BOARD MEETING DATE: July 6, 2018 AGENDA NO. 11

REPORT: Report to Legislature and CARB on SCAQMD's Regulatory

Activities for Calendar Year 2017

SYNOPSIS: The SCAQMD is required by law to submit a report to the

Legislature and CARB on its regulatory activities for the preceding calendar year. The report is to include a summary of each rule and rule amendment adopted by SCAQMD, number of permits issued, denied, or cancelled, emission offset transactions, budget and forecast, and an update on the Clean Fuels program. Also included is the Annual RECLAIM Audit Report, as required by RECLAIM

Rule 2015 - Backstop Provisions.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:

Receive and file the attached report, and direct staff to forward the final report to the Legislature and the California Air Resources Board.

Wayne Nastri Executive Officer

DA: FW:HC:jf

Background

SCAQMD is subject to several internal and external reviews of its air quality programs. These include an annual review of SCAQMD's proposed operating budget for the upcoming fiscal year and compliance program audits.

In 1990, the Legislature directed SCAQMD to provide an annual review of its regulatory activities (SB 1928, Presley), and specified the type of information required (Health and Safety Code §40452). Many of the required elements overlap with other requirements of separate legislation. For example, information on SCAQMD's Clean Fuels Program is a requirement of this report, but is also a separate requirement under

legislation passed in 1999 (SB 98, Alarcón). The purpose of this report is to fill in pieces of additional data needed to compile a comprehensive regulatory overview. Most of the information included in this report is not new, but is simply a compilation of information previously seen by the Board. For example, Chapter I lists all the rules and rule amendments adopted by the Board during 2017. The Annual RECLAIM Audit Report, which the Board approved on March 2, 2018, is also required to be submitted to the Legislature by Rule 2015 - Backstop Provisions.

The specific requirements of this report include:

- A summary of each major rule and rule amendment adopted by the Board;
- The number of permits to operate or permits to construct that were issued, denied, cancelled or not renewed;
- Data on emission offset transactions and applications during the previous year;
- The budget and forecast of staff increases or decreases for the following fiscal year:
- An identification of the source of all revenues used to finance the SCAQMD's activities;
- An update on the SCAQMD's Clean Fuels program; and
- The annual RECLAIM Audit Report.

Attachment

Report to the Legislature on the Regulatory Activities of the SCAQMD for Calendar Year 2017¹

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¹ Due to the bulk of these materials, chapters III, IV and V of the report can be found online at http://www.aqmd.gov/docs/default-source/LPA-Outreach/sb-1928-report-to-legislature-july-2018.pdf?sfvrsn=8. Anyone who would like to obtain a hard copy of these materials may do so by contacting SCAQMD's Public Information Center at (909) 396-2001.

REPORT TO THE LEGISLATURE ON THE REGULATORY ACTIVITIES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Pursuant to Chapter 1702, Statutes of 1990 (SB 1928)



July 2018
Cleaning the Air that We Breathe...

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT GOVERNING BOARD

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Wayne Nastri Executive Officer

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EXECUTIVE SUMMARY

Introduction

The South Coast Air Quality Management District (SCAQMD) is subject to internal and external reviews of its air quality programs. These include annual reviews of the District's budget, forecast and proposed operating budget for the upcoming fiscal year, and compliance program audits. In addition, the SCAQMD is required to submit to the California Air Resources Board (CARB) and State Legislature an annual review of its regulatory activities for the preceding calendar year. The attached report satisfies this latter requirement which is mandated pursuant to Chapter 1702, Statutes of 1990 (SB 1928, Presley), Section 40452 of the California Health and Safety Code.

Rule Adoptions and Amendments in 2017 and CEQA Alternatives

This section contains a summary of each major rule adoption or amendment adopted by the SCAQMD Governing Board in the preceding calendar year (e.g., 2017). Each summary contains detailed information about the estimated emission reductions, cost effectiveness, alternatives considered pursuant to the requirements in the California Environmental Quality Act (CEQA), socioeconomic impacts, and sources of funding.

Projects undertaken by public agencies are subject to CEQA, so rules and regulations promulgated by SCAQMD must be reviewed to determine if they are considered to be a "project" as defined by CEQA. If they are not a "project" or they are determined to be exempt from CEQA, no further action is required. If the project has the potential to create significant or less than significant adverse effects on the environment, then an environmental analysis is necessary. New rules or existing rules being amended often require a comprehensive CEQA document that contains an environmental impact analysis which includes the following:

- * identification of potentially significant adverse environmental impacts evaluated based on environmental checklist topics;
- * identification of feasible measures, if any, to mitigate significant adverse environmental impacts to the greatest extent feasible;
- * if necessary, a discussion and comparison of the relative merits of feasible project alternatives that generally achieve the goals of the project, but may generate fewer or less severe adverse environmental impacts; and,
- * identification of environmental topics not significantly adversely affected by the project.

If it is concluded in the CEQA document that no significant adverse environmental impacts would be generated by the proposed project, neither the identification of feasible mitigation measures nor an analysis of CEQA alternatives to the project is required. If significant adverse environmental impacts are identified, feasible mitigation measures, if any, and alternatives must be identified and an analysis of the relative merits of each alternative is required.

SCAQMD operates under a regulatory program certified by the Secretary for Resources pursuant to Public Resources Code (PRC) Section 21080.5. Certification means that the SCAQMD can incorporate its environmental analyses into CEQA documents other than environmental impact reports (EIRs), negative declarations (NDs), or mitigated NDs (MNDs). In addition, certified CEQA programs are not subject to a limited number of specific CEQA requirements identified in PRC Section 21080.5. All documents prepared by SCAQMD under its certified regulatory program are called Environmental Assessments (EAs). SCAQMD rules and regulations are subject to SCAQMD's certified CEQA program, while plans (e.g., AQMP) are not. In addition, Supplemental EAs, Addenda, and EAs for projects determined not to have significant environmental impacts often contain a more focused analysis of potential environmental impacts.

In 2017, the SCAQMD adopted four new rules (Rules 415, 1180, 1430, and 1466) and one plan (the 2016 Air Quality Management Plan (AQMP)). Also in 2017, the SCAQMD amended eight rules (Rules 219, 222, 1147, 1118, 1168, 1401, 1420, and 1466) and one regulation (Regulation III). Of these projects, analyses of CEQA alternatives were required and conducted for the 2016 AQMP and Rule 1147. Refer to Chapter 1 for rule adoptions, rule amendments and CEQA Alternatives details.

Refer to Chapter 1 for rule adoptions, rule amendments and CEQA Alternatives details.

CEQA Lead Agency Projects

SCAQMD also acts as the Lead Agency under CEQA for non-SCAQMD projects where SCAQMD typically has primary approval, i.e., discretionary permitting authority. Under CEQA, the Lead Agency is responsible for determining whether an EIR, ND, or other type of CEQA document is necessary for any proposal considered to be a "project" as defined by CEQA. Further, the Lead Agency is responsible for preparing the environmental analysis, complying with all procedural requirements of CEQA, and approving the environmental documents. All documents prepared by SCAQMD for permit projects are subject to the standard CEQA requirements. SCAQMD staff is responsible for preparing or reviewing prepared CEQA documents for stationary source permit projects.

In 2017, the SCAQMD approved three lead agency projects for which two Addenda to Final Mitigated Negative Declarations for two Southern California Edison locations and one Final Environmental Impact Report for the Tesoro Los Angeles Refinery were prepared. Refer to Chapter 1 for CEQA Lead Agency details.

Refer to Chapter 1 for CEQA Lead Agency details.

Socioeconomic Impact Analyses

California Health and Safety Code Section 40440.8 requires that SCAQMD perform socioeconomic impact assessments for its rules and regulations that will significantly affect air quality or emissions limitations. Prior to the requirements of Section 40440.8, SCAQMD staff had been evaluating the socioeconomic impacts of its actions pursuant to a 1989 resolution of its Governing Board. Additionally, SCAQMD staff assesses socioeconomic

impacts of CEQA alternatives to those rules with significant cost and emission reduction impacts.

The elements of socioeconomic impact assessments include direct effects on various types of affected industries in terms of control costs and cost effectiveness as well as public health benefits associated with AQMPs. Additionally, SCAQMD staff uses an economic model developed by Regional Economic Models, Inc. (REMI) to analyze the potential direct and indirect socioeconomic impacts of SCAQMD rules on Los Angeles, Riverside, Orange, and San Bernardino Counties. These impacts include, but are not limited to employment and competitiveness.

In 2017, the SCAQMD identified and analyzed new socioeconomic impacts for four newly adopted rules (Rules 415, 1180, 1430, and 1466), seven amended rules (Rules 219, 222, 1118, 1168, 1401, 1420, and 1466) and one plan (e.g., 2016 AQMP). The SCAQMD also identified and analyzed ongoing socioeconomic impacts for one amended regulation (e.g., Regulation III). No socioeconomic impacts were identified for one amended rule (Rule 1147). Refer to Chapter 1 for Socioeconomic Impact Analyses details.

Refer to Chapter 1 for Socioeconomic Impact Analyses.

Engineering and Permitting

Background

Section 40452 of the California Health and Safety Code requires that the SCAQMD submit an annual report to both the state board and Legislature that summarizes its regulatory activities for the preceding calendar year. Paragraph (b) of Section 40452 requires that the annual report include data on "the number of permits to operate or to construct, by type of industry, that are issued and denied, and the number of permits to operate that are not renewed." Paragraph (c) of section 40452 requires that the annual report also includes data on emission offset transactions and applications during the previous fiscal year, including an accounting of the number of applications for permits for new or modified sources that were denied because of the unavailability of emission offsets. In addition, SCAQMD Rule 2015 requires submittal of the annual Regional Clean Air Incentives Market (RECLAIM) Audit Report for the 2016 Compliance Year to the Legislature.

The following paragraphs provide a brief summary for each report.

Permitting Data – Calendar Year 2017

During calendar year 2017, SCAQMD dispositioned a total of 10,504 applications. The majority of these applications were for Permits to Operate (3,774), Area Sources & Certified/Registrations (2,927), and Changes of Operators (1,236). Also, 910 permits were not renewed. The total number of dispositioned applications for 2017 is about 6% higher than the total for 2016, mainly attributed to the SCAQMD's continuing Permit Application Backlog Reduction efforts. This data, broken down into nine different categories, is summarized in Table 1 on page 45.

Table 2 contains a breakdown of permits dispositioned (in the nine categories) and permits not renewed, by type of industry. The type of industry was based on North American Industry Classification System (NAICS) codes, which were provided by the applicant at the time of application filing. The top four NAICS codes were 324110 – Petroleum Refineries, 445110 – Supermarkets and Other Grocery (except for Convenience) Stores, 447190 – Other Gasoline Stations, and 811121 – Automotive Body, Paint, and Interior Repair and Maintenance.

Emission Offset Transactions Data – Fiscal Year 2016/2017

During fiscal year 2016-17, a total of 52 emission offset transactions were completed, which include 40 transactions for reactive organic gases (ROG), 9 transactions for oxides of nitrogen (NOx), and 3 transactions for oxides of sulfur (SOx). There were no transactions for carbon monoxide (CO) and particulate matter with an aerodynamic diameter less than 10 microns (PM10). The amount of emissions offsets transferred, by pollutant, include 477 pounds per day of ROG, 18 pounds per day of NOx, and 47 pounds per day of SOx (see Table 5 on page 90). No banking applications resulting in the issuance of new emission offsets for ROG, NOx, SOx, CO or PM10 were processed. Additionally, no applications were denied permits for new or modified sources due to the unavailability of emission offsets. (See page 89 for details).

