concentrations in SSAB and Orange County areas to be well below the standard, measurements have been discontinued.

On November 12, 2008, U.S. EPA published new national ambient air quality standards for lead, which became effective January 12, 2010. The existing national lead standard, 1.5 µg/m3, was reduced to 0.15 µg/m3, averaged over a rolling three-month period. The new federal standard

was not exceeded at any source/receptor location in 2011. Nevertheless, U.S. EPA designated the Los Angeles County portion of the Basin as non-attainment for the new lead standard, effective December 31, 2010, primarily based on emissions from two battery recycling facilities. In response to the new federal lead standard, the SCAQMD adopted Rule 1420.1 – Emissions Standard for Lead from Large Lead-Acid Battery Recycling Facilities, in November 2010, to ensure that lead emissions do not exceed the new federal standard. Further, in May 2012, the SCAQMD adopted the 2012 Lead SIP to address the revision to the federal lead standard, which outlines the strategy and pollution control activities to demonstrate attainment of the federal lead standard before December 31, 2015.

Sulfates

Sulfates (SOx) are chemical compounds which contain the sulfate ion and are part of the mixture of solid materials which make up PM10. Most of the sulfates in the atmosphere are produced by oxidation of SO2. Oxidation of sulfur dioxide yields sulfur trioxide (SO3) which reacts with water to form sulfuric acid, which contributes to acid deposition. The reaction of sulfuric acid with basic substances such as ammonia yields sulfates, a component of PM10 and PM2.5.

Most of the health effects associated with fine particles and SO2 at ambient levels are also associated with SOx. Thus, both mortality and morbidity effects have been observed with an increase in ambient SOx concentrations. However, efforts to separate the effects of SOx from the effects of other pollutants have generally not been successful.

Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure. Animal studies suggest that acidic particles such as sulfuric acid aerosol and ammonium bisulfate are more toxic than non-acidic particles like ammonium sulfate. Whether the effects are attributable to acidity or to particles remains unresolved.

In 2011, the state 24-hour sulfate standard (25 μg/m3) was not exceeded in any of the monitoring locations in the district. There are no federal sulfate standards.

Vinyl Chloride

Vinyl chloride is a colorless, flammable gas at ambient temperature and pressure. It is also highly toxic and is classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as A1 (confirmed carcinogen in humans) and by the International Agency for Research on Cancer (IARC) as 1 (known to be a human carcinogen)(Air Gas, 2010). At room temperature, vinyl chloride is a gas with a sickly sweet odor that is easily condensed. However, it is stored as a liquid. Due to the hazardous nature of vinyl chloride to human health there are no end products that use vinyl chloride in its monomer form. Vinyl chloride is a chemical intermediate, not a final product. It is an important industrial chemical chiefly used to produce polymer polyvinyl chloride (PVC). The process involves vinyl chloride liquid fed to polymerization reactors where it is converted from a monomer to a polymer PVC. The final product of the polymerization process is PVC in either a flake or pellet form. Billions of pounds of PVC are sold on the global market each year. From its flake or pellet form, PVC is sold to companies that heat and mold the PVC into end products such as PVC pipe and bottles.

In the past, vinyl chloride emissions have been associated primarily with sources such as landfills. Risks from exposure to vinyl chloride are considered to be a localized impacts rather than regional impacts. Because landfills in the district are subject to SCAQMD 1150.1, which contains stringent requirements for landfill gas collection and control, potential vinyl chloride emissions are below the level of detection. Therefore, the SCAQMD does not monitor for vinyl chloride at its monitoring stations.

Volatile Organic Compounds

It should be noted that there are no state or national ambient air quality standards for VOCs because they are not classified as criteria pollutants. VOCs are regulated, however, because limiting VOC emissions reduces the rate of photochemical reactions that contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM10 and lower visibility levels.

Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOCs because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis, even at low concentrations. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, one hydrocarbon component of VOC emissions, is known to be a human carcinogen.

Visibility

In 2005, annual average visibility at Rudiboux (Riverside), the worst case, was just over 10 miles. With the exception of Lake County, which is designated in attainment, all of the air districts in California are currently designated as unclassified with respect to the CAAQS for visibility reducing particles.

In Class-I wilderness areas, which typically have visual range measured in tens of miles the deciview metric is used to estimate an individual's perception of visibility. The deciview index works inversely to visual range which is measured in miles or kilometers whereby a lower deciview is optimal. In the South Coast Air Basin, the Class-I areas are typically restricted to higher elevations (greater than 6,000 feet above sea level) or far downwind of the metropolitan emission source areas. Visibility in these areas is typically unrestricted due to regional haze despite being in close proximity to the urban setting. The 2005 baseline deciview mapping of the Basin is presented in Figure 3-1. All of the Class-I wilderness areas reside in areas having average deciview values less than 20 with many portions of those areas having average deciview values less than 10. By contrast, Rubidoux, in the Basin has a deciview value exceeding 30.

Federal Regional Haze Rule

The federal Regional Haze Rule, established by the U.S. EPA pursuant to CAA section 169A, establishes the national goal to prevent future and remedy existing impairment of visibility in federal Class I areas (such as federal wilderness areas and national parks). U.S. EPA's visibility regulations (40 CFR 51.300 through 51.309), require states to develop measures necessary to make reasonable progress towards remedying visibility impairment in these federal Class I areas. Section 169A and these regulations also require Best Available Retrofit Technology for certain

large stationary sources that were put in place between 1962 and 1977. See Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations, 70 Fed. Reg. 39104 (July 6, 2005).

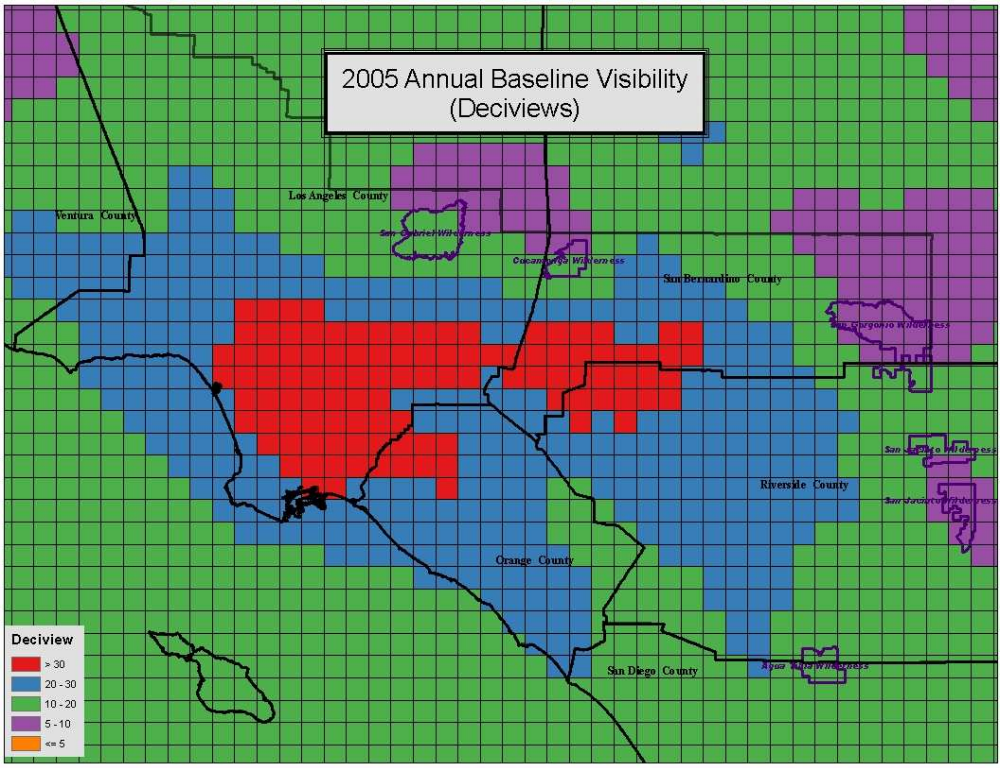

FIGURE 3-1
2005 Annual Baseline Visibility

California Visibility Standard

Since deterioration of visibility is one of the most obvious manifestations of air pollution and plays a major role in the public's perception of air quality, the state of California has adopted a standard for visibility or visual range. Until 1989, the standard was based on visibility estimates made by human observers. The standard was changed to require measurement of visual range using instruments that measure light scattering and absorption by suspended particles.

The visibility standard is based on the distance that atmospheric conditions allow a person to see at a given time and location. Visibility reduction from air pollution is often due to the presence of sulfur and nitrogen oxides, as well as particulate matter. Visibility degradation occurs when visibility reducing particles are produced in sufficient amounts such that the extinction coefficient is greater than 0.23 inverse kilometers (to reduce the visual range to less than 10 miles) at relative humidity less than 70 percent, 8-hour average (from 10:00 a.m. to 6:00 p.m.) according to the state standard. Future-year visibility in the Basin is projected empirically using the results derived from a regression analysis of visibility with air quality measurements. The regression data set consisted of aerosol composition data collected during a special monitoring program conducted concurrently with visibility data collection (prevailing visibility observations

from airports and visibility measurements from district monitoring stations). A full description of the visibility analysis is given in Appendix V of the 2012 AQMP.

With future year reductions of PM2.5 from implementation of all proposed emission controls for 2015, the annual average visibility would improve from 10 miles (calculated for 2008) to over 20 miles at Rubidoux, for example. Visual range in 2021 at all other Basin sites is expected to equal or exceed the Rubidoux visual range. Visual range is expected to double from the 2008 baseline due to reductions of secondary PM2.5, directly emitted PM2.5 (including diesel soot) and lower nitrogen dioxide concentrations as a result of 2007 AQMP controls.

To meet Federal Regional Haze Rule requirements, CARB adopted the California Regional Haze Plan on January 22, 2009, addressing California's visibility goals through 2018. As stated in Table 3-2 above, California's statewide standard (applicable outside of the Lake Tahoe area) for Visibility Reducing Particles is an extinction coefficient of 0.23 per kilometer over an 8-hour averaging period. This translates to visibility of ten miles or more due to particles when relative humidity is less than 70 percent.

Non-Criteria Pollutants

Although the SCAQMD's primary mandate is attaining the State and National Ambient Air Quality Standards for criteria pollutants within the district, SCAQMD also has a general responsibility pursuant to Health and Safety Code (HSC) §41700 to control emissions of air contaminants and prevent endangerment to public health. Additionally, state law requires the SCAQMD to implement airborne toxic control measures (ATCM) adopted by CARB, and to implement the Air Toxics "Hot Spots" Act. As a result, the SCAQMD has regulated pollutants other than criteria pollutants such as TACs, greenhouse gases and stratospheric ozone depleting compounds (ODCs). The SCAQMD has developed a number of rules to control non-criteria pollutants from both new and existing sources. These rules originated through state directives, CAA requirements, or the SCAQMD rulemaking process.

In addition to promulgating non-criteria pollutant rules, the SCAQMD has been evaluating AQMP control measures as well as existing rules to determine whether or not they would affect, either positively or negatively, emissions of non-criteria pollutants. For example, rules in which VOC components of coating materials are replaced by a non-photochemically reactive chlorinated substance would reduce the impacts resulting from ozone formation, but could increase emissions of toxic compounds or other substances that may have adverse impacts on human health.

The following subsections summarize the existing setting for the two major categories of non-criteria pollutants: compounds that contribute to TACs global climate change, and stratospheric ozone depletion.

Air Quality – Toxic Air Contaminants

Federal

Under Section 112 of the CAA, U.S. EPA is required to regulate sources that emit one or more of the 187 federally listed hazardous air pollutants (HAPs). HAPs are air toxic pollutants

identified in the CAA, which are known or suspected of causing cancer or other serious health effects. The federal HAPs are listed on the U.S. EPA website at http://www.epa.gov/ttn/atw/orig189.html. In order to implement the CAA, approximately 100 National Emission Standards for Hazardous Air Pollutants (NESHAPs) have been promulgated by U.S. EPA for major sources (sources emitting greater than 10 tons per year of a single HAP or greater than 25 tons per year of multiple HAPs). The SCAQMD can either directly implement NESHAPs or adopt rules that contain requirements at least as stringent as the NESHAP requirements. However, since NESHAPs often apply to sources in the district that are controlled, many of the sources that would have been subject to federal requirements already comply or are exempt.

In addition to the major source NESHAPs, U.S. EPA has also controlled HAPs from urban areas by developing Area Source NESHAPs under their Urban Air Toxics Strategy. U.S. EPA defines an area source as a source that emits less than 10 tons annually of any single hazardous air pollutant or less than 25 tons annually of a combination of hazardous air pollutants. The CAA requires the U.S. EPA to identify a list of at least 30 air toxics that pose the greatest potential health threat in urban areas. U.S. EPA is further required to identify and establish a list of area source categories that represent 90 percent of the emissions of the 30 urban air toxics associated with area sources, for which Area Source NESHAPs are to be developed under the CAA. U.S. EPA has identified a total of 70 area source categories with regulations promulgated for more than 30 categories so far. Appendix A lists key NESHAPs recently adopted or amended by U.S. EPA.

The federal toxics program recognizes diesel engine exhaust as a health hazard, however, diesel particulate matter itself is not one of their listed toxic air contaminants. Rather, each toxic compound in the speciated list of compounds in exhaust is considered separately. Although there are no specific NESHAP regulations for diesel PM, diesel particulate emission reductions are realized through federal regulations including diesel fuel standards and emission standards for stationary, marine, and locomotive engines; and idling controls for locomotives.

State

The California air toxics program was based on the CAA and the original federal list of hazardous air pollutants. The state program was established in 1983 under the Toxic Air Contaminant Identification and Control Act, Assembly Bill (AB) 1807, Tanner. Under the state program, toxic air contaminants are identified through a two-step process of risk identification and risk management. This two-step process was designed to protect residents from the health effects of toxic substances in the air.

Control of TACs under the TAC Identification and Control Program

California's TAC identification and control program, adopted in 1983 as AB 1807, is a two-step program in which substances are identified as TACs, and ATCMs are adopted to control emissions from specific sources. CARB has adopted a regulation designating all 188 federal hazardous air pollutants (HAPs) as TACs.

ATCMs are developed by CARB and implemented by the SCAQMD and other air districts through the adoption of regulations of equal or greater stringency. Generally, the ATCMs reduce

emissions to achieve exposure levels below a determined health threshold. If no such threshold levels are determined, emissions are reduced to the lowest level achievable through the best available control technology unless it is determined that an alternative level of emission reduction is adequate to protect public health.

Under California law, a federal NESHAP automatically becomes a state ATCM, unless CARB has already adopted an ATCM for the source category. Once a NESHAP becomes an ATCM, CARB and each air pollution control or air quality management district have certain responsibilities related to adoption or implementation and enforcement of the NESHAP/ATCM.

Control of TACs under the Air Toxics "Hot Spots" Act

The Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) establishes a state-wide program to inventory and assess the risks from facilities that emit TACs and to notify the public about significant health risks associated with the emissions. Facilities are phased into the AB 2588 program based on their emissions of criteria pollutants or their occurrence on lists of toxic emitters compiled by the SCAQMD. Phase I consists of facilities that emit over 25 tons per year of any criteria pollutant and facilities present on the SCAQMD's toxics list. Phase I facilities entered the program by reporting their air TAC emissions for calendar year 1989. Phase II consists of facilities that emit between 10 and 25 tons per year of any criteria pollutant, and submitted air toxic inventory reports for calendar year 1990 emissions. Phase III consists of certain designated types of facilities which emit less than 10 tons per year of any criteria pollutant, and submitted inventory reports for calendar year 1991 emissions. Inventory reports are required to be updated every four years under the state law.

Air Toxics Control Measures

As part of its risk management efforts, CARB has passed state ATCMs to address air toxics from mobile and stationary sources. Some key ATCMs for stationary sources include reductions of benzene emissions from service stations, hexavalent chromium emissions from chrome plating, perchloroethylene emissions from dry cleaning, ethylene oxide emissions from sterilizers, and multiple air toxics from the automotive painting and repair industries.

Many of CARB's recent ATCMs are part of the CARB Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (DRRP), which was adopted in September 2000 (http://www.arb.ca.gov/diesel/documents/rrpapp.htm) with the goal of reducing diesel particulate matter emissions from compression ignition engines and associated health risk by 75 percent by 2010 and 85 percent by 2020. The DRRP includes strategies to reduce emissions from new and existing engines through the use of ultra-low sulfur diesel fuel, add-on controls, and engine replacement. In addition to stationary source engines, the plan addresses diesel PM emissions from mobile sources such as trucks, buses, construction equipment, locomotives, and ships. Appendix A lists key ATCMs recently adopted or amended by CARB.

<u>*SCAQMD*</u>

SCAQMD has regulated criteria air pollutants using either a technology-based or an emissions limit approach. The technology-based approach defines specific control technologies that may be installed to reduce pollutant emissions. The emission limit approach establishes an emission

limit, and allows industry to use any emission control equipment, as long as the emission requirements are met. The regulation of TACs often uses a health risk-based approach, but may also require a regulatory approach similar to criteria pollutants, as explained in the following subsections.

Rules and Regulations

Under the SCAQMD's toxic regulatory program there are 15 source-specific rules that target toxic emission reductions from over 10,000 sources such as metal finishing, spraying operations, dry cleaners, film cleaning, gasoline dispensing, and diesel-fueled stationary engines to name a few. In addition, other rules targeting criteria pollutant emission reductions also may also produce co-benefits of reducing air toxic emissions. For example, Rule 461, which regulates VOC emissions from gasoline dispensing, may also reduce benzene emissions, a component of gasoline, while Rule 1124, which regulates VOC emissions from aerospace component and manufacturing operations, may also reduce air toxic emissions such as perchloroethylene, trichloroethylene, and methylene chloride emissions contained in solvents and coatings used in aerospace operations.

New and modified sources of toxic air contaminants in the district are subject to Rule 1401 - New Source Review of Toxic Air Contaminants. In addition, Rule 212 – Standards for Approving Permits, requires notification of the SCAQMD's intent to grant a permit to construct a significant project, a new or modified permit unit posing an maximum individual cancer risk of one in one million (1×10^{-6}) or greater, or a new or modified facility with criteria pollutant emissions exceeding specified daily maximums. Distribution of notice is required to all addresses within a 1/4-mile radius, or other area deemed appropriate by the SCAQMD. Rule 1401 currently controls emissions of carcinogenic and non-carcinogenic (health effects other than cancer) air contaminants from new, modified and relocated sources by specifying limits on cancer risk and hazard index (explained further in the following discussion), respectively. The rule lists nearly 300 TACs that are evaluated during the SCAQMD's permitting process for new, modified or relocated sources. During the past decade, more than 80 compounds have been added or had risk values amended. The addition of diesel particulate matter from diesel-fueled internal combustion engines as a TAC in March 2008 was the most significant of recent amendments to the rule. Rule 1401.1 sets risk thresholds for new and relocated facilities near schools. The requirements are more stringent than those for other air toxics rules in order to provide additional protection to school children.

Air Toxics Control Plan

In March 2000, the SCAQMD Governing Board approved the Air Toxics Control Plan (ATCP) which was the first comprehensive plan in the nation to guide future toxic rulemaking and programs. The ATCP was developed to lay out the SCAQMD's air toxics control program which built upon existing federal, state, and local toxic control programs as well as co-benefits from implementation of State Implementation Plan (SIP) measures. The concept for the plan was an outgrowth of the Environmental Justice principles and the Environmental Justice Initiatives adopted by the SCAQMD Governing Board in October 1997. Monitoring studies and air toxics regulations that were created from these initiatives emphasized the need for a more systematic approach to reducing toxic air contaminants. The intent of the plan was to reduce exposure to air toxics in an equitable and cost-effective manner that promotes clean, healthful air

in the district. The plan proposed control strategies to reduce toxic air contaminants in the district implemented between years 2000 and 2010 through cooperative efforts of the SCAQMD, local governments, CARB and U.S. EPA.

2003 Cumulative Impact Reduction Strategies

The SCAQMD Governing Board approved a cumulative impacts reduction strategy in September 2003. The resulting 25 cumulative impacts strategies were a key element of the 2004 Addendum to the ATCP. The strategies included rules, policies, funding, education, and cooperation with other agencies. Some of the key SCAQMD accomplishments related to the cumulative impacts reduction strategies were:

- Rule 1401.1 which set more stringent health risk requirements for new and relocated facilities near schools
- Rule 1470 which established diesel PM emission limits and other requirements for diesel-fueled engines
- Rule 1469.1 which regulated chrome spraying operations
- Rule 410 which addresses odors from transfer stations and material recovery facilities
- Intergovernmental Review comment letters for CEQA documents
- SCAQMD's land use guidance document
- Additional protection in toxics rules for sensitive receptors, such as more stringent requirements for chrome plating operations and diesel engines located near schools

Addendum to the ATCP

The Addendum to the ATCP (Addendum) was adopted by the SCAQMD Governing Board in 2004 and served as a status report regarding implementation of the various mobile and stationary source strategies in the 2000 ATCP and introduced new measures to further address air toxics. The main elements of the Addendum were to address the progress made in implementation of the 2000 ATCP control strategies provide a historical perspective of air toxic emissions and current air toxic levels; incorporate the Cumulative Impact Reduction Strategies approved by the SCAQMD Governing Board in 2003 and additional measures identified in the 2003 AQMP; project future air toxic levels to the extent feasible; and summarize future efforts to develop the next ATCP. Significant progress had been made in implementing most of the SCAQMD strategies from the 2000 ATCP and the 2004 Addendum. CARB has also made notable progress in mobile source measures via its Diesel Risk Reduction Plan, especially for goods movement related sources, while the U.S. EPA continued to implement their air toxic programs applicable to stationary sources

Clean Communities Plan

On November 5, 2010, the SCAQMD Governing Board approved the 2010 Clean Communities Plan (CCP). The CCP was an update to the 2000 Air Toxics Control Plan (ATCP) and the 2004 Addendum. The objective of the 2010 CCP is to reduce the exposure to air toxics and air-related nuisances throughout the district, with emphasis on cumulative impacts. The elements of the 2010 CCP are community exposure reduction, community participation, communication and outreach, agency coordination, monitoring and compliance, source-specific programs, and nuisance. The centerpiece of the 2010 CCP is a pilot study through which the SCAQMD staff will work with community stakeholders to identify and develop solutions community-specific to

air quality issues in two communities: (1) the City of San Bernardino; and, (2) Boyle Heights and surrounding areas.

Control of TACs under the Air Toxics "Hot Spots" Act

In October 1992, the SCAQMD Governing Board adopted public notification procedures for Phase I and II facilities. These procedures specify that AB 2588 facilities must provide public notice when exceeding the following risk levels:

- Maximum Individual Cancer Risk: greater than 10 in one million (10×10^{-6})
- Total Hazard Index: greater than 1.0 for TACs except lead, or > 0.5 for lead

Public notice is to be provided by letters mailed to all addresses and all parents of children attending school in the impacted area. In addition, facilities must hold a public meeting and provide copies of the facility risk assessment in all school libraries and a public library in the impacted area.

The AB2588 Toxics "Hot Spots" Program is implemented through Rule 1402. The SCAQMD continues to review health risk assessments submitted. Notification is required from facilities with a significant risk under the AB 2588 program based on their initial approved health risk assessments and will continue on an ongoing basis as additional and subsequent health risk assessments are reviewed and approved.

There are currently about 600 facilities in the SCAQMD's AB2588 program. Since 1992 when the state Health and Safety Code incorporated a risk reduction requirement in the program, the SCAQMD has reviewed and approved over 300 HRAs, 44 facilities were required to do a public notice, and 21 facilities were subject to risk reduction. Currently, over 96 percent of the facilities in the program have cancer risks below ten in a million and over 98 percent have acute and chronic hazard indices of less than one.

Multiple Air Toxics Exposure Studies

Multiple Air Toxics Exposure Study (MATES)

In 1986, SCAQMD conducted the first MATES Study to determine the Basin-wide risks associated with major airborne carcinogens. At the time, the state of technology was such that only twenty known air toxic compounds could be analyzed and diesel exhaust particulate did not have an agency accepted carcinogenic health risk value. Toxic air contaminants are determined by the U.S. EPA, and by the Cal/EPA, including the Office of Environmental Health Hazard Assessment and the ARB. For purposes of MATES, the California carcinogenic health risk factors were used. The maximum combined individual health risk for simultaneous exposure to pollutants under the study was estimated to be 600 to 5,000 in one million.

Multiple Air Toxics Exposure Study II (MATES II)

At its October 10, 1997 meeting, the SCAQMD Governing Board directed staff to conduct a follow up to the MATES study to quantify the magnitude of population exposure risk from existing sources of selected air toxic contaminants at that time. The follow up study, MATES II, included a monitoring program of 40 known air toxic compounds, an updated emissions inventory of toxic air contaminants (including microinventories around each of the 14 microscale

sites), and a modeling effort to characterize health risks from hazardous air pollutants. The estimated basin-wide carcinogenic health risk from ambient measurements was 1,400 per million people. About 70 percent of the basin wide health risk was attributed to diesel particulate emissions; about 20 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde); about 10 percent of basin wide health risk was attributed to stationary sources (which include industrial sources and other certain specifically identified commercial businesses such as dry cleaners and print shops.)

Multiple Air Toxics Exposure Study III (MATES III)

MATES III was a follow up to previous air toxics studies in the Basin and was part of the SCAQMD Governing Board's 2003-04 Environmental Justice Workplan. The MATES III Study consists of several elements including a monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize carcinogenic health risk across the Basin. Besides toxics, additional measurements include organic carbon, elemental carbon, and total carbon, as well as, Particulate Matter (PM), including PM2.5. It did not estimate mortality or other health effects from particulate exposures. MATES III revealed a general downward trend in air toxic pollutant concentrations with an estimated basin-wide lifetime carcinogenic health risk of 1,200 in one million. Mobile sources accounted for 94 percent of the basin-wide lifetime carcinogenic health risk with diesel exhaust particulate contributing to 84 percent of the mobile source basin-wide lifetime carcinogenic health risk. Non-diesel carcinogenic health risk was reduced declined by 50 percent from the MATES II values.

Health Effects

Carcinogenic Health Risks from Toxic Air Contaminants

One of the primary health risks of concern due to exposure to TACs is the risk of contracting cancer. The carcinogenic potential of TACs is a particular public health concern because it is currently believed by many scientists that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of causing cancer. It is currently estimated that about one in four deaths in the United States is attributable to cancer. About two percent of cancer deaths in the United States may be attributable to environmental pollution (Doll and Peto 1981). The proportion of cancer deaths attributable to air pollution has not been estimated using epidemiological methods.

Non-Cancer Health Risks from Toxic Air Contaminants

Unlike carcinogens, for most TAC non-carcinogens it is believed that there is a threshold level of exposure to the compound below which it will not pose a health risk. Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA) develops Reference Exposure Levels (RELs) for TACs which are health-conservative estimates of the levels of exposure at or below which health effects are not expected. The non-cancer health risk due to exposure to a TAC is assessed by comparing the estimated level of exposure to the REL. The comparison is expressed as the ratio of the estimated exposure level to the REL, called the hazard index (HI).

Climate Change

Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. Historical records have shown that

temperature changes have occurred in the past, such as during previous ice ages. Data indicate that the current temperature record differs from previous climate changes in rate and magnitude.

Gases that trap heat in the atmosphere are often called greenhouse gases (GHGs), comparable to a greenhouse, which captures and traps radiant energy. GHGs are emitted by natural processes and human activities. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature. 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 GHGs in the atmosphere. The six major GHGs are carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), sulfur hexafluoride (SF6), hydrofluorocarbons (HFCs), and perfluorocarbon (PFCs). The GHGs 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." Emissions from human activities such as fossil fuel combustion for electricity production and vehicles have elevated the concentration of these gases in the atmosphere.

CO2 is an odorless, colorless greenhouse gas. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of CO2 are from burning coal, oil, natural gas, and wood.

CH4 is a flammable gas and is the main component of natural gas. N2O, also known as laughing gas, is a colorless greenhouse gas. Some industrial processes such as fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions also contribute to the atmospheric load of N2O. HFCs are synthetic man-made chemicals that are used as a substitute for chlorofluorocarbons (whose production was stopped as required by the Montreal Protocol) for automobile air conditioners and refrigerants. The two main sources of PFCs are primary aluminum production and semiconductor manufacture. SF6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Scientific consensus, as reflected in recent reports issued by the United Nations Intergovernmental Panel on Climate Change, is that the majority of the observed warming over the last 50 years can be attributable to increased concentration of GHGs in the atmosphere due to human activities. Industrial activities, particularly increased consumption of fossil fuels (e.g., gasoline, diesel, wood, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHGs. The United Nations Intergovernmental Panel on Climate Change constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of greenhouse gases at 400 to 450 ppm carbon dioxide-equivalent concentration is required to keep global mean warming below two degrees Celsius, which is assumed to be necessary to avoid dangerous impacts from climate change.