RECLAIM Audit Report

The REgional CLean Air Incentives Market (RECLAIM) program was adopted in 1993 to provide facilities with flexibility in achieving the same emissions reduction goals as would have been achieved under the traditional command and control approach, while lowering the cost of compliance. To ensure RECLAIM is achieving its goal, SCAQMD Rule 2015 - Backstop Provisions, requires preparation of an annual audit report on the program. This Annual RECLAIM Audit Report assesses emission reductions, availability of RECLAIM Trading Credits (RTCs) and their average annual prices, job impacts, compliance issues, and other measures of performance for the twenty-third year of this program. The results of the annual audit show that RECLAIM continues to meet its aggregate emission goals and all other specified objectives.

As discussed in more detail in the audit report (see Chapter V), a total of 262 facilities were in the RECLAIM program at the end of Compliance Year 2016. Total NOx emissions from RECLAIM facilities were 19% less than the aggregate NOx allocations, and SOx emissions were 29% less than the aggregate SOx allocations for the program. The vast majority of RECLAIM facilities complied with their allocations during the 2016 compliance year (95% of NOx facilities and 97% of SOx facilities).

A total of over \$1.48 billion in RTCs has been traded since the adoption of RECLAIM, of which \$6.9 million occurred in calendar year 2016 (compared to \$118.6 million in calendar year 2015), excluding swaps. The annual average prices of discrete-year NOx and SOx RTCs and infinite-year block (IYB – trades that involve blocks of RTCs with a specified start

year and continuing in perpetuity) NOx and SOx RTCs traded in calendar years 2016 and 2017 were all below the applicable review thresholds for initiating program review.

In Compliance Year 2016, RECLAIM facilities reported a net loss of 982 jobs, representing 0.88% of their total employment. The RECLAIM program also met other applicable requirements including meeting the applicable federal offset ratio under New Source Review and having no significant seasonal fluctuation in emissions. Additionally, there is no evidence that RECLAIM resulted in any increase in health impacts due to emissions of air toxics.

Refer to Chapter V for the 2015 Annual RECLAIM Audit Report.

Budget and Work Program

Refer to Chapter III for the Fiscal Year 2018-2019 Budget Report.

Clean Fuels Program

2017 Annual Report

In CY 2017, the SCAQMD Clean Fuels Program executed 59 new contracts, projects or studies and modified 8 continuing projects adding dollars toward research, development, demonstration and deployment (RDD&D) projects as well as technology assessment and transfer of alternative fuel and clean fuel technologies. An additional 8 revenue agreements totaling \$14.3 million were also executed. The SCAQMD Clean Fuels Program contributed nearly \$17.9 million in partnership with other governmental organizations, private industry, academia and research institutes, and interested parties, with total project costs of more than \$118.7 million. The \$17.9 million includes \$6.2 million recognized into the Clean Fuels Fund as pass-through funds from project partners to facilitate project administration by the Clean Fuels Program. In addition, in CY 2017, the Clean Fuels Program continued to leverage other outside funding opportunities, securing new awards totaling \$20.5 million from federal, state and local funding opportunities. Similar to the prior year, the significant project scope of a few key contracts executed in 2017 resulted in higher than average leveraging of Clean Fuels dollars. Typical leveraging is \$3-\$4 for every \$1 in Clean Fuels funding. In 2016, leveraging was \$1:\$9; in 2017, SCAQMD continued this upward trend with more than \$6 leveraged for every \$1 in Clean Fuels funds. Leveraging dollars and aggressively pursuing funding opportunities are more important than ever given the magnitude of additional funding identified in the 2016 AQMP to achieve federal ozone air quality standards.

The projects or studies executed in 2017 included a diverse mix of advanced technologies. The following core areas of technology advancement for 2017 executed contracts (in order of funding percentage) include:

1. Electric and Hybrid Vehicle Technologies and Related Infrastructure (emphasizing electric and hybrid electric trucks and container transport technologies with zero emission operations);

- 2. Fuels and Emission Studies;
- 3. Engine Systems/Technologies (emphasizing alternative and renewable fuels for truck and rail applications);
- 4. Hydrogen and Mobile Fuel Cell Technologies and Infrastructure;
- 5. Technology Assessment and Transfer/Outreach; and
- 6. Fueling Infrastructure and Deployment (predominantly natural gas and renewable fuels).

During CY 2017, the SCAQMD supported a variety of projects and technologies, ranging from near- term to long-term RDD&D activities. This "technology portfolio" strategy provides the SCAQMD the ability and flexibility to leverage state and federal funding while also addressing the specific needs of the South Coast Air Basin (Basin). Projects included significant electric and hybrid electric technologies and infrastructure to develop and demonstrate medium- and heavy-duty vehicles in support of transitioning to a zero and near-zero emissions goods movement industry; fuels and emissions studies to conduct in-use testing and fuel characterization and usage profiles as well as evaluating strategies for reducing emissions in the goods movement sector; development, demonstration and deployment of large displacement natural gas engines; and continued demonstration and deployment of electric charging infrastructure; and natural gas and renewable natural gas deployment and support.

In addition to the 67 executed contracts and projects, 19 RDD&D projects or studies and 24 technology assessment and transfer contracts were completed in 2017. As of January 1, 2018, there were 94 open contracts in the Clean Fuels Program.

In accordance with California Health and Safety Code Section 40448.5.1(d), this annual report must be submitted to the state legislature by March 31, 2018, after approval by the SCAQMD Governing Board.

2018 Plan Update

Every year, staff re-evaluates the Clean Fuels Program to develop a Plan Update based on a reassessment of the technology progress and direction for the agency. The Program continually seeks to support the development and deployment of lower-emitting technologies. The design and implementation of the Program Plan must balance the needs in the various technology sectors with technology readiness, emissions reduction potential and cofunding opportunities. As the state has turned a great deal of its attention to climate change and petroleum reduction goals, the SCAQMD has necessarily remained committed to developing, demonstrating and commercializing technologies that reduce criteria pollutants, specifically NOx. Fortunately many, if not the majority, of these technologies that address the Basin's need for NOx reductions also garner reductions in greenhouse gases (GHG) and petroleum use. Due to these "co-benefits," the SCAQMD has been successful in partnering with the state, which allows the Clean Fuels Program to leverage its funding extensively.

To identify technology and project opportunities where funding can make a significant difference in deploying progressively cleaner technologies in the Basin, the SCAQMD

employs a number of outreach and networking activities. These activities range from close involvement with state and federal collaboratives, partnerships and industrial coalitions, to the issuance of Program Opportunity Notices to solicit project ideas and concepts as well as issuance of Requests for Information (RFI) to determine the state of various technologies and the development and commercialization challenges faced by those technologies. For example, in 2016, an RFI was released to solicit information from diesel engine manufacturers and other entities to identify ultra-low NOx emission technology strategies that will result in commercially viable diesel engine technologies, capable of using renewable diesel for on-road heavy-duty vehicles such that they can achieve emission levels 90% below the current 2010 emission standards for NOx and reduce PM emissions to the greatest extent possible. Subsequently, in partnership with CARB and the Port of Los Angeles, staff initiated a project with Southwest Research Institute to develop advanced control systems to lower emissions from large displacement diesel engines, including under low-load and low-temperature conditions. Potential follow-up development, demonstration and certification projects resulting from this RFI are included conceptually within the Draft 2018 Plan Update.

The Plan Update includes projects to develop, demonstrate and commercialize a variety of technologies, from near-term to long-term commercialization, that are intended to provide solutions to the emission control needs identified in the 2016 AQMP. Given the need for significant reductions over the next five to ten years, near-zero and zero emission technologies are emphasized. Areas of focus include:

- reducing emissions from port-related activities, such as cargo handling equipment and container movement technologies, including demonstration and deployment of cargo container movement systems with zero emission range;
- developing and demonstrating ultra-low emission liquid fuel larger displacement engines and zero emission heavy-duty vehicles;
- developing, demonstrating and deploying advanced natural gas engines and zero emission technologies for high horsepower applications;
- mitigating criteria pollutant increases from renewable fuels, such as renewable natural gas, diesel and hydrogen as well as other renewable fuels and waste streams;
- developing and demonstrating electric-drive (fuel cell, battery, plug-in hybrid and hybrid) technologies across light-, medium- and heavy-duty platforms;
- producing transportation fuels and energy from renewable and waste stream sources; and
- establishing large-scale hydrogen refueling and EV charging infrastructures to help accelerate the introduction zero emission vehicles into the market.

These potential projects for 2018 total \$16.7 million, with anticipated leveraging of more than \$4 for every \$1 of Clean Fuels funding for total project costs of nearly \$70 million. Some of the proposed projects may also be funded by revenue sources other than the Clean Fuels Program, especially Volatile Organic Compounds (VOCs) and incentive projects.

CHAPTER I RULE DEVELOPMENT, CEQA, and SOCIOECONOMIC IMPACT ANALYSES

RULE ADOPTIONS AND AMENDMENTS IN 2017 AND CEQA ALTERNATIVES

This section contains a summary of each major rule adoption or amendment adopted by the SCAQMD Governing Board in the preceding calendar year (e.g., 2017). Each summary contains detailed information about the estimated emission reductions, cost effectiveness, alternatives considered pursuant to the requirements in the California Environmental Quality Act (CEQA), socioeconomic impacts, and sources of funding.

Projects undertaken by public agencies are subject to CEQA, so rules and regulations promulgated by SCAQMD must be reviewed to determine if they are considered to be a "project" as defined by CEQA. If they are not a "project" or they are determined to be exempt from CEQA, no further action is required. If the project has the potential to create significant or less than significant adverse effects on the environment, then an environmental analysis is necessary. New rules or existing rules being amended often require a comprehensive CEQA document that contains an environmental impact analysis which includes the following:

- identification of potentially significant adverse environmental impacts evaluated based on environmental checklist topics;
- identification of feasible measures, if any, to mitigate significant adverse environmental impacts to the greatest extent feasible;
- if necessary, a discussion and comparison of the relative merits of feasible project alternatives that generally achieve the goals of the project, but may generate fewer or less severe adverse environmental impacts; and,
- identification of environmental topics not significantly adversely affected by the project.

If it is concluded in the CEQA document that no significant adverse environmental impacts would be generated by the proposed project, neither the identification of feasible mitigation measures nor an analysis of CEQA alternatives to the project is required. If significant adverse environmental impacts are identified, feasible mitigation measures, if any, and alternatives must be identified and an analysis of the relative merits of each alternative is required.

SCAQMD operates under a regulatory program certified by the Secretary for Resources pursuant to Public Resources Code (PRC) Section 21080.5. Certification means that the SCAQMD can incorporate its environmental analyses into CEQA documents other than environmental impact reports (EIRs), negative declarations (NDs), or mitigated NDs (MNDs). In addition, certified CEQA programs are not subject to a limited number of specific CEQA requirements identified in PRC Section 21080.5. All documents prepared by SCAQMD under its certified regulatory program are called Environmental Assessments (EAs). SCAQMD rules and regulations are subject to SCAQMD's certified CEQA program, while plans (e.g., AQMP) are not. In addition, Supplemental EAs, Addenda, and EAs for projects determined not to have significant environmental impacts often contain a more focused analysis of potential environmental impacts.

The following section lists all new and amended rules adopted by the Governing Board in 2017 by month. The type of CEQA document (including projects exempt from CEQA) is described for each new rule or rule amendment project. Alternatives are summarized only for those projects requiring an alternatives analysis pursuant to CEQA.

JANUARY 6, 2017

No rules were adopted or amended in January.