The potential health effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme events, air quality impacts, and sea level rise. There may be

direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems (e.g., heat rash and heat stroke). In addition, climate sensitive diseases may increase, such as those spread by mosquitoes and other disease carrying insects. Those diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding, hurricanes, and wildfires can displace people and agriculture, which would have negative consequences. Drought in some areas may increase, which would decrease water and food availability. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

The impacts of climate change will also affect projects in various ways. Effects of climate change are rising sea levels and changes in snow pack. The extent of climate change impacts at specific locations remains unclear. It is expected that Federal, State and local agencies will more precisely quantify impacts in various regions. As an example, it is expected that the California Department of Water Resources will formalize a list of foreseeable water quality issues associated with various degrees of climate change. Once state government agencies make these lists available, they could be used to more precisely determine to what extent a project creates global climate change impacts.

Federal

Greenhouse Gas Endangerment Findings

On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the CAA. It was concluded in the Endangerment Finding that CO2, CH4, N2O, HFCs, PFCs, and SF6 taken in combination endanger both the public health and the public welfare of current and future generations. The Cause or Contribute Finding stated that the combined emissions from motor vehicles and motor vehicle engines contribute to the greenhouse gas air pollution that endangers public health and welfare. These findings were a prerequisite for implementing GHG standards for vehicles. The U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) finalized emission standards for light-duty vehicles in May 2010 and for heavy-duty vehicles in August of 2011.

Renewable Fuel Standard

The RFS program was established under the Energy Policy Act (EPAct) of 2005, which required 7.5 billion gallons of renewable-fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act (EISA) of 2007, the RFS program was expanded to include diesel, required the volume of renewable fuel blended into transportation fuel be increased from nine billion gallons in 2008 to 36 billion gallons by 2022, established new categories of renewable fuel and required U.S. EPA to apply lifecycle GHG performance threshold standards so that each category of renewable fuel emits fewer greenhouse gases than the petroleum fuel it replaces. The RFS is expected to reduce greenhouse gas emissions by 138 million metric tons, about the annual emissions of 27 million passenger vehicles, replacing about seven percent of expected annual diesel consumption and decreasing oil imports by $41.5 billion.

GHG Tailoring Rule

On May 13, 2010, U.S. EPA finalized the Tailoring Rule to phase in the applicability of the PSD and Title V operating permit programs for GHGs. The rule was tailored to include the largest GHG emitters, while excluding smaller sources (restaurants, commercial facilities and small farms). The first step (January 2, 2011 to June 30, 2011) addressed the largest sources that contributed 65 percent of the stationary GHG sources. Title V GHG requirements were triggered only when affected facility owners/operators were applying, renewing or revising their permits for non-GHG pollutants. PSD GHG requirements were applicable only if sources were undergoing permitting actions for other non-GHG pollutants and the permitted action would increase GHG emission by 75,000 metric tons of CO2e per year or more.

The second step (July 1, 2011 to June 30, 2013), included sources that emit or have the potential to emit 100,000 of CO2e metric tons per year or more. Newly constructed sources that are not major sources for non-GHG pollutants would not be subject to PSD GHG requirements unless it emits 100,000 tons of CO2e per year or more. Modifications to a major source would not be subject to PSD GHG requirements unless it generates a net increase of 75,000 tons of CO2e per year or more. Sources not subject to Title V would not be subject to Title V GHG requirements unless 100,000 tons of CO2e per year or more would be emitted.

The third step of the Tailoring Rule was finalized on July 12, 2012. The third step determined not to not to lower the current PSD and Title V applicability thresholds for GHG-emitting sources established in the Tailoring Rule for Steps 1 and 2. The rule also promulgates regulatory revisions for better implementation of the federal program for establishing plantwide applicability limitations (PALs) for GHG emissions, which will improve the administration of the GHG PSD permitting programs.

GHG Reporting Program

U.S. EPA issued the Mandatory Reporting of Greenhouse Gases Rule (40 CFR Part 98) under the 2008 Consolidated Appropriations Act. The Mandatory Reporting of Greenhouse Gases Rule requires reporting of GHG data from large sources and suppliers under the Greenhouse Gas Reporting Program (GHGRP). Suppliers of certain products that would result in GHG emissions if released, combusted or oxidized; direct emitting source categories; and facilities that inject CO_2 underground for geologic sequestration or any purpose other than geologic sequestration are included. Facilities that emit 25,000 metric tons or more per year of GHGs in CO2 equivalents (CO2e) are required to submit annual reports to U.S. EPA. For the 2010 calendar, there were 6,260 entities that reported GHG data under this program, and 467 of the entities reporting were from California. Of the 3,200 million metric tons of CO2e that were reported nationally, 112 million metric tons were from California Power plants were the largest stationary source of direct U.S. GHG emissions with 2,326 million metric tons of CO2e, followed by refineries with 183 million metric tons of CO2e. CO2 emissions accounted for largest share of direct emissions with 95 percent, followed by methane with four percent, and nitrous oxide and fluorinated gases representing the remaining one percent.

State

Executive Order S-3-05
In June 2005, then Governor Schwarzenegger signed Executive Order S-3-05, which established emission reduction targets. The goals would reduce GHG emissions to 2000 levels by 2010, then to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

AB 32: Global Warming Solutions Act
On September 27, 2006, Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, was enacted by the State of California and signed by Governor Schwarzenegger. AB 32 expanded on Executive Order #S-3-05. The legislature stated that "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." AB 32 represents the first enforceable state-wide program in the United States to cap all GHG emissions from major industries that includes penalties for non-compliance. While acknowledging that national and international actions will be necessary to fully address the issue of global warming, AB 32 lays out a program to inventory and reduce greenhouse gas emissions in California and from power generation facilities located outside the state that serve California residents and businesses.

AB 32 requires 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 GHG by January 1, 2011.

The combination of Executive Order #S-3-05 and AB 32 will require significant development and implementation of energy efficient technologies and shifting of energy production to renewable sources.

Consistent with the requirement to develop an emission reduction plan, CARB prepared a Scoping Plan indicating how GHG emission reductions will be achieved through regulations, market mechanisms, and other actions. The Scoping Plan was released for public review and comment in October 2008 and approved by CARB on December 11, 2008. The Scoping Plan calls for reducing greenhouse gas emissions to 1990 levels by 2020. This means cutting approximately 30 percent from business-as-usual (BAU) emission levels projected for 2020, or about 15 percent from today's levels. Key elements of CARB staff's recommendations for reducing California's greenhouse gas emissions to 1990 levels by 2020 contained in the Scoping Plan include the following:
- Expansion and strengthening of existing energy efficiency programs and building and appliance standards;
- Expansion of the Renewables Portfolio Standard to 33 percent;
- Development of a California cap-and-trade program that links with other Western Climate Initiative (WCI) Partner programs to create a regional market system;

- Establishing targets for transportation-related greenhouse gases and pursuing policies and incentives to achieve those targets;
- Adoption and implementation of existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Targeted fees, including a public good charge on water use, fees on high GWP gases and a fee to fund the state's long-term commitment to AB 32 administration.

In response to the comments received on the Draft Scoping Plan and at the November 2008 public hearing, CARB made a few changes to the Draft Scoping Plan, primarily to:

- State that California "will transition to 100 percent auction" of allowances and expects to "auction significantly more [allowances] than the Western Climate Initiative minimum;"
- Make clear that allowance set-asides could be used to provide incentives for voluntary renewable power purchases by businesses and individuals and for increased energy efficiency;
- Make clear that allowance set-asides can be used to ensure that voluntary actions, such as renewable power purchases, can be used to reduce greenhouse gas emissions under the cap;
- Provide allowances are not required from carbon neutral projects; and
- Mandate that commercial recycling be implemented to replace virgin raw materials with recyclables.

In 2009, total California greenhouse gas emissions were 457 million metric tons of carbon dioxide equivalent (MMTCO2e); net emissions were 453 MMTCO2e, reflecting the influence of sinks (net CO2 flux from forestry). While total emissions have increased by 5.5 percent from 1990 to 2009, emissions decreased by 5.8 percent from 2008 to 2009 (485 to 457 MMTCO2e). The total net emissions between 2000 and 2009 decreased from 459 to 453 MMTCO2e, representing a 1.3 percent decrease from 2000 and a 6.1 percent increase from the 1990 emissions level. The transportation sector accounted for approximately 38 percent of the total emissions, while the industrial sector accounted for approximately 20 percent. Emissions from electricity generation were about 23 percent with almost equal contributions from in-state and imported electricity.

Per capita emissions in California have slightly declined from 2000 to 2009 (by 9.7 percent), but the overall nine percent increase in population during the same period offsets the emission reductions. From a per capita sector perspective, industrial per capita emissions have declined 21 percent from 2000 to 2009, while per capita emissions for ODCs substitutes saw the highest increase (52 percent).

From a broader geographical perspective, the state of California ranked second in the United States for 2007 greenhouse gas emissions, only behind Texas. However, from a per capita standpoint, California had the 46th lowest GHG emissions. On a global scale, California had the 14th largest carbon dioxide emissions and the 19th largest per capita emissions. The GHG inventory is divided into three categories: stationary sources, on-road mobile sources, and off-road mobile sources.

AB 1493 Vehicular Emissions: Carbon Dioxide
Prior to the U.S. EPA and NHTSA joint rulemaking, the Governor signed Assembly Bill (AB) 1493 (2002). AB 1493 requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state."

CARB originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009 (Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1)). California's first request to the U.S. EPA to implement GHG standards for passenger vehicles was made in December 2005 and denied in March 2008. The U.S. EPA then granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks and sport utility vehicles on June 30, 2009.

On April 1, 2010, the CARB filed amended regulations for passenger vehicles as part of California's commitment toward the National Program to reduce new passenger vehicle GHGs from 2012 through 2016. The amendments will prepare California to harmonize its rules with the federal Light-Duty Vehicle GHG Standards and CAFE Standards (discussed above).

Senate Bill 1368 (2006)
SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 requires the California Public Utilities Commission (PUC) to establish a greenhouse gas emission performance standard for baseload generation from investor owned utilities by February 1, 2007. The California Energy Commission (CEC) must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

Executive Order S-1-07 (2007)
Governor Schwarzenegger signed Executive Order S-1-07 in 2007 which finds that the transportation sector is the main source of GHG emissions in California. The executive order proclaims the transportation sector accounts for over 40 percent of statewide GHG emissions. The executive order also establishes a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10 percent by 2020.

In particular, the executive order established a Low-Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. CARB adopted the LCFS on April 23, 2009.

Senate Bill 375 (2008)
SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. As part of the alignment, SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) which prescribes land use allocation in that MPO's Regional Transportation Plan (RTP). CARB, in consultation with MPOs, is required to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned GHG emission reduction targets. If MPOs do not meet the GHG reduction targets, transportation projects located in the MPO boundaries would not be eligible for funding programmed after January 1, 2012.

CARB appointed the Regional Targets Advisory Committee (RTAC), as required under SB 375, on January 23, 2009. The RTAC's charge was to advise ARB on the factors to be considered and methodologies to be used for establishing regional targets. The RTAC provided its recommendation to CARB on September 29, 2009. CARB must adopt final targets by September 30, 2010.

Executive Order S-13-08 (2008)
Governor Schwarzenegger signed Executive Order S-13-08 on November 14, 2008 which directs California to develop methods for adapting to climate change through preparation of a statewide plan. The executive order directs OPR, in cooperation with the Resources Agency, to provide land use planning guidance related to sea level rise and other climate change impacts by May 30, 2009. The order also directs the Resources Agency to develop a state Climate Adaptation Strategy by June 30, 2009 and to convene an independent panel to complete the first California Sea Level Rise Assessment Report. The assessment report is required to be completed by December 1, 2010 and required to meet the following four criteria:

1. Project the relative sea level rise specific to California by taking into account issues such as coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates;
2. Identify the range of uncertainty in selected sea level rise projections;
3. Synthesize existing information on projected sea level rise impacts to state infrastructure (e.g., roads, public facilities, beaches), natural areas, and coastal and marine ecosystems; and
4. Discuss future research needs relating to sea level rise in California.

Senate Bills 1078 and 107 and Executive Order S-14-08 (2008)
SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, then Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Portfolio Standard to 33 percent renewable power by 2020.

SB X-1-2

SB X1-2 was signed by Governor Edmund G. Brown, Jr., in April 2011. SB X1-2 created a new Renewables Portfolio Standard (RPS), which preempted the CARB's 33 percent Renewable Electricity Standard. The new RPS applies to all electricity retailers in the state including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators. These entities must adopt the new RPS goals of 20 percent of retails sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement by the end of 2020.

SCAQMD

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 support of the adoption of a California greenhouse gas emission reduction goal.

Basin GHG Policy and Inventory

The SCAQMD has established a policy, adopted by the SCAQMD Governing Board at its September 5, 2008 meeting, to actively seek opportunities to reduce emissions of criteria, toxic, and climate change pollutants. The policy includes the intent to assist businesses and local governments implementing climate change measures, decrease the agency's carbon footprint, and provide climate change information to the public. The SCAQMD will take the following actions:

1. Work cooperatively with other agencies/entities to develop quantification protocols, rules, and programs related to greenhouse gases;
2. Share experiences and lessons learned relative to the Regional Clean Air Incentives Market (RECLAIM) to help inform state, multi-state, and federal development of effective, enforceable cap-and-trade programs. To the extent practicable, staff will actively engage in current and future regulatory development to ensure that early actions taken by local businesses to reduce greenhouse gases will be treated fairly and equitably. SCAQMD staff will seek to streamline administrative procedures to the extent feasible to facilitate the implementation of AB 32 measures;
3. Review and comment on proposed legislation related to climate change and greenhouse gases, pursuant to the 'Guiding Principles for SCAQMD Staff Comments on Legislation Relating to Climate Change' approved at the SCAQMD Governing Board's Special Meeting in April 2008;
4. Provide higher priority to funding Technology Advancement Office (TAO) projects or contracts that also reduce greenhouse gas emissions;
5. Develop recommendations through a public process for an interim greenhouse gas CEQA significance threshold, until such time that an applicable and appropriate statewide greenhouse gas significance level is established. Provide guidance on analyzing greenhouse gas emissions and identify mitigation measures. Continue to consider GHG impacts and mitigation in SCAQMD lead agency documents and in comments when SCAQMD is a responsible agency;
6. Revise the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning to include information on greenhouse gas strategies as

a resource for local governments. The Guidance Document will be consistent with state guidance, including CARB's Scoping Plan;

7. Update the Basin's greenhouse gas inventory in conjunction with each Air Quality Management Plan. Information and data used will be determined in consultation with CARB, to ensure consistency with state programs. Staff will also assist local governments in developing greenhouse gas inventories;
8. Bring recommendations to the SCAQMD Governing Board on how the agency can reduce its own carbon footprint, including drafting a Green Building Policy with recommendations regarding SCAQMD purchases, building maintenance, and other areas of products and services. Assess employee travel as well as other activities that are not part of a GHG inventory and determine what greenhouse gas emissions these activities represent, how they could be reduced, and what it would cost to offset the emissions;
9. Provide educational materials concerning climate change and available actions to reduce greenhouse gas emissions on the SCAQMD website, in brochures, and other venues to help cities and counties, businesses, households, schools, and others learn about ways to reduce their electricity and water use through conservation or other efforts, improve energy efficiency, reduce vehicle miles traveled, access alternative mobility resources, utilize low emission vehicles and implement other climate friendly strategies; and
10. Conduct conferences, or include topics in other conferences, as appropriate, related to various aspects of climate change, including understanding impacts, technology advancement, public education, and other emerging aspects of climate change science.

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. SCAQMD's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. Tier 2 consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. Tier 3 establishes a screening significance threshold level to determine significance using a 90 percent emission capture rate approach, which corresponds to 10,000 metric tons of CO2 equivalent emissions per year (MTCO2e/year). Tier 4, to be based on performance standards, is yet to be developed. Under Tier 5 the project proponent would allow offsets to reduce GHG emission impacts to less than the proposed screening level. If CARB adopts statewide significance thresholds, SCAQMD staff plans to report back to the SCAQMD Governing Board regarding any recommended changes or additions to the SCAQMD's interim threshold.

Table 3-4 presents the GHG emission inventory by major source categories in calendar year 2008, as identified in the 2012 AQMP, for Basin. The emissions reported herein are based on in-basin energy consumption and do not include out-of-basin energy production (e.g., power plants, crude oil production) or delivery emissions (e.g., natural gas pipeline loss). Three major GHG pollutants have been included: the CO2, N2O, and CH4. These GHG emissions are reported in MMTCO2e. Mobile sources generate 59.4 percent of the equipment, airport equipment, oil and gas drilling equipment. The remaining 40.6 percent of the total Basin GHG emissions are from stationary and area sources. The largest stationary/area source is fuel combustion, which is 27.8

percent of the total Basin GHG emissions (68.6 percent of the GHG emissions from the stationary and area source category).

Air Quality – Ozone Depletion

The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) is an international treaty designed to phase out halogenated hydrocarbons (chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs)), which are considered ODCs). The Montreal Protocol was first signed in September 16, 1987 and has been revised seven times. The United States ratified the original Montreal Protocol and each of its revisions.

Federal

Under Title VI of the CAA, U.S. EPA is responsible for programs that protect the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains U.S. EPA's regulations to protect the ozone layer. U.S. EPA regulations phase out the production and import of ODCs consistent with the Montreal Protocol. ODCs are typically used as refrigerants or as foam blowing agents. ODCs are regulated as Class I or Class II controlled substances. Class I substances have a higher ozone-depleting potential and have been completely phased out in the U.S., except for exemptions allowed under the Montreal Protocol. Class II substances are hydrochlorofluorocarbons (HCFCs), which are transitional substitutes for many Class I substances and are being phased out.

State

AB 32: Global Warming Solutions Act

Some ODS exhibit high global warming potentials. As stated in Section 3.2.3.1, ARB developed a cap and trade regulation under AB 32. The cap and trade regulation includes the Compliance Offset Protocol Ozone Depleting Substances Projects, which provides methods to quantify and report GHG emission reductions associated with the destruction of high global warming potential ODCs sourced from and destroyed within the U.S. that would have otherwise been released to the atmosphere. The protocol must be used to quantify and report GHG reductions under the ARB's GHG Cap and Trade Regulation.

Refrigerant Management Program

As part AB 32, ARB adopted a regulation (Refrigerant Management Program) in 2009 to reduce GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal.

TABLE 3-4
2008 GHG Emissions for Basin

		Emission (TPD)			Emission (TPY)			MMTONS
CODE	**Source Category**	**CO2**	**N2O**	**CH4**	**CO2**	**N2O**	**CH4**	**CO2e**
Fuel Combustion								
10	Electric Utilities	34,303	.08	0.71	12,520,562	29.0	258	11.4
20	Cogeneration	872	.00	0.02	318,340	0.60	6.00	0.29
30	Oil and Gas Production (combustion)	2,908	.01	0.08	1,061,470	4.71	29.5	0.96
40	Petroleum Refining (Combustion)	44,654	.06	0.57	16,298,766	20.7	207	14.8
50	Manufacturing and Industrial	22,182	.06	0.48	8,096,396	20.9	174	7.35
52	Food and Agricultural Processing	927	00	0.02	338,516	0.84	7.16	0.31
60	Service and Commercial	21,889	0.08	0.59	7,989,416	30.8	215	7.26
99	Other (Fuel Combustion)	2,241	0.2	0.16	818,057	8.58	58	0.75
Total Fuel Combustion		**129,977**	**0.32**	**2.62**	**47,441,523**	**116**	**956**	**43.1**
Waste Disposal								
110	Sewage Treatment	26.4	0.00	0.00	9,653	0.12	1.50	0.01
120	Landfills	3,166	0.04	505	1,155,509	14.0	184,451	4.57
130	Incineration	580	0.00	0.02	211,708	0.81	5.48	0.19
199	Other (Waste Disposal)			2.25	0	0.00	820	0.02
Total Waste Disposal		**3,772**	**0.04**	**508**	**1,376,870**	**14.9**	**185,278**	**4.78**
Cleaning and Surface Coatings								
210	Laundering							
220	Degreasing							
230	Coatings and Related Processes	27.1	0.00	0.21	9,890	0.02	78.0	0.01
240	Printing			0.00	0	0.00	0.00	0.00
250	Adhesives and Sealants			0.00	0	0.00	0.00	0.00
299	Other (Cleaning and Surface Coatings)	2,621	0.00	0.12	956,739	1.20	43.9	0.87
Total Cleaning and Surface Coatings		**2,648**	**0.00**	**0.33**	**966,628**	**1.22**	**122**	**0.88**
Petroleum Production and Marketing								
310	Oil and Gas Production	92.1	0.00	0.92	33,605	0.06	336	0.04
320	Petroleum Refining	770	0.00	1.65	280,932	0.36	603	0.27
330	Petroleum Marketing			83.8	0	0.00	30,598	0.58
399	Other (Petroleum Production and Marketing)			0.00	0	0.00	0	0.00
Total Petroleum Production and Marketing		**862**	**0.00**	**86.4**	**314,536**	**0.42**	**31,537**	**0.89**

TABLE 3-4 (Continued)
2008 GHG Emissions for Basin

		Emission (TPD)			Emission (TPY)			MMTONS
CODE	**Source Category**	**CO2**	**N2O**	**CH4**	**CO2**	**N2O**	**CH4**	**CO2e**
Industrial Processes								
410	Chemical			0.92	0	0.00	337	0.01
420	Food and Agriculture			0.02	0	0.00	7.10	0.00
430	Mineral Processes	279	0.00	0.05	101,804	0.19	17.3	0.09
440	Metal Processes			0.02	0	0.00	9.10	0.00
450	Wood and Paper			0.00	0	0.00	0.00	0.00
460	Glass and Related Products			0.00	0	0.00	0.90	0.00
470	Electronics			0.00	0	0.00	0.00	0.00
499	Other (Industrial Processes)	0.08	0.00	0.47	28	0.00	172	0.00
Total Industrial Processes		**279**	**0.00**	**1.49**	**101,832**	**0.19**	**543**	**0.10**
Solvent Evaporation								
510	Consumer Products			0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent			0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers			0.00	0.00	0.00	0.00	0.00
540	Asphalt Paving/Roofing			0.07	0.00	0.00	24.20	0.00
Total Solvent Evaporation		**0.00**	**0.00**	**0.07**	**0.00**	**0.00**	**24.20**	**0.00**
Miscellaneous Processes								
610	Residential Fuel Combustion	38,850	0.12	0.95	14,180,326	45.3	347	12.9
620	Farming Operations			25.6	0.00	0.00	9,354	0.18
630	Construction and Demolition			0.00	0.00	0.00	0	0.00
640	Paved Road Dust			0.00	0.00	0.00	0	0.00
645	Unpaved Road Dust			0.00	0.00	0.00	0	0.00
650	Fugitive Windblown Dust			0.00	0.00	0.00	0	0.00
660	Fires			0.08	0.00	0.00	30.9	0.00
670	Waste Burning and Disposal			0.58	0.00	0.00	212	0.00
680	Utility Equipment				0.00	0.00		0.00
690	Cooking			0.64	0.00	0.00	235	0.00
699	Other (Miscellaneous Processes			0.00	0.00	0.00	0	0.00
Total Miscellaneous Processes		**38,850**	**0.12**	**27.9**	**14,180,326**	**45.3**	**10,179**	**13.1**

TABLE 3-4 (CONCLUDED)
2008 GHG Emissions for Basin

		Emission (TPD)			Emission (TPY)			MMTO NS
CODE	**Source Category**	**CO2**	**N2O**	**CH4**	**CO2**	**N2O**	**CH4**	**CO2e**
On-Road Motor Vehicles								
710	Light Duty Passenger Auto (LDA)	84,679	2.72	3.62	30,907,957	993	1,321	28.3
722	Light Duty Trucks 1 (T1 : up to 3750 lb.)	22,319	0.72	0.96	8,146,321	263	350	7.47
723	Light Duty Trucks 2 (T2 : 3751-5750 lb.)	33,495	1.08	1.43	12,225,619	392	523	11.2
724	Medium Duty Trucks (T3 : 5751-8500 lb.)	29,415	0.94	1.25	10,736,309	343	456	9.85
732	Light Heavy Duty Gas Trucks 1 (T4 : 8501-10000 lb.)	8,195	0.16	0.21	2,991,059	57.3	76.7	2.73
733	Light Heavy Duty Gas Trucks 2 (T5 : 10001-14000 lb.)	1,116	0.05	0.07	407,174	19.0	25.6	0.38
734	Medium Heavy Duty Gas Trucks (T6 : 14001-33000 lb.)	727	0.02	0.20	265,506	5.48	73.0	0.24
736	Heavy Heavy Duty Gas Trucks ((HHDGT > 33000 lb.)	102	0.01	0.01	37,198	2.19	2.56	0.03
742	Light Heavy Duty Diesel Trucks 1 (T4 : 8501-10000 lb.)	2,166	0.02	0.02	790,600	6.94	7.30	0.72
743	Light Heavy Duty Diesel Trucks 2 (T5 : 10001-14000 lb.)	735	0.01	0.01	268,413	2.56	2.92	0.24
744	Medium Heavy Duty Diesel Truck (T6 : 14001-33000 lb.)	5,422	0.02	0.02	1,978,974	8.40	8.76	1.80
746	Heavy Heavy Duty Diesel Trucks (HHDDT > 33000 lb.)	17,017	0.05	0.05	6,211,247	17.5	16.4	5.64
750	Motorcycles (MCY)	7,959	0.26	0.34	2,904,910	94.9	124	2.66
760	Diesel Urban Buses (UB)	2,135	0.00	0.00	779,389	1.46	1.46	0.71
762	Gas Urban Buses (UB)	166	0.02	0.02	60,654	8.40	6.94	0.06
770	School Buses (SB)	337	0.00	0.00	122,995	1.46	1.46	0.11
776	Other Buses (OB)	927	0.00	0.00	338,430	0.73	0.73	0.31
780	Motor Homes (MH)	568	0.03	0.04	207,431	11.0	14.6	0.19
Total On-Road Motor Vehicles		**217,480**	**6.11**	**8.26**	**79,380,188**	**155**	**187**	**72.7**
Other Mobile Sources								
810	Aircraft	37,455	0.10	0.09	13,670,930	36.5	31.8	12.4
820	Trains	586	0.00	0.00	213,835	0.45	1.38	0.19
830	Ships and Commercial Boats	3,452	0.01	0.02	1,259,927	2.64	8.13	1.14
	Other Off-road sources (construction equipment, airport equipment, oil and gas drilling equipment)	16,080	1.72	8.84	5,869,123	628	3,226	5.56
Total Other Mobile Sources		**57,572**	**1.83**	**8.95**	**21,013,816**	**668**	**3,268**	**19.3**
Total Stationary and Area Sources		**176,388**	**0.49**	**626**	**64,381,716**	**178**	**228,639**	**63**
Total On-Road Vehicles		**217,480**	**6.11**	**8.26**	**79,380,188**	**155**	**187**	**73**
Total Other Mobile*		**57,572**	**1.83**	**8.95**	**21,013,816**	**668**	**3,268**	**19**
Total 2008 Baseline GHG Emissions for Basin		**451,440**	**8.42**	**644**	**164,775,719**	**1,001**	**232,094**	**155**

HFC Emission Reduction Measures for Mobile Air Conditioning - Regulation for Small Containers of Automotive Refrigerant

The automotive refrigerant small containers regulation applies to the sale, use, and disposal of small containers of automotive refrigerant with a GWP greater than 150. Emission reductions are achieved through implementation of four requirements: 1) use of a self-sealing valve on the container, 2) improved labeling instructions, 3) a deposit and recycling program for small containers, and 4) an education program that emphasizes best practices for vehicle recharging. This regulation went into effect on January 1, 2010 with a one-year sell-through period for containers manufactured before January 1, 2010. The target recycle rate is initially set at 90 percent, and rose to 95 percent beginning January 1, 2012.

SCAQMD

The SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy targeted a transition away from chlorofluorocarbons (CFCs) as an industrial refrigerant and propellant in aerosol cans. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives for ODSs:

- 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; and
- Develop an emissions inventory and control strategy for methyl bromide.