FEBRUARY 3, 2017

No rules were adopted or amended in February.

MARCH 3, 2017

One rule and one plan was adopted in March, as follows:

1. Adopted Rule 1430 - Control of Emissions From Metal Grinding Operations at **Metal Forging Facilities:** Rule 1430 was adopted to reduce particulate matter and toxic emissions and help to reduce odors from metal grinding and cutting operations at forging facilities. Prior to the adoption of Rule 1430, metal grinding and cutting operations were exempt from SCAQMD permits. Based on monitoring, sampling, and site visits, metal grinding at forging facilities was identified as a substantial source of metal particulate emissions, some of which are also toxic air contaminants. Under Rule 1430, forging facilities are: 1) prohibited from conducting grinding and cutting operations in the open air; 2) required to vent metal grinding and cutting operations to emission control devices that meet specified emission standard levels; 3) required to conduct metal grinding and cutting operations in a building enclosure to reduce fugitive emissions; and 4) required to implement a series of housekeeping measures to further minimize fugitive emissions. A Final EA was prepared for the project and the analysis concluded that there would be no significant adverse environmental impacts. Since no significant adverse environmental impacts were identified, no alternatives analysis and no mitigation measures were required by CEQA. Mitigation measures were not made a condition of the approval of this project and a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was not adopted for this project. Findings, pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, were not adopted for this project. The SCAQMD Governing Board certified the Final EA and approved the project.

Estimated Emission Reductions: Emission reductions in metal toxic air contaminants in hexavalent chromium, nickel, cadmium, and arsenic are expected, but were not quantified. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source(s) of Funding: Emission Fees, and Annual Operating Fees.

2. Adopted the 2016 Air Quality Management Plan (AQMP): The 2016 AQMP identified control measures and strategies to bring the region into attainment with the revoked 1997 8-hour National Ambient Air Quality Standard (standard) (80 ppb) for ozone by 2024; the 2008 8-hour ozone standard (75 ppb) by 2032; the 2012 annual

PM2.5 standard ($12 \mu g/m^3$) by 2025; the 2006 24-hour PM2.5 standard ($35 \mu g/m^3$) by 2019; and the revoked 1979 1-hour ozone standard (120 ppb) by 2023. The 2016 AQMP Control Strategy consists of three components: 1) the SCAQMD's Stationary, Area, and Mobile Source Control Measures; 2) State and Federal Control Measures provided by the California Air Resources Board; and 3) Regional Transportation Strategy and Control Measures provided by the Southern California Association of Governments. The 2016 AQMP includes emission inventories and control measures for stationary, area and mobile sources, the most current air quality setting, updated growth projections, new modeling techniques, demonstrations of compliance with state and federal Clean Air Act requirements, and an implementation schedule for adoption of the proposed control strategy.

A Final Program Environmental Impact Report was prepared for the project which identified potential adverse impacts that may result from implementing the project for the following environmental topic areas: 1) aesthetics; 2) air quality and greenhouse gases (GHGs); 3) energy; 4) hazards and hazardous materials; 5) hydrology and water quality; 6) noise; 7) solid and hazardous waste; and 8) transportation and traffic. The analysis concluded that significant and unavoidable adverse environmental impacts from the project are expected to occur after implementing mitigation measures for the following environmental topic areas: 1) aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships; 2) construction air quality and GHGs; 3) energy (due to increased electricity demand); 4) hazards and (a) increased flammability of solvents; (b) storage, hazardous materials due to: accidental release and transportation of ammonia; (c) storage and transportation of liquefied natural gas (LNG); and (d) proximity to schools; 5) hydrology (water demand); 6) construction noise and vibration; 7) solid construction waste and operational waste from vehicle and equipment scrapping; and, 8) transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors. Since significant adverse environmental impacts were identified, an alternatives analysis was required by CEQA and prepared that included the following alternatives:

Alternative 1 - No Project Alternative: The project (e.g., adopting the 2016 AQMP) would not be occur. The net effect of not adopting the 2016 AQMP would be a continuation of the 2012 AQMP and the 2007 AQMP. SCAQMD continues to implement the 2012 AQMP, which received a limited approval and limited disapproval by U.S. EPA on April 14, 2016. For the control measures adopted by the SCAQMD over this period, 11.7 tons per day of PM2.5 reductions was achieved by 2014 and 2.4 tons per day of VOC reductions and 19.5 tons per day of NOx reductions will be achieved by 2023. Only a portion of the control measures that have been implemented since 2012 and the ones for which further evaluation is underway would be in effect. The No Project Alternative assumes that these control measures would still be implemented.

SCAQMD and CARB achieved their 2007 AQMP short-term emission reduction targets. Therefore, the 2007 AQMP does not contain any remaining short-term stationary source or mobile source control measures to be adopted. All remaining necessary emission reductions to demonstrate attainment from implementing the 2007

AQMP would be obtained through implementing the federal Clean Air Act (CAA) Section 182(e)(5) measures, which are also referred to as "black box" measures.

Alternative 2 – Mobile Source Reduction Only: Under Alternative 2, no SCAQMD stationary source control measures would be implemented. Only CARB's mobile source and consumer product control measures and the SCAQMD's localized mobile source strategy would be implemented. In order to be a viable alternative to be considered, the shortfall of NOx emission reductions needed to demonstrate attainment the ozone standards would need to be classified as CAA Section 182(e)(5) measures. Attainment of the 2012 annual PM2.5 standards, similar to the conclusions in the 2016 AQMP, would be achieved with implementation of the ozone strategy.

Alternative 3 – CARB or SCAQMD Regulation Only: The 2016 AQMP includes a control strategy constructed from traditional regulatory control measures, co-benefit measures and incentive-based measures that will require adopted guidelines and secured funding, along with federal enforceable commitments pursuant to U.S. EPA. Alternative 3 is designed to implement only traditional regulatory control measures and co-benefit measures. These measures are being proposed by both SCAQMD and CARB for stationary, area and mobile sources, and includes some measures regulating federal sources. By removing the emission reductions from the incentive-based measures, attainment of the standards is at risk. Alternative 3 would propose the following additional control measures to assist in making up the remaining emission reductions necessary to demonstration attainment of the ozone standards.

- Zero or near-zero emitting space heating technologies in new construction, home additions, and multi-family housing
- Establish a Port backstop rule with commitments to meet certain air pollution reduction milestones
- Adopt new and update existing fleet rules from light duty vehicles to heavyduty equipment requiring zero emission vehicles or technologies
- Ensure zero emission lawn and garden equipment at new developments
- Develop indirect source rule to control pollution from warehouse operations
- Require solar energy technology in new construction and major remodels

If the emission reductions from the additional proposed control strategies are determined to not be enough to demonstrate attainment the ozone standards, the remaining NOx emission reductions would be classified as CAA Section 182(e)(5) measures. Some of the proposed control measures under Alternative 3 would be implemented through regulation by the SCAQMD while others would be implemented through regulation by CARB.

Alternative 4 – Expanded Incentive Funding: Alternative 4 would expand the incentive funding programs to increase the penetration of cleaner vehicles and technologies, allowing for more emission reductions and possibly earlier attainment of ambient air quality standards. Depending on the method of funding, current

incentive costs are in the range of 4.25 to 15.8 billion dollars. Under this alternative it would be assumed that additional incentive funding sources would be found. This alternative has the opportunity to provide for more emission reductions and ease the need for additional regulatory action. However, the attainment goals would still need to be achieved as expeditiously as practicable.

The Final Program Environmental Impact Report concluded that the project would have significant and unavoidable adverse environmental impacts even after mitigation measures were identified and applied. As such, mitigation measures were made a condition of the approval of this project and a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was adopted for this project. Findings were made pursuant to CEQA Guidelines Section 15091. A Statement of Overriding Considerations, prepared pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, was also adopted for this project. The SCAQMD Governing Board certified the Final Program Environmental Impact Report and approved the project.

Estimated Emission Reductions: 6.4 tons per day (tpd) VOC and 23 tpd NOx from those control measures that could be quantified. Additional emission reductions are expected, but were not quantified. Cost Effectiveness: Control measures for PM2.5: \$15,000 - \$61,500 per ton; Control measures for ozone: \$800 - \$53,000 per ton. CEQA Alternatives: Four alternatives were analyzed, alternatives described above. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Sources of Funding: Area Source Fees, CARB Subvention Funding, Emission Fees, Annual Operating Fees, Transportation Fees, and Mobile Source Fees.

APRIL 7, 2017

No rules were adopted or amended in April.

MAY 5, 2017

Two rules comprised as one project were amended in May, as follows:

1. Amended Rule 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II; and Amended Rule 222 - Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II: Rule 219 was amended to exempt the following equipment and/or processes from the requirement to obtain a SCAQMD permit because they emit very small levels of criteria pollutants and have minimal toxic emission profiles: engines at remote 2-way radio towers fueled with liquefied propane gas or compressed natural gas; sub-slab ventilation systems; passive carbon filter odor control of food waste slurry storage tanks; hand-held plasma-arc cutting and laser cutting equipment; separation/segregation of plastic materials for recycling without cutting, shredding, grinding, or odors; certain coffee roasting equipment; small batch breweries; and equipment used for dehydrated meat manufacturing. In addition, Rule 219 was amended to remove existing exemptions for the following equipment and/or processes because they have the potential to emit criteria pollutants at greater than de minimis levels, emit toxic air contaminants of concern, or create a nuisance: cutting of stainless steel and alloys containing toxics; portable asphalt

recycling equipment; greenwaste shredding or grinding; separation/segregation of plastic materials that involves cutting, shredding, grinding or odors; recycling of expanded polystyrene; equipment used for cleaning of diesel particulate filters; certain surface preparation tanks with toxic emissions; certain plating, stripping or anodizing tanks with toxic emissions; and paper, carpet, and fabric recycling operations. Other amendments to Rule 219 included minor clarifications and editorial corrections for food oven combustion equipment, fuel cells, charbroilers, barbeque grills and other underfired grills, VOC-containing liquid storage and transfer equipment, quench tanks for heat treating operations, pavement striping, and certain printing, coating and drying operations. Rule 222 was amended to add the following equipment to the SCAQMD Rule 222 filing program in lieu of requiring a written SCAQMD permit because they have been identified as small sources of emissions: industrial cooling towers located in a chemical plant, refinery or other industrial facility; natural gas transfer pumps and natural gas repressurization equipment; and engines registered under the statewide Portable Equipment Registration Program (PERP) used in the Outer Continental Shelf (OCS). Storage tanks of aqueous urea solutions and certain natural gas and crude oil production equipment were also exempted from Rule 219 but were included in the Rule 222 filing program. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source of Funding: Permit Fees and Emission Fees.

JUNE 2, 2017

One regulation was amended in June, as follows:

1. Amended Regulation III – Fees: Amendments to Regulation III rules consisted of four components. First, pursuant to Rule 320 - Automatic Adjustment Based on Consumer Price Index for Regulation III - Fees, most fees in Rules 301, 303, 304, 304.1, 306, 307.1, 308, 309, 311, 313, 314, and 315 were updated, effective July 1, 2017 according to the increase in the Calendar Year 2016 California Consumer Price Index (CPI) of 2.5 percent. Second, Rules 301 and 306 were amended to increase the Title V Annual Operating Permit Renewal and Permit Processing Fees by an additional increment of 16 percent above the CPI for each of the next two fiscal years (FYs) in response to the U.S. EPA Title V Operating Permit Program Evaluation Report recommendation to more fully recover Title V program costs. Third, Rules 301, 306, and 309 were amended to increase the Annual Operating Permit Renewal, Permit Processing and Plan Fees for non-Title V facilities by a further additional increment of four percent above the CPI for each of the next two FYs in order to better align program costs with revenues. Fourth, various administrative amendments with no fee impacts were made to Rules 301, 306, 308, and 314. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives

analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source of Funding: Permit Fees and Emission Fees.

JULY 7, 2017

One rule was adopted and two rules were amended in July, as follows:

1. Adopted Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants: Rule 1466 was adopted to establish requirements to minimize offsite fugitive particulate matter (PM10) emissions that contain certain toxic air contaminants (TACs) from earth-moving activities at sites within SCAQMD jurisdiction that have been designated by the United States Environmental Protection Agency (U.S. EPA), the California Department of Toxic Substances Control (DTSC), the California Environmental Protection Agency's (CalEPA's) State Water Resources Control Board or Regional Water Quality Control Board. Rule 1466 requirements would also apply to any site conducting earth-moving activities of soil containing certain toxic air contaminants that is identified by the SCAQMD's Executive Officer. Rule 1466 established a PM10 ambient dust limit and dust control measures at Rule 1466 applicable sites, and would require notification to the Executive Officer when earthmoving operations begin or PM10 emission limits are not met. Rule 1466 applicable sites will be required to install and maintain signage to inform the community and discourage unauthorized access. Rule 1466 also includes additional requirements to limit earthmoving activities for sites at schools and early education centers during certain hours when children are present. In situations where additional regulatory flexibility is necessary, Rule 1466 allows alternative dust control measures if approved by the Executive Officer. A Final EA was prepared for the project and the analysis concluded that there would be no significant adverse environmental impacts. Since no significant adverse environmental impacts were identified, no alternatives analysis and no mitigation measures were required by CEQA. Mitigation measures were not made a condition of the approval of this project and a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was not adopted for this project. Findings, pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, were not adopted for this project. The SCAQMD Governing Board certified the Final EA and approved the project.

Estimated Emission Reductions: Implementation of Rule 1466 will reduce the exposure to certain toxic air contaminants during earthmoving activities. Emission reductions of specific toxic air contaminants could not be quantified. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source(s) of Funding: Emission Fees, and Annual Operating Fees.

2. Amended Rule 1118 – Control of Emissions From Refinery Flares: Rule 1118 was amended to: 1) harmonize Rule 1118 with key updates from US EPA's recent Refinery Sector Rule update regarding flares, including new prohibitions on some types of flaring; 2) require facilities subject to Rule 1118 to prepare a Scoping Document that evaluates the feasibility of minimizing or avoiding planned and unplanned flaring events; 3) remove the \$4 million annual cap on mitigation fees that facilities may pay for flaring; 4) update emission factors based on US EPA's updated AP-42 guidance; and 5) update and clarify reporting requirements for facilities. In addition, SCAQMD staff is proposing to allocate up to \$100,000 from the Rule 1118 Mitigation Fund to upgrade the web-based Flare Event Notification System. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: Emission reductions were not quantified, but removing the mitigation fee cap is expected to provide a stronger incentive to minimize flaring for those facilities that have exceeded the annual mitigation fee cap in the past. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source(s) of Funding: Emission Fees, and Annual Operating Fees.

3. Amended Rule 1147 – NOx Reductions from Miscellaneous Sources: Rule 1147 was amended to resolve compliance issues that have been raised by stakeholders by: 1) removing the requirement to comply with the NOx emission limit for units with a heat input rating of less than 325,000 British Thermal Units per hour; 2) changing the NOx emission limit for low temperature afterburners, burn-off ovens, incinerators, and related equipment from 30 ppm to 60 ppm; 3) changing the compliance date for small in-use units with NOx emissions of one pound per day or less from a schedule based on a 20year lifetime to a 35-year lifetime or until the units are replaced or retrofit; 4) changing the compliance date for existing in-use heated process tanks and pressure washers from a schedule based on a 15-year to 20-year lifetime to when the units are replaced or retrofit; 5) adding a testing exemption for ultra-low NOx infrared burners; 6) providing compliance flexibility for low emission units by clarifying options for demonstrating emissions less than one pound per day; 7) adding an exemption for units with NOx emission less than one pound per day when a company relocates a facility and remains under the same ownership; 8) adding an exemption for units that become subject to Rule 1147 upon amendment of Rule 219 on or after May 5, 2017, until the unit is replaced; 9) adding flexibility for demonstrating compliance with emission limits by including an alternative compliance demonstration option based on a manufacturer's performance guarantee; 10) clarifying an exemption for food ovens; and 11) clarifying an exemption for flare type systems. Other minor changes were also made for clarity and consistency throughout the rule. Rule 1147 was estimated to result in NOx emission reductions foregone of up to 0.9 ton per day in 2017. However, while most of the estimated NOx emission reductions foregone will be eventually recaptured because the existing units will be regularly replaced and upgraded over time, approximately 0.03 ton per day of the NOx emission reductions foregone will be permanent. A Final Subsequent EA was prepared

for the project and the analysis concluded that the project would have significant unavoidable air quality impacts during operation because the quantity of emission reductions foregone would exceed the SCAQMD's significance operational threshold for NOx. Without available compliant technology for the affected equipment, the originally projected NOx emission reductions cannot be achieved and no mitigation measures were identified that would eliminate or reduce the significant NOx emissions foregone to less than significant levels. Because no mitigation measures have been identified that would reduce the significant adverse impacts to less than significant levels, mitigation measures were not made a condition of approval of this project. Thus, a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was not required or adopted for this project. Findings were made pursuant to CEQA Guidelines Section 15091. A Statement of Overriding Considerations, prepared pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, was also adopted for this project.

Since significant adverse environmental impacts were identified, an alternatives analysis was required by CEQA and prepared that included the following alternatives:

Alternative A - No Project: Alternative A, the no project alternative, means that the current version of Rule 1147 that was amended in September 2011 would remain in effect. Under the September 2011 version of Rule 1147, spray booths and small fryers, heated process tanks, evaporators, ovens, dryers, furnaces, afterburners and related devices with emissions less than one pound per day would have to comply with the applicable NOx emission limits from 2017 to 2034. Compliance with these NOx limits would result in NOx emission reductions occurring from 2017 through 2034. Under this alternative, however, suppliers cannot provide equipment that meets the applicable NOx emission limits for source small number of equipment and process types, creating potential compliance issues for some affected facilities, and likely resulting in the originally projected NOx emission reductions not being achieved.

Alternative B - More Stringent Alternative (25 Years Age Requirement): Under Alternative B, the age requirement of 25 years is more stringent than the 30 years that is provided in the project. Spray booths and small fryers, heated process tanks, evaporators, ovens, dryers, furnaces, afterburners and related devices with emissions less than one pound per day would have to comply with emission limit starting in 2017. Recovery of the NOx emission reductions foregone are expected to occur starting in 2017 as older equipment gets replaced or retrofitted over time. The NOx emission reductions foregone are expected to be recovered each year based on approximately 0.9 ton per day from compliance year 2017 to 2039.

Alternative C - Less Stringent Alternative (No Age Requirement, Exempt Pressure Washers and Less Than 325,000 BTU/hour Units): Under Alternative C, there is no age requirement. However, the expected equipment life is 35 years which is less stringent than the 30 years age requirement in the project. Spray booths and small fryers, heated process tanks, evaporators, ovens, dryers, furnaces, afterburners and related devices with emissions less than one pound per day are expected to

comply with applicable NOx emission limits over the time period of 35 years starting in 2017. Recovery of the NOx emission reductions foregone are expected to occur starting in 2017 as older equipment gets replaced or retrofitted over time. Most NOx emission reductions foregone are expected to be recovered each year based on approximately 0.9 ton/day from compliance year 2017 to 2049.

Further, the total additional permanent NOx emission reductions foregone is estimated to be 36 pounds per day from exempting a small number of pressure washers (estimated to be about 10 new units) plus 49 pounds per day from exempting all units (regardless of temperature) with burners less than 325,000 BTU/hour (estimated to be less than 82 new units) when compared to the project.

Alternative D - Least Stringent Alternative (Up To 0.9 ton/day Emission Reductions Foregone, No Age Requirement, Exempt Pressure Washers and Less Than 325,000 BTU/hour Units): Under Alternative D, there is no age requirement and no emission limit requirement. Spray booths and small fryers, heated process tanks, evaporators, ovens, dryers, furnaces, afterburners and related devices with emissions less than one pound per day would not have to comply with any of the applicable NOx emission limits. Under Alternative D, the NOx emission reductions foregone are not expected to be recovered unless the affected equipment units are replaced or retrofitted due to a failure to demonstrate that the affected unit can achieve NOx emissions at the level less than one pound per day. All of the 0.9 ton per day of NOx emission reductions foregone will be permanently foregone under Alternative D.

The SCAQMD Governing Board certified the Final Subsequent EA and approved the project.

Estimated Emission Reductions: 0.9 tpd NOx foregone by 2017 (This amendment delayed a compliance date, so these values represent emission reductions foregone for a previous compliance date). Cost Effectiveness: Not applicable. CEQA Alternatives: Four alternatives were analyzed, alternatives described above. Socioeconomic Impact: None, because this amendment does not result in any additional cost or other socioeconomic impact. Source of Funding: Emission Fees, and Annual Operating Fees.

AUGUST 2017

There was no Governing Board meeting in August, so no rules were adopted or amended.

SEPTEMBER 1, 2017

One rule was amended in September, as follows:

1. Amended Rule 1401 – New Source Review of Toxic Air Contaminants: Rule 1401 was amended to: remove the exemption of spray booths and gasoline dispensing facilities and require them to begin using the SCAQMD Risk Assessment Procedures (Version 8.1), which incorporates: 1) 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidelines; 2) revised gasoline dispensing emission factors and speciation profiles; and 3) current air dispersion model (AERMOD) and updated

meteorological data. Additionally, the amendments to Rule 1401 updated the list of toxic air contaminants in Table I of Rule 1401 to be consistent with the current list used by OEHHA. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source(s) of Funding: Permit Fees, Emission Fees, and Annual Operating Fees.

OCTOBER 6, 2017

One rule was amended in October, as follows:

1. Amended Rule 1168 - Adhesive and Sealant Applications: Rule 1168 was amended to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. amendments to Rule 1168 clarified the applicability; revised, deleted, and added various definitions; lowered the VOC limits for certain categories and allowed a three-year sellthrough and use-through; added new product categories with corresponding VOC content limits; required products marketed for use under varying categories to be subject to the lowest VOC limit; prohibited the storage of non-compliant products, unless for shipment outside of the SCAQMD; added test methods for analyzing VOC content; added labeling requirements; included reporting requirements for manufacturers, private labelers, big box retailers, distribution centers, and facilities that use a 55 gallon per year exemption; prohibited the use of Rule 102 Group II exempt solvents, except volatile methyl siloxanes; included a technology assessment for certain product categories; removed, modified, or added various exemptions. Rule 1168 was estimated to result in approximately 1.38 tons per day of VOC emission reductions. A Final EA was prepared and the analysis concluded that there would be no significant adverse environmental Since no significant adverse environmental impacts were identified, no alternatives analysis was required by CEQA and no mitigation measures were required by CEQA. Mitigation measures were not made a condition of the approval of this project and a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was not adopted for this project. Findings, pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, were not adopted for this project. The SCAQMD Governing Board certified the Final EA and approved the project.

The SCAQMD Governing Board certified the Final EA and approved the project as proposed.

Estimated Emission Reductions: 1.38 tpd VOC by 2023. Cost Effectiveness: \$12,400 per ton of VOC reduced. CEOA Alternatives: None, not required. Socioeconomic

Impact: See Socioeconomic Impact Analysis section. *Source(s) of Funding*: Emission Fees.