Rule 1122 – Solvent Degreasers

Rule 1112 applies to all persons who own or operate batch-loaded cold cleaners, open-top vapor degreasers, all types of conveyorized degreasers, and air-tight and airless cleaning systems that carry out solvent degreasing operations with a solvent containing Volatile Organic Compounds (VOCs) or with a NESHAP halogenated solvent. Some ODSs (carbon tetrachloride and 1,1,1-trichloroethane) are NESHAP halogenated solvents.

Rule 1171 – Solvent Cleaning Operations

Rule 1171 reduces emissions of volatile organic compounds (VOCs), toxic air contaminants, and stratospheric ozone-depleting or globalwarming compounds from the use, storage and disposal of solvent cleaning materials in solvent cleaning operations and activities

CHAPTER 4

ENVIRONMENTAL IMPACTS

Introduction
Potential Environmental Impacts and Mitigation Measures
Potential Environmental Impacts Found Not to Be Significant
Significant Irreversible Environmental Changes
Potential Growth-Inducing Impacts
Consistency

INTRODUCTION

The CEQA Guidelines require environmental documents to identify significant environmental effects that may result from a proposed project [CEQA Guidelines §15126.2(a)]. Direct and indirect significant effects of a project on the environment should be identified and described, with consideration given to both short- and long-term impacts. The discussion of environmental impacts may include, but is not limited to: the resources involved; physical changes; alterations of ecological systems; health and safety problems caused by physical changes; and, other aspects of the resource base, including water, scenic quality, and public services. If significant adverse environmental impacts are identified, the CEQA Guidelines require a discussion of measures that could either avoid or substantially reduce any adverse environmental impacts to the greatest extent feasible [CEQA Guidelines §15126.4].

The CEQA Guidelines indicate that the degree of specificity required in a CEQA document depends on the type of project being proposed [CEQA Guidelines §15146]. The detail of the environmental analysis for certain types of projects cannot be as great as for others. For example, the environmental document for projects, such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan, should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the analysis need not be as detailed as the analysis of the specific construction projects that might follow. As a result, this ~~Draft~~ Final EA analyzes impacts on a regional level and impacts on the level of individual industries or individual facilities only where feasible.

The categories of environmental impacts to be studied in a CEQA document are established by CEQA [Public Resources Code, §21000 et seq.], and the CEQA Guidelines, as promulgated by the State of California Secretary of Resources. Under the CEQA Guidelines, there are approximately 17 environmental categories in which potential adverse impacts from a project are evaluated. Projects are evaluated against the environmental categories to determine those environmental categories that may be adversely affected by the proposed project are further analyzed in the appropriate CEQA document.

POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Pursuant to CEQA, an Initial Study, including an environmental checklist, was prepared for this project (see Appendix C). Of the 17 potential environmental impact categories, one (air quality and GHG emissions) was identified as being potentially adversely affected by the proposed project for operational NOx emission reductions foregone. No comment letters were received on the Initial Study.

The topic of operational air quality emissions is further evaluated in detail in this ~~Draft~~ Final EA. The environmental impact analysis for this environmental topic incorporates a "worst-case" approach. This approach entails the premise that whenever the analysis requires that assumptions be made, those assumptions that result in the greatest adverse impacts are typically chosen. This method ensures that all potential effects of the proposed project are documented for the decision-makers and the public. Accordingly, the following analyses use a conservative "worst-case" approach for analyzing the potentially significant adverse environmental impacts associated with the implementation of the proposed project.

Air Quality Greenhouse Gas Emission

The initial evaluation in the NOP/IS identified the topic of air quality and GHG emissions as potentially being adversely affected by the proposed project. Under this topic, the construction impacts for air quality and GHG emissions and operational GHG emissions were determined in the NOP/IS to be less than significant and, therefore, no further evaluation of this topic is required in this ~~Draft~~ Final EA. No comments on the NOP/IS prepared for the proposed project were received that disputed this conclusion. Thus, only operational air quality emissions were identified in the NOP/IS as needing further analysis in this ~~Draft~~ Final EA, specifically for NOx emission reductions foregone.

Significance Criteria

To determine whether air quality impacts from adopting and implementing the proposed project are significant, impacts will be evaluated and compared to the following criteria. If impacts exceed any of the significance thresholds in Table 4-1, they will be considered significant. All feasible mitigation measures will be identified and implemented to reduce significant impacts to the maximum extent feasible. The proposed project will be considered to have significant adverse air quality impacts if any one of the thresholds in Table 4-1 are equaled or exceeded.

The SCAQMD makes significance determinations for construction impacts based on the maximum or peak daily emissions during the construction period, which provides a "worst-case" analysis of the construction emissions. Similarly, significance determinations for operational emissions are based on the maximum or peak daily allowable emissions during the operational phase.

Project-Specific Air Quality Impacts During Operation

Equipment added to PAR 219 and/or PAR 222 and their operational air quality effects are presented in Table 4-2. Most of the equipment affected by the proposed project would be operated in the same fashion as under the existing permit system, which means they would be subject to any applicable rule requirements or permit conditions. Because this equipment would still be subject to applicable rule requirements or permit conditions, no operational air quality impacts are anticipated.

The proposed project, however, contains exceptions for the following types of equipment or operations that would exempt them from the emission control requirements of the currently applicable rules: piston-type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that are used exclusively for electrical generation at remote two-way radio transmission towers, which are currently regulated by Rule 1110.2; and Rule 1147 equipment (affected power pressure washers, asphalt day tankers, tar pots, portable diesel-fueled heaters, and diesel-fueled boilers). Pursuant to the proposed project, equipment currently subject to Rules 1110.2 and 1147 would no longer be subject to their respective rule requirements resulting in emission increases or emission reductions foregone (Table 4-2).

Table 4-1
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), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [d]		
NO2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contribu to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM10 24-hour average annual average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
PM2.5 24-hour average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation)	
SO2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contribu to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average Quarterly average	1.5 μg/m^3 (state) 0.15 μg/m^3 (federal) 1.5 μg/m^3 (federal)	

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

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO2eq = metric tons per year of CO2 equivalents > = greater than

Table 4-2
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Asphalt day tankers with a maximum capacity greater than 159 gallons but no more than 5,000 gallons and equipped with a demister and a burner that fire exclusively on liquefied petroleum gas (LPG)	Added to Table I	Added to (m)(23)	Rule 1147 (NOx)	NOx emission reductions foregone since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1) if placed in to PARs 219 and 222.
Asphalt pavement heaters used for road maintenance and new road construction.	Added to Table I	Removed from (a)(4) to (a)(5)	Rule 219 (a)(4)(NOx)	No emissions impact – equipment category moved from Rule 219 to PAR 222.
Diesel-fueled boilers that have a rated maximum heat input capacity of no more than 2,000,000 Btu/hour or less fueled with diesel #2 fuel, and are located more than 4,000 feet above sea level or more than 15 miles offshore from the mainland and in operation prior to the date of adoption.	Added to Table I	Added to (b)(2)	Rule 1147 (NOx)	NOx emission reductions foregone since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1) if placed in to PARs 219 and 222.
Food ovens with a rated maximum heat input capacity of 2,000,000 Btu/hour or less, and are fired exclusively on natural gas and where the VOC emissions from yeast fermentation are less than one pound per day.	Added to Table I	Added to (b)(2)	Rule 1147 (NOx)	NOx emission reductions foregone since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1) if placed in to PARs 219 and 222.
Fuel cells, which produce electricity in a electro-chemical reaction and use phosphoric acid, molten carbonate, proton exchange membrane, or solid oxide technologies; and are equipped with a heater producing supplemental heat with a rated heat input capacity of 90,000 therms per year or less	Added to Table I	Added to b(5)	Rule 1150.1 (landfill gas)	No emissions impact - these are closed units and there is no difference in emissions between permitted and unpermitted equipment.
Micro-turbines, with a maximum rated heat input capacity of 3,500,000 British thermal units (Btu) per hour or less, provided that the cumulative power output of all such engines at a facility is less than two megawatts, and that the engines are certified at the time of installation with the state of California or were in operation prior to date of amendment.	Added to Table I	Added to b(1)	Rule 1150.1 (landfill gas)	No emissions impact - language requiring DG certification is equivalent to BACT.

Table 4-2 (Continued)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Natural gas, propane and oil odorant storage, of less than 950 liters (251 gallons) capacity and associated transfer and control equipment used exclusively for such equipment.	Added to Table I	Added to m(9)	Rule 219 (m)(9)	No emissions impact - Odorant tanks are exempted from written permit by Rule 219 (m)(9). PAR 219 would add language clarifying that natural gas, propane and oil odorant storage tanks are exempt from written permits under this provision.
Portable diesel fueled heaters, with a rated maximum heat input capacity of no more than 250,000 Btu/hour or less and designed to be fired exclusively on diesel fuel only.	Added to Table I	Added to b(4)	Rule 1147 (NOx)	NOx emissions since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1) if placed in to PARs 219 and 222.
Power pressure washers and hot water or steam washers and cleaners that are equipped with a heater or burner that is designed to be fired exclusively on diesel fuel, has a maximum rated heat input capacity of 550,000 Btu/hour or less, is equipped with a non-resettable chronometer, and the maximum NOx emission output of the equipment is less than one pound per day and uses no more than 50 gallons of fuel per day.	Added to Table I	Added to b(4)	Rule 1147 (NOx)	NOx emissions since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1)
Tar pots or tar kettles with a maximum storage capacity greater than 600 liters (159 gallons) but no more than 3,785 liters (1000 gallons) and equipped with burner(s) that fire on liquefied petroleum gases.	Added to Table I	Added to m(11)	Rule 1147 (NOx), Rule 471 (VOC)	NOx emission reductions foregone since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1) if placed in to PARs 219 and 222.
Piston-type internal combustion engines used exclusively for electrical generation at remote two-way radio transmission towers where no utility, electricity or natural gas is available within a ½ mile radius with a manufacturer's rating of 100 brake horsepower or less and are fired exclusively on diesel #2 fuel.	Added to Table I	Added to (b)(1)	Rule 1110.2 (NOx)	NOx emission reductions foregone since these units would not need to comply with new or in-use requirements of Rule 1110.2 if placed in to PARs 219 and 222.

Table 4-2 (Continued)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Passive carbon adsorbers, with a maximum vessel capacity of no more than 120 gallons, ~~using no~~ without mechanical ventilation ~~with a volume of 555 gallons or less,~~ used exclusively for ~~foul air~~ odor control ~~from~~ at wastewater treatment plants or ~~sanitary~~ sewer collection systems, including ~~such as~~ sanitary sewers ~~lines~~, manholes and pump stations.	Not applicable	Added to (d)(10)	No source-specific requirements	There will not be any increase in emissions as there is currently no additional permit or control requirements for this equipment.
Crucible furnaces, pot furnaces, or induction furnaces with a capacity of 450 kilograms (992 pounds) or less each, where no sweating or distilling is conducted and where only the following materials are poured or held in a molten state and control equipment exclusively venting the equipment: Glass Ceramic materials, including glass and porcelain	Not applicable	Added to (e)(2)(G)	Currently treated as exempt	No emissions impact - this is a clarification
Welding equipment, oxygen gaseous fuel-cutting equipment and control equipment venting such equipment, or laser etching/engraving of metal (excluding metal containing chromium, cadmium or lead). This exemption does not include plasma arc-cutting equipment or laser cutting equipment that is used to cut stainless steel or alloys containing chrome, nickel, or cadmium, or laser cutters that are rated ~~136 amperes or more~~ more than 400 watts and control equipment venting such equipment.	Not applicable	Added to (e)(8)	Currently treated as exempt	No emissions impact - this is a clarification that ensures no toxic materials are involved
Printing and related coating and/or laminating equipment and associated dryers and curing equipment, as well as associated air pollution control equipment, provided that such dryers and curing equipment are exempt pursuant to paragraph (b)(2), and that air pollution control equipment is not required for source specific rule compliance, provided that…	Not applicable	Added to (h)(1)	Currently treated as exempt	No emissions impact - this is a clarification that if a piece of air pollution control equipment is not required it does not need a permit

Table 4-2 (Continued)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Hand application of materials used in printing operations including but not limited to the use of squeegees, screens, stamps, stencils, and any hand tools, and associated air pollution control equipment, unless air pollution control equipment is required for source specific rule compliance	Not applicable	Added to (h)(7)	Currently treated as exempt under	No emissions impact - this is a clarification that if a piece of air pollution control equipment is not required it does not need a permit
Equipment used exclusively for tableting, or packaging vitamins, or coating vitamins, herbs, or dietary supplements provided that the ~~facility~~ equipment uses waterborne solutions that contain a maximum VOC content of no more than 25 grams per liter or uses less than one gallon per day or twenty-two (22) gallons per month of VOC containing solvents, and control equipment used exclusively to vent such equipment.	Not applicable	Added to (i)(9)	Currently treated as exempt under	No emissions impact - this is a clarification that packaging vitamins is exempt and allows use of exempt waterborne solutions in this operation
Equipment used exclusively for tableting or packaging pharmaceuticals and cosmetics, or coating pharmaceutical tablets, provided that the ~~facility~~ equipment uses waterborne solutions that contain a maximum VOC content of no more than 25 grams per liter, or uses less than one gallon per day or twenty-two (22) gallons per month of VOC containing solvents; and control equipment used exclusively to vent such equipment.	Not applicable	Added to (i)(10)	Currently treated as exempt under	No emissions impact - this is a clarification that allows use of exempt waterborne solutions in this operation; the use of waterborne solutions are currently exempt
Charbroilers for multi-family residential units if used by the owner or occupant of such dwelling for non-commercial purposes.	Not applicable	Added to (i)(12)	Currently treated as exempt	No emissions impact - this is a clarification that owner/occupants can barbeque at their residence
Batch mixers, which have a brimful capacity of 55 gallons or less (7.35 cubic feet) and control equipment exclusively venting the equipment and associated filling equipment.	Not applicable	Added to (k)(1)	Currently treated as exempt	No emissions impact - clarification - filling equipment does not produce any quantifiable emissions in this application

Table 4-2 (Continued)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Equipment used exclusively for mixing and blending of materials where no VOC containing solvents are used and no materials in powder form are added and associated filling equipment	Not applicable	Added to (k)(2)	Currently treated as exempt	No emissions impact - clarification - filling equipment does not produce any quantifiable emissions in this application
Cosmetics filling stations where the filling equipment is hard piped to the cosmetics mixer or the holding tank feeding the filling equipment provided the mixer and holding tank is exempt under this rule	Not applicable	Added to (k)(5)	Currently treated as exempt	No emissions impact - clarification - filling equipment does not produce any quantifiable emissions in this application
Equipment used exclusively for the packaging of sodium hypochlorite-based household cleaning or sodium hypochlorite-based pool products and control equipment used exclusively vent the equipment	Not applicable	Added to (k)(8)	Currently treated as exempt	No emissions impact - clarification on sodium hypochlorite
Coating or adhesive application or laminating equipment such as air, airless, air-assisted airless, high volume low pressure (HVLP), air brushes ~~and~~ electrostatic spray equipment, ~~and~~ roller coaters, dip coaters, vacuum coaters, flow coaters and spray machines provided that	Not applicable	Added to (l)(6)	Currently treated as exempt	No emissions impact - clarification that air brushes are also exempt
Equipment used exclusively for the storage and transfer of refined lubricating or hydraulic oils and control equipment used exclusively to vent such equipment.	Not applicable	Added to (m)(7)	Rule 463 (VOC)	No emissions impact - clarification - hydraulic oils are refined oils
Hand application of solvents for cleaning purposes including but not limited to use of rags, daubers, swabs, and squeeze bottles as well as associated air pollution control equipment, unless air pollution control equipment is required for source specific rule compliance.	Not applicable	Added to (o)(4)	Rule 1171 (VOC)	No emissions impact - this is a clarification that if a piece of air pollution control equipment is not required it does not need a permit
Paper shredding, carpet and paper shearing ~~and~~ as well as associated conveying systems, baling equipment, and control equipment venting such equipment.	Not applicable	Added to (p)(10)	Rule 404 (PM), Rule 405 (PM)	No emissions impact - carpet shearing does not produce quantifiable PM 2.5 or PM 10

Table 4-2 (Concluded)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Equipment used to recycle aerosol paint cans by puncturing the can in an enclosed system which is vented through an activated carbon filter. This exemption shall only apply to aerosol recycling systems where the product within the aerosol can recycled was from aerosol cans used as part of their operation at the facility or facilities under common ownership	Not applicable	Added to (p)(22)	Currently treated as exempt	No emissions impact - this is a closed system vented to carbon

For example, to comply with Rule 1110.2 requirements, the piston-type internal combustion engines used at remote two-way radio transmission towers would have been required to comply with Rule 1110.w requirements, which would have resulted in existing engines being replaced with engines that operate on propane or retrofitted with aftertreatment emission control technology. Similarly, to comply with Rule 1147 requirements, power pressure washers, asphalt day tankers, and asphalt tar pots would likely have been required to replace existing burners with low NOx burners or replace equipment with equipment that is not fueled by diesel. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled pressure washers, portable diesel heaters and diesel boilers would likely to have been replaced with alternative-fueled equipment (natural gas or propane). Rule 1147 was designed to be a retrofit not replacement rule; therefore, replacement of existing equipment was not intended by Rule 1147 requirements.

The CEQA documents for Rule 1110.2 analyzed potential impacts from operators of diesel-fueled engines switching to natural gas fueled equipment connected to natural gas pipes, which would have eliminated some diesel fuel delivery trips. Propane and liquefied natural gas (LNG) fueled equipment would have still required fuel delivery trips. Equipment retrofitted with aftertreatment may have required catalyst replacement trips, CEMS calibration trips, etc. However, it is not known what owner/operators would have done to comply with future requirements of Rule 1147 or Rule 1110.2, therefore, it is difficult to quantify differences in fuel consumed by the affected sources if they had complied with the emission reduction requirements of Rules 1147 or 1110.2, fuel or equipment delivery trips, or any additional inspection trips to monitor compliance with the applicable rule requirements. Since trips associated with these compliance activities are routine but infrequent, any changes in the number of vehicle trips on a daily basis between complying with Rule 1147 or Rule 1110.2 and continuing existing operations, as would be the case under the proposed project, would not likely be different compared to the baseline vehicle trips per day. Therefore, it would be speculative to estimate differences between vehicle trips during baseline operations and vehicle trips associated with rule compliance. Since any changes in the number of vehicle trips per day are considered to be speculative, this impact will not be considered further.

The net effect of adding equipment currently subject to Rules 1110.2 or 1147 to PARs 219 and 222 and exempting them from applicable rule emission reduction requirements is that there would be anticipated NOx emission reductions forgone compared to the anticipated emission reductions identified in the CEQA documents for Rules 1147 and 1110.2. NOx emission reductions foregone for each piece of either Rule 1147 or Rule 111.2 equipment are shown on Table 4-3 and detailed in Appendix B "Assumptions and Calculations." As shown in Table 4-3, NOx emission reductions foregone exceed the SCAQMD's operational NOx significance threshold (55 pounds per day) and, therefore, are concluded to be significant.

Project-Specific Mitigation for Air Quality Impacts During Operation: As concluded above, the air quality analysis for the proposed project indicates that NOx emission reductions foregone during operation would exceed the applicable NOx significance threshold (55 pounds per day) and were concluded to be significant. If significant adverse environmental impacts are identified in a CEQA document, the CEQA document shall describe feasible measures that could minimize the significant adverse impacts (CEQA Guidelines §15126.4).

Equipment currently subject to Rule 1147 that would be added to Rules 219 and 222 are small NOx emitting equipment. ~~r~~Retrofitting ~~these~~ this equipment with low NOx burners presents a

compliance challenge because of the lack of availability of low NOx burners for all types of equipment. The only other compliance option for these small pieces of equipment would be to replace the equipment with clean fuel equipment, which is costly. As already noted, the intent of Rule 1147 is a retrofit rule not an equipment replacement rule. Similarly, retrofitting the Rule 1110.2 equipment is costly and because the equipment is located in remote locations at high elevations, switching to natural gas is untenable because no natural gas pipelines extend to these locations and switching to other clean fuels is not possible because fuels would have to be trucked to the equipment, which may not be possible during winter inclement weather conditions. For these reasons, there are no feasible mitigation measures that would reduce or eliminate the expected NOx emission reductions foregone pursuant to the original rules' compliance schedules. Consequently, the operational air quality impacts from the proposed project cannot be mitigated to less than significant.

Table 4-3
Daily NOx Emission Reductions Foregone for PARs 219 and 222

Proposed New Rule 222 Equipment Categories And Par 219 Exemptions	Number of Existing Units	NOx Reductions Foregone[a] (lb/day)
Pressure Washers	261	12
Asphalt Day Tankers	58Why aren't all 72 included here? See comment p.5-8	10
Asphalt Tar Pots	147	37
Small Food Ovens	55	22
Portable Diesel Heaters	9	1.1
Diesel Boiler	5	0.7
Piston-type Internal Combustion Engines used at Two-way Radio Transmission Towers	16	56
Totals	553	139
Significance Criteria, lb/day		55
Significant?		Yes

a) Detailed calculations are included in Appendix B.

Remaining Air Quality Impacts During Operation: The air quality analysis concluded that operational air quality NOx emission reductions foregone of 139 pounds per day treated as NOx emissions would exceed the SCAQMD's NOx significance thresholds of 55 pounds per day and no feasible mitigation measures were identified that could reduce impacts to less than significant. As a result, Findings and a Statement of Overriding Considerations will be prepared for the Governing Board's consideration and approval prior to the public hearings for the proposed amendments.

Cumulative Air Quality Impacts During Operation:
The preceding project-specific analysis concluded that air quality impacts during operation would be significant from implementing the proposed project NOx emission reductions foregone would exceed the SCAQMD's NOx significance threshold for operation. Thus, the air quality

impacts during operation are considered to be cumulatively considerable pursuant to CEQA Guidelines §15064 (h)(1).

Even though the proposed project would result insignificant adverse project-specific NOx emission reductions foregone during operation, they are not expected to interfere with the air quality progress and attainment demonstration projected in the AQMP. The reason for this conclusion is that, overall, both Rules 1147 and 1110.2 are expected to result in net NOx emission reductions from affected equipment. Further, based on regional modeling analyses performed for the 2012 AQMP, implementing control measures contained in the 2012 AQMP, in addition to the air quality benefits of the existing rules with future compliance dates, is anticipated to bring the district into attainment with all national and most state ambient air quality standards by the year 2014 for the federal 24-hour PM2.5 standard and by the year 2023 for the federal eight-hour ozone standard. Therefore, cumulative operational air quality impacts from the proposed project, previous amendments and all other AQMP control measures considered together, are not expected to be significant because implementation of all AQMP control measures is expected to result in net emission reductions and overall air quality improvement. This determination is consistent with the conclusion in the 2012 AQMP Final Program EIR that cumulative air quality impacts from all AQMP control measures are not expected to be significant (SCAQMD, 2012). Therefore, there would be no significant adverse cumulative adverse operational air quality impacts from implementing the proposed project.

Cumulative Mitigation Measures During Operation: The analysis indicates that the proposed project would result a loss of NOx emission reductions during operation of the proposed project, but the loss would not result in adverse significant cumulative air quality impacts because previous amendments and all other AQMP control measures considered together. Thus, no cumulative mitigation measures for operation are required.

POTENTIAL ENVIRONMENTAL IMPACTS FOUND NOT TO BE SIGNIFICANT

While all the environmental topics required to be analyzed under CEQA were reviewed in the NOP/IS to determine if the proposed project would create significant impacts, the screening analysis concluded that the following environmental areas would not be significantly adversely affected by the proposed project: air quality and GHG emissions during construction and GHG emissions during operation, aesthetics, agriculture and forestry resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste, and transportation/traffic.

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines §15126(c) requires an environmental analysis to consider "any significant irreversible environmental changes which would be involved if the proposed action should be implemented." This EA identified the topic of air quality during operation as the only environmental area potentially adversely affected by the proposed project.

Even though the proposed project would resulting NOx emission reductions foregone during operation that exceeds the applicable operational air quality significance threshold, they would for the following reasons not be expected to interfere with the air quality progress and attainment demonstration projected in the AQMP. Based on regional modeling analyses performed for the 2012 AQMP, implementing control measures contained in the 2012 AQMP, in addition to the air quality benefits of the existing rules, is anticipated to bring the district into attainment with all national and most state ambient air quality standards by the year 2023. Therefore, cumulative

operational air quality impacts from the proposed project, previous amendments and all other AQMP control measures considered together, are not expected to be significant because implementation of all AQMP control measures is expected to result in net emission reductions and overall air quality improvement. This determination is consistent with the conclusion in the 2012 AQMP Final Program EIR that direct cumulative air quality impacts from all AQMP control measures are not expected to be significant (SCAQMD, 2012). For these aforementioned reasons, the proposed project would not result in irreversible environmental changes or irretrievable commitment of resources.

POTENTIAL GROWTH-INDUCING IMPACTS

CEQA Guidelines §15126(d) requires an environmental analysis to consider the "growth inducing impact of the proposed action." Implementing the proposed project will not, by itself, have any direct or indirect growth-inducing impacts on businesses in the SCAQMD's jurisdiction because it is not expected to foster economic or population growth or the construction of additional housing and primarily affects existing facilities.

CONSISTENCY

CEQA Guidelines §15125(d) requires an EIR to discuss any inconsistencies between a proposed project and any applicable general plans or regional plans. SCAG and the SCAQMD have developed, with input from representatives of local government, the industry community, public health agencies, the USEPA - Region IX and CARB, guidance on how to assess consistency within the existing general development planning process in the Basin. Pursuant to the development and adoption of its Regional Comprehensive Plan Guide (RCPG), SCAG has developed an Intergovernmental Review Procedures Handbook (June 1, 1995). The SCAQMD also adopted criteria for assessing consistency with regional plans and the AQMP in its CEQA Air Quality Handbook. The following sections address the consistency between the proposed project and relevant regional plans pursuant to the SCAG Handbook and SCAQMD Handbook.

Consistency with Regional Comprehensive Plan and Guide (RCPG) Policies

The RCPG provides the primary reference for SCAG's project review activity. The RCPG serves as a regional framework for decision making for the growth and change that is anticipated during the next 20 years and beyond. The Growth Management Chapter (GMC) of the RCPG contains population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review. It states that the overall goals for the region are to: 1) re-invigorate the region's economy; 2) avoid social and economic inequities and the geographical isolation of communities; and, 3) maintain the region's quality of life.

Consistency with Growth Management Chapter (GMC) to Improve the Regional Standard of Living

The Growth Management goals are to develop urban forms that enable individuals to spend less income on housing cost, that minimize public and private development costs, and that enable firms to be more competitive, strengthen the regional strategic goal to stimulate the regional economy. The proposed project in relation to the GMC would not interfere with the achievement of such goals, nor would it interfere with any powers exercised by local land use agencies. Further, the proposed project will not interfere with efforts to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.

Consistency with Growth Management Chapter (GMC) to Provide Social, Political and Cultural Equity

The Growth Management goals to develop urban forms that avoid economic and social polarization promotes the regional strategic goals of minimizing social and geographic disparities and of reaching equity among all segments of society. Consistent with the Growth Management goals, local jurisdictions, employers and service agencies should provide adequate training and retraining of workers, and prepare the labor force to meet the challenges of the regional economy. Growth Management goals also includes encouraging employment development in job-poor localities through support of labor force retraining programs and other economic development measures. Local jurisdictions and other service providers are responsible to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection. Implementing the proposed project has no effect on and, therefore, is not expected to interfere with the goals of providing social, political and cultural equity.

Consistency with Growth Management Chapter (GMC) to Improve the Regional Quality of Life

The Growth Management goals also include attaining mobility and clean air goals and developing urban forms that enhance quality of life, accommodate a diversity of life styles, preserve open space and natural resources, are aesthetically pleasing, preserve the character of communities, and enhance the regional strategic goal of maintaining the regional quality of life. The RCPG encourages planned development in locations least likely to cause environmental impacts, as well as supports the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals. While encouraging the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites, the plan discourages development in areas with steep slopes, high fire, flood and seismic hazards, unless complying with special design requirements. Finally, the plan encourages mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and develop emergency response and recovery plans. The proposed project has no impact on any of these issues except air quality. However, since the project would not interfere with the AQMP, it will not be inconsistent with the goal of improving the regional quality of life. Therefore, in relation to the GMC, the proposed project is not expected to interfere, but rather with attaining and maintaining the air quality portion of these goals.

Consistency with Regional Mobility Element (RMP) and Congestion Management Plan (CMP)

PARs 219 and 222 are consistent with the RMP and CMP since no significant adverse impact to transportation/circulation would result from specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Because affected facilities are not expected to increase their handling capacities, there would not be an increase in material transport trips associated with the implementation of PARs 219 and 222. Therefore, PARs 219 and 222 are not expected to significantly adversely affect circulation patterns or congestion management.

CHAPTER 5

ALTERNATIVES

Introduction
Alternatives Rejected as Infeasible
Description of Alternatives
Comparison of Alternatives
Lowest Toxic and Environmentally Superior Alternatives
Conclusion

INTRODUCTION

This ~~Draft~~ Final EA provides a discussion of alternatives to the proposed project as required by CEQA. Alternatives include measures for attaining objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. A 'no project' alternative must also be evaluated. The range of alternatives must be sufficient to permit a reasoned choice, but need not include every conceivable project alternative. CEQA Guidelines §15126.6(c) specifically notes that the range of alternatives required in a CEQA document is governed by a 'rule of reason' and only necessitates that the CEQA document set forth those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision making and meaningful public participation. A CEQA document need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative. SCAQMD Rule 110 (the rule which implements the SCAQMD's certified regulatory program) does not impose any greater requirements for a discussion of project alternatives in an environmental assessment than is required for an EIR under CEQA.

Three alternatives to the proposed project are summarized in Table 5-1: Alternative A (No Project), Alternative B (Reduction in Size), and Alternative C (Excluded Equipment). Pursuant to CEQA Guidelines §15126.6 (b) the purpose of an alternatives analysis is to reduce or avoid potentially significant adverse effects that a project may have on the environment. The only environmental topic area identified in the NOP/IS that may be adversely affected by the proposed project was air quality impacts during operation. A comprehensive analysis of project-specific and cumulative operational air quality impacts is included in Chapter 4 of this document. In addition to identifying project alternatives, this chapter provides a comparison of the potential operational air quality impacts from each of the project alternatives relative to the proposed project, which are summarized in Table 5-2. Aside from this topic, no other significant adverse impacts were identified for the proposed project or any of the project alternatives. As indicated in the following discussions, the proposed project is considered to provide the best balance between meeting the objectives of the project while minimizing potentially significant adverse environmental impacts.

ALTERNATIVES REJECTED AS INFEASIBLE

A CEQA document should identify any alternatives that were considered by the lead agency, but were rejected as infeasible during the scoping process and explain the reasons underlying the lead agency's determination [CEQA Guidelines §15126.6(c)].

Equipment categories or operations added to Rule 219 are considered to be low emitting and most are not currently subject to applicable rule requirements or permit conditions. For the proposed project these types of equipment or operations have little or no effect on operational emission impacts. Consequently, although potential alternatives to limit the number of equipment categories of small equipment added to Rule 219 is considered a feasible alternative, it does not serve the purpose of an alternatives analysis, which is to reduce potentially significant adverse impacts that would otherwise be generated by the proposed project. Therefore, this type of reduced category exemption is not considered further.

As indicated in Chapter 4, only equipment that are currently subject to either Rule 1110.2 or Rule 1147 contribute to significant adverse operational NOx air quality impacts because these equipment would no longer be subject to their respective rules. Alternatives similar to Alternative B, which would lower the size of additional categories of equipment besides tar pots

were also considered. However, the remaining equipment categories for Rule 1147 equipment are standard in sizes, so reducing the sizes of other 1147 equipment is not considered to be a feasible alternative.

Table 5-1
Summary of PARs 219 and 222 and Project Alternatives

Project	Project Description
Proposed Project	Existing list of affected equipment that contribute to significant adverse operation NOx air quality impacts would include power pressure washers, asphalt day tankers, tar pots, food ovens, portable diesel-fueled heaters, diesel-fueled boilers, and piston-type internal combustion engines used at remote two-way radio transmission towers.
Alternative A (No Project)	PARs 219 and 222 would not be amended. The net result is that equipment would still be subject to permitting requirements and Rule 1110.2 and Rule 1147 equipment would continue to be subject to their respective rules.
Alternative B (Reduction in Size)	The affected equipment size for asphalt day tankers and tar pots would be lowered.
Alternative C (Excluded Equipment)	Power pressure washers and food ovens would not be included in PARs 219 and 222.

Table 5-2
Comparison of Adverse Environmental Impacts of the Alternatives

Category	**Proposed Project**	**Alternative A:** No Project	**Alternative B:** Reduction in Size	**Alternative C:** Excluded Equipment
Operational NOx Air Quality Impacts	139 pounds of NOx emission reductions foregone per day.	No change from existing setting, (i.e., 139 pounds of NOx emission reductions from affected Rule 1110.2 and 1147 equipment)	136 pounds of NOx emission reductions foregone per day.	103 pounds of NOx emission reductions foregone per day.
Significant?	Yes	No	Yes	Yes

An Alternative similar to Alternative C was considered, which would eliminate additional categories of equipment from the proposed project. For Alternative C, power pressure washers and food ovens would be removed from the proposed project because, in some cases Rule 1147 compliance options may be considered feasible. However, review of the remaining Rule 1147 equipment categories indicated that compliance options were too costly or required replacing the equipment category with a new piece of equipment operating on natural gas or other clean fuels. As already noted, the intent of Rule 1147 is a retrofit rule, not an equipment replacement rule. Therefore, this alternative was also rejected as infeasible.

DESCRIPTION OF ALTERNATIVES

The project alternatives described in the following subsections were developed by modifying specific components of the proposed project. The rationale for selecting and modifying specific components of the proposed project to generate feasible alternatives for the analysis is based on CEQA's requirement to present "realistic" alternatives; that is, alternatives that can actually be implemented.

It was concluded in the analysis of operational NOx air quality impacts from the proposed project in Chapter 4 of this EA that, of the amendments proposed, only the components that result in eliminating NOx emission limits for equipment currently subject to Rules 1110.2 or 1147, could have potentially significant adverse NOx air quality impacts during operation. As such, the following three alternatives were developed by identifying and modifying major components of the proposed project. Specifically, the primary components of the proposed alternatives that have been modified are the source categories that may contribute to significant NOx air quality impacts. The alternatives, summarized in Table 5-1 and described in more detail in the following subsections, include the following: Alternative A – No Project, Alternative B – Size Reduction, and Alternative C – Excluded Equipment. Unless otherwise specifically noted, all other components of the project alternatives are identical to the components of the proposed project. The following subsections provide a brief description of each alternative.

Alternative A - No Project

Alternative A or 'no project' means that the proposed project would not be adopted and the current universe of equipment would continue to be subject to permitting requirements and equipment currently subject to Rules 1110.2 or 1147 would continue to be subject to the NOx emission limits according to the current compliance schedules for each rule. By continuing to subject equipment regulated by Rules 1110.2 or 1147 to NOx emission control requirements pursuant to the currently compliance schedule for certain in-use equipment categories, some equipment owners/operators would continue to experience compliance challenges with the NOx control requirements and certain compliance dates in the rules. In some cases, the effective dates may have already passed. Thus, under Alternative A, owners/operators of equipment not able to meet the applicable NOx emission limits under Rule 1110.2 or Rule 1147 would likely need to shut down the affected equipment. No significant adverse operational NOx air quality impacts would occur from shutting down non-compliant equipment under Alternative A because the NOx emission reductions would occur according to the original schedule in Rule 1147.

Alternative B – Reduction in Size

SCAQMD staff evaluated all equipment currently subject to Rules 1110.2 or 1147 proposed to be included in PARs 219 and 222 and that contribute to significant adverse operational NOx emission reductions foregone to determine if equipment size could be reduced thereby reducing the amount of NOx emission reductions foregone. The results of the evaluation of size for each piece of affected equipment are summarized in Table 5-3. The evaluation results identified only asphalt day tankers and tar pots as equipment where the size could be reduced. Therefore, Alternative B would exempt asphalt day tankers with a holding capacity of less than 4,000 gallons and tar pots with a holding capacity of less than 800 gallons per day from written permit requirements. Like the proposed project, Alternative B would continue to include filing requirements under Rule 222 for asphalt day tankers and tar pots exempted from written permit.

Table 5-3
Equipment That Could Be Adjusted in Size or Excluded from PAR 219 and 222

Equipment Categories	Adjustment to Equipment Size	Exclude from PAR 219 and 222
Power Pressure Washers	Cannot be size adjusted, standard equipment size	Could be excluded because electric equipment potentially available
Asphalt Day Tankers	A reduction in capacity could be made, which would exclude the largest asphalt day tankers in the proposed project.	No exclusion, affected equipment is already LPG fired, cannot electrify.
Tar Pots	A reduction in capacity could be made, which would exclude the largest tar pots in the proposed project.	No exclusion, affected equipment is already LPG fired, cannot electrify.
Food Ovens	Cannot be size adjusted, standard equipment size	Could be excluded because electric equipment potentially available
Portable Diesel-fueled Heaters	Cannot be size adjusted, standard equipment size	No exclusion, diesel fuel is safest portable fuel
Diesel-fueled Boiler	Cannot be size adjusted, equipment is sized to use	No exclusion, controls and monitoring equipment and alternative fuel cannot support boilers when equipment cannot be accessed because of weather.
Piston-type Internal Combustion Engines at Remote Two-Way Radio Transmission Towers	Cannot be size adjusted, equipment is sized to use	No exclusion, controls and monitoring equipment and alternative fuel cannot support engines when equipment cannot be accessed because of weather.

Alternative C – Excluded Equipment

SCAQMD staff evaluated all equipment currently subject to Rules 1110.2 or 1147 proposed to be included in PARs 219 and 222 and that contribute to significant adverse operational NOx emission reductions foregone to determine if any equipment could be excluded from the proposed project because of the potential availability of replacement equipment powered by clean fuels, including electricity. The results of the evaluation to identify affected equipment that could be excluded from the proposed project are summarized in Table 5-3. It was concluded in the review of equipment that could be eliminated from the proposed project that only power pressure washers and small food ovens could be feasibly excluded because of the availability of potential replacements that would be operated on electricity. Therefore, Alternative C would exclude power pressure washers and food ovens from PARs 219 and 222.

COMPARISON OF THE ALTERNATIVES

The following section describes the potential adverse operational NOx air quality impacts that may be generated by each project alternative compared to the proposed project. The operational NOx air quality impacts for the proposed project and each project alternative are also provided in Table 5-2.

AIR QUALITY

Alternative A - No Project

Unlike the proposed project, it is not anticipated that Alternative A would generate significant adverse NOx emission impacts during operation because owners/operators of affected equipment/source categories currently subject to either Rule 1110.2 or Rule 1147 would continue to be subject to the applicable NOx emission limits in accordance with the current compliance schedules in each rule. By not adopting the proposed project, the projected NOx emission reductions identified in the applicable CEQA documents for Rules 1110.2 or 1147 and corresponding health benefits would be expected to occur according to the original compliance schedules for each rule through installing control equipment, if available; replacing existing equipment with new compliant equipment; or taking the affected non-compliant equipment out of service. Consequently, Alternative A would achieve the 139 pounds per day of NOx emission reductions that would otherwise be foregone under the proposed project.

Alternative B – Reduction in Size

Since the asphalt day tankers and tar pots are LPG-fired, it is unlikely that retrofitting equipment with low NOx burners would result in any NOx emission reductions because LPG is generally a clean burning fuel. Currently, there is no technology to reduce the NOx emissions from the burner(s) typically used in asphalt day tankers and tar pots. Therefore, similar to the proposed project, there would be no construction emission from retrofitting equipment associated with Alternative B.

Large asphalt day tankers and tar pots that would be excluded from Rules 219 and 222 under Alternative B would continue to be subject to Rule 1147 NOx concentration limits. Specifically, of the 58 existing asphalt day tankers that would qualify to be exempted from written permits under PARs 219 and 222, eight have an asphalt holding capacity of 4,000 gallons or greater (4,000 to 4,200 gallons). Of the existing 50 units that would qualify to be exempted from written permits under Alternative B, 12 have an asphalt holding capacity of 3,878 gallons. All remaining affected tanks are 3,600 gallons in holding capacity or less.

Because fewer asphalt day tankers would be included in Alternative B, NOx emission reductions foregone would be less than NOx emission reductions foregone. Alternative B would result in operational NOx emission reductions foregone of 8.4 pounds per day from asphalt day tankers compared to the operational NOx emission reductions foregone from the proposed project of 10 pounds per day from asphalt day tankers. Detailed calculations are presented in Appendix C.

Of the 147 tar pots that would be included in PARs 219 and 222, two of the existing tar pots have a tar holding capacity of 1,000 gallons and two have a tar holding capacity of 845 gallons. All of the remaining 143 affected tar pots have a tar holding capacity of 750 gallons or less and would be included in Alternative 3.

Since the exemption from written permit requirements pursuant to Rule 219 and filing requirement under Rule 222 would be limited to tar pots with a holding capacity of less than 800 gallons, then Alternative B would result in NOx emission reductions foregone of 35 pounds per day from tar pots compared to 37 pounds per day of NOx emission reductions foregone from the proposed project from tar pots.

Alternative B would result in 136 pounds of NOx emission reduction foregone, which is three pounds fewer NOx emission reduction foregone than the proposed project. Detailed calculations are presented in Appendix C.

Alternative C – Excluded Equipment

All 258 power pressure washers and all 55 small food ovens that would qualify to be exempted from written permits under PARs 219 and 222 would be excluded from Alternative C because it is assumed that these types of equipment could be replaced with electric equipment. Excluding power pressure washers and small food ovens means that these types of equipment would continue to be subject the Rule 1147 NOx control requirements, but more likely, would replace equipment with electric equipment and would no longer be subject to Rule 1147.

To analyze the operation emission effects of Alternative C, it was assumed that existing equipment would be replaced with electric equipment because electric equipment is assumed to be the only feasible compliance option available. Using this assumption, direct emissions from affected equipment would be eliminated, or zero emissions, instead of continuing to produce combustion emissions in compliance with the Rule 1147 NOx control requirements of 40 ppm NOx concentration limit for power pressure washers and 30 ppm NOx concentration limit for small food ovens. There would be emissions from the generation of electricity to power these units, but the emissions would be less than the emissions generated by the existing units. To provide a conservative analysis, it was assumed that the NOx emissions from Rule 1147 compliant equipment would be equivalent to the expected 40 ppm NOx concentration limit for power pressure washer and the 30 ppm NOx concentration limit for small food ovens, which would result in no NOx emission reductions foregone from the portable power pressure washer and food ovens. This means that the originally anticipated NOx emission reductions from these categories of equipment identified in the CEQA document for Rule 1147 would continue to occur, resulting in lower emission reductions foregone compared to the proposed project as explained in the following paragraph. Detailed calculations are presented in Appendix C.

Excluding power pressure washers and small food ovens from Alternative C would result in 103 pounds per day of operational NOx emission reductions foregone compared to 139 pounds per day of operational NOx emission reductions foregone per day under the proposed project, a difference of 36 pounds per day of operational NOx emission reductions foregone (12 pounds per day NOx emission reductions foregone per day from power pressure washers under the proposed project – 24 pounds per day NOx emission reductions foregone per day from small food ovens under the proposed project).

LOWEST TOXIC AND ENVIRONMENTALLY SUPERIOR ALTERNATIVES

In accordance with SCAQMD's policy document Environmental Justice Program Enhancements for FY 2002-03, Enhancement II-1 recommends that all SCAQMD CEQA assessments include a feasible project alternative with the lowest air toxics emissions. In other words, for any major equipment or process type under the scope of the proposed project that creates a significant

environmental impact, at least one alternative, where feasible, shall be considered from a "least harmful" perspective with regard to hazardous air emissions.

As indicated in Table 4-2, most equipment added to Rule 219 and/or 222 would continue to be subject to any applicable rules and existing permit conditions so any emissions from these categories of equipment would not change. Other equipment currently subject to Rules 1110.2 or 1147 that would be added to Rules 219 and 222 are generally subject to NOx control requirements and in the case of Rule 1110.2 are also subject to VOC and CO control requirements, not air toxics control requirements. However, the combustion fuel for many categories of affected equipment is diesel, which produces diesel particulates that are considered to be carcinogenic. For example, if the Rule 1147 equipment were to continue to be subject to the NOx emission reduction requirements, they would not be able to meet the NOx emission limits, so operators would either replace diesel-fueled equipment with new replacement units or the equipment would not be able to operate. Since diesel particulate matter is considered a carcinogenic toxic air contaminant, replacement or elimination of equipment fueled by diesel would result in less health risk. Thus, from the air toxics perspective, when compared to the proposed project and the other alternatives under consideration, if implemented, Alternative A is considered the lowest toxic alternative.

Implementing Alternative A means that there would be no NOx emission reductions foregone and the corresponding health benefits that result from the NOx emission reductions would occur compared to the proposed project and Alternatives B and C. Thus, Alternative A is considered to be the environmentally superior alternative. However, if the no project" alternative is determined to be the environmentally superior alternative, then the CEQA document shall identify an environmentally superior alternative among the other alternatives (CEQA Guidelines §15126.6 (e)(2)). Of the remaining alternatives evaluated, Alternative C is considered to be the environmentally superior alternative because it would result in the lowest level of operational NOx emission reductions foregone, 103 pounds per day of NOx emission reductions foregone per day compared to 139 pounds per day of operational NOx emissions foregone from the proposed project and 136 pounds per day of operational emission reductions foregone from Alternative B.

CONCLUSION

By not adopting the proposed project, Alternative A would achieve the 139 pounds per day of operational NOx emission reductions from Rule 1110.2 and Rule 1147 affected equipment. Implementing the NOx emission reductions according to Rule 1110.2 and Rule 1147 would achieve the NOx reduction goals and compliance objectives of these two rules and contribute to attaining the federal PM 2.5 standard by 2014 and the federal 8-hour ozone standard by 2023. However, Alternative A would not achieve any of the project objectives for the proposed project because: it would not provide regulatory relief to operators of equipment currently subject to Rule 1147 (project objective #1); it would not ensure public safety or provide regulatory relief to operators of equipment currently subject Rule 1110.2 (project objectives #2 and #3); and it would not provide administrative relief to operators of low emitting equipment by exempting them from written permit requirements pursuant to Rule 219 (project objective #4) or only requiring simple filing pursuant to Rule 222 (project objective #5).

Alterative B would exclude asphalt day tankers with a capacity of 4,000 gallons or greater and asphalt tar pots with a capacity of 800 gallons or greater. If Alternative B were implemented, it would result in 136 pounds of operational NOx emission reductions foregone per day, which

would exceed the operational NOx emissions significance threshold of 55 pounds per day. Therefore, Alternative B would be significance for NOx emission reductions foregone, but it would be three pounds of NOx emission reductions foregone per day less than the proposed project. Although Alternative B would achieve project objectives #2 and #3 (provide regulatory relief to operators of equipment currently subject Rule 1110.2 as effectively as the proposed project and ensure public safety; it would not achieve project objective #1 (provide regulatory relief to operators of equipment currently subject to Rule 1147) as effectively as the proposed project; nor would it achieve project alternatives #4 (provide administrative relief to operators of low emitting equipment by exempting them from written permit requirements pursuant to Rule 219) and #5 (provide administrative relief to operators of low emitting equipment by exempting them from written permit requirements pursuant to Rule 219) as effectively as the proposed project. The reason that Alternative B does not achieve project objectives #1, #4, and #5 as effectively as the proposed project is that fewer equipment categories that would otherwise be subject to Rule 1147 would be granted regulatory and administrative relief compared to the proposed project.

By excluding power pressure washers and small food ovens from Alternative C, operational NOx emission reductions foregone would be substantially reduced to 103 pounds per day compared NOx emission reductions foregone from the proposed project, 139 pounds per day. However, NOx emission reductions foregone from Alternative C would still exceed the SCAQMD's operational NOx significance threshold of 55 pounds per day. Therefore Alternative C would be significant for NOx emission reductions foregone, but it would be 36 pounds of NOx emission reductions foregone per day less than the proposed project. Although Alternative C would achieve project objective #2 and #3 (provide regulatory relief to operators of equipment currently subject Rule 1110.2 and ensure public safety) as effectively as the proposed project; it would not achieve project objective #1 (provide regulatory relief to operators of equipment currently subject to Rule 1147) as effectively as the proposed project; nor would it achieve project alternatives #4 and #5 as effectively as the proposed project. The reason that Alternative C does not achieve project objectives #1, #4, and #5 as effectively as the proposed project is that fewer equipment categories that would otherwise be subject to Rule 1147 would be granted regulatory and administrative relief compared to the proposed project.

When comparing the environmental effects of the project alternatives with the proposed project and evaluating the effectiveness achieving the project objectives of the proposed project to the project alternatives, the proposed project provides the best balance in achieving the project objectives while minimizing environmental impacts.

APPENDIX A (OF THE ~~DRAFT~~ FINAL ENVIRONMENTAL ASSESSMENT)

PROPOSED AMENDED RULES 219 AND 222

In order to save space and avoid repetition, please refer to the latest version of PARs 219 and 222 located elsewhere in the final rule package. The PARs 219 and 222 versions dated April 2013 of the proposed amended rules were circulated with the Draft EA released on February 8, 2013 for a 45-day public review and comment period ending March 26, 2013.

Original hard copies of the Draft EA, which include PARs 219 and 222 (dated April 2013) of the proposed amended rules circulated with the Draft EA, can be obtained through the SCAQMD Public Information Center at the Diamond Bar headquarters or by calling (909) 396-2039.

APPENDIX B (OF THE ~~DRAFT~~ FINAL ENVIRONMETNAL ASSESSMENT)

NOTICE OF PREPARATION/INITIAL STUDY (Environmental Checklist)

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

SUBJECT: **NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL ASSESSMENT**

PROJECT TITLE: **PROPOSED AMENDED RULE 219 – EQUIPMENT NOT REQUIRING A WRITTEN PERMIT PURSUANT TO REGULATION II AND PROPOSED AMENDED RULE 222 – FILING REQUIREMENTS FOR SPECIFIC EMISSION SOURCES NOT REQUIRING A WRITTEN PERMIT PURSUANT TO REGULATION II**

In accordance with the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (SCAQMD), as the Lead Agency, has prepared this Notice of Preparation of a Draft Environmental Assessment (NOP) and Initial Study (IS). This NOP and IS serve two purposes: 1) to solicit information on the scope of the environmental analysis for the proposed project, and 2) to notify the public that the SCAQMD will prepare a Draft Environmental Assessment (EA) to further assess potential environmental impacts that may result from implementing the proposed project.

This letter, NOP and the attached IS are not SCAQMD applications or forms requiring a response from you. Their purpose is simply to provide information to you on the above project. If the proposed project has no bearing on you or your organization, no action on your part is necessary.

Comments focusing on your area of expertise, your agency's area of jurisdiction, or issues relative to the environmental analysis should be addressed to Mr. James Koizumi (c/o CEQA) at the address shown above, or sent by FAX to (909) 396-3324 or by e-mail to jkoizumi@aqmd.gov. Comments must be received no later than 5:00 PM on Friday, November 16, 2012. Please include the name and phone number of the contact person for your agency. Questions regarding the proposed amendments should be directed to Mr. Don Hopps at (909) 396-2334. Please include the name and phone number of the contact person for your agency.

A CEQA Scoping Meeting to solicit public input on the scope of the analysis to be included in the Draft EA is scheduled for November 8, 2012 at 1:00 p.m at SCAQMD Headquarters. The Public Hearing for the proposed amended regulation is scheduled for March 1, 2013 at SCAQMD Headquarters. (Note: Public meeting dates are subject to change).

Date: October 17, 2012

Signature: Steve Smith

Steve Smith, Ph.D.
Title: Program Supervisor

Telephone: (909) 396-3054

Reference: California Code of Regulations, Title 14, §§15087, 15105, 15162 and 15372

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

NOTICE OF PREPARTION OF A DRAFT ENVIRONMENTAL ASSESSMENT

Project Title:
Proposed Amended Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II and Proposed Amended Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

Project Location:
South Coast Air Quality Management District (SCAQMD) area of jurisdiction consisting of the four-county South Coast Air 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 and the Mojave Desert Air Basin

Description of Nature, Purpose, and Beneficiaries of Project: PAR 219 would provide an exemption to a written permit or filing requirements for certain additional equipment, processes, or operations that produce small amounts of air contaminants. Sources added to PAR 219 would not be issued operating parameters from the SCAQMD. PAR 222 would provide access to a simple and efficient filing system for certain additional low-emitting emission sources. Sources added to PAR 222 would continue to be subject to existing written permit conditions. SCAQMD staff is also proposing to add some types of equipment to both PAR 219 (to exempt them from permit requirements) and PAR 222 (to track equipment by imposing filing requirements). Equipment added to both PARs 219 and 222 include certain types of equipment currently regulated by Rule 1110.2 and Rule 1147: portable power pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, diesel boilers, and remote two-way radio transmission power sources. Sources that would be added to PAR 219, but not PAR 222 include air pollution control devices for Rule 219 equipment; cosmetic filling stations and related filling equipment; laser cutting, etching and engraving equipment; and aerosol can recycling systems. Text would also be added to PAR 219 and PAR 222 to clarify the intent of existing provisions and the enforceability of the conditions imposed by PAR 222. Significant adverse operational air quality impacts will be analyzed further in the Draft Environmental Assessment. No other significant adverse impacts were identified in the Initial Study.

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

The Initial Study and all supporting documentation are available at:	**or by calling:**	**The Initial Study can also be obtained by accessing the SCAQMD's website at:**
SCAQMD Headquarters 21865 Copley Drive Diamond Bar, CA 91765	(909) 396-2039	http://www.aqmd.gov/ceqa/aqmd.html

The Public Notice of Preparation is provided through the following:
☑ Los Angeles Times (October 18, 2012) ☑ SCAQMD Website ☑ SCAQMD Mailing List

Initial Study Review Period (30-day):
October 18, 2012– November 16, 2012

Scheduled Public Meeting Dates (subject to change):
CEQA Scoping Meeting: November 8, 2012, 1:00 p.m.; SCAQMD Headquarters

SCAQMD Governing Board Hearing: March 1, 2013, 9:00 a.m.; SCAQMD Headquarters

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

Direct Questions on Proposed Amend Rules:	**Phone:**	**Email:**	**Fax:**
Mr. Don Hopps	(909) 396-2334	dhopps@aqmd.gov	(909) 396-3324

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Initial Study for:

Proposed Amended Rule 219 –Equipment Not Requiring a Written Permit Pursuant to Regulation II,
Proposed Amended Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

October 2012

SCAQMD No. 121017JK

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CHAPTER 1

PROJECT DESCRIPTION

Introduction

California Environmental Quality Act

Project Location

Project Objective

Project Background

Project Description

Alternatives

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977[1] 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. The SCAQMD Governing Board adopts policies and regulations that promote clean air within its jurisdiction. The SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Health and Safety Code §§ 40000, 40001, and 40440.

SCAQMD Regulation II consists of rules that guide the SCAQMD's permitting system. These include rules and requirements for submitting permit applications; content of permit applications, permits to construct and operate; denying, posting, transferring or voiding permits; plans required for permits; exemptions to written permits and filing requirements for specific sources not requiring a written permit. SCAQMD staff is proposing to amend Rules 219 and 222 of Regulation II to add additional equipment, processes, or operations, as described in the project description, that will either be exempt from requiring a permit or will be provided a streamlined filing process in lieu of a written permit.

SCAQMD Rule 219 currently provides a permitting exemption for equipment, processes, or operations that produce small amounts of air contaminants. The exemption from a written permit requirement provided by Rule 219 is only applicable if the equipment, process, or operation is in compliance with subdivision (t) - recordkeeping.

SCAQMD Rule 222 currently provides access to a simple and efficient filing system for low-emitting emission sources. Rule 222 requires owners and operators of specified emission sources to submit information regarding emissions, including, but not limited to; (1) a description of the emission source; (2) data necessary to estimate emissions from the emission source; and (3) information to determine whether the emission source is operating in compliance with applicable SCAQMD, state, and federal rules and regulations. Thus, the filing system allows the SCAQMD staff to develop accurate emissions in the emissions inventories for the respective source categories, while providing relief from the burden of the traditional detailed permitting system and its associated cost.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Amending Rules 219 and 222 is a discretionary action, which has the potential for resulting in direct or indirect change to the environment and, therefore, is considered a "project" as defined by the California Environmental Quality Act (CEQA). SCAQMD is the lead agency for the proposed project. 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.

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

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

has prepared this NOP/IS to address the potential adverse environmental impacts associated with the proposed project. The NOP/IS is an informational 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) identify possible ways to minimize the significant effects.

SCAQMD's review of the proposed project shows that the proposed project has the potential to generate significant NOx air quality impacts on the environment. The analysis in Chapter 2 supports the conclusion of no significant adverse environmental impacts for all other environmental topics. Comments received on the NOP/IS during the 30-day public review period will be addressed and included in the Draft Environmental Assessment (EA).