NOVEMBER 3, 2017

One rule was adopted in November, as follows:

1. Adopted Rule 415 - Odors from Rendering Facilities: Rule 415 was adopted to reduce odors from facilities conducting rendering operations. New Rule 415 was the result of an issue that was identified by the working group for the Clean Communities Plan (CCP) in the pilot study area of Boyle Heights. The prevalence of odors from rendering facilities in Vernon, directly south of Boyle Heights, was of great concern to the working group. Rule 415 requires existing rendering facilities to enclose certain rendering operations, install odor emission control equipment for the enclosures or use alternative standards for a permanent total enclosure for raw material receiving area, and carry out best management practices (BMPs). A Final EA was prepared and the analysis concluded that there would be no significant adverse environmental impacts. Since no significant adverse environmental impacts were identified, no alternatives analysis was required by CEQA and no mitigation measures were required by CEQA. Mitigation measures were not made a condition of the approval of this project and a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was not adopted for this project. Findings, pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, were not adopted for this project. The SCAQMD Governing Board certified the Final EA and approved the project as proposed.

Estimated Emission Reductions: Implementation is expected to reduce odors from rendering facilities, but odors cannot be quantified. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. . Source of Funding: Permit Fees, Emission Fees, and Annual Operating Fees.

DECEMBER 1, 2017

One rule was adopted and two rules were amended in December, as follows:

1. Adopted Rule 1180 – Refinery Fenceline and Community Air Monitoring and Rule 1180 Refinery Fenceline Air Monitoring Plan Guidelines (Guidelines): Rule 1180 and the accompanying Guidelines were adopted to implement Health and Safety Code Section 42705.6 by requiring petroleum refineries to collect continuous data of refinery air pollutant emissions, at or near their property boundaries, and to provide that data as quickly as possible to the public. In particular, Rule 1180 contains requirements for petroleum refineries to install and operate continuous, fenceline air monitoring systems to monitor a comprehensive list of criteria pollutants and toxic air contaminants in real-time. Rule 1180 also establishes a fee schedule, to be paid by the petroleum refineries, for the cost of designing, developing, installing, operating and maintaining refinery-related community air monitoring systems. Rule 1180 exempts petroleum refineries that have a maximum capacity to process less than 40,000 barrels per day of crude oil. The project

was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source(s) of Funding: Emission Fees, and Annual Operating Fees.

2. Amended Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants: Rule 1466 was amended to address the Governing Board's Resolution directing staff to expand the list of applicable toxic air contaminants. The amendments to Rule 1466: 1) expanded the list of applicable toxic air contaminants to include pesticides, herbicides, and persistent bio-accumulative toxics; 2) expanded applicability to other government designated sites; and 3) included language to clarify existing provisions. The sites that may be affected by Rule 1466 have been designated as cleanup sites on lists compiled by the United States Environmental Protection Agency, the California Department of Toxic Substances Control (DTSC), the California Environmental Protection Agency's State Water Resources Control Board or Regional Water Quality Control Board, and other county, local, or state regulatory agencies. A Final Subsequent EA was prepared for the project and the analysis concluded that there would be no significant adverse environmental impacts. Since no significant adverse environmental impacts were identified, no alternatives analysis was required by CEQA and no mitigation measures were required by CEQA. Mitigation measures were not made a condition of the approval of this project and a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was not adopted for this project. Findings, pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, were not adopted for this project. The SCAQMD Governing Board certified the Final EA and approved the project as proposed

Estimated Emission Reductions: Implementation of Rule 1466 will reduce the exposure to the additional toxic air contaminants added during this amendment for earthmoving activities. Emission reductions of specific toxic air contaminants could not be quantified. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source(s) of Funding: Emission Fees.

3. Amended Rule 1420 – Emissions Standard for Lead: Rule 1420 was amended to reduce public health impacts from point and fugitive lead emissions from metal melting or lead processing facilities by reducing the exposure to lead, and to ensure and maintain attainment of the National Ambient Air Quality Standard (NAAQS) for lead within the South Coast Air Basin. The amendments to Rule 1420 include an initial ambient air lead concentration limit of 0.150 micrograms per cubic meter (μg/m³) averaged over 30 consecutive days and will be lowered to a final limit of 0.100 μg/m³ by January 1, 2021. The amendments to Rule 1420 also added new requirements for point source lead

emission controls, along with periodic source testing, emission control device monitoring, conditional ambient air monitoring, and reporting and recordkeeping requirements to ensure continuous compliance. To prevent fugitive lead emissions, Rule 1420 also added new requirements to conduct housekeeping and maintenance activities and to install total enclosures in areas where lead processing operations and associated processes are being conducted. Any facility that exceeds the limits in Rule 1420 will be subject to additional mitigation requirements. A Final EA was prepared and the analysis concluded that there would be no significant adverse environmental impacts. Since no significant adverse environmental impacts were identified, no alternatives analysis was required by CEQA and no mitigation measures were required by CEQA. Mitigation measures were not made a condition of the approval of this project and a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was not adopted for this project. Findings, pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, were not adopted for this project. The SCAQMD Governing Board certified the Final EA and approved the project.

Estimated Emission Reductions: Although emission reduction of lead point and fugitive emissions cannot be quantified, lowering the ambient concentration limit and implementing provisions in Rule 1420 will result in reductions of lead emissions and exposure to lead from Rule 1420 facilities. Cost Effectiveness: Not applicable. CEQA Alternatives: None, not required. Socioeconomic Impact: See Socioeconomic Impact Analysis section. Source(s) of Funding: Permit Fees, Emission Fees, and Annual Operating Fees.

CEQA LEAD AGENCY PROJECTS

SCAQMD also acts as the Lead Agency under CEQA for non-SCAQMD projects where SCAQMD typically has primary approval, i.e., discretionary permitting authority. Under CEQA, the Lead Agency is responsible for determining whether an EIR, ND, or other type of CEQA document is necessary for any proposal considered to be a "project" as defined by CEQA. Further, the Lead Agency is responsible for preparing the environmental analysis, complying with all procedural requirements of CEQA, and approving the environmental documents. All documents prepared by SCAQMD for permit projects are subject to the standard CEQA requirements. SCAQMD staff is responsible for preparing or reviewing prepared CEQA documents for stationary source permit projects. In 2017, three lead agency projects with corresponding CEQA documents were approved by the SCAQMD's Executive Officer, as summarized below.

1. Addendum to the March 2007 Final Mitigated Negative Declaration for Southern California Edison: Grapeland (formerly named Etiwanda) Peaker Project, Rancho Cucamonga (project approved January 27, 2017)

Southern California Edison operators proposed additional changes to their project previously evaluated and adopted in the Final Mitigated Negative Declaration (MND) for

the Southern California Edison Grapeland (formerly named Etiwanda) Peaker Project in Rancho Cucamonga on March 1, 2007, herein referred to as the March 2007 Final MND. The project evaluated in the March 2007 Final MND was for the installation of a General Electric natural gas-fired turbine generator, also referred to as a "peaker" unit, plus an air pollution control system comprised of a selective catalytic reduction (SCR) unit and oxidation catalyst to reduce emissions to levels that meet or exceed all applicable local air quality emission standards. The peaker is capable of producing up to 45 megawatts (MW) of electricity on short notice during periods when the local electrical system needs power and local voltage support.

Subsequent to the adoption of the March 2007 Final MND, Southern California Edison operators proposed to modify the peaker turbine's air pollution control system to: 1) decrease the water-injection rate into the turbine's combustor by up to 42 percent; 2) replace the oxidation catalyst; 3) replace the SCR catalyst and increase the overall size of the SCR catalyst beds without increasing the size (outside dimensions) of the enclosure of the SCR air pollution control system; 4) replace the ammonia injection grid (AIG) to improve the deliverability of ammonia to the catalyst; and, 5) increase the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR from 19 percent to 29 percent. In addition, to increase the operating flexibility of the peaker so that it can provide reliable power to the grid when dispatched by the California Independent System Operator (CAISO) during peak times when renewable energy resources are not available, Southern California Edison operators proposed to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one MW to full load, while continuing to meet the emission limits in the current permit without increasing: 1) utilization of the Grapeland Peaker for power generation; 2) fuel-input limits, generation capacity, or the heat rate of the turbine; and, 3) the potential to emit of criteria pollutants, greenhouse gases (GHGs), or toxic air contaminants (TACs).

The Addendum to the March 2007 Final MND concluded that the proposed modifications to the original project previously analyzed in the March 2007 Final MND would not create any new significant adverse environmental impacts or substantially increase the severity of significant effects previously identified. The mitigation measures that were made a condition of approval of the original project analyzed in the March 2007 Final MND and the corresponding Mitigation Monitoring and Reporting Plan that was adopted at that time will remain in effect. No new or modified mitigation measures were made a condition of the approval of this project. Findings and a Statement of Overriding Considerations were not made a condition of approval of the original project analyzed in the March 2007 Final MND since no significant adverse impacts were identified that could not be mitigated to less than significant.

2. Addendum to the April 2007 Final Mitigated Negative Declaration for Southern California Edison: Center Peaker Project, Norwalk (project approved February 9, 2017)

Southern California Edison operators proposed additional changes to their project previously evaluated and adopted in the Final Mitigated Negative Declaration (MND) for the Southern California Edison Center Peaker Project in Norwalk on April 3, 2007,

herein referred to as the April 2007 Final MND. The project evaluated in the April 2007 Final MND was for the installation of a General Electric natural gas-fired turbine generator, also referred to as a "peaker" unit, plus an air pollution control system comprised of a selective catalytic reduction (SCR) unit and oxidation catalyst to reduce emissions to levels that meet or exceed all applicable local air quality emission standards. The peaker is capable of producing up to 45 MW of electricity on short notice during periods when the local electrical system needs power and local voltage support.

Subsequent to the adoption of the April 2007 Final MND, Southern California Edison operators proposed to modify the peaker turbine's air pollution control system to: 1) decrease the water-injection rate into the turbine's combustor by up to 48 percent; 2) replace the oxidation catalyst; 3) replace the SCR catalyst and increase the overall size of the SCR catalyst beds without increasing the size (outside dimensions) of the enclosure of the SCR air pollution control system; 4) replace the ammonia injection grid (AIG) to improve the deliverability of ammonia to the catalyst; and, 5) increase the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR from 19 percent to 29 percent. In addition, to increase the operating flexibility of the peaker so that it can provide reliable power to the grid when dispatched by the California Independent System Operator (CAISO) during peak times when renewable energy resources are not available, Southern California Edison operators proposed to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one MW to full load, while continuing to meet the emission limits in the current permit without increasing: 1) utilization of the Center Peaker for power generation; 2) fuel-input limits, generation capacity, or the heat rate of the turbine; and, 3) the potential to emit of criteria pollutants, greenhouse gases (GHGs), or toxic air contaminants (TACs).

The Addendum to the April 2007 Final MND concluded that the proposed modifications to the original project previously analyzed in the April 2007 Final MND would not create any new significant adverse environmental impacts or substantially increase the severity of significant effects previously identified. The mitigation measures that were made a condition of approval of the original project analyzed in the April 2007 Final MND and the corresponding Mitigation Monitoring and Reporting Plan that was adopted at that time will remain in effect. No new or modified mitigation measures were made a condition of the approval of this project. Findings and a Statement of Overriding Considerations were not made a condition of approval of the original project analyzed in the April 2007 Final MND since no significant adverse impacts were identified that could not be mitigated to less than significant.