PROJECT LOCATION

The SCAQMD has jurisdiction over an area of 10,473 square miles (referred to hereafter as the district), consisting of the four-county South Coast Air Basin and the Riverside County portions of the Salton Sea Air Basin (SSAB) and the 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. The 6,745 square-mile Basin includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB and MDAB 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 both Riverside County and the SSAB and is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (Figure 1).

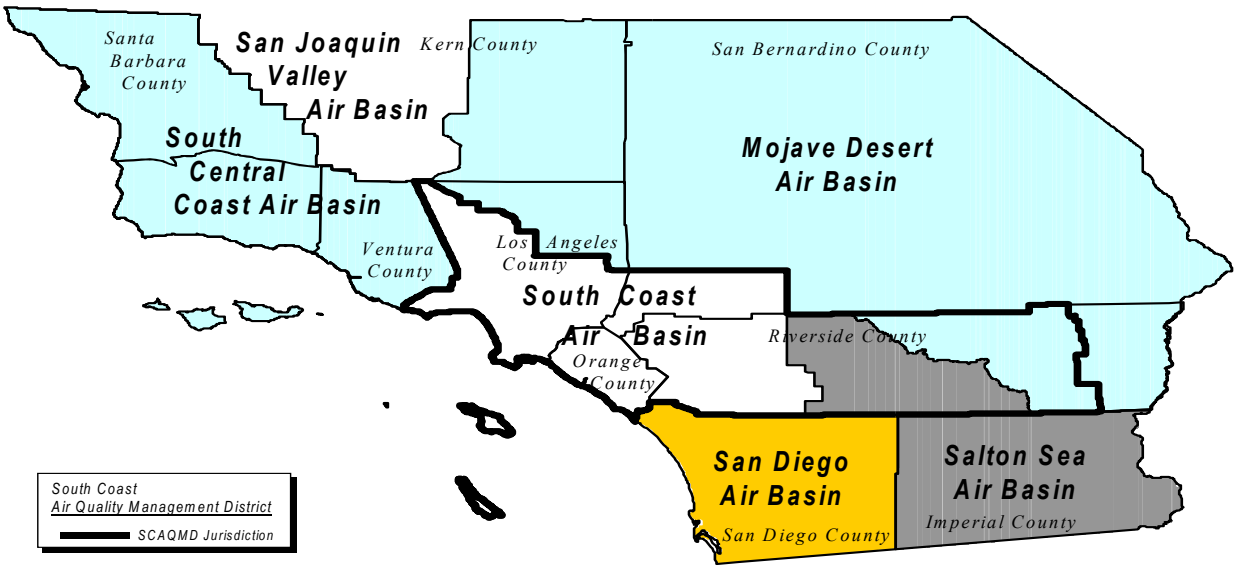

Figure 1
Boundaries of the South Coast Air Quality Management District

PROJECT OBJECTIVES

The objectives of PARs 219 and 222 would be to:

- Provide regulatory relief to operators of small NOx emitting equipment (less than 0.5 pound per day) that would otherwise be subject to the NOx emission control requirements of Rule 1147.
- Provide regulatory relief to operators of diesel engines located in remote areas without access to natural gas, and with NOx emissions less than one pound per day that would otherwise be subject to Rule 1110.2.
- Provide administrative relief for low-emitting equipment not otherwise subject to Rule 1147 or Rule 1110.2, as described above, by not requiring a permit pursuant to Rule 219.
- Provide administrative relief for low-emitting equipment not otherwise subject to Rule 1147 or Rule 1110.2 as described above, but requiring simplified filing pursuant to Rule 222. Such equipment would still be subject to any existing permit requirements or applicable rule requirements.

PROJECT BACKGROUND

Rule 219

Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II - is an administrative rule that identifies equipment, processes, or operations that emit small amounts of air contaminants that shall not require written permits, unless such equipment, process or operation is subject to subdivision (s) - Exceptions. In addition, an exemption from a written permit requirement provided by this rule is only applicable if the equipment, process, or operation is in compliance with subdivision (t) - Recordkeeping.

Rule 219 was adopted on January 9, 1976, and has subsequently been amended seventeen times to add low-emitting equipment; this proposed amendment would be the eighteenth amendment to the rule. It was most recently amendment on June 1, 2007.

Rule 219 affects any industry that uses equipment, processes, or operations that produce small amounts of air contaminants by providing an exemption to written permit for such equipment. These types of equipment, processes, or operations that emit small amounts of air contaminants can be at small business operations or large source operations. Rule 219 equipment are still subject to any applicable Regulation IV and XI rules.

Rule 222

Rule 222 - Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant To Regulation II - provides an alternative to SCAQMD written permits by allowing certain emission sources that meet predetermined criteria to register the emission source in the Rule 222 filing program. Affected emission sources are smaller emitters and less complex sources than those typically requiring permits. Rule 222 affected emission sources do not require a written permit but do require filing pursuant to the Rule 222 filing program. Rule 222 affected equipment are also subject to written operating conditions, which result in limiting unnecessary or excessive air contaminant emissions. The Rule 222 filing program offers simplicity and efficiency in processing the applications for the emission sources for these low-emitting emission sources when compared to the traditional written permit, which typically includes permit pre-screening, permit analysis, and permit evaluation, originally designed to evaluate more complex, higher emitting emission sources. In addition, the filing program for

such equipment allows the SCAQMD staff to develop accurate emissions inventories for the respective source categories. Finally, the owner/operator would benefit from the faster turnaround time for processing and the reduced cost when compared to a typical written permit.

The current Rule 222 requires owners and operators of specified emission sources to submit information regarding emissions, including, but not limited to; (1) a description of the emission source; (2) data necessary to estimate emissions from the emission source; and (3) information to determine whether the emission source is operating in compliance with applicable SCAQMD, state, and federal rules and regulations.

Rule 222 was adopted on September 11, 1998, and has been amended three times, this proposed amendment would be the fourth amendment to the rule. It was most recently amended on December 5, 2008.

PROJECT DESCRIPTION

The following is a summary of the proposed amendments to PARs 219 and 222. A copy of PARs 219 and 222 can be found in Appendix A.

PAR 219

Subdivision - Purpose

No change.

Subdivision (a) – Mobile Equipment

Pavement heating machines would be given its own subparagraph (a)(5) and would be clarified to be asphalt pavement heaters, which are any mobile equipment used for road maintenance and new road construction.

The SCAQMD database shows two permitted asphalt pavement heaters. One asphalt pavement heater has a rated maximum heat input capacity of 180,000 British thermal units (Btu) per hour, with kerosene-fired burners, and the other one has a rated maximum heat input capacity of 660,938 Btu per hour, with propane-fired burners. Asphalt pavement heaters are mobile equipment and are used by road construction personnel to heat asphalt or coal tar pitch for purposes of road maintenance or new road construction operations.

Subdivision (b) – Combustion and Heat Transfer Equipment

- (b)(1) – Piston type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that are used exclusively for electrical generation at remote two-way radio transmission towers where no utility, electricity or natural gas is available within one half mile radius would be exempted. Micro-turbines with a rated maximum heat input capacity of 3,500,000 British thermal units (Btu) per hour or less would be exempted, provided that the cumulative power output of all such engines at a facility is less than two megawatts, and that the engines are certified at the time of installation with the state of California or were in operation prior to the date of amendment.

  There are 16 remote two-way radio transmission power sources, currently subject to Rule 1110.2, that are solely diesel fueled and are operating with a District permit in rural areas where there are no provisions for natural gas, electricity or alternate fuels. Two engines are

operated at each affected facility. Each engine is used alternately for a combined operation of 24 hours a day, seven days per week, and 52 weeks a year.

There are currently 16 permitted micro-turbines operating in the district. The micro-turbines are significantly smaller internal combustion turbine engines when compared to conventional turbine engines, and like the conventional turbine engines they typically drive a generator which produces electrical power. The electrical power can be used by the facility or sold back to the electrical provider responsible for servicing the grid. Micro-turbines can run on a variety of fuels such as natural gas, diesel fuel, gasoline, landfill gases, and digester gases. The micro-turbines are generally grouped in numbers and a typical landfill permit, where they are most used. Up to ten micro-turbines have been permitted at a single site, each rated at 420,000 Btu/hour, using landfill gas as the fuel source and each micro-turbine driving 30 kilowatt generator. If the micro-turbines are using the landfill gas or digester gas as a fuel source, they require a written permit. Staff reviewed the SCAQMD inventory for the micro-turbines and found that all 16 micro-turbines use landfill gas as a fuel source.

SCAQMD staff received information from the manufacturer of the micro-turbines that the 3,500,000 Btu per hour micro-turbines operated more efficiently than the older units that were up to 2,975,000 Btu per hour which is the reason for the Btu per hour ceiling limit for this proposed exemption. In an effort to provide equity among different distributed energy generation sources, SCAMD staff is also proposing to restrict the micro-turbines that are eligible for the Rule 222 filing program by allowing micro-turbines, with a maximum heat input capacity 3,500,000 British thermal units (Btu) per hour or less, provided that the cumulative power output of all such engines at a facility is less than two megawatts, and that the engines are certified at the time of installation with the state of California or were in operation prior to date of amendment.

- (b)(2) – The maximum heat input rate would be changed to the rated maximum heat input capacity. Diesel fueled boilers that are located more than 4,000 feet above sea level or more than 15 miles offshore, and maximum NOx emission output of the equipment is less than one pound per day and uses less than 50 gallons (gallons gasoline equivalent (GGE)) of fuel per day and that are in operation prior to the date of PAR 219 adoption would be added to the boilers, process heater or any combustion equipment that has a maximum heat capacity of 2,000,000 Btu per hour exemption. The exemption would not apply to piston type internal combustion engines or turbines. This exemption does not apply whenever there are emissions other than products of combustion, unless the equipment is specifically exempt under another section of this rule, except for food convection ovens that have a rated maximum heat input capacity of 2,000,000 Btu/hour or less and where the VOC emissions from yeast fermentation are less than one pound per day and are exclusively fired on natural gas.

  There are five boilers in the district that would meet the conditions proposed in PARs 219 and 222 that are currently subject to Rule 1147. These boilers are located in places where there are no provisions for natural gas, electricity or alternate fuels.

  SCAQMD staff has identified 55 permitted food convection ovens in the district that would meet the conditions proposed in PARs 219 and 222.

- (b)(3) – Portable diesel fueled heaters that have a rated maximum heat input capacity of 250,000 Btu per hour or less and are equipped with burner(s) fired on diesel fuel only would be exempted.

  SCAQMD staff has identified nine permitted portable diesel heaters in the district that would meet the conditions proposed in PARs 219 and 222 that are currently subject to Rule 1147. Portable diesel fueled heaters are typically used in large areas where comfort heat is required but electricity and natural gas pipe lines are not available. In addition, propane and other gaseous fueled heaters prompt safety concerns should they leak fuel, which is heavier than air and can saturate the immediate area surrounding the heater. The portable diesel fueled heaters are common and can be obtained in variety of ratings (Btu). Based on the review of the SCAQMD database, the rated maximum heat input capacities of the portable diesel fueled heaters universe ranges from 160,000 to 219,000 Btu per hour. All nine of these units were fired on diesel fuel.

- (b)(4) – Portable power pressure washers and hot water or steam washers and cleaners, with a maximum heat input capacity of 500,000 Btu per hour (gross) or less and equipped with a heater or burner that is fueled either by natural gas, methanol, liquefied petroleum gas, or any combination thereof or diesel fuel, and the maximum NOx emission output of the equipment is less than one pound per day and uses less than 50 gallons (or GGE) of fuel per day would be exempted. The exemption would not apply to piston type internal combustion engines or turbines. Electrically heated burners would be exempted from permit and the Rule 222 filing requirements.

  SCAQMD staff has determined that there are currently 258 permitted portable power washers and hot water or steam washers and cleaners in the district and recognizes these units to be small emission sources. The SCAQMD database also shows that 245 of these units were fired on diesel fuel, two units on liquefied petroleum gases, three units on kerosene, and 26 units on a combination of diesel fuel, kerosene and fuel oil. Portable power pressure washers and hot water or steam washers and cleaners are quite popular in cleaning operations as they can be used to wash or steam clean machinery, buildings, pavement, and many other washing or cleaning uses with high-pressure spray. Portable pressure power washers and hot water or steam washers and cleaners normally consist of a reciprocating internal combustion piston-type engine, typically fueled by gasoline, which is used to drive the compressor pump to pressurize the water into a spray or a stream. The portable power pressure washers and hot water or steam washers and cleaners also employ a heater or burner that heats the water before it is dispensed from the equipment. The typical fuel used for the heater or burner is diesel fuel. The portable power pressure washer and hot water or steam washer and cleaner equipment incorporates a rubber hose that extends from the equipment to a spray wand that is equipped with a trigger for the operator to discharge the pressurized spray.

  Currently portable power pressure washers and hot water or steam washers and cleaners are not exempt unless they are equipped with a heater or burner that is fired on natural gas. Since the majority of the power pressure washers do not have natural gas fired heaters or burners they do not qualify for the exemption for combustion and heat transfer equipment in Rule 219.

Based on the review of the SCAQMD database, the rated maximum heat input capacities of the entire portable power pressure washers and hot water or steam washers and cleaners universe ranges from 100,000 to 1,500,000 Btu per hour. SCAQMD staff determined that out of the entire universe of portable power washers and hot water or steam washers and cleaners 95 percent of the 271 total units had rated maximum heat input capacities less than 500,000 Btu per hour. Therefore, SCAQMD staff is proposing a 500,000 Btu per hour ceiling.

- (b)(4) – The fuel cell exception would be clarified by adding associated heating equipment, provided that the supplemental heat used is less than 90,000 therms per year.

  SCAQMD staff has identified two permitted fuel cells in the district that would meet the conditions proposed in PARs 219 and 222. The SCAQMD database currently shows that both fuel cell use molten carbonate technology that use supplemental heaters to accelerate the heat required to control the heat up phase for the carbonate bed before the fuel cells can be used to produce electrical power generation. Currently, both fuels are in the application phase with District engineers.

  SCAQMD staff is proposing to clarify the exemption for fuel cells based on the supplemental heater usage rate of 90,000 therms per year. SCAQMD staff based the 90,000 therms per year on a worst case scenario where the total NOx emissions for a start-up heater was equivalent to 30 ppm, which is equivalent to 0.0363 lbs per million Btu. The 90,000 therms equate to 326.7 pounds year of NOx emissions or less than one pound per day, on average.

Subdivision (c) – Structures and Equipment
No change.

Subdivision (d) – Utility Equipment - General
- (d)(10) – The volume of the passive carbon adsorbers without mechanical ventilation would be increased from 55 gallons to 120 gallons. Wastewater treatment plants would be added to the exemption.

  SCAQMD staff has had several meetings with local city and county agencies in regard to the use of passive carbon adsorption systems that are used to control hydrogen sulfide (H_2S) odors at truck lines, sewer connections and transfer stations. The exemption would address their concerns.

Subdivision (e) – Glass, Ceramic, Metallurgical Processing and Fabrication Equipment
- (e)(2)(G) – The glass exemption would be expanded to include ceramic materials, such as glass and porcelain in order to clarify that ceramic material including porcelain is covered by this exemption.
- (e)(8) - Laser etching or engraving of metal (excluding stainless steel and alloys containing chromium, nickel, cadmium or lead) would be added to the welding equipment exemption. The exemption would also state that laser cutters used to cut stainless steel or alloys of chromium, nickel cadmium or lead or laser cutters rated more than 400 watts and control equipment venting such equipment would not be included in the exemption. The exemption previously did not include plasma arc-cutting equipment that that were rated 136 amperes or

more. The exemption would now not include any plasma arc-cutting equipment that is used to cut stainless steel.

SCAQMD staff has identified 36 permitted laser cutters or etchers in the district that would meet the conditions proposed in PARs 219 and 222. LASER – Light Amplification by Stimulated Emission of Radiation – is a process where light energy is converted into heat energy and is focused into a point, or laser beam, which is directed onto the working surface of an object. The laser beam of a laser cutting machine melts, burns, vaporizes away or is blown away by a jet of gas which provides a desirable high quality surface finish in materials such as flat sheet metal. There are three types of laser cutters that are used in industrial manufacturing applications:

1. The CO_2 laser is used to cut, bore, and engrave materials such as mild steel, aluminum, stainless steel, titanium, paper, wax, plastics, wood, and fabrics.
2. The neodymium (Nd) laser provides high-energy pulsing low repetition speeds and is typically used for boring.
3. The neodymium yttrium-aluminum-garnet (Nd-YAG) laser, which provides very high-energy pulse, is used for boring, engraving, and trimming operations.

Laser etching or engraving equipment is commonly used on metals, plastics, wood, and any other surface that can be etched or engraved. The laser beam etches or engraves by heating up the surface of the object so that the surface of the material will either vaporize or surface fracture and the heated surface flakes off, resulting in the desired engraving on the surface of the object. Staff has observed several industries that use laser etching or engraving in place of the more conventional mechanical etching and engraving. The laser etching or engraving equipment is offered in many sizes, based on maximum power output, with many of the units being very small and thus is a small emissions source. The emissions inventory for 31 permitted laser engravers and etchers shows three pounds per day of particulate matter, less than 10 microns (PM_{10}). In addition, the five permitted laser cutters shows 1.9 pounds per day of PM_{10} and combined, laser cutters, engravers and etchers account for 4.9 pounds of PM_{10} per day. These 36 laser cutters, engravers and etchers do not process certain metals such as stainless steel, or alloyed materials that contain chromium, cadmium, nickel or lead; these metals when subjected to the intense heat of the laser flash off toxic materials. Lasers that process these type metals must go through a complete engineering evaluation before a written permit is considered.

Subdivision (f) – Abrasive Blasting Equipment
No change.

Subdivision (g) – Machining Equipment
(g)(1) – Granulating would be added to the exemption for equipment used exclusively for buffing, polishing, carving, mechanical cutting, drilling, machining, pressing routing, sanding, stamping, surface grinding or turning.

Granulators are used in the plastics industry and are used to granulate plastic products during plastic recycling operations. Granulators have been observed by SCAQMD staff field personnel who report that granulating operations are not a significant source of particulate emissions.

Subdivision (h) – Printing and Reproduction Equipment

- (h)(1) – The printing and related coating and/or laminating equipment exemption would be clarified to include associated air pollution control equipment providing the dryers and curing equipment are exempt from paragraph (b)(2) and that the air pollution control equipment is not required for source specific rule compliance.
- (h)(7) – The exemption for hand application of materials used in printing operations would be clarified to include associated air pollution control equipment, unless the air pollution control equipment is required for source specific rule compliance.

Subdivision (i) – Pharmaceuticals, Cosmetics, Food Processing and Preparation Equipment

- (i)(7) The phrase "all of the product" would be changed to "the entire product" for clarification.
- (i)(9) Equipment used exclusively for packing vitamins would be added to the exemption. The exemption would be clarified to be equipment specific, not facility specific, and would add the provision that the exemption includes waterborne solutions that contain a maximum VOC content of no more than 25 grams per liter, or solutions containing solvents that contain VOCs with more than 25 grams per liter.

  SCAQMD staff received a comment letter request that waterborne coating used and vitamins and pharmaceutical tablet be allowed an exemption to permit. Staff concurs and the rule language revisions to (i)(9) and (i)(10) are proposed to address the concerns.

- (i)(10) The exemption would be clarified to be equipment specific, not facility specific, and would add the provision that the exemption includes waterborne solutions that contain a maximum VOC content of no more than 25 grams per liter, or solutions containing solvents that contain VOCs with more than 25 grams per liter.
- (i)(13) – An exemption would be added for charbroilers used for multi-family residential units used by owners/occupants for non-commercial purposes.

Subdivision (j) – Plastics, Composite and Rubber Processing Equipment

No change.

Subdivision (k) – Mixing, Blending and Packaging Equipment

- (k)(1) - The exemption for batch mixers would be clarified to include associated filling equipment.
- (k)(2) - The exemption for mixing and blending of materials would be clarified to include associated filling equipment.
- (k)(4) – "to which powders are added" would be changed to "to which powders may be added" for clarification.
- (k)(5) – An exemption for cosmetics filling stations where the filling equipment is hard piped to the cosmetics mixer or the holding tank feeding the filling equipment provided the mixer and holding tank would be added.
- (k)(8) – The exemption for equipment used exclusively to package sodium hypochlorite-based household cleaning and pool products would be clarified to state that the exemption applies to sodium hypochlorite-based pool products, not to sodium hypochlorite-based household cleaning products.

Subdivision (l) – Coating and Adhesive Process/Equipment
(l)(6) – Air brushes would be added to the exemptions provided under (l)(6).
(l)(8) – For clarification "hand applications" would replace "hand work."

Subdivision (m) – Storage and Transfer Equipment
(m)(7) –Hydraulic oils would be added to the exemption for refined lubricating oils.
(m)(11) – The volumes for exemption for equipment, including tar pots (or tar kettles), used exclusively for the storage, holding, melting and transfer of asphalt or coal tar pitch would be increased from a maximum holding capacity of less than 600 liters (159 gallons) to a maximum holding capacity of less than 3,785 liters (1,000 gallons).

The SCAQMD database shows 72 permitted asphalt day tankers. Based on the review of the SCAQMD database, the maximum holding capacities of the asphalt day tankers range in size from 830 to 25,000 gallons and have a rated maximum input heat capacity ranging from 100,000 to 1,400,000 Btu/hour. The database also shows that 49 of these units are fired using liquefied petroleum gases, 21 units are fired with propane, 1 unit is fired with natural gas and 1 unit is fired with diesel fuel.

(m)(23) – An exemption would be added for equipment, including asphalt day tankers, used exclusively for the storage, holding, melting and transfer of asphalt or coal tar pitch, mounted on a motor vehicle, with a maximum holding capacity of 18,925 liters (5,000 gallons) or less.

Tar Pots, also commonly known as tar kettles, are used in roofing construction and repair operations, from residential single-family homes to apartment buildings and office buildings. The purpose of the tar pot is two-fold, one to transport a volume of tar to a jobsite and two, to melt the asphalt or coal tar pitch using an onboard burner that directs heat to the tar continuously to melt the tar and keep it in a molten state. Roofing contractors need to keep the tar in a molten state so it can be removed from the tar pot and directly applied to the working surface. Tar pots normally range in maximum holding capacities and can range from 100 gallons and can be as large as 1,000 gallons. The burners for the tar pots are fired on various fuels such as liquefied petroleum gases and diesel based fuels and can produce maximum heat input capacities from 38,000 Btu per hour up to 2,400,000 Btu per hour.

The SCAQMD database currently shows 163 permitted tar pots. Based on the review of the SCAQMD database, the staff found that the maximum holding capacities of the tar pots range from 200 to 1,665 gallons and the rated maximum heat input capacities range from 38,188 to 2,400,000 Btu per hour. The SCAQMD database also shows that 104 of these units are fired on liquefied petroleum gases, 52 units are fired on propane, two units are fired on diesel fuel, and five units show an undeclared fuel source.

Subdivision (n) – Natural Gas and Crude Oil Production Equipment
No change.

Subdivision (o) – Cleaning
(o)(4) – The exemption for hand application of solvents for cleaning purposes would be clarified to include associated air pollution control equipment, unless the air pollution control equipment is required for source specific rule compliance.

Subdivision (p) – Miscellaneous Process Equipment

- (p)(10) – Carpet and paper shearing would be added to the paper shredding exemption.

  SCAQMD staff is proposing to clarify that carpet shearing machines and associated control equipment are exempt. This equipment is proposed to be exempt because the material processed from the shearing operations is larger than PM_{10} (particulate matter 10 microns in size or larger) and is not considered to be dust.

- (p)(22) – An exemption for equipment used to recycle aerosol cans by puncturing the can in an enclosed system which is vented through an activated carbon filter would be added. This exemption would only apply to aerosol recycling systems where the product within the aerosol can recycled would be from aerosol cans used as part of their operation at the facility or facilities under common ownership.

  Aerosol paint cans and aerosol solvent cans such as engine degreasers, brake cleaners, and electrical component cleaners are very popular and convenient sources for small painting and repair operations that require application of solvents. Both aerosol types are frequently used in plants as well as out in field to perform routine maintenance and repair operations for various types of equipment. These small aerosol cans, typical in sizes from 12 fluid ounces to approximately 18 fluid ounces, are easily carried in the pockets of workers, which has promoted their popularity in industrial uses. However, when the aerosol cans are emptied, workers typically dispose the empty can in a common refuse container. The emptied aerosol cans still retain a small amount of residual paint or solvent and propellant inside and presents an environmental concern when the empty can is disposed.

  Several facilities have been using the Aerosolv Aerosol Can Disposal Recycling System to recycle the remaining content left inside the empty aerosol can. The Aerosolv recycling system has two components, the press and the filter, and these two components are installed onto a common 30 to 55 gallon drum container lid. The press simply threads into the two-inch bung fitting while the filter threads into the ¾ inch bung fitting. The filter contains an activated carbon canister that adsorbs the VOCs that would otherwise emit from the drum to the atmosphere. The press is used by an operator who places an aerosol can in the press by inverting the aerosol can so the spray head points downward, into the sleeve. The securing clamp is then adjusted to secure the aerosol can firmly, and then the operator pushes down on the lever which then drives a punch pin into the dome area of the aerosol can thus allowing the contents to discharge inside the drum. The depressurized aerosol is then stockpiled for metal recycling. The Aerosolv Aerosol Can Disposal Recycling System is the only aerosol can recycling technology of its type and is certified by the U.S. EPA's Environmental Technology Verification Program. This program is described by the U.S. EPA as a "*Program [that] verifies the performance of innovative technologies that have the potential to improve protection of human health and the environment.*"

Subdivision (q) – Agricultural Sources

No change.

Subdivision (r) – Registered Equipment and Filing Program

No change.

Subdivision (s) – Exemptions
No change.

Subdivision (t) – Recordkeeping
No change.

Subdivision (u) – Compliance Date
No change.

Additional changes would be made to improve readability.

PAR 222

Subdivision (a) – Purpose
No change.

Subdivision (b) – Applicability

- Language would be added requiring that owners/operators authorized to operate emission sources pursuant to this rule would operate those emission sources in compliance with any and all operating conditions imposed by the SCAQMD.
- The phrase "and produce more than one pound of NOx emissions per day" would be added to the boiler or steam generators and process heaters in Table I.
- The following sources/equipment would be added to Table I:
  - Asphalt day tankers, heated and unheated, that have a maximum capacity greater than 159 gallons but no more than 5,000 gallons and equipped with a demister and equipped with burner(s) that fire exclusively on liquefied petroleum gas (LPG);
  - Asphalt pavement heaters used for road maintenance and new road construction;
  - Diesel-fueled boilers that have a rated maximum heat input capacity of no more than 2,000,000 Btu/hour and are located more than 4,000 feet above sea level or more than 15 miles offshore and are in operation prior to date of amendment;
  - Food convection ovens that have a maximum heat input capacity of no more than 2,000,000 Btu/hour and are fired exclusively on natural gas where the VOC emissions from yeast fermentation are less than one pound per day;
  - Fuel cells, which produce electricity in an electro-chemical reaction and use phosphoric acid, molten carbonate, proton exchange membrane, or solid oxide technologies and are equipped with a heater producing supplemental heat with a rated heat input capacity 90,000 therms per year or less;
  - Micro-turbines, with a maximum heat input capacity of 3,500,000 British thermal units (Btu) per hour or less, provided that the cumulative power output of all such engines at a facility is less than two megawatts, and that the engines are certified at the time of installation with the state of California or were in operation prior to date of amendment;
  - Portable diesel fueled heaters, with a rated maximum heat input capacity of no more than 250,000 Btu/hr;
  - Portable power pressure washers and hot water or steam washers and cleaners with heaters or burners that have a rated maximum heat input capacity of no more than 500,000 Btu/hour and use no more than 50 gallons of fuel per day.;

- Tar pots with a maximum storage capacity greater than 600 liters (159 gallons) but no more than 3,785 liters (1,000 gallons) and equipped with burner(s) that fire on liquefied petroleum gases; and
- Piston type internal combustion engines, with a manufacturer's rating of 100 brake horsepower or less that are used exclusively for electrical generation at remote two-way radio transmission towers where no utility, electricity or natural gas is available within a one half mile radius.

Subdivision (c) – Definitions
Definitions for asphalt day tankers, asphalt pavement heaters, diesel fuel boilers, food convection ovens, fuel cells, micro-turbines, portable diesel fueled heaters, power pressure washers and tar pots would be added.

Subdivision (d) – Requirements
- Owners and operators of sources subject to PAR 222 would be required to comply with all operating conditions imposed on the emissions source.
- The requirement to periodically submit updated information would be modified to require that on January 1, and each year thereafter, records be kept and made available to the SCAQMD upon request to provide operations data and any updated information on the emission sources or equipment, applicable to PAR 222.
- The requirement to maintain a copy of the filing receipt for all emissions sources and equipment applicable to PAR 222 would be clarified to be for the "life of the emission sources or equipment and made available to the Executive Officer upon request."
- The requirement to maintain records sufficient to verify the description of the emissions sources or equipment would also require data necessary to estimate output of emission sources, and records used to demonstrate compliance with operating conditions and with all applicable rules and regulations. The records would need to be maintained for five years and made available to the Executive Officer upon request.
- The condition not to remove any air pollution control equipment associated with applicable equipment subject to PAR 222 would be clarified to state "unless it can be demonstrated that it can" be replaced with air pollution control equipment which will reduce emissions at equal to or greater efficiency that the prior unit. The replacement air pollution control equipment would also need to be first approved in writing by the Executive Officer.
- The statement "failure to comply with the provisions set forth in subparagraphs (d)(1)(A), (B), (C), (E), and (F) shall constitute a violation" of PAR 222 would be added.

Subdivision (e) – Compliance Dates
- The statement "failure to comply with the provisions set forth in subparagraphs (b)(1), (b)(2), (e)(1) through, (e)(3), shall constitute a violation" of PAR 222 would be added.

ALTERNATIVES
The Draft EA will discuss and compare alternatives to the proposed project as required by CEQA and by SCAQMD Rule 110. Alternatives must include realistic measures for attaining the basic objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. In addition, the range of alternatives must be sufficient to permit a reasoned choice and it need not include every conceivable project alternative. The key issue is whether the selection and discussion of alternatives fosters informed decision making and public

participation. A CEQA document need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

SCAQMD Rule 110 does not impose any greater requirements for a discussion of project alternatives in an environmental assessment than are required for an Environmental Impact Report under CEQA. Alternatives will be developed based in part on the major components of the proposed rule. The rationale for selecting alternatives rests on CEQA's requirement to present "realistic" alternatives; that is alternatives that can actually be implemented. CEQA also requires an evaluation of a "No Project Alternative."

SCAQMD's policy document Environmental Justice Program Enhancements for fiscal year (FY) 2002-03, Enhancement II-1 recommends that all SCAQMD CEQA assessments include a feasible project alternative with the lowest air toxics emissions. In other words, for any major equipment or process type under the scope of the proposed project that creates a significant environmental impact, at least one alternative, where feasible, shall be considered from a "least harmful" perspective with regard to hazardous air emissions.

The Governing Board may choose to adopt any portion or the entirety of any alternative presented in the EA. The Governing Board is able to adopt any portion or the entirety of any of the alternatives presented because the impacts of each alternative will be fully disclosed to the public and the public will have the opportunity to comment on the alternatives and impacts generated by each alternative.

C H A P T E R 2

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 Rules 219 and 222
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive, Diamond Bar, CA 91765
Rule Contact Person:	Don Hopps, (909) 396-2334
CEQA Contact Person:	James Koizumi, (909) 396-3234
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive, Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	PAR 219 would provide an exemption to a written permit or filing requirements for certain additional equipment, processes, or operations that produce small amounts of air contaminants. Sources added to PAR 219 would not be issued operating parameters from the SCAQMD. PAR 222 would provide access to a simple and efficient filing system for certain additional low-emitting emission sources. Sources added to PAR 222 would continue to be subject to existing written permit conditions. SCAQMD staff is also proposing to add some types of equipment to both PAR 219 (to exempt them from permit requirements) and PAR 222 (to track equipment by imposing filing requirements). Equipment added to both PARs 219 and 222 include certain types of equipment currently regulated by Rule 1110.2 and Rule 1147: portable power pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, diesel boilers, and remote two-way radio transmission power sources. Sources that would be added to PAR 219, but not PAR 222 include air pollution control devices for Rule 219 equipment; cosmetic filling stations and related filling equipment; laser cutting, etching and engraving equipment; and aerosol can recycling systems. Text would also be added to PAR 219 and PAR 222 to clarify the intent of existing provisions and the enforceability of the conditions imposed by PAR 222. Significant adverse operational air quality impacts will be analyzed further in the Draft Environmental Assessment. No other significant adverse impacts were identified in the Initial Study.
Surrounding Land Uses and Setting:	Industrial, institutional and commercial facilities with affected low emitting equipment.
Other Public Agencies Whose Approval is Required:	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact issues have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

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

DETERMINATION

On the basis of this initial evaluation:

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

☐ I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.

☑ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1)has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: October 17, 2012 **Signature:** Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rules, and Area Sources

DISCUSSION AND EVALUATION OF ENVIRONMENTAL IMPACTS

The proposed project would include adding specified categories of equipment or operations to Rule 219, which would exempt them from written permit requirements as explained in Chapter 2. Some equipment would be added only to Rule 219 to codify current permitting practice, that is, because they have low emissions they are currently not treated as equipment requiring a permit. These equipment categories include: air pollution control devices for Rule 219 equipment not required for source specific rule compliance; filling equipment associated with Rule 219 equipment; ceramic material furnaces (including glass and porcelain) with a capacity less than 450 kilograms; etching and engraving equipment; multi-family residence charbroilers; cosmetic filling stations; air brushes; and equipment used for the storage and transfer of hydraulic oils.

SCAQMD staff is also proposing to add equipment to PAR 219 that is currently subject to written permit requirements because staff has identified them as low emitting equipment. Adding these categories of equipment to PAR 219 provides some regulatory and administrative relief to equipment owners. Equipment that would be exempt from written permit requirements include: odor control passive carbon adsorbers with a maximum vessel capacity of no more than 120 gallons; ceramic material furnaces; granulating equipment; vitamin packing equipment provided usage is less than one gallon or 22 gallons per month; filling equipment associated with Rule 219 equipment, carpet and paper shearing machines, and aerosol can recycling systems. Adding these categories of equipment to PAR 219 would not be expected to generate emission impacts primarily because they generate low levels of emissions, typically less than one pound per day, or do not generate any emissions. For example, carpet and paper shearing operations do not generate any measurable PM10 or PM2.5 emissions, so exempting them from written permit requirements would have no effect. Aerosol can recycling systems are closed systems vented to activated carbon and, therefore, would not generate any quantifiable emissions. The size of the carbon adsorber subject to exemption is being increased from 55 gallons to 120 gallons as these units have no mechanical ventilation and there is no additional permit or control requirements for this equipment. These units are being installed in situations where control is not required (voluntary installations for operator convenience). There will not be any increase in emissions as there are currently no additional permit or control requirements for this equipment. Granulators are used in the plastics industry and are used to granulate plastic products during plastic recycling operations. Granulators have been observed by SCAQMD staff field personnel who report that granulating operations are not a significant source of particulate emissions.

The proposed project includes adding some categories of equipment to both PAR 219 and PAR 222, which means that affected equipment would be subject to filing system requirements. Equipment categories added to both PARs 219 and 222 include: fuel cells and micro-turbines (with a maximum heat capacity of 3,500,000 Btu per hour or less with a cumulative power output of two megawatts from all such units per facility). Because these equipment are considered to be low emitting equipment and they would continue to be subject to existing permit conditions and other regulatory requirements, no environmental impacts are anticipated from adding these categories of equipment to PARs 219 and 222. For example, fuel cells are closed units, so no or very low emissions from these sources would continue to occur regardless of whether or not they are subject to written permit system requirements or filing system requirements. Gas turbines, including micro-turbines, would continue to be subject to best available control technology (BACT) through the state distributed generation certification.

Finally, the proposed project includes adding some categories of stationary source equipment currently subject to Rules 1110.2 and 1147 to both PAR 219 and PAR 222, but the categories of equipment from these two rules would no longer be subject to source-specific emission control requirements. Equipment affected by the proposed project that is currently subject to Rule 1110.2 includes piston-type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that is used exclusively for electrical generation at remote two-way radio transmission towers are currently regulated by Rule 1110.2. Under existing Rule 1110.2, affected remote internal combustion engines would likely have complied with emission reduction requirements by replacing existing diesel-fueled engines with engines that operate using clean fuels (e.g., natural gas or propane) or installing aftertreatment emission control technology.

Equipment affected by the proposed project that is currently subject to Rule 1147 includes potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters and diesel boilers. Under existing Rule 1147, affected equipment would likely have complied by replacing diesel-fueled equipment with equipment that operate using clean fuels (e.g., natural gas or propane) or being retrofitted with low NOx burners.

By adding categories of equipment currently subject to Rule 1147 or Rule 1110.2 into Rules 219 and 222 and exempting the affected equipment from the source-specific emission control requirements, construction activities associated with the compliance options would no longer occur. Consequently, environmental impacts associated with construction activities to bring affected equipment into compliance would no longer occur.

Since affected Rule 1147 and Rule 1110.2 equipment categories added to Rules 219 and 222 would no longer be required to comply with the applicable NOx emission control requirements, the proposed project would result in future projected NOx emission reductions foregone. Based on the preceding information, potential adverse environmental impacts would likely occur primarily as a result of adding equipment categories currently subject to Rule 1147 and Rule 1110.2 to PARs 219 and 222.

Staff evaluated the possibility that by adding equipment to PARs 219 and 222, thus, removing written permitting requirements, owners/operators might be motivated to add additional equipment that would otherwise not be installed because of the administrative and cost burdens of obtaining a written permit. It is not expected that adding equipment categories to PARs 219 and 222 would result in greater than average numbers of affected equipment being installed per year (36) for the following reasons. There are a number of business decisions that drive whether or not the business owner will purchase new or additional equipment besides the administrative and cost burdens of obtaining written SCAQMD permits. For example, a major driver will be the condition of the local economy. In recessionary times, there is a reduced demand for products, so it is unlikely the business owner would purchase additional equipment. Alternatively, during good economic times, a business owner may purchase additional equipment if there is sufficient demand for the product and there is a potential for greater profits, regardless of written permit burdens. In other words, the major factor in determining whether to add equipment is demand and not the cost to permit the equipment. Further most equipment would typically be located inside existing commercial or industrial facilities. For two-way radio transmission sources, it is expected that they will be installed according to future demand. Staff was unable to identify any information that indicates that future demand would be greater than the demand for this type of equipment over the past twelve years.

Staff evaluated the SCAQMD's permit database since the year 2000, which showed that, on average, approximately 36 units per year of equipment that is proposed to be added to PARs 219 and 222 have been permitted each year. This range covers the periods before the adoption of the current emission control requirements in Rule 1110.2 (February 1, 2088) and Rule 1147 (September 9, 2011). Equipment affected by the proposed project is unlikely to create significant construction impacts because the affected equipment is typically small and could be dropped into place with minimal or no construction required. Also, operational emissions would be less than one pound per day.

Even if additional equipment is added at a facility with equipment affected by the proposed project, it is unlikely that impacts would occur because the affected equipment is typically small and could be dropped into place with minimal or no construction emissions. Further equipment would typically be located inside existing commercial or industrial facilities. For two-way radio transmission sources, it is expected that they will be installed according to future demand. Staff was unable to identify any information that indicates that future demand would be greater than demand this type of equipment has been over the past 12 years (see Table 2-3).

For all of the reasons identified above, the following environmental analyses focus primarily on the potential adverse environmental impacts from adding Rule 1147 and Rule 1110.2 sources to PARs 219 and 222.

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

Significance Criteria

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

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

Discussion

I. a), b), c), & d) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the visible characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that does not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane fueled). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Although previous prepared CEQA documents for Rules 1110.2 and 1147 did not identify significant adverse aesthetic impacts from affected sources, eliminating the Rule 1110.2 and Rule 1147 compliance requirements for affected sources would result in fewer construction activities, and therefore, reduce even further the potential to generate adverse aesthetic impacts. In addition, the affected equipment is located at existing commercial or industrial facilities. Therefore, based on the reasons above, affected Rule 1147 and Rule 1110.2 sources would have no aesthetic impacts compared to the existing setting.

Since PARs 219 and 222 are not expected to alter the visible characteristics or placement of the affected equipment, the proposed project is not expected to create any significant adverse effects on scenic vistas; would not add new substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; would not add new substantial degradation to the existing visual character or quality of the site and its surroundings.

The proposed project has no provisions that require operations of affected equipment at night. If any lighting is installed at affected facilities it is for reasons other than whether or not a piece of equipment is subject to permit or filing requirements. Therefore, the proposed project is not expected to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Based upon the above considerations, the proposed project would not create new aesthetics impacts. Since no significant aesthetics impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

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

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

- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion

II. a), b), c), & d) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the physical characteristics or placement of the affected equipment.

PARs 219 and 222 would exempt some Rule 1147 and Rule 1110.2 sources that either would have future or existing compliance requirements that would have necessitated replacing equipment or burners or installing aftertreatment emission control equipment. The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement or retrofit of equipment or aftertreatment emission control equipment construction. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Therefore, affected Rule 1147 and Rule 1110.2 sources would have no agricultural and forest resource impacts compared to the existing setting, because affected equipment are located at existing commercial or industrial facilities. Therefore, PARs 219 and 222 would have no adverse agricultural or forest resource impacts.

Since PARs 219 and 222 would not affect the placement of affected equipment, the proposed project is not expected to result in converting farmland to non- agricultural use; or conflict with existing zoning for agricultural use, or a Williamson Act contract. Similarly, it is not expected that PARs 219 and 222 would conflict with existing zoning for, or cause rezoning of, forest land; or result in the loss of forest land or conversion of forest land to non-forest use. Consequently, the proposed project would not create any significant adverse agriculture or forestry impacts. Since no significant agriculture or forestry resources impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

To determine whether or not air quality impacts from the proposed project may be significant, impacts will be evaluated and compared to the criteria in Table 2-1. If impacts exceed any of the criteria in Table 2-1, they will be considered further in the Draft EA. As necessary, all feasible mitigation measures will be identified in the Draft EA and implemented to reduce significant impacts to the maximum extent feasible.

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), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [d]		
NO2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM10 24-hour average annual average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
PM2.5 24-hour average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation)	
SO2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average Quarterly average	1.5 μg/m^3 (state) 0.15 μg/m^3 (federal) 1.5 μg/m^3 (federal)	

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

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO2eq = metric tons per year of CO2 equivalents > = greater than

Discussion

III. a) The initial evaluation of PARs 219 and 222 indicates that they have the potential to result in operational NOx emission reductions foregone, which is greater than the SCAQMD operational NOx significance threshold of 55 pounds per day. While significant, the NOx emission reductions foregone are not expected to conflict with or obstruct implementation of the applicable air quality control plan because the 2007 AQMP demonstrates that the effects of all existing rules, in combination with implementing all existing and proposed AQMP control measures would bring the district into attainment with all national and state ambient air quality standards. Similarly, the Draft 2012 AQMP demonstrates attainment of the federal 24-hour PM2.5 standard. Although NOx is a PM2.5 precursor pollutant, the NOx emission reductions foregone are not expected to hinder attainment of the federal 24-hour PM2.5 standard, and therefore will not be further analyzed in the Draft EA.

III. b) and f) ***Criteria Pollutants***

Construction Impacts

PARs 219 and 222 would not require any additional construction to install air pollution control equipment. As explained below, with the exception of equipment currently regulated by Rules 1110.2 and 1147, equipment added to PARs 219 and 222 would continue to be subject to existing applicable rule requirements or permit conditions. Most of the affected equipment would be constructed in the same fashion as under the existing permit system. The two exceptions to this conclusion are the piston type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that is used exclusively for electrical generation at remote two-way radio transmission towers, which are currently regulated by Rule 1110.2; and Rule 1147 equipment (affected pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers). Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been needed to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled pressure washers, portable diesel heaters and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane fueled pressure washers, portable heaters and boilers). Criteria emissions from construction were estimated in the 2007 Final EA for PAR 1110.2 (SCAQMD No. 280307JK, December 2007) and the 2008 Final EA for PAR 1147 (SCAQMD No. 081015JJI, State Clearinghouse No: 2008101082, December 2008). Although construction emissions estimated in earlier CEQA documents from affected equipment that would be incorporated in to PARs 219 and 222 would not occur, no credit will be taken for the construction emissions that would no longer occur. Therefore, construction air quality impacts will not be further analyzed in the Draft EA.

Operational Impacts

Equipment added to PAR 219 and/or PAR 222 and their operational air quality effects are presented in Table 2-2. Most of the affected equipment would be operated in the same fashion as under the existing permit system. The two exceptions to this are the piston type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that are used exclusively for electrical generation at remote two-way radio transmission towers, which are currently regulated by Rule 1110.2; and Rule 1147 equipment (affected potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers).

To comply with Rule 1110.2 requirements, remote internal combustion engines would have been replaced with engines that operate on propane or retrofitted with aftertreatment emission control technology. Similarly, to comply with Rule 1147 requirements, power pressure washers, asphalt day tankers, and asphalt tar pots would likely have been required to replace existing burners with low NOx burners or replace equipment with equipment that does is not fueled by diesel. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled pressure washers, portable diesel heaters and diesel boilers would likely to have been replaced with alternative-fueled equipment (natural gas or propane).

Natural gas fueled equipment connected to natural gas pipes would have eliminated some diesel fuel deliver trips. Propane and liquefied natural gas (LNG) fueled equipment would have still required fuel delivery trips. Equipment retrofitted with aftertreatment may have required catalyst replacement trips, CEMS calibration trips, etc. Since it is not known what owner/operators would have done to comply with Rule 1147 or Rule 1110.2, it is difficult to quantify differences in fuel consumed by the affected sources, delivery trips and additional monitoring trips. Since trips associated with these compliance activities are routine but infrequent, any changes in the number of vehicle trips on a daily basis between complying with Rule 1147 or Rule 1110.2, or continuing existing operations would not likely be different compared to the baseline vehicle trips per day. There may be differences between trips required to comply with Rule 1147 or Rule 1110.2 when compared to existing operations, but because it is not known how owner/operators would have complied with Rule 1147 or Rule 1110.2, it would be speculative to estimate differences between baseline compliance activity vehicle trips and vehicle trips associated with rule compliance. Since any changes in the number of vehicle trips per day are considered to be speculative, this impact will not be considered further.

The primary effect of the proposed project, however, is related to operational emissions. A list of equipment categories with potential emission reductions foregone that would be added to PARs 219 and 222 is presented in Table 2-3. Because of the number of affected units (551 sources), future projected NOx emission reductions forgone may exceed the NOx significance threshold of 55 pounds per day. Because potential operational NOx emission reductions foregone may exceed the applicable NOx significance threshold, this potential impact will be evaluated further in the Draft EA.

Table 2-2
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Asphalt day tankers, heated and unheated, that have a maximum capacity greater than 159 gallons but no more than 5,000 gallons and equipped with a demister and a burner that fire exclusively on liquefied petroleum gas (LPG)	Added to Table I	Added to (m)(23)	Rule 1147 (NOx)	There are 58 existing units affected by this provision with NOx emissions foregone since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1)
Asphalt pavement heaters used for road maintenance and new road construction.	Added to Table I	Removed from (a)(4) to (a)(5)	Rule 219 (a)(4)(NOx)	No emissions impact – equipment category moved from Rule 219 to PAR 222.
Diesel fuel boilers that have a rated maximum heat input capacity of no more than 2,000,000 Btu/hour and are located more than 4,000 feet above sea level or more than 15 miles offshore and in operation prior to the date of adoption.	Added to Table I	Added to (b)(2)	Rule 1147 (NOx)	There are five existing units affected by this provision with NOx emissions foregone since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1)
Food convection ovens that have a rated maximum heat input capacity of no more than 2,000,000 Btu/hour and are exclusively fired exclusively on natural gas and where the VOC emissions from yeast fermentation are less than one pound per day.	Added to Table I	Added to (b)(2)	Rule 1147 (NOx)	There are 55 existing units affected by this provision with NOx emissions foregone since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1)
Fuel cells, which produce electricity in a electro-chemical reaction and use phosphoric acid, molten carbonate, proton exchange membrane, or solid oxide technologies, and are equipped with a heater producing supplemental heat with a rated heat input capacity of 90,000 therms per year or less	Added to Table I	Added to b(5)	Rule 1150.1 (landfill gas)	No emissions impact - these are closed units and there is no difference in emissions between permitted and unpermitted equipment
Gas turbines, including micro-turbines, with a maximum heat input capacity of 3,500,000 British thermal units (Btu) per hour or less, provided that the cumulative power output of all such engines at a facility is less than two megawatts, and that the engines are certified at the time of installation with the state of California or were in operation prior to date of amendment.	Added to Table I	Added to b(1)	Rule 1150.1 (landfill gas)	No emissions impact - language requiring DG certification is equivalent to BACT

Table 2-2 (continued)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Portable diesel fueled heaters, with a rated maximum heat input capacity of no more than 250,000 Btu/hour.	Added to Table I	Added to b(4)	Rule 1147 (NOx)	There are nine existing units affected by this provision with NOx emissions since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1)
Portable power pressure washers and hot water or steam washers and cleaners with heaters or burners that have a rated maximum heat input capacity of no more than 500,000 Btu/hour and use no more than 50 gallons of fuel per day.	Added to Table I	Added to b(4)	Rule 1147 (NOx)	There are 258 existing units affected by this provision with NOx emissions since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1)
Tar pots with a maximum storage capacity greater than 600 liters (159 gallons) but no more than 3,785 liters (1000 gallons) and equipped with burner(s) that fire on liquefied petroleum gases.	Added to Table I	Added to m(11)	Rule 1147 (NOx), Rule 471 (VOC)	There are 148 existing units affected by this provision with NOx emissions foregone since these units would not need to comply with new or in-use requirements of Rule 1147 (c)(1)
Piston type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that is used exclusively for electrical generation at remote two-way radio transmission towers where no utility, electricity or natural gas is available within a ½ mile radius and that were in operation prior to the date of amendment.	Added to Table I	Added to (b)(1)	Rule 1110.2 (NOx)	There are 16 units affected by this provision with NOx emissions foregone since these units would not need to comply with new or in-use requirements of Rule 1110.2. NOx is the only affected pollutant
Passive carbon adsorbers, with a maximum vessel capacity of no more than 120 gallons, ~~using no~~ without mechanical ventilation ~~with a volume of 555 gallons or less,~~ used exclusively for ~~foul air~~ odor control ~~from~~ at wastewater treatment plants or ~~sanitary~~ sewer collection systems, including ~~such as~~ sanitary sewers ~~lines~~, manholes and pump stations.	Not applicable	Added to (d)(10)	No source-specific requirements	There will not be any increase in emissions as there are currently no additional permit or control requirements for this equipment.

Table 2-2 (continued)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Crucible furnaces, pot furnaces, or induction furnaces with a capacity of 450 kilograms (992 pounds) or less each, where no sweating or distilling is conducted and where only the following materials are poured or held in a molten state and control equipment exclusively venting the equipment: ~~Glass~~ Ceramic materials, including glass and porcelain	Not applicable	Added to (e)(2)(G)	Currently treated as exempt	No emissions impact - this is a clarification
Welding equipment, oxygen gaseous fuel-cutting equipment and control equipment venting such equipment, or laser etching/engraving of metal (excluding metal containing chromium, cadmium or lead). This exemption does not include plasma arc-cutting equipment or laser cutting equipment that is used to cut stainless steel or alloys containing chrome, nickel, or cadmium, or laser cutters that are rated ~~136 amperes or more~~ more than 400 watts and control equipment venting such equipment.	Not applicable	Added to (e)(8)	Currently treated as exempt	No emissions impact - this is a clarification that ensures no toxic materials are involved
Equipment used exclusively for buffing (except tire buffers), polishing, carving, mechanical cutting, drilling, granulating, machining, pressing, routing, sanding, stamping, surface grinding or turning provided that any lubricants, coolants, or cutting oils used have 50 grams or less of VOC per liter of material or a VOC composite partial pressure of 20 mm Hg or less at 20 ^{o}C (68 ^{o}F) and control equipment exclusively venting such equipment. This exemption does not include asphalt pavement grinders.	Not applicable	Added to (g)(1)	Currently treated as exempt	No emissions impact - This is a clarification to ensure a consistent approach among compliance staff

Table 2-2 (continued)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Printing and related coating and/or laminating equipment and associated dryers and curing equipment, as well as associated air pollution control equipment, provided that such dryers and curing equipment are exempt pursuant to paragraph (b)(2), and that air pollution control equipment is not required for source specific rule compliance, are exempt pursuant to paragraph (b)(2)…	Not applicable	Added to (h)(1)	Currently treated as exempt	No emissions impact - this is a clarification that if a piece of air pollution control equipment is not required it does not need a permit
Hand application of materials used in printing operations including but not limited to the use of squeegees, screens, stamps, stencils, ~~and~~ any hand tools, and associated air pollution control equipment, unless air pollution control equipment is required for source specific rule compliance	Not applicable	Added to (h)(7)	Currently treated as exempt under	No emissions impact - this is a clarification that if a piece of air pollution control equipment is not required it does not need a permit
Equipment used exclusively for tableting, or packaging vitamins, or coating vitamins, herbs, or dietary supplements provided that the ~~facility~~ equipment uses waterborne solutions that contain a maximum VOC content of no more than 25 grams per liter or solutions containing solvents that contain VOCs with more than 25 grams per liter provided that the usage is no more ~~less~~ than one gallon per day or twenty-two (22) gallons per month of VOC containing solvents, and control equipment used exclusively to vent such equipment.	Not applicable	Added to (i)(9)	Currently treated as exempt under	No emissions impact - this is a clarification that packaging vitamins is exempt and allows use of exempt waterborne solutions in this operation
Equipment used exclusively for tableting or packaging pharmaceuticals and cosmetics, or coating pharmaceutical tablets, provided that the ~~facility~~ equipment uses waterborne solutions that contain a maximum VOC content of no more than 25 grams per liter, or solutions containing solvents that contain VOCs with more than 25 grams per liter provided that the usage is no more ~~less~~ than one gallon per day or twenty-two (22) gallons per month of VOC containing solvents, and control equipment used exclusively to vent such equipment.	Not applicable	Added to (i)(10)	Currently treated as exempt under	No emissions impact - this is a clarification that allows use of exempt waterborne solutions in this operation; the use of waterborne solutions are currently exempt

Table 2-2 (continued)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Charbroilers are exempt for multi-family residential units only if used by the owner or occupant of such dwelling for non-commercial purposes.	Not applicable	Added to (i)(12)	Currently treated as exempt	No emissions impact - this is a clarification that owner/occupants can barbeque at their residence
Batch mixers, which have a brimful capacity of 55 gallons or less (7.35 cubic feet) and control equipment exclusively venting the equipment and associated filling equipment.	Not applicable	Added to (k)(1)	Currently treated as exempt	No emissions impact - clarification - filling equipment does not produce any quantifiable emissions in this application
Equipment used exclusively for mixing and blending of materials where no VOC containing solvents are used and no materials in powder form are added and associated filling equipment	Not applicable	Added to (k)(2)	Currently treated as exempt	No emissions impact - clarification - filling equipment does not produce any quantifiable emissions in this application
Cosmetics filling stations where the filling equipment is hard piped to the cosmetics mixer or the holding tank feeding the filling equipment provided the mixer and holding tank is exempt under this rule	Not applicable	Added to (k)(5)	Currently treated as exempt	No emissions impact - clarification - filling equipment does not produce any quantifiable emissions in this application
Equipment used exclusively for the packaging of sodium hypochlorite-based household cleaning or sodium hypochlorite-based pool products and control equipment exclusively venting the equipment	Not applicable	Added to (k)(8)	Currently treated as exempt	No emissions impact - clarification on sodium hypochlorite
Coating or adhesive application or laminating equipment such as air, airless, air-assisted airless, high volume low pressure (HVLP), air brushes ~~and~~ electrostatic spray equipment, ~~and~~ roller coaters, dip coaters, vacuum coaters, flow coaters and spray machines provided that	Not applicable	Added to (l)(6)	Currently treated as exempt	No emissions impact - clarification that air brushes are also exempt

Table 2-2 (concluded)
PAR 219 and/or PAR 222 Provisions and Effects

Description	PAR 222	PAR 219	Equipment is Currently Subject to:	Emissions Impact Relative to Baseline
Equipment used exclusively for the storage and transfer of refined lubricating or hydraulic oils	Not applicable	Added to (m)(7)	Rule 463 (VOC)	No emissions impact - clarification - hydraulic oils are refined oils
Hand application of solvents for cleaning purposes including but not limited to use of rags, daubers, swabs, and squeeze bottles as well as associated air pollution control equipment, unless air pollution control equipment is required for source specific rule compliance.	Not applicable	Added to (o)(4)	Rule 1171 (VOC)	No emissions impact - this is a clarification that if a piece of air pollution control equipment is not required it does not need a permit
Paper shredding, carpet and paper shearing ~~and~~ as well as associated conveying systems, baling equipment, and control equipment venting such equipment.	Not applicable	Added to (p)(10)	Rule 404 (PM), Rule 405 (PM)	No emissions impact - carpet shearing does not produce quantifiable PM 2.5 or PM 10
Equipment used to recycle aerosol paint cans by puncturing the can in an enclosed system which is vented through an activated carbon filter. This exemption shall only apply to aerosol recycling systems where the product within the aerosol can recycled was from aerosol cans used as part of their operation at the facility or facilities under common ownership	Not applicable	Added to (p)(22)	Currently treated as exempt	No emissions impact - this is a closed system vented to carbon

Table 2-3
PARs 219 and 222 Equipment Categories with Potential NOx Emission Reductions Foregone

Equipment Categories	Total Number of Affected Units	Average Number of Units Installed per Year Since 2000
Power Pressure Washers	258	18
Asphalt Day Tankers	58	3
Asphalt Tar Pots	148	6
Small Food Ovens	55	4
Fuel Cells	2	1
Portable Diesel Heaters	9	1
Diesel Boiler	5	1
Remote Two-Way Radio Transmission Power Source	16	2[a]
Total	551	36

a) Engines are installed in pairs. Based on the SCAQMD permit database it is assumed that new engines may be installed every other year.