3. Final Environmental Impact Report for the Tesoro Los Angeles Refinery Integration and Compliance Project (certified on May 12, 2017)

The Tesoro Refining and Marketing Company LLC proposed the Los Angeles Refinery Integration and Compliance Project. The Final Environmental Impact Report (EIR) evaluated the proposed modifications necessary to more fully integrate the Tesoro Los Angeles Refinery - Carson and Wilmington Operations which operate as the Tesoro Los Angeles Refinery (Refinery). The Refinery includes: 1) the Wilmington Operations located at 2101 East Pacific Coast Highway in the Wilmington District of the City of Los

Angeles; and 2) the Carson Operations, which is the former BP Carson Refinery located at 2350 East 223rd Street in the City of Carson.

In addition to further Refinery integration, the project was designed to comply with the federally-mandated Tier 3 gasoline specifications and with State and local regulations mandating emission reductions. The Los Angeles Refinery Integration and Compliance Project was estimated to substantially reduce greenhouse gas (GHG), sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM) emissions at the Refinery by accomplishing the following: 1) reconfiguring the combined Refinery complex to enable shutting down the Fluid Catalytic Cracking Unit (FCCU) at the Wilmington Operations; 2) installing interconnecting pipelines; 3) reconfiguring the combined Refinery complex to improve the gasoline to distillate production ratio from the integrated Refinery in order to expeditiously respond and adjust to ongoing changes in market demand for various types of petroleum products; and 4) optimizing the ability to recover heat by installing new heat exchangers and modifying specified units to further minimize criteria pollutant and GHG emissions. All new and modified stationary sources with emission increases were required to comply with Best Available Control Technology (BACT) requirements in South Coast Air Quality Management District (SCAQMD) Rule 1303. Additionally, marine vessel emissions were shown to be reduced due to the construction of six new 500,000 barrel tanks at the Carson Crude Terminal and replacing two existing 80,000 barrel tanks with 300,000 barrel tanks at the Wilmington Operations.

The Final EIR concluded that the project would have significant unavoidable adverse impacts on the environment related to construction emissions on air quality and hazards and hazardous materials impacts during operation. Mitigation measures were made a condition of the approval of this project and a Mitigation Monitoring and Reporting Plan under Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 was adopted for this project. Findings were made pursuant to CEQA Guidelines Section 15091. A Statement of Overriding Considerations, prepared pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15093, was also adopted for this project.

SOCIOECONOMIC IMPACT ANALYSES

California Health and Safety Code Section 40440.8 requires that SCAQMD perform socioeconomic impact assessments for its rules and regulations that will significantly affect air quality or emissions. Prior to the requirements of Section 40440.8, SCAQMD staff had been evaluating the socioeconomic impacts of its actions pursuant to a 1989 resolution of its Governing Board. Additionally, SCAQMD staff assesses socioeconomic impacts of CEQA alternatives to those rules with significant cost and emission reduction impacts.

The elements of socioeconomic impact assessments include direct effects on various types of affected industries in terms of control costs and cost effectiveness as well as public health benefits associated with Air Quality Management Plans (AQMPs). Additionally, SCAQMD staff uses an economic model developed by Regional Economic Models, Inc. (REMI) to analyze the potential direct and indirect socioeconomic impacts of SCAQMD rules on Los

Angeles, Riverside, Orange, and San Bernardino Counties. These impacts include, but are not limited to employment and competitiveness.

In 2017, four new rules were adopted, and eight rules and one regulation were amended. Out of these, nine had socioeconomic impacts. Additionally, one rule, Rule 320, did not undergo any amendments that were brought to the SCAQMD Governing Board, but because it contains a requirement for an automatic annual California Consumer Price Index (CPI) adjustment that has associated socioeconomic impacts, this rule has also been included in this summary.

Lastly, the 2016 AQMP was adopted at the March 3, 2017 Governing Board Meeting. In 2016, staff prepared a Draft Socioeconomic Assessment (along with an assessment methodology) in order to inform decision-makers and stakeholders about the potential costs and benefits of the 2016 AQMP and how the associated socioeconomic impacts would affect communities within the region. In 2017, staff prepared the Final Socioeconomic Assessment of the 2016 AQMP which included three final documents: 1) main report containing final estimates of benefits, costs, and regional economic impacts, 2) appendices, and 3) responses to comments.

Rule Adoptions and Amendments with Socioeconomic Impacts

<u>Adopted Rule 1430 – Control of Emissions from Metal Grinding Operations at Metal</u> Forging Facilities (March 2017)

Rule 1430 was adopted to reduce particulate matter and toxic emissions and help to reduce odors from metal grinding and cutting operations at forging facilities. Prior to the adoption of Rule 1430, metal grinding and cutting operations were exempt from SCAQMD permits. Based on monitoring, sampling, and site visits, metal grinding at forging facilities were identified as a substantial source of metal particulate emissions, some of which are also toxic air contaminants. Under Rule 1430, forging facilities are: 1) prohibited from conducting grinding and cutting operations in the open air; 2) required to vent metal grinding and cutting operations to emission control devices that meet specified emission standard levels; 3) required to conduct metal grinding and cutting operations in a building enclosure to reduce fugitive emissions; and 4) required to implement a series of housekeeping measures to further minimize fugitive emissions.

The main requirements in Rule 1430 that were concluded to have cost impacts for affected facilities were the installation of baghouses with HEPA filters (point-source controls on existing and new enclosures) and the upgrading of an existing building to a total enclosure or construction of a new total enclosure. Some facilities will be required to add negative air to a total enclosure by venting it to pollution controls depending on a facility's proximity to sensitive receptors, schools and early education schools. The annual compliance costs of Rule 1430 were estimated to range from \$6.0 to \$6.2 million, depending on the real interest assumed (one to four percent). Press Forge, a metal forging facility located in the City of Paramount, California, would bear the largest share of annual compliance costs (14 percent or approximately \$875 K annually based on a four percent real interest) due to the

installation of a total enclosure with negative air that is necessary based on the facility's proximity to a sensitive receptor, school and early education school.

SCAQMD does not conduct a dollar per ton cost effectiveness for toxics regulations since many other factors besides the amount of pollution affects the health impacts such as the toxic potency and the location of receptors. Rule 1430 regulates toxics and as such the cost effectiveness analysis is not applicable here. Implementation of Rule 1430 is expected to result in approximately 46 jobs foregone annually between 2017 and 2035 when a four percent interest rate is assumed (approximately 44 jobs with a one percent real interest rate). The projected job impacts represent about 0.001 percent of the total employment in the four-county region.

Amended Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II; and Amended Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II (May 2017)

Unless exempted under Rule 219, any affected equipment requiring a written permit is subject to a one-time permit processing fee when applying for a permit, and annual operating and flat emissions fees thereafter. Rule 219 was amended to exempt the following additional equipment and/or processes from the requirement to obtain a SCAQMD permit because they emit very small levels of criteria pollutants and have minimal toxic emission profiles: engines at remote 2-way radio towers fueled with liquefied propane gas or compressed natural gas; sub-slab ventilation systems; passive carbon filter odor control of food waste slurry storage tanks; hand-held plasma-arc cutting and laser cutting equipment; separation/segregation of plastic materials for recycling without cutting, shredding, grinding, or odors; certain coffee roasting equipment; small batch breweries; and equipment used for dehydrated meat manufacturing. In addition, Rule 219 was amended to remove existing exemptions for the following equipment and/or processes because they have the potential to emit criteria pollutants at greater than de minimis levels, emit toxic air contaminants of concern, or create a nuisance: cutting of stainless steel and alloys containing toxics; portable asphalt recycling equipment; greenwaste shredding or grinding; separation/segregation of plastic materials that involves cutting, shredding, grinding or odors; recycling of expanded polystyrene; equipment used for cleaning of diesel particulate filters; certain surface preparation tanks with toxic emissions; certain plating, stripping or anodizing tanks with toxic emissions; and paper, carpet, and fabric recycling operations. Other amendments to Rule 219 included minor clarifications and editorial corrections for food oven combustion equipment, fuel cells, charbroilers, barbeque grills and other underfired grills, VOCcontaining liquid storage and transfer equipment, quench tanks for heat treating operations, pavement striping, and certain printing, coating and drying operations.

Rule 222 was amended to add the following equipment to the SCAQMD Rule 222 filing program in lieu of requiring a written SCAQMD permit because they have been identified as small sources of emissions: industrial cooling towers located in a chemical plant, refinery or other industrial facility; natural gas transfer pumps and natural gas repressurization equipment; and engines registered under the statewide Portable Equipment Registration Program (PERP) used in the Outer Continental Shelf (OCS). Storage tanks of aqueous urea

solutions and certain natural gas and crude oil production equipment were also exempted from Rule 219 but were included in the Rule 222 filing program.

Implementation of amended Rule 219 was concluded to increase costs for some facilities and decrease costs for other facilities. Using a very conservative methodology, the analysis concluded that up to 174 pieces of equipment may need to obtain a written permit due to the loss of a current exemption, and 89 pieces of equipment would qualify for an exemption from future permitting and annual operating fees. In addition, approximately 300 pieces of equipment would require to be registered under amended Rule 222. The total annualized cost associated with amended Rules 219 and 222 are \$38,125 and \$69,197, respectively. The majority of costs (~85 percent) are associated with permitting sources of toxics emissions under amended Rule 219, and the majority of costs (~64 percent) are associated with industrial cooling towers (in conjunction with the 2016 AQMP) under amended Rule 222.

It has been a standard socioeconomic practice that, when the annual compliance cost is less than one million current U.S. dollars, the Regional Economic Impact Model (REMI) is not used to simulate jobs and macroeconomic impacts, because the resultant impacts would be diminutive relative to the baseline regional economy. Since the estimated annualized costs were \$38,125 and \$69,197, a REMI analysis was not conducted.

<u>Adopted Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants (July 2017)</u>

Rule 1466 was adopted to establish requirements to minimize offsite fugitive particulate matter (PM10) emissions that contain certain toxic air contaminants (TACs) from earthmoving activities at sites within SCAQMD jurisdiction that have been designated by the United States Environmental Protection Agency (U.S. EPA), the California Department of Toxic Substances Control (DTSC), the California Environmental Protection Agency's (CalEPA's) State Water Resources Control Board or Regional Water Quality Control Board. Rule 1466 requirements would also apply to any site conducting earth-moving activities that is identified by the SCAQMD's Executive Officer. Rule 1466 established a PM10 ambient dust limit and dust control measures at Rule 1466 applicable sites, and would require notification to the Executive Officer when cleanup operations begin or PM10 emission limits are not met. Rule 1466 applicable sites will be required to install and maintain signage to inform the community and discourage unauthorized access. Rule 1466 also includes additional requirements to limit cleanup activities for sites at schools and early education centers. In situations where additional regulatory flexibility is necessary, Rule 1466 allows alternative dust control measures if approved by the Executive Officer.

For the purpose of conducting a socioeconomic analysis for Rule 1466, it was assumed that an average of eight toxic cleanup sites (25 sites \div 3 years \approx 8 sites), with an average size of eight acres per site (198 acres \div 25 sites \approx 8 acres) would be potentially subject to Rule 1466 on an annual basis. Based on time spent on earthmoving activities from a sample of sites staff assumed an average period of three months for earth-moving activities for this scenario. Additionally, this scenario also takes into account the fact that many sites may have already employed some of the dust control measures contained in Rule 1466 in accordance with existing SCAQMD rules and requirements from other agencies. For example, many sites have already put fencing and windscreens in place or PM10 monitors in accordance with the

California Department of Toxics Substances Control (DTSC) requirements or vehicle egress measures and on-site compliance supervisor in accordance with SCAQMD Rule 403. Staff calculated the percentage of sites which already use particular dust control measures, monitoring equipment, or undertake required activities in order to estimate the portion of Rule1466 requirements which are incremental to this baseline.