III. c) ***Cumulatively Considerable Impacts***
Since project-specific air quality impacts from implementing PARs 219 and 222 may exceed NOx significance thresholds (Table 2-1), air quality impacts may be cumulatively considerable as defined in CEQA Guidelines §15065(c) and, therefore, cumulatively significant. PARs 219 and 222 will be evaluated for cumulatively considerable air quality impacts in the Draft EA.

III. d) ***Toxic Air Contaminants***
Most of the affected equipment would be operated in the same fashion as under the existing permit system. The two exceptions to this are the piston type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that are used exclusively for electrical generation at remote two-way radio transmission towers, which are currently regulated by Rule 1110.2; and Rule 1147 equipment (affected pressure washers, asphalt day tankers, asphalt tar pots, gas turbines, small food ovens, fuel cells, laser cutters/etchers, portable diesel heaters, and diesel boilers).

PARs 219 and 222 would exempt equipment currently subject to Rule 1110.2 and 1147, which means that diesel fueled equipment that would no longer need to be replaced with alternative-fueled technologies or retrofitted with low NOx burners or aftertreatment emission control technology. Diesel exhaust particulate is a carcinogen and chronic non-carcinogenic TAC.

In spite of the fact that Rule 1110.2 and Rule 1147 diesel-fueled equipment would be allowed to continue operating, increased exposure to TACs is not expected to occur for the following reasons. Diesel exhaust particulate is not classified as an acute non-carcinogenic TAC. Portable power pressure washers, asphalt day tankers, asphalt tar pots, portable diesel fueled heaters are considered portable equipment because they are not typically be used in the same location for extended periods of time. Since the affected equipment is portable, the same receptors would not be exposed to diesel exhaust particulates continuously over a 70-year lifetime. Therefore, no increase in health risks are expected from these affected portable equipment.

Remote two-way radio transmission power sources and diesel fueled boilers located above 4,000-foot elevations or 15 miles off shore are placed in areas with few or no offsite receptors, since the locations of these affected sources are in areas without utility, electricity or natural gas service. Because affected equipment is located in remote areas, it is unlikely that sensitive receptors would be located sufficiently close to the equipment to be continuously exposed to diesel exhaust particulate over a 70-year lifetime.

Rule 1110.2 and 1147 affected equipment are operating under existing permit requirements, which are expected to be included in operating conditions issued under PAR 222. Equipment installed after March 7, 2008 would have been evaluated for diesel exhaust particulate emissions under Rule 1401 – New Source Review of Toxic Air Contaminants. Therefore, operating conditions for this equipment under PAR 222 would be expected to include existing permit conditions that limit health risk from diesel exhaust particulate emissions.

Lastly, Rule 219 includes an exemption (s)(2), that would require written permits for equipment with health risk greater than identified in subparagraph (d)(1)(A), or paragraphs (d)(2) or (d)(3) in Rule 1401 – New Source Review of Toxic Air Contaminants. This exemption would apply to any equipment added to Rule 219 by the proposed project.

Since the proposed project is not expected to increase exposure of sensitive receptors to diesel exhaust particulate continually over a 70-year lifetime, carcinogenic and non-carcinogenic chronic health risks are expected to be less than significant.

III. e) ***Odor Impacts***

Most of the affected equipment would be operated in the same fashion as under the existing permit system. The two exceptions to this are the piston type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that are used exclusively for electrical generation at remote two-way radio transmission towers, which are currently regulated by Rule 1110.2; and Rule 1147 equipment (affected potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers).

The equipment proposed to be added to PARs 219 and 222 are considered low emitters; therefore, odor impacts are expected to be minimal. Based on the above information, PARs 219 and 222 are not expected to generate significant adverse odor impacts. Therefore, this topic will not be considered further in the Draft EA.

III. g) and h) ***Greenhouse Gas Impacts***

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), halofluorocarbons (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.).

Most of the affected equipment would be operated in the same fashion as under the existing permit system. The two exceptions to this are the piston type internal combustion engines with a manufacturer's rating of 100 brake horsepower or less that are used exclusively for electrical generation at remote two-way radio transmission towers, which are currently regulated by Rule 1110.2; and Rule 1147 equipment (affected potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers).

Rule 1147 equipment may have needed to be replaced with alternative-fueled equipment or retrofit low NOx burners to comply with future requirements. Rule 1110.2 equipment may have needed to be replaced alternative-fueled equipment or required aftertreatment emission control equipment. The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement or retrofit of existing equipment, or installation of new equipment. Since Rule 1110.2 and Rule 1147 equipment would not be replaced, retrofitted or require aftertreatment equipment under PARs 219 and 222, the proposed project would result in a reduction in construction emissions. Although construction emissions from affected equipment that would be incorporated into PARs 219 and 222 would not be expected to occur, no credit would be taken from the elimination of construction emissions.

Natural gas fueled equipment connected to natural gas pipelines would have eliminated diesel fuel delivery trips. Propane and LNG fueled equipment would have still required fuel delivery trips. Equipment with aftertreatment may have required catalyst replacement trips, CEMS calibration trips, etc. Since it is not known what owner/operators would have done to comply with Rule 1147 or Rule 1110.2, it is difficult to quantify differences in fuel consumed by the affected sources, delivery trips and additional monitoring trips. Since trips associated with these compliance activities are routine but infrequent, the change on a daily basis between complying with Rule 1147 or Rule 1110.2, or continuing existing operations would not likely be different compared to the baseline vehicle trips. There may be differences between trips required to comply with Rule 1147 or Rule 1110.2 when compared to existing operations, but because it is not known how owner/operators would have complied with Rule 1147 or Rule 1110.2, it would be speculative to estimate differences between baseline compliance activity vehicle trips and vehicle trips associated with rule compliance. Since any changes in the number of vehicle trips per day are considered to be speculative, this impact will not be considered further.

PARs 219 and 222 would result in the continued use of diesel fuel in affected Rule 1110.2 and Rule 1147 equipment. Diesel fuel generates more GHG emissions than natural gas because diesel has a higher carbon content. It was conservatively assumed that all diesel-fueled units would have been replaced with alternative-fueled equipment; however, some Rule 1147 affected units would have been retrofitted with low NOx burners, and some Rule 1110.2 equipment would have been retrofitted with aftertreatment emission control equipment. Rule 1147 affected

units retrofitted with low NOx burners and Rule 1110.2 equipment retrofitted with aftertreatment emission control equipment would have continued to use diesel fuel. Therefore, GHG emissions foregone were estimated based on complete replacement of natural gas with diesel in this analysis are very conservative. The amount of natural gas used to comply with Rules 1110.2 and 1147 was estimated based on amount of energy in British thermal units contained in the diesel fuel currently consumed by affected sources. GHG emissions foregone in CO2 equivalent (CO2 eq) metric tons per year are summarized in Table 2-4 and detailed in Appendix B. The use of diesel fuel in affected Rule 1110.2 and Rule 1147 equipment would result in 259 metric tons of CO2eq per year foregone, which is less than the SCAQMD CEQA GHG significance threshold of 10,000 metric tons per year. Since the CO2eq emissions from the project are less than the significance threshold, the proposed project is not expected to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, this topic will not be considered further in the Draft EA.

Table 2-4
GHG Emission Reductions Foregone for PAR 219 and 222

Description	CO2eq, metric ton/yr
Natural Gas	698
Diesel Fuel	957
GHG emissions foregone	259
Significance Threshold	10,000
Significant?	No

The GHG emissions foregone would be difference between the GHG emissions that would have been generated if the equipment were replaced with LNG or propane units under Rules 1110.2 and 1143 and the GHG emissions generated from the existing diesel equipment. GHG emissions foregone were estimated by comparing the GHG emissions generated by existing diesel fuel used to GHG emissions that would be generated from the equivalent amount of natural gas used on a Btu basis.

Conclusion
Based upon these considerations, the proposed project would generate significant adverse operational NOx air quality impacts and, therefore, will be further analyzed in the Draft EA.

No other adverse air quality emissions are expected to generate significant adverse impacts. Since no significant adverse air quality impacts were identified for toxic air pollutants, odors or GHG emissions; these topics will not be further analyzed in the Draft EA.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by §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?	☐	☐	☐	☑
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Significance Criteria

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

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

- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

IV. a), b), c), d), e) & f) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment, retrofit of burners or installation of aftertreatment emission control equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Although previous prepared CEQA documents for Rules 1110.2 and 1147 did not identify significant adverse biological resources impacts, eliminating the Rule 1110.2 and Rule 1147 compliance requirements for affected sources would result in fewer construction activities, and therefore, reduce even further the potential to generate adverse biological resources impacts. In addition, the affected equipment is located at existing commercial or industrial facilities. Therefore, based on the reasons above, affected Rule 1147 and Rule 1110.2 sources would have no biological resource impacts compared to the existing setting.

Since PARs 219 and 222 would not affect the placement of affected equipment or require construction activities to install new or retrofit equipment, the proposed project is not expected to create any significant 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. For the same reason, the proposed project is not expected to generate 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; or have a new 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.). Further the propose project, does not include direct removal,

filling, hydrological interruption, or other means; 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. Because affected equipment would likely be located at existing and commercial or industrial facilities, the purposed project would not be expected to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Based upon these considerations, significant adverse biological resources impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse biological resources impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource, site, or feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☐	☐	☑

Significance Criteria

Impacts to cultural resources will be considered significant if:

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

Discussion

V. a), b), c), & d) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a

filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Although previous prepared CEQA documents for Rules 1110.2 and 1147 did not identify significant adverse cultural resources impacts, eliminating the Rule 1110.2 and Rule 1147 compliance requirements for affected sources would result in fewer construction activities, and therefore, reduce even further the potential to generate adverse cultural resource impacts. In addition, the affected equipment is located at existing commercial or industrial facilities. Therefore, based on the reasons above, affected Rule 1147 and Rule 1110.2 sources would have no cultural resource impacts compared to the existing setting.

Since PARs 219 and 222 would not affect the placement of affected equipment or require construction activities to install new or retrofit equipment, the proposed project is not expected to create any significant adverse effect to a historical resource as defined in §15064.5; cause a new significance impact to an archaeological resource as defined in §15064.5; directly or indirectly destroy a unique paleontological resource, site, or feature; disturb any human including those interred outside formal cemeteries.

Based upon these considerations, significant adverse cultural resources impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse cultural resources impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

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

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

Discussion

VI. a), b), c), d) & e) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners

infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Although previous prepared CEQA documents for Rules 1110.2 and 1147 did not identify significant adverse energy impacts, eliminating the Rule 1110.2 and Rule 1147 compliance requirements for affected sources would result in fewer construction activities, and therefore, reduce even further the potential to generate adverse energy impacts. In addition, the affected equipment is located at existing commercial or industrial facilities. Therefore, based on the reasons above, affected Rule 1147 and Rule 1110.2 sources would have no energy impacts compared to the existing setting.

Natural gas fueled equipment connected to natural gas pipes would have eliminated diesel fuel delivery trips. Propane and LNG fueled equipment would have still required fuel delivery trips. Equipment with aftertreatment may have required catalyst replacement trips, CEMS calibration trips, etc. Since it is not known what owner/operators would have done to comply with Rule 1147 or Rule 1110.2, it is difficult to quantify differences in fuel consumed by the affected sources, deliver trips and additional monitoring trips to comply with the applicable rules, compared to similar activities for sources placed into PARs 219 and/or 222. Since vehicle trips associated with these compliance activities are routine but infrequent, the change on a daily basis between complying with Rule 1147 or Rule 1110.2, or continuing existing operations would not likely be different compared to the baseline vehicle trips per day. There may be differences between trips required to comply with Rule 1147 or Rule 1110.2 when compared to existing operations, but because it is not known how owner/operators would have complied with Rule 1147 or Rule 1110.2, it would be speculative to estimate differences between baseline compliance activity vehicle trips and vehicle trips associated with rule compliance. Since any changes in the number of vehicle trips per day are considered to be speculative, this impact will not be considered further.

Addition Rule 1147 and Rule 1110.2 to PARs 219 and 222 would result in the continued use of diesel fuel in the affect of equipment. Using the same methodology used to estimate GHG emission in the air quality analysis of this IS, it is estimated that the proposed project could result in the continued use of approximately 6,418,598 gallons per year of diesel fuel. It was conservatively assumed that all diesel-fueled units would have been replaced with alternative-fueled equipment; however, some Rule 1147 affected units would have been retrofitted with low NOx burners and some Rule 1110.2 equipment would have been retrofitted with aftertreatment emission control equipment. Rule 1147 affected units retrofitted with low NOx burners and Rule 1110.2 equipment retrofitted with aftertreatment emission control equipment would have continued to use diesel fuel. Therefore, diesel fuel use estimated based on complete replacement of natural gas with diesel in this analysis is very conservative. The amount of natural gas used to comply with Rules 1110.2 and 1147 was estimated based on amount of energy in British thermal units contained in the diesel fuel currently consumed by affected sources. Continued demand for 6,418,598 gallons per year of diesel fuel would be equivalent to approximately 238,000,000 cubic feet of natural gas or propane that would not be used in place of the diesel fuel. No credit would be taken for eliminating the potential impacts from increased demand for natural gas by affected Rule 1110.2 and Rule 1147 equipment.

In fiscal year 2011, 14,728,734,063 gallons of gasoline and 2,564,017,901 gallons of diesel were sold in California.[2] The 6,418,598 gallons per year of diesel fuel that would be continued to be used because of PARs 219 and 222 would be less than one percent (0.25 percent) of the 2,564,017,901 gallons of diesel sold in California, so continued use of diesel fuel as a result of eliminating rule requirements for sources currently subject to either Rule 1110.2 or Rule 1147, is not considered to be a significant impact.

Because of the small size of the affected sources and the low energy demand by individual sources, it is unlikely that the affected sources would be subject to a plan; therefore, the proposed project is not expected to conflict with adopted energy conservation plans. Because of the small size of the affected sources and the low energy demand by individual sources, it is unlikely that the affected sources would result in the need for new or substantially altered power or natural gas utility systems; create any significant effects on local or regional energy supplies and on requirements for additional energy; create any significant effects on local or regional energy supplies and on requirements for additional energy; create any significant effects on peak and base period demands for electricity and other forms of energy; and would comply with existing energy standards.

Based upon these considerations, significant adverse energy impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse energy impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑
• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑
• Strong seismic ground shaking?	☐	☐	☐	☑
• Seismic–related ground failure, including liquefaction?	☐	☐	☐	☑

[2] California State Board of Equalization, 2012. Fuel Taxes Statistics & Reports, http://www.boe.ca.gov/sptaxprog/spftrpts.htm

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

Significance Criteria

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

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

Discussion

VII. a), b), c), d) & e) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane fueled). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Although previous prepared CEQA documents for Rules 1110.2 and 1147 did not identify significant adverse geology or soil impacts, eliminating the Rule 1110.2 and Rule 1147 compliance requirements for affected sources would result in fewer construction activities, and therefore, reduce even further the potential to generate adverse geology or soil impacts. In addition, the affected equipment is located at existing commercial or industrial facilities. Since there would be no additional construction and the existing operations would continue, the affected Rule 1147 and Rule 1110.2 equipment under the proposed project are not expected to expose people or structures to potential any significant adverse effects, including the risk of loss, injury, or death involving ruptures of a known earthquake fault, strong seismic ground shaking or seismic-related ground failure, including liquefaction; result in new substantial soil erosion or the loss of topsoil; 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 new on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or 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. The proposed project does not involve installing septic tanks or alternative wastewater disposal systems. Consequently, the proposed project would not generate significant adverse impacts to 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.

Based upon these considerations, significant adverse geology and soil impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse geology and soil impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

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

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

Discussion

VIII. a), b) & c) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Further, PARs 219 and 222 would not affect the number of new replacement or retrofit equipment installed or the physical characteristics of the equipment or the placement of affected equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Therefore, based on the above reasons, no change in the types of hazards or increase in hazards are expected. In addition, the affected equipment is located at existing commercial or industrial facilities.

Adding sources to PARs 219 and 222 could potentially reduce hazards associated with aftertreatment control technology equipment (catalyst) or propane and LNG fuels. However, it would result in continuation of the existing hazards associated with diesel storage. Therefore, PARs 219 and 222 would have same or less hazards and hazardous material impacts for affected Rule 1147 and Rule 1110.2 sources, the proposed project is not expected to create a significant new or additional hazard to the public or create a reasonably foreseeable upset condition

involving the release of hazardous materials for existing sources. Therefore, based on the reasons above, affected Rule 1147 and Rule 1110.2 sources would have no hazard or hazardous impacts compared to the existing setting.

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 equipment affected by PARs 219 and 222 may be located at facilities 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. Consequently, hazards impacts from the disposal/recycling of hazardous materials as a result of implementing PARs 219 and 222 is not expected to change. As a result, the potential hazard impacts at any affected facilities subject to Government Code §65962.5 are expected to be less than significant.

VIII. e) Some of the equipment added to PARs 219 and 222 may be located at facilities at facilities within two miles of an airport or airstrip, however, since PARs 219 and 222 would not affect the number of new equipment installed, the physical characteristics of the equipment or the placement of affected equipment, hazard impacts to these facilities are not expected to be significant. Since PARs 219 and 222 would not alter operations of affected Rule 1147 or Rule 1110.2 equipment, there would be no change to hazard impacts to airports or airstrips from these pieces of equipment.

VIII. f) Since PARs 219 and 222 would not affect the number of new replacement or retrofitted equipment installed, the physical characteristics of the equipment or the placement of affected equipment, impacts to local emergency response plans are not expected to be significant. Certain equipment may continue to use diesel fuel that would otherwise switched to LNG or propane because of Rule 1110.2 or Rule 1147. Therefore, the proposed project would not change existing conditions, as of today. 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 is not expected to impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan because no changes to existing equipment are anticipated. Any existing facilities affected by the proposed project would typically already have their own emergency response plans in place. Hazard impacts from equipment added to PARs 219 and 222 are expected to have the same and less than significant compared to sources subject to the existing permitting programs. Thus, PARs 219 and 222 are not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, so it is not expected to be significant.

VIII. g) & h) As explained in the preceding discussions, hazard impacts from new and existing equipment affected by PARs 219 and 222 are expected to have the same and less than significant compared to sources subject to the existing permitting programs. Therefore, the proposed project is not expected to increase the use of flammable materials in or near areas with flammable brush, grass, or trees over than what would occur had the affected equipment been permitted under the existing permit programs. Therefore, the proposed project is not expected to result in significant adverse wildfire risk impacts.

Based upon these considerations, significant adverse hazards and hazardous materials impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse hazards and hazardous materials impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	☐	☐	☐	☑
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	☐	☐	☐	☑
d)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e)	Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	☐	☐	☐	☑
f)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
g)	Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
h)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
i)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑

Significance Criteria

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

Water Demand:

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

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

Discussion

IX. a), b), h) & i) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Further, PARs 219 and 222 would not affect the number of new replacement or retrofit equipment installed or the physical characteristics of the equipment or the placement of affected equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Therefore, based on the above reasons, no change in the hydrology and water quality is expected. In addition, the affected equipment is located at existing commercial or industrial facilities.

Since PARs 219 and 222 would not affect the number of new equipment installed or existing retrofitted, the physical characteristics of the equipment or the placement of affected equipment, no change in the types of water quality or increase in water demand is expected. Certain

equipment may continue to use diesel that would have otherwise have switched to LNG or propane. Thus, water quality and water demand impacts from equipment affected by PARs 219 and 222 are expected to be the same and less than significant compared to sources subject to existing permitting programs. Therefore, no changes to any existing wastewater treatment permits would be necessary. As a result, the proposed project is not expected to interfere with 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 because the proposed project has no effect on existing wastewater generation.

IX. c) & d) As explained above, no change in water demand is expected whether affected units undergo the permit process or are added to PARs 219 and/or 222. Similarly, sources affected by the proposed project are typically located at existing commercial or industrial facilities. Consequently, the proposed project is not expected to have significant adverse effects on any existing drainage patterns, or increase the rate or amount of surface runoff water that would exceed the capacity of existing or planned wastewater or stormwater drainage systems.

IX. e) & f) PARs 219 and 222 does not include or require any new or additional construction activities to build additional housing that could be located in 100-year flood hazard areas. Similarly, sources affected by the proposed project are typically located at existing commercial or industrial facilities. Consequently, PARs 219 and 222 are not expected to result in placing housing in 100-year flood hazard areas that could create new flood hazards. Since construction activities under PARs 219 and 222 are expected to be the same or less as that required under the existing permit process, the proposed project is not expected to result in significance impacts regarding placing housing in a 100-year flood zone.

For the same reasons as those identified in the proceeding paragraph, PARs 219 and 222 are not expected to create significant adverse risk impacts from flooding as a result of failure of a levee or dam or inundation by seiches, tsunamis, or mudflows.

IX. g) For the same reasons listed in IX a), b), c), d), h) and i) above, the propose project is not expected to require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.

Based upon these considerations, significant adverse hydrology and water quality impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse hydrology and water quality impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

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

Discussion

X. a) & b) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Further, PARs 219 and 222 would not affect the number of new replacement or retrofit equipment installed or the physical characteristics of the equipment or the placement of affected

equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Therefore, based on the above reasons, no change in land use and planning impacts are expected. In addition, the affected equipment is located at existing commercial or industrial facilities.

Land use and other planning considerations are determined by local governments. As discussed above, there are no provisions in PARs 219 and 222 that would physically divide an established community; or affect land use plans, policies, or regulations. Further, PARs 219 and 222 would be consistent with the typical industrial, commercial, and institutional zoning of the affected facilities. Operations of equipment at affected facilities would still be expected to comply, and not interfere, with any applicable land use plans, zoning ordinances, habitat conservation or natural community conservation plans. As a result land use and planning impacts are concluded to be less than significant.

Based upon these considerations, significant adverse land use and planning impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse land use and planning impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

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

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

Discussion

XI. a) & b) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing

program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Further, PARs 219 and 222 would not affect the number of new replacement or retrofit equipment installed or the physical characteristics of the equipment or the placement of affected equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Therefore, based on the above reasons, no change in mineral resources impacts are expected. In addition, the affected equipment is located at existing commercial or industrial facilities. As a result mineral resource impacts are concluded to be less than significant.

Therefore, the proposed project is not expected to 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 adverse mineral resources are not anticipated and, therefore, no further analysis is required. Since no significant adverse mineral resources were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

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) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Although previous prepared CEQA documents for Rules 1110.2 and 1147 did not identify significant adverse noise impacts, eliminating the Rule 1110.2 and Rule 1147 compliance requirements for affected sources would result in fewer construction activities, and therefore, reduce even further the potential to generate noise adverse impacts. In addition, the affected equipment is located at existing commercial or industrial facilities. Therefore, based on the reasons above, affected Rule 1147 and Rule 1110.2 sources would have no noise impacts compared to the existing setting.

PARs 219 and 222 would eliminate compliance requirements for sources currently subject to Rules 1110.2 and 1147, they are not expected affect the number of new equipment installed or existing equipment retrofitted with low NOx burners or aftertreatment emission control technology, the physical characteristics of the equipment or the placement of affected equipment compared to baseline conditions. Similarly, PARs 219 and 222 would not require construction activities, and in fact, may eliminate some construction activities since Rules 1110.2 and 1147 would not longer be subject to compliance requirements that require construction to install new or retrofit existing equipment. Therefore, the proposed project is not expected to create noise in excess of standard established in local general plans or noise ordinances or other applicable standards, excessive groundborne vibration, or substantially increase ambient noise levels other than would occur under the existing permit process.

Although the proposed project is not expected to generate noise from construction or increase operational noise levels, affected facilities would still be subject to Occupational Safety and Health Administration (OSHA) and California-OSHA (Cal/OSHA) noise standards to protect worker health. Operators/owners of affected equipment are expected to follow all OSHA and Cal/OSHA noise safety requirements.

XII. d) For facilities with equipment that would be added to PARs 219 and 222, they may be located at sites within an airport land use plan or within two miles of a public airport. Implementation of the proposed project is expected to expose people residing or working in the project area to the same noise levels as they would be exposed to under the existing permit system for the same reasons described in discussion XII a), b) and c). Similarly, although significant noise impacts are not expected, facilities with affected equipment must comply with

local noise ordinances and applicable OSHA or Cal/OSHA workplace noise reduction requirements.

Based upon these considerations, significant adverse noise impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse noise impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

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

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

Discussion

XIII. a) & b) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

Under the current Rule 1110.2 requirements, affected remote internal combustion engines would likely have been replaced by engines that do not run on diesel fuel (i.e., natural gas or propane) and/or required owner/operators to install aftertreatment emission control. Equipment exempted from Rule 1110.2 requirements by PARs 219 and 222 would not require replacement of engines with equipment fueled by natural gas or propane and/or installation of aftertreatment emission

control equipment. The affected Rule 1147 equipment would have been required to be retrofitted with low NOx burners or replaced with equipment that did not run on diesel fuel (i.e., natural gas or propane) to comply with Rule 1147. However, space limitations associated with most combustion of existing units would have rendered such retrofitting with low NOx burners infeasible. Therefore, diesel fueled potable pressure washers, asphalt day tankers, asphalt tar pots, small food ovens, portable diesel heaters, and diesel boilers would likely to have been replaced with alternatively fueled devices (natural gas or propane fueled). The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement of existing equipment retrofit of burners or installation of aftertreatment emission control equipment. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Although previous prepared CEQA documents for Rules 1110.2 and 1147 did not identify significant adverse population or housing impacts, eliminating the Rule 1110.2 and Rule 1147 compliance requirements for affected sources would result in fewer construction activities, and therefore, reduce even further the potential to generate adverse impacts to population or housing resources. In addition, the affected equipment is located at existing commercial or industrial facilities. Therefore, based on the reasons above, affected Rule 1147 and Rule 1110.2 sources would have no population or housing impacts compared to the existing setting.

Human population within the SCAQMD's jurisdiction is anticipated to grow regardless of implementing PARs 219 and 222. Eliminating the requirement for written permits by adding equipment to PARs 219 and/or imposing filing requirements by adding equipment to PAR 222 would not require any construction activities or require additional construction employees than would be required under the existing permit system. Similarly, additional employees would not be required during operation because eliminating the requirement for written permits and/or imposing filing requirements is not expected to require additional employees compared to the existing permit system.

As explained above, population growth in the district is not expected to be affected directly or indirectly as a result of adopting and implementing PARs 219 and 222. Further, PARs 219 and 222 would not indirectly induce growth in the area of affected facilities. 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 would be required for construction or operation at affected facilities. The proposed project is not expected to require relocation of affected equipment or facilities, so existing housing or populations in the district are not anticipated to be displaced necessitating the construction of replacement housing elsewhere. Finally, the proposed project does not include extension of roads or other infrastructure. 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 or housing distribution.

Based upon these considerations, significant adverse population and housing impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse population and housing impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

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

Discussion

XIV. a) & b) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment. Therefore, no changes to affected equipment that could result in emergency situations requiring emergency responders such as fire or police departments are anticipated.

PARs 219 and 222 would exempt some Rule 1147 and Rule 1110.2 sources that either would have future or existing compliance requirements to replacement sources or burners or install aftertreatment emission control equipment. The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement or retrofit equipment or aftertreatment emission control equipment construction. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new

affected equipment. Therefore, affected Rule 1147 and Rule 1110.2 sources would have no public services impacts compared to the existing setting, because affected equipment are located at existing commercial or industrial facilities.

XIV. c) & d) As noted in the "Population and Housing" discussion, implementation of the proposed project would not require new employees for construction or operation because different or additional construction or operational activities would not be necessary to comply with PAR 219s and 222. As a result, PAR 219s and 222 would have no direct or indirect effects on population growth in the district. Therefore, there would be no increase in local population and thus no impacts are expected to local schools or parks.

Because the proposed project is expected require the same resources as required under the existing permit system, it would 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 would be no increase in population and, therefore, no need for physically altered government facilities.

Based upon these considerations, significant adverse public services impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse public services impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

Impacts to recreation will be considered significant if:

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

Discussion

XV. a) & b) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

PARs 219 and 222 would exempt some Rule 1147 and Rule 1110.2 sources that either would have future or existing compliance requirements to replacement sources or burners or install aftertreatment emission control equipment. The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement or retrofit equipment or aftertreatment emission control equipment construction. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Therefore, affected Rule 1147 and Rule 1110.2 sources would have no recreation impacts compared to the existing setting, because affected equipment are located at existing commercial or industrial facilities.

As previously discussed under "Land Use," there are no provisions in PARs 219 and 222 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 would be altered by the proposed project. Further, implementation of PARs 219 and 222, that is, exempting specific equipment from written permits 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 the above considerations, significant adverse recreation impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse recreation impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Significance Criteria

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

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

Discussion

XVI. a) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

PARs 219 and 222 would exempt some Rule 1147 and Rule 1110.2 sources that either would have future or existing compliance requirements to replacement sources or burners or install aftertreatment emission control equipment. The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no replacement or retrofit equipment or aftertreatment emission control equipment construction. Therefore, affected Rule 1147 and Rule 1110.2 sources would have no solid and hazardous waste impacts compared to the existing setting, because affected equipment are located at existing commercial or industrial facilities.

XVI. b) No construction or changes in operations are expected; therefore, implementing PARs 219 and 222, which exempts affected equipment from written permits, is 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 the above information, PARs 219 and 222 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 other than what would already occur under the existing permitting system. Further, implementing PARs 219 and 222 is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations.

Based upon these considerations, significant adverse solid/hazardous waste impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse solid/hazardous waste impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

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.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day
- Increase customer traffic by more than 700 visits per day.

Discussion

XVII. a), b) & f) PARs 219 and 222 would result in specific equipment that are currently subject to permit requirements to be either exempt from permitting requirements or placed into a filing program. Most existing affected equipment would continue to be subject to applicable rule requirements or permit conditions included in existing permits. In regard to affected equipment installed after PAR 219 and 222 are amended, SCAQMD staff has concluded that changes to PARs 219 and 222 would not promote the installation of new affected equipment; only eliminate the requirement for written permits. Eliminating the requirement for written permits is not expected to alter the number of pieces of equipment installed, physical characteristics or placement of the affected equipment.

PARs 219 and 222 would exempt some Rule 1147 and Rule 1110.2 sources that either would have future or existing compliance requirements to replacement burners or install aftertreatment emission control equipment. The inclusion of these Rule 1147 and Rule 1110.2 sources in Rules 219 and 222 would result in no retrofit or aftertreatment emission control equipment construction; therefore, affected Rule 1147 and Rule 1110.2 sources would have no transportation/traffic impacts, such as new worker commute trips, haul truck trips to deliver equipment or fuel, etc., compared to the existing setting, because affected equipment are located at existing commercial or industrial facilities.

As noted in the "Discussion" sections of other environmental topics, compliance with PARs 219 and 222 is not expected to require construction activities other than what would already be required for new affected equipment under the existing permit system because most affected equipment would continue to be subject to applicable rules and permit conditions. Removing the requirement for a written permit or imposing filing requirements on affected equipment is not expected to promote the construction of new facilities or associated vehicle trips. Any operational impacts from PARs 219 and 222 are expected to be the same as those under the existing permit system for new affected equipment. Since construction and operations under

PARs 219 and 222 and the existing permit system are expected to be the same for new affected equipment no increase in construction or employee trips are expected and no change in traffic/circulation is expected. Therefore, in regard to new equipment the implementation of PARs 219 and 222 is not expected to conflict with an applicable plan, policy establishing measures of effectiveness for the performance of the circulatory system, applicable congestion management program, or conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities.

Affected Rule 1147 equipment would no longer need to be replaced with natural gas fueled equipment or aftertreatment emission control equipment to comply with future requirements. Affected Rule 1110.2 would no longer need to be replaced with propane or LNG fueled equipment or aftertreatment emission control equipment. Natural gas fueled equipment connected to natural gas pipes would have eliminated diesel fuel deliver trips. Propane and LNG fueled equipment would have still required fuel deliver trips. Equipment with aftertreatment may have required ammonia delivery trips, catalyst replacement trips, CEMS calibration trips, etc. Since it is not known what owner/operators would have done to comply with Rule 1147 or Rule 1110.2, it is difficult to quantify differences in fuel or electricity consumed by the affected sources, deliver trips and additional monitoring trips. Since trips associated with these activities are routine, but infrequent, the change on a daily basis between complying with Rule 1147 or Rule 1110.2, or continuing existing operations would not likely be different. Further, because it is not known how owner/operators would have complied with Rule 1147 or Rule 1110.2, it would be speculative to estimate differences between electricity, fuel types and fuel useage. Therefore, although PARs 219 and 222 are not expected to have traffic or transportation impacts related to affected Rule 1147 or Rule 1110.2 equipment, actual traffic impacts are considered to be speculative and will not be analyzed further in the Draft EA.

XVII. c) Some of the facilities that would be affected by PARs 219 and 222 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. However, 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, since exempting affected equipment from written permits or making equipment subject to filing requirements for most types of affected equipment does not alter or remove existing operating conditions or applicable rule requirements. Changes in construction or operations from adding equipment to PARs 219 and is not expected. Thus, PARs 219 and 222 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) Exempting affected equipment from written permits 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. Thus, the proposed project is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the affected facilities.

XVII. e) Since construction and operation would be the same under PARs 219 and 222 and compared to the existing permitting system , emergency access at each affected facility is not expected to be impacted any differently. Further, operators of affected equipment are expected to continue to maintain their existing emergency access gates. Therefore, the proposed project is not expected to increase hazards due to design features or alter emergency access.

Based upon these considerations, significant adverse transportation/traffic impacts are not anticipated and, therefore, no further analysis is required. Since no significant adverse transportation/traffic impacts were identified; therefore, this topic will not be evaluated further in the Draft EA.

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

Discussion

XVIII. a) As discussed in the "Biological Resources" section, PARs 219 and 222 are not expected to significantly adversely affect plant or animal species or the habitat on which they rely because any construction and operational activities associated with affected sources are expected to be the same under PARs 219 and 222 as under the existing permitting system. In addition, affected equipment is typically located entirely within the boundaries of existing

facilities in commercial, industrial or institutional areas which have already been greatly disturbed and that currently do not support any species of concern or the habitat on which they rely. PARs 219 and 222 are not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past.

XVIII. b) Based on the foregoing analyses, PARs 219 and 222 would not result in significant adverse project-specific environmental impacts other than NOx air quality impacts. Furthermore, potential adverse impacts from implementing PARs 219 and 222 would not be "cumulatively considerable" as defined by CEQA Guidelines §15064(h)(1) for any environmental topic because there are no, or only minor incremental project-specific impacts that were concluded to be less than significant. Therefore, since project-specific impacts are not considered to be cumulative considerable, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by the proposed project for any environmental topic other than from NOx air quality impacts. Cumulative NOx air quality impacts will be further analyzed in the Draft EA.

XVIII. c) Based on the foregoing analyses, PARs 219 and 222 are not expected to cause adverse effects on human beings for any environmental topic other than from NOx air quality impacts. As previously discussed in items I through XVIII, the proposed project has no potential to cause significant adverse environmental effects other than from NOx air quality impacts. Significant NOx air quality impacts will be further analyzed in the Draft EA.

APPENDIX A (OF THE INITIAL STUDY)

PROPOSED AMENDED RULES 219 AND 222

The PARs 219 and 222 versions dated March 2013 were circulated with the Initial Study released on October 18, 2012 for a 30-day public review and comment period ending November 16, 2012. Original hard copies of the Initial Study, which include version March 2013 versions of PARs 219 and 222 circulated for public review, can be obtained through the SCAQMD Public Information Center at the Diamond Bar headquarters or by calling (909) 396-2039.

APPENDIX B (OF THE INITIAL STUDY)

ASSUMPTIONS AND CALCULATIONS

Table B-1
Potential GHG Emission Reductions Foregone For Proposed Amended Rule 219/222

GHG Emissions from Remote Two-Way Radio Transmission Power Sources

Fuel	Number of ICE	Rating, bhp/hr	Conversion, Btu/hr/hp	Hours per Day	Days per Year	CO2 kg/MMBtu	CH4 g/btu	N2O g/MMbtu	CO2eq g/btu	CO2eq metric ton/yr
Natural Gas	16	100	2,544	24	183	53	0.9	0.1	0.05	10
Diesel	16	100	2,544	24	183	73	3	0.6	0.07	13

CO2, CH4 and N2O emission factors from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
GHG CO2 equivalency factors - CH4 = 21, N2O = 310
CO2 eq, metric ton/year = (number of ICE x rating, bhp/hr)/(conversion, btu/hr/bhp/hr) x hr/day x day/year x CO2eq, g/btu x (lb/453.59 g) x (metric ton/2204.623 lb)

GHG Emissions from Power Pressure Washers

Fuel	Number of Washers	Daily Usage, gal	Avg Firing Rate (% of Max Rate)	% of Time Fired per Hour	Avg % of Units Operating Each Day	Conversion, btu/barrel	Conversion, gal/barrel	Daily Usage, MMBtu/ day	Day per Week	Weeks per Year	CO2 kg/ MMBtu	CH4 g/ MMbtu	N2O g/ MMbtu	CO2eq g/btu	CO2eq metric ton/yr
Natural Gas	250		0.75	0.66	0.75			858	5	52	53	0.9	0.1	0.05	0.012
Diesel	250	50	0.75	0.66	0.75	5.825	31.5	858	5	52	73	3	0.6	0.07	0.016

CO2, CH4 and N2O emission factors from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
GHG CO2 equivalency factors - CH4 = 21, N2O = 310
Daily usage, mmbtu/day = daily usage, gal x conversion, btu/barrel x (barrel/31.5 gal) x Avg Firing Rate x Percentage Time Fired per Hour x Avg Percentage of Units Operating Each Day
CO2 eq, metric ton/year = (number of washers x daily usage, mmBtu/day) x days per week x weeks per year x CO2eq, g/btu x (lb/453.59 g) x (metric ton/2204.623 lb)

GHG Emissions from Asphalt Tankers

Fuel	Number of Tankers	Daily Usage, gal	Avg Firing Rate (% of Max Rate)	% of Time Fired per Hour	Avg % of Units Operating Each Day	Conversion, btu/barrel	Conversion, gal/barrel	Daily Usage, MMBtu/ day	Day per Week	Weeks per Year	CO2 kg/ MMBtu	CH4 g/ MMbtu	N2O g/ MMbtu	CO2eq g/btu	CO2eq metric ton/ yr
Natural Gas	58		0.9	1	0.75			1,151	6	52	53	0.9	0.1	0.05	0.019
Diesel	58	159	0.9	1	0.75	5.825	31.5	1,151	6	52	73	3	0.6	0.07	0.026

CO2, CH4 and N2O emission factors from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
GHG CO2 equivalency factors - CH4 = 21, N2O = 310
Daily usage, mmbtu/day = daily usage, gal x conversion, btu/barrel x (barrel/31.5 gal) x Avg Firing Rate x Percentage Time Fired per Hour x Avg Percentage of Units Operating Each Day
CO2 eq, metric ton/year = (number of washers x daily usage, mmBtu/day) x days per week x weeks per year x CO2eq, g/btu x (lb/453.59 g) x (metric ton/2204.623 lb)

GHG Emissions from Asphalt Tar Pots

Fuel	Number of Pots	Daily Usage, gal	Avg Firing Rate (% of Max Rate)	Percentage of Time Fired per Hour	Avg % of Units Operating Each Day	Conversion, btu/barrel	Conversion, gal/barrel	Daily Usage, MMBtu/ day	Day per Week	Weeks per Year	CO2 kg/ MMBtu	CH4 g/ MMbtu	N2O g/ MMbtu	CO2eq g/btu	CO2eq metric ton/yr
Natural Gas	148		0.9	1	0.75			2,937	5.5	52	53	0.9	0.1	0.05	0.045
Diesel	148	159	0.9	1	0.75	5.825	31.5	2,937	5.5	52	73	3	0.6	0.07	0.062

CO2, CH4 and N2O emission factors from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
GHG CO2 equivalency factors - CH4 = 21, N2O = 310
Daily usage, mmbtu/day = daily usage, gal x conversion, btu/barrel x (barrel/31.5 gal) x Avg Percentage of Units Operating Each Day
CO2 eq, metric ton/year = (number of washers x daily usage, mmBtu/day) x days per week x weeks per year x CO2eq, g/btu x (lb/453.59 g) x (metric ton/2204.623 lb)

GHG Emissions from Portable Diesel Heaters

Fuel	Number of Heaters	Rating, Btu/hr	Hours per Day	Days per Year	Avg % of Units Operating Each Day	CO2 kg/MMBtu	CH4 g/MMbtu	N2O g/MMbtu	CO2eq g/btu	CO2eq metric ton/yr
Natural Gas	9	250,000	12	365	0.75	53	0.9	0.1	0.05	395
Diesel	9	250,000	12	365	0.75	73	3	0.6	0.07	542

CO2, CH4 and N2O emission factors from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
GHG CO2 equivalency factors - CH4 = 21, N2O = 310
CO2 eq, metric ton/year = (number of heaters x daily usage, mmBtu/hr) x hr/day x day/year x Avg Percentage of Units Operating Each Day x CO2eq, g/btu x (lb/453.59 g) x (metric ton/2204.623 lb)

GHG Emissions from Remote Diesel Boilers

Fuel	Number of Boilers	Rating, Btu/hr	Hours per Day	Days per Year	Avg Firing Rate (% of Max Rate)	CO2 kg/MMBtu	CH4 g/MMbtu	N2O g/MMbtu	CO2eq g/btu	CO2eq metric ton/yr
Natural Gas	5	1,000,000	12	183	0.5	53	0.9	0.1	0.05	293
Diesel	5	1,000,000	12	183	0.5	73	3	0.6	0.07	402

CO2, CH4 and N2O emission factors from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
GHG CO2 equivalency factors - CH4 = 21, N2O = 310
CO2 eq, metric ton/year = (number of heaters x daily usage, mmBtu/hr) x hr/day x day/year x Avg Firing Rate x CO2eq, g/btu x (lb/453.59 g) x (metric ton/2204.623 lb)

Potential GHG Emission Reductions Foregone from Proposed Amended Rule 219/222

Description	CO2eq metric ton/yr
Natural Gas	698
Diesel	957
GHG emissions foregone	259

PARs 219 and 222 would result in the continued use of diesel fueled equipment that may have been replaced with LNG or propane fueled equipment. It is conservative to assume that all diesel fueled units would be replaced with LNG or propane fueled equipment, since many affected Rule 1147 and Rule 1110.2 units would have been retrofitted with low NOx burners or aftertreatment equipment, so they would have continued to use diesel fuel. Therefore, the estimated GHG emissions foregone are very conservative.

Table B-2
Potential Amount of Diesel Fuel Used Instead of LNG/Propane for Proposed Amended Rule 219/222

Remote Two-Way Radio Transmission Power Sources

Fuel	Number of ICE	Rating, bhp	Hours per Day	Days per Year	Avg % of Units Operating Each Day	Conversion, Btu/hr/bhp	High Heat Value, Btu/cft	Conversion, MMbtu/barrel	Conversion, gal/barrel	Daily Usage, gal/yr	Daily Usage, MMcft/yr
Natural Gas	16	100	24	183	0.5	2,544	1,050				8
Diesel	16	100	24	183	0.5	2,544	1,050	5.825	31.5	48,214	

High heat value and conversions from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
Daily usage, gal/yr = (number of ICE x rating, bhp x 2,544 Btu/hr/bph x 24 hours per day x 183 days per year x 3.15 gal/barrel)/(5.825 MMBtu/barrels x 1,000,0000 Btu/MMBtu)
Daily usage, MMcft/yr = (number of ICE x rating, bhp x 2,544 Btu/hr/bph x 24 hours per day x 183 days per year)/(1,050 Btu/cft x 1,000,000 cft/MMcft)

Power Pressure Washers

Fuel	Number of Washers	Daily Usage, gal	Weeks per Year	Days per Week	High Heat Value, Btu/cft	Avg Firing Rate (% of Max Rate)	Percentage of Time Fired per Hour	Avg % of Units Operating Each Day	Conversion, btu/barrel	Conversion, gal/barrel	Daily Usage, MMBtu/day	Daily Usage, gal/yr	Daily Usage, MMcft/year
Natural Gas	250		5	52	1,050	0.75	0.66	0.75			858		212
Diesel	250	50	5	52	1,050	0.75	0.66	0.75	5.825	31.5	858	3,250,000	

High heat value and conversions from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
Daily usage, gal/yr = number of washers x daily usage, gal x 365 days per year x avg firing rate x percentage time fired per hour x avg percentage of units operating each day
Daily usage, MMBtu/day = (number of washers x daily usage, gal x 365 days per year x 5.825 MMBtu/barrel)/(3.5 gal/barrel)
Daily usage, MMcft/yr = (number of washers x rating, bhp x daily usage, MMBtu/day x days per year)/(1,050 MMBtu/MMcft)

Asphalt Day Tankers

Fuel	Number of Tankers	Daily Usage, gal	Days per Weeks	Days per Year	High Heat Value, Btu/cft	Avg Firing Rate (% of Max Rate)	Precentage of Time Fired per Hour	Avg % of Units Operating Each Day	Conversion, btu/barrel	Conversion, gal/barrel	Daily Usage, MMBtu/day	Daily Usage, gal/yr	Daily Usage, MMcft/year
Natural Gas	58		6	52	1,050	0.9	1	0.75			362		108
Diesel	58	50	6	52	1,050	0.9	1	0.75	5.825	31.5	362	904,800	

High heat value and conversions from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
Daily usage, gal/yr = number of washers x daily usage, gal avg percentage of units operating each day
Daily usage, MMBtu/day = (number of washers x daily usage, gal x days per week x weeks per year x 5.825 MMBtu/barrel)/(3.5 gal/barrel)
Daily usage, MMcft/yr = (number of washers x rating, bhp x daily usage, MMBtu/day x days per week x weeks per year)/(1,050 MMBtu/MMcft)

Asphalt Tar Pots

Fuel	Number of Pots	Daily Usage, gal	Days per Weeks	Days per Year	High Heat Value, Btu/cft	Avg Firing Rate (% of Max Rate)	Precentage of Time Fired per Hour	Avg % of Units Operating Each Day	Conversion, btu/barrel	Conversion, gal/barrel	Daily Usage, MMBtu/day	Daily Usage, gal/yr	Daily Usage, MMcft/year
Natural Gas	148		5.5	52	1,050	0.9	1	0.75			924		252
Diesel	148	50	5.5	52	1,050	0.9	1	0.75	5.825	31.5	924	2,116,400	

High heat value and conversions from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
Daily usage, gal/yr = number of washers x daily usage, gal x avg percentage of units operating each day
Daily usage, MMBtu/day = (number of washers x daily usage, gal x days per week x weeks per year x 5.825 MMBtu/barrel)/(3.5 gal/barrel)
Daily usage, MMcft/yr = (number of washers x rating, bhp x daily usage, MMBtu/day x days per week x weeks per year)/(1,050 MMBtu/MMcft)

Portable Diesel Heaters

Fuel	Number of Heaters	Rating, Btu/hr	Avg % of Units Operating Each Day	Hours per Day	Days per Year	High Heat Value, Btu/cft	Conversion, MMbtu/barrel	Conversion, gal/barrel	Daily Usage, gal/yr	Daily Usage, MMcft/year
Natural Gas	9	250,000	0.75	24	183	1,050				7.0
Diesel	9	250,000	0.75	24	183	1,050	5.825	31.5	39,970	

High heat value and conversions from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
Daily usage, MMcft/yr = (number of heaters x rating, Btu/hr x hours per day x days per year)/(1,050 Btu/cft x 1,000,000 cft/MMcft) x Avg % of Units Operating Each Day
Daily usage, gal/yr = (number of heaters x rating, Btu/hr x hours per day x days per year x 31.5 gal/barrel)/(5.825 MMBtu/barrel x 1,000,000 cft/MMcft) x Avg % of Units Operating Each Day

Remote Diesel Boilers

Fuel	Number of Boilers	Rating, Btu/hr	Avg Firing Rate (% of Max Rate)	Hours per Day	Days per Year	High Heat Value, Btu/cft	Conversion, btu/barrel	Conversion, gal/barrel	Daily Usage, gal/yr	Daily Usage, MMcft/year
Natural Gas	5	1,000,000	0.5	24	183	1,050				10.4
Diesel	5	1,000,000	0.5	24	183	1,050	5.825	31.5	59,215	

High heat value and conversions from ARB, Instructional Guidance for Mandatory GHG Emissions Reporting
Daily usage, MMcft/yr = (number of heaters x rating, Btu/hr x hours per day x days per year)/(1,050 Btu/cft x 1,000,000 cft/MMcft) x Avg Percentage of Units Operating Each Day
Daily usage, gal/yr = (number of heaters x rating, Btu/hr x hours per day x days per year x 31.5 gal/barrel)/(5.825 MMBtu/barrel x 1,000,000 cft/MMcft) x Avg Percentage of Units Operating Each Day

Annual Fuel Use

Fuel Type	Fuel Use
Diesel use, gal/year	6,418,598
Natural gas use, MMcft/yr	238

PARs 219 and 222 would result in the continued use of diesel fueled equipment that may have been replaced with LNG or propane fueled equipment. It is conservative to assume that all diesel fueled units would be replaced with LNG or propane fueled equipment, since many affected Rule 1147 and Rule 1110.2 units would have been retrofitted with low NOx burners or aftertreatment equipment, so that they would have continued to use diesel fuel. Therefore, the assumption that all of the equipment would have been replaced with LNG or propone fueled equipment is very conservative.

APPENDIX C (OF THE ~~DRAFT~~ FINAL ENVIRONMETNAL ASSESSMENT)

ASSUMPTIONS AND CALCULATIONS

Table C-1
Daily NOx Emission Reductions Foregone For Proposed Amended Rules 219 and 222

Proposed PAR 219 Exemptions and PAR 222 Equipment Categories[a]	PARs 219222 Criteria	Number of Existing Units	Existing Permitted Emissions (lb/day)	Current Emissions (ppm)	Rule 1147 Limit (ppm)	Average Firing Rate (Percent of Max Rating)	Percentage of Time Burner is Firing Each Hour	Average Percentage of Units Operating Each Day	Actual Existing Emissions (lb/day)	Actual Rule 1147 or 1110.2 Emissions (lb/day)	Daily NOx Reductions Foregone (lb/day)
Pressure Washers	< 50 gal Fuel/Day, ≤ 150,000 Btu/hr	261	64	80	40	0.75	0.66	0.75	24	12	12
Asphalt Day Tankers	159 - 5,000 Gallons, LPG - Fired	58	32	110	60	0.9	1	0.75	22	12	10
Asphalt Tar Pots	159 - 1,000 Gallons, LPG - Fired	147	120	110	60	0.9	1	0.75	81	44	37
Small Food Ovens	Natural Gas-Fired, ≤ 2 MM Btu/hr	55	59	102	30	0.6	1	0.9	32	9.4	22
Fuel Cells	< 90,000 Therms/yr	2	3.0	60	60	1	1	1	3.0	3.0	0
Portable Diesel Heaters	≤ 250,000 Btu/hr	9	2.9	80	40	1	1	0.75	2.2	1.1	1.1
Diesel Boiler	< 2 MM Btu/hr, > 4,000 Ft Elev, >15 Mi Offshore	5	3.0	80	40	0.5	1	1	1.5	0.7	0.7
Remote Two-Way Radio Transmission Power Source[b]	Rule 1110.2 requires 0.15 gm/bhp-hr	16	118.7	594	33	1	1	0.5	59	3.3	56
Total Daily NOx Emission Reductions Foregone									**224**	**85**	**139**

a) The number of permitted units (and open applications for units) in these equipment categories are nearly identical to five years earlier and the number can increase or decrease monthly. The average number of units in the permit system is not expected to change with the exception of fuel cells and turbines. As molten carbonate fuel cells with gas-fired heaters currently meet Rule 1147 emissions as built, there are no emission reductions forgone for this category.

b) Applications have been submitted for three locations; E&C staff believes up to eight locations, so calculated emissions for 10 locations with two 80 hp ICEs (Assumed Tier 3 Compliance) per location operating 60 percent

c) Actual Existing Emissions, lb/day = Existing Permitted Emissions, lb/day x Average Firing Rate x Percentage of Time Burner is Firing Each Hour x Average Percentage of Units Operating Each Day

d) Actual Rule 1147 or 1110.2 Emissions, lb/day = Maximum Potential to Emit, lb/day x (Future or Current Limit, ppm)/Permitted Limit, ppm x Average Firing Rate x Percentage of Time Burner is Firing Each Hour x Average Percentage of Units Operating Each Day

e) Daily NOx Reductions Foregone, lb/day = Actual Existing Emissions, lb/day - Actual Rule 1147 or 1110.2 Emissions, lb/day

Table C-2
Daily NOx Emission Reductions Foregone For Alternative B

Proposed New Rule 222 Equipment Categories And PAR 219 Exemptions[a]	PAR 219 and 222 Criteria	Number of Existing Units	Existing Permitted Emissions (lb/day)	Current Emissions (ppm)	Rule 1147 Limit (ppm)	Average Firing Rate (Percent of Max Rating)	Percentage of Time Burner is Firing Each Hour	Average Percentage of Units Operating Each Day	Actual Existing Emissions (lb/day)	Actual Rule 1147 or 1110.2 Emissions (lb/day)	Daily NOx Reductions Foregone (lb/day)
Power Pressure Washers	< 50 gal Fuel/Day, ≤ 150,000 Btu/hr	261	64	80	40	0.75	0.66	0.75	24	12	12
Asphalt Day Tankers	159 - 4,000 Gallons, LPG - Fired	50	27	110	60	0.9	1	0.75	19	10	8.4
Tar Pots	159 - 800 Gallons, LPG - Fired	143	114	110	60	0.9	1	0.75	77	42	35
Food Ovens	Natural Gas-Fired, ≤ 2 MM Btu/hr	55	59	102	30	0.6	1	0.9	32	9.4	23
Portable Diesel-fueled Heaters	≤ 250,000 Btu/hr	9	2.9	80	40	1	1	0.75	2.2	1.1	1.1
Diesel-fueled Boiler	< 2 MM Btu/hr, > 4,000 Ft Elev, >15 Mi Offshore	5	3.0	80	40	0.5	1	1	1.5	0.7	0.7
Remote Two-Way Radio Transmission Power Source[b]	Rule 1110.2 requires 0.15 gm/bhp-hr	16	118.7	594	33	1	1	0.5	59	3.3	56
Total Daily NOx Emission Reductions Foregone		553							**217**	**81**	**136**

a) The number of permitted units (and open applications for units) in these equipment categories are nearly identical to five years earlier and the number can increase or decrease monthly.
b) Applications have been submitted for three locations; E&C staff believes up to eight locations, so calculated emissions for 10 locations with two 80 hp ICEs (Assumed Tier 3 Compliance) per location operating 60 percent
c) Actual Existing Emissions, lb/day = Existing Permitted Emissions, lb/day x Average Firing Rate x Percentage of Time Burner is Firing Each Hour x Average Percentage of Units Operating Each Day
d) Actual Rule 1147 or 1110.2 Emissions, lb/day = Maximum Potential to Emit, lb/day x (Future or Current Limit, ppm)/Permitted Limit, ppm x Average Firing Rate x Percentage of Time Burner is Firing Each Hour x Average Percentage of Units Operating Each Day
e) Daily NOx Reductions Foregone, lb/day = Actual Existing Emissions, lb/day - Actual Rule 1147 or 1110.2 Emissions, lb/day