Based on this scenario, the estimated total regional annual compliance cost was found to be about \$731,000. A range of cost per average-sized site was also calculated to provide further information about what cost of this proposed rule for a single site would be. A low cost site, which already has employed an on-site dust control supervisor, and equipment like PM10 monitors and fencing with windscreens, would have cost of about \$31,000. While a high cost site, which has not already employed any of the required measures would have a cost of about \$161,000.

It has been standard practice for SCAQMD socioeconomic analysis that when the annual compliance cost is less than one million current U.S. dollars, REMI is not used to simulate jobs and macroeconomic impacts. This is because the resultant impacts would be diminutive relative to the baseline regional economy. Since the estimated annualized cost of compliance with Rule 1466 was \$730,670, a REMI analysis was not conducted.

Amended Rule 1118 – Control of Emissions from Refinery Flares (July 2017)

Rule 1118 was amended to: 1) harmonize Rule 1118 with key updates from US EPA's recent Refinery Sector Rule update regarding flares, including new prohibitions on some types of flaring; 2) require facilities subject to Rule 1118 to prepare a Scoping Document that evaluates the feasibility of minimizing or avoiding planned and unplanned flaring events; 3) remove the \$4 million annual cap on mitigation fees that facilities may pay for flaring; 4) update emission factors based on US EPA's updated AP-42 guidance; and 5) update and clarify reporting requirements for facilities. In addition, SCAQMD staff is proposing to allocate up to \$100,000 from the Rule 1118 Mitigation Fund to upgrade the web-based Flare Event Notification System.

Amended Rule 1118 lowered flaring emissions and affected 12 facilities operating a total of 31 flares. Eight out of 12 facilities belong to the sector of petroleum refineries; of the remaining four, one sulfur recovery plant and three hydrogen production plants belong to the sector of industrial gas manufacturing. All the affected facilities are located in Los Angeles County and none are small businesses.

Two key amendments were identified as having potential cost impacts. First, preparation of a scoping document to evaluate the feasibility of emissions reductions from planned and unplanned flaring events could potentially cost \$50,000 for a non-refinery facility and \$250,000 for a refinery facility. These costs are one-time in nature and would add up to about \$2.2 million for all affected facilities. These Scoping Documents are necessary to identify feasible measures to further reduce emissions from flaring in a second phase of rulemaking. Second, the removal of the \$4 million annual cap on mitigation fees could potentially impose additional costs on affected facilities if their SOx emissions substantially exceed the performance target. Past performance records (2012-2016) for the 12 facilities

show that only one facility in 2015 would have exceeded the \$4 million cap (\$7.7 million) due to an explosion which caused a shutdown and subsequent atypical operations for the remainder of the year. Another occasion when the annual cap was exceeded was from an unmonitored bypass valve; this bypass valve has since been removed from service. Therefore, it is unlikely that the affected facilities would exceed the annual cap and pay more than \$4 million of mitigation fees.

It has been a standard socioeconomic practice that, when the annual compliance cost is less than one million current U.S. dollars, REMI is not used to simulate jobs and macroeconomic impacts. This is because the resultant impacts would be diminutive relative to the baseline regional economy. Since the overall annualized cost impacts of amended Rule 1118 were estimated at \$270,600, a REMI analysis was not conducted.

<u>Amended Rule 1401 – New Source Review of Toxic Air Contaminants (September 2017)</u>

Rule 1401 was amended to: remove the exemption of spray booths and gasoline dispensing facilities and require them to begin using the SCAQMD Risk Assessment Procedures (Version 8.1), which incorporates: 1) 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidelines; 2) revised gasoline dispensing emission factors and speciation profiles; and 3) current air dispersion model (AERMOD) and updated meteorological data. Additionally, the amendments to Rule 1401 updated the list of toxic air contaminants in Table I of Rule 1401 to be consistent with the current list used by OEHHA.

A socioeconomic analysis was conducted for amended Rule 1401. Based on staff's analysis of SCAQMD permits, two spray booths and one gasoline dispensing facility per year could potentially incur costs to comply with Rule 1401. Spray booths belong to various sectors of the economy such as manufacturing, wholesale, retail, services, and the affected gasoline dispensing facilities belong to the sector of retail services. The potentially affected facilities are likely to be small businesses.

Based on review of spray booths permitted between 2009 and 2014, an average of two spray booths per year are expected to need to install ultra-low particulate air (ULPA) filters instead of high efficiency particulate air (HEPA) filters to obtain new or modified permits pursuant to PAR 1401 While the filter costs are similar, ULPA filters require the use of a higher horsepower blower that is more expensive and uses more electricity. The resultant incremental costs for a total of two affected spray booths is estimated at \$7,450 over a five-year period. An average of one gasoline dispensing facility per year is expected to need to choose from various compliance options to obtain new permits pursuant to amended Rule 1401. It is assumed in this analysis that the affected facility would proceed to a Tier 4 Health Risk Assessment and incur a one-time cost of dispersion modeling of \$15,000. Other compliance options for permitting a new gasoline dispensing facility include lowering the requested throughput or reorienting equipment or siting the gasoline dispensing sources further from sensitive receptors. Therefore, the overall compliance cost is estimated at \$22,450 per year. Since the overall annualized cost of compliance with amended Rule 1401 is estimated at \$22,450, a REMI analysis was not conducted.

Amended Rule 1168 – Adhesive and Sealant Applications (October 2017)

Rule 1168 was amended to reduce emissions of VOCs, toxic air contaminants, and stratospheric ozone-depleting compounds from adhesives, adhesive primers, sealants, and sealant primers. The amendments to Rule 1168 clarified the applicability; revised, deleted, and added various definitions; lowered the VOC limits for certain categories and allowed a three-year sell-through and use-through; added new product categories with corresponding VOC content limits; required products marketed for use under varying categories to be subject to the lowest VOC limit; prohibited the storage of non-compliant products, unless for shipment outside of the SCAQMD; added test methods for analyzing VOC content; added labeling requirements; included reporting requirements for manufacturers, private labelers, big box retailers, distribution centers, and facilities that use a 55 gallon per year exemption; prohibited the use of Rule 102 Group II exempt solvents, except volatile methyl siloxanes; included a technology assessment for certain product categories; removed, modified, or added various exemptions. Rule 1168 was estimated to result in approximately 1.38 tons per day of VOC emission reductions.

Amended Rule 1168 would affect approximately 60 adhesive and sealant materials manufacturers of which eight are manufacturing products within the South Coast Air Basin (SCAB). Amended Rule 1168 would also affect six Big Box retailers, and approximately 40 distributors located in and outside of the SCAB. These affected facilities belong to the industries of asphalt shingle and coating materials and adhesive manufacturing, and the sectors of retail and merchant wholesalers. Amended Rule 1168 would also affect intermediate industrial users and end-users (general public) using products that are applicable to Rule 1168 and not regulated by CARB's Consumer Products Regulation.

None of the adhesive and sealant manufacturers and Big Box retailers that would be subject to Rule 1168 are considered small businesses under SCAQMD's definition of a small business. Most of the distributors and other industrial and commercial users that would be subject to Rule 1168 are likely to be small businesses.

It was assumed that Rule 1168 compliance costs are mainly for reformulation. The reformulation cost is estimated to range from \$2 to \$4 per gallon for the majority of affected product categories. The average total annual cost of the proposed amendments, which would be incurred by the affected facilities located in and outside of the SCAB, is estimated to be \$6.34 million, of which \$6.30 million is estimated for reformulation costs and the remaining \$0.04 is estimated for reporting costs. The cost-effectiveness of Rule 1168 is estimated at \$12,400 per ton of VOC reduced with an emission reduction of 1.4 tons of VOC per day by 2023. The amendments were projected to result in minimal job impacts across all major sectors of the regional economy.

Adopted Rule 415 – Odors from Rendering Facilities (November 2017)

Rule 415 was adopted to reduce odors from facilities conducting rendering operations. New Rule 415 was the result of an issue that was identified by the working group for the Clean Communities Plan (CCP) in the pilot study area of Boyle Heights. The prevalence of odors from rendering facilities in Vernon, directly south of Boyle Heights, was of great concern to

the working group. Rule 415 requires existing rendering facilities to enclose certain rendering operations, install odor emission control equipment for the enclosures or use alternative standards for a permanent total enclosure for raw material receiving area, and carry out best management practices (BMPs).

Rule 415 potentially affects five facilities with rendering operations, all classified under the industry of Rendering and Meat Byproduct Processing (NAICS 311613). All five facilities are clustered in close proximity in the urban portion of Los Angeles County, with four located in the heavily industrialized city of Vernon and one in the city of Los Angeles bordering the city of Vernon. Although the city of Vernon has just over 100 inhabitants, it is surrounded by many socioeconomically disadvantaged communities with high unemployment rates and disproportionately more children living in poverty than the county average.

The total annualized costs for the five affected facilities to comply with Rule 415 were estimated to range from \$405,000 to \$527,000 per year. One facility operated by a large company is expected to incur about two-thirds of the total estimated costs (annualized at \$256,000 to \$353,000), followed by a facility that is a small business, which would incur the remaining one-third (annualized at \$138,000 to \$160,000). The other three facilities, including another small business, together would incur less than three percent of the total estimated compliance costs. The estimated total compliance costs would result in a minimal jobs impact in the regional economy.

<u>Adopted Rule 1180 – Refinery Fenceline and Community Air Monitoring and Rule</u> 1180 Refinery Fenceline Air Monitoring Plan Guidelines (Guidelines) (December 2017)

Rule 1180 and the accompanying Guidelines were adopted to implement Health and Safety Code Section 42705.6 by requiring petroleum refineries to collect continuous data of refinery air pollutant emissions, at or near their property boundaries, and to provide that data as quickly as possible to the public. In particular, Rule 1180 contains requirements for petroleum refineries to install and operate continuous, fenceline air monitoring systems to monitor a comprehensive list of criteria pollutants and toxic air contaminants in real-time. Rule 1180 also establishes a fee schedule, to be paid by the petroleum refineries, for the cost of designing, developing, installing, operating and maintaining refinery-related community air monitoring systems. Rule 1180 exempts petroleum refineries that have a maximum capacity to process less than 40,000 barrels per day of crude oil.

Eight petroleum refineries located in Los Angeles County would be potentially affected by Rule 1180 and as such, incur compliance costs. None of the eight affected refineries are classified as small businesses. They all have a maximum capacity to process 40,000 or more barrels per day of crude oil and therefore would not qualify for the exemption provided in Rule 1180.

The fenceline air monitoring requirements were estimated to have an average annual cost of approximately \$3.6 million, while the community air monitoring fees were estimated to have an average annual cost of \$3.5 million, resulting in a total estimated annual compliance cost

of \$7.1 million. The facility-specific annual compliance cost was estimated to range from \$489,000 to \$1.5 million depending on the refinery's size and their specific fee schedule.

Implementation of Rule 1180 is projected to result in a net positive job impact of 35 jobs per year on average in the four-county region over the 2018-2028 time period, due to an increase in jobs in industries.

Amended Rule 1420 – Emissions Standard for Lead (December 2017)

Rule 1420 was amended to reduce public health impacts from point and fugitive lead emissions from metal melting or lead processing facilities by reducing the exposure to lead, and to ensure and maintain attainment of the National Ambient Air Quality Standard (NAAQS) for lead within the South Coast Air Basin. The amendments to Rule 1420 include an initial ambient air lead concentration limit of 0.150 micrograms per cubic meter ($\mu g/m^3$) averaged over 30 consecutive days and will be lowered to a final limit of 0.100 $\mu g/m^3$ by January 1, 2021. The amendments to Rule 1420 also added new requirements for point source lead emission controls, along with periodic source testing, capture efficiency testing, conditional ambient air monitoring, and reporting and recordkeeping requirements to ensure continuous compliance. To prevent fugitive lead emissions, Rule 1420 also added new requirements to conduct housekeeping and maintenance activities and to install total enclosures in areas where lead processing operations and associated processes are being conducted. Any facility that exceeds the limits in Rule 1420 will be subject to additional mitigation requirements.

Rule 1420 would affect 107 facilities out of which one is classified as a Recyclable Material Merchant Wholesaler, with the remaining 106 facilities classified under the Manufacturing sector. Among all affected facilities, 43 are in Los Angeles, 57 in Orange, four in Riverside, and three are located in San Bernardino County. Only 15 out of the 107 affected facilities would incur cost impacts related to periodic source testing, capture efficiency testing, and building enclosure, and rooftop cleaning requirements. The remaining 92 facilities would only be subject to the housekeeping and recordkeeping requirements at nominal costs. Based on SCAQMD permit data and available information on employees and sales, 11 of the 107 facilities are small businesses as defined under Rule 102. These 11 facilities are only subject to the housekeeping and recordkeeping requirements.

The annual compliance costs of Rule 1420 were estimated to range from \$273,000 to \$280,000, depending on the real interest rate assumed (one to four percent). The source testing requirement would contribute to about 80 percent of the total annual cost. On a per facility basis, it was estimated that each of the 15 affected facilities referenced above could incur an annual cost of \$4,800 to \$43,000 depending on the number of lead point sources at the facility and the level of construction necessary to enclose the buildings housing their lead processing areas. Since the overall annualized cost of compliance with Rule 1420 was estimated at \$4,800 to \$43,000, a REMI analysis was not conducted, because the estimated overall compliance costs would result in minimal job impacts in the regional economy.

<u>Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants (December 2017)</u>

Rule 1466 was amended to address the Governing Board's Resolution directing staff to expand the list of applicable toxic air contaminants. The amendments to Rule 1466: 1) expanded the list of applicable toxic air contaminants to include pesticides, herbicides, and persistent bio-cumulative toxics; 2) expanded applicability to other government designated sites; and 3) included language to clarify existing provisions. The sites that may be affected by Rule 1466 have been designated as cleanup sites on lists compiled by the United States Environmental Protection Agency, the California Department of Toxic Substances Control (DTSC), the California Environmental Protection Agency's State Water Resources Control Board or Regional Water Quality Control Board, and other county, local, or state regulatory agencies.

These amendments would result in an increased number of potentially affected sites and industries than previously estimated for the current rule. Based on data collected for sites with soil containing one or more of the additional applicable toxic air contaminant(s), approximately two additional sites per year would be potentially impacted. The current owners or responsible parties of these additional impacted sites, which may differ from the previous industrial operations that resulted in contamination at these sites, may belong to: Lessors of Residential Buildings and Dwellings (NAICS 531100), Line-Haul Railroads (NAICS 482111), Solid Waste Landfill (NAICS 562212), Administration of Air and Water Resource and Solid Waste Management Programs (NAICS 924110), Administration of Conservation Programs (NAICS 924120), and National Security (NAICS 928110).

The incremental cost related to compliance with the additional monitoring and fugitive dust control requirements was estimated at about \$182,000 per year, which would bring the total estimated cost of compliance to \$913,000. The estimated total compliance costs would result in a minimal impact on jobs in the regional economy.

Rule Amendments without Socioeconomic Impacts

Amended Rule 1147 - NOx Reductions from Miscellaneous Sources (July 2017)

Rule 1147 was amended to resolve compliance issues that have been raised by stakeholders by: 1) removing the requirement to comply with the NOx emission limit for units with a heat input rating of less than 325,000 British Thermal Units per hour; 2) changing the NOx emission limit for low temperature afterburners, burn-off ovens, incinerators, and related equipment from 30 ppm to 60 ppm; 3) changing the compliance date for small in-use units with NOx emissions of one pound per day or less from a schedule based on a 20-year lifetime to a 35-year lifetime or until the units are replaced or retrofit; 4) changing the compliance date for existing in-use heated process tanks and pressure washers from a schedule based on a 15-year to 20-year lifetime to when the units are replaced or retrofit; 5) adding a testing exemption for ultra-low NOx infrared burners; 6) providing compliance flexibility for low emission units by clarifying options for demonstrating emissions less than one pound per day; 7) adding an exemption for units with NOx emission less than one pound per day when a company relocates a facility and remains under the same ownership; 8) adding an exemption for units that become subject to Rule 1147 upon amendment of Rule

219 on or after May 5, 2017, until the unit is replaced; 9) adding flexibility for demonstrating compliance with emission limits by including an alternative compliance demonstration option based on a manufacturer's performance guarantee; 10) clarifying an exemption for food ovens; and 11) clarifying an exemption for flare type systems. Other minor changes were also made for clarity and consistency throughout the rule. Rule 1147 was estimated to result in NOx emission reductions foregone of up to 0.9 ton per day in 2017. However, while most of the estimated NOx emission reductions foregone will be eventually recaptured because the existing units will be regularly replaced and upgraded over time, approximately 0.03 ton per day of the NOx emission reductions foregone will be permanent. Amended Rule 1147 would delay and/or reduce implementation costs to affected businesses and facilitate compliance, thus resulting in overall cost-savings.

Four CEQA alternatives were analyzed. Alternative A, the no project alternative, means that the version of Rule 1147 that was amended in September 2011 would remain in effect. Alternative B considered a more stringent age requirement for compliance demonstration (25 years). At the same time, Alternative B did not contain a relocation exemption and was as stringent as the September 2011 version of Rule 1147. However, Alternative B considered additionally requiring compliance with emission limits when multiple similar process units at a facility have combined NOx emissions greater than one pound per day—a requirement more stringent than the existing rule. Alternative C considered exempting all pressure washers from complying with any emission limit without including an age requirement, so it was considered less stringent than both the September 2011 and July 2017 amendments to Rule 1147. Similar to Alternative C, Alternative D considered exempting all pressure washers from complying with any emission limit without including an age requirement plus it considered exempting all units with NOx emissions less than one pound per day (to be demonstrated through recordkeeping), making it the least stringent CEQA alternative.

The July 2017 amendments to Rule 1147 and CEQA Alternatives C and D were concluded to result in delayed (due to a less stringent compliance schedule) and avoided (due to additional exemptions) incurrence of compliance costs and overall cost-savings. CEQA Alternative A was concluded to not result in any cost impact as the status quo would be maintained. CEQA Alternative B was concluded to delay the compliance schedule by up to five years due to its less stringent age requirement than what is in the existing rule, thereby resulting in maximally five years of compliance cost avoided. Alternative B also considered an additional compliance requirement for facilities with combined NOx emissions greater than one pound per day from multiple similar process units. Therefore, under Alternative B, some compliance costs were shown to potentially occur sooner and offset some of the avoided compliance costs related to the delayed compliance schedule. However, based on the profiles of currently permitted equipment, this additional requirement as considered in Alternative B would be potentially applicable to only a small number of facilities, if any. Therefore, on the net, Alternative B was concluded to not result in additional compliance costs beyond what was expected to be incurred by the affected facilities for compliance with the September 2011 and July 2017 amendments to Rule 1147.

Existing Rules/Regulation with Ongoing Socioeconomic Impacts

<u>Amended Regulation III – Fees and Rule 320—Automatic Adjustment Based on Consumer Price Index (CPI) for Regulation III Fees (June 2017)</u>

Amendments to Regulation III rules consisted of four components. First, pursuant to Rule 320 – Automatic Adjustment Based on Consumer Price Index for Regulation III - Fees, most fees in Rules 301, 303, 304, 304.1, 306, 307.1, 308, 309, 311, 313, 314, and 315 were updated on July 1, 2017 according to the increase in the Calendar Year 2016 California Consumer Price Index (CPI) of 2.5 percent¹. Second, Rules 301 and 306 were amended to increase the Title V Annual Operating Permit Renewal and Permit Processing Fees by an additional increment of 16 percent above the CPI for each of the next two fiscal years (FYs) in response to the U.S. EPA Title V Operating Permit Program Evaluation Report recommendation to more fully recover Title V program costs. Third, Rules 301, 306, and 309 were amended to increase the Annual Operating Permit Renewal, Permit Processing and Plan Fees for non-Title V facilities by a further additional increment of four percent above the CPI for each of the next two FYs in order to better align program costs with revenues. Fourth, various administrative amendments with no fee impacts were made to Rules 301, 306, 308, and 314.

The October 29, 2010 SCAQMD Governing Board Resolution annually requires, by March 15, an assessment of the increase in fee rates based on the previous year's CPI. Pursuant to Rule 320, an across-the-board 2.5-percent increase in fee rates (equivalent to the change in the California CPI from December 2015 to December 2016) occurred on July 1, 2017. A socioeconomic assessment was conducted to assess the cost impacts of these fee increases. In addition, the analysis provides background information, such as historical trends of SCAQMD revenues from various fees and sectoral distributions of these fees.

Based on the fee categories examined in this analysis and last year's activity levels, the overall Regulation III fee increases, which include the 2.5 percent across-the-board CPI-based fee rate increase for FY 17-18, the 16 percent per year permit-related fee rate increases for Title V facilities over the next two FYs, and the four percent per year permit-related fee rate increases for non-Title V facilities over the next two FYs, are projected to bring additional revenues totaling \$6.1 million for FY 17-18 and \$10.5 million for FY 18-19.

Nearly all the facilities regulated by SCAQMD would be affected by the proposed fee increases and these facilities belong to every sector of the economy. The fees examined included emissions fees, permit processing fees, annual permit renewal fees, toxic hot spot fees, source testing fees, and a portion of fees under Rule 2202 – On-Road Motor Vehicle Mitigation Options.

The manufacturing sector is estimated to experience the largest fee increase, with an increase of \$2.8 million in FY 17-18 and \$4.9 million FY 18-19, incurred by about 4,000 permitted facilities. This is followed by the services sector which is estimated to experience an

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Pursuant to the SCAQMD Governing Board Resolution for Rule 320, a Draft Socioeconomic Assessment of the Automatic CPI Adjustment was made publicly available on March 15, 2017. The report is available online at: http://www.aqmd.gov/home/about/finance

increase in fees by about \$1.0 million in FY 17-18 and \$1.7 million in FY 18-19, incurred by about 11,000 permitted facilities. Within the manufacturing sector, the petroleum and coal products manufacturing industry, mostly comprised of refineries, would experience an increase in fees by approximately \$1.1 million in FY 17-18 and \$2.0 million in FY 18-19.

A macroeconomic job impact analysis was conducted based on the estimated increases in fees paid by various industry sectors. This analysis projects an average annual increase of 58 jobs in the four-county region over a five-year period (2018-2022). The positive job impact is a net result of projected increases in jobs in local government, professional, scientific, and technical services, and administrative and waste management services, combined with smaller decreases in the manufacturing and retail trade sectors.

Plan Adoption with Socioeconomic Impacts

Adopted 2016 Air Quality Management Plan (March 2017)

The adopted 2016 AQMP identified control measures and strategies to bring the region into attainment with the revoked 1997 8-hour National Ambient Air Quality Standard (standard) (80 ppb) for ozone by 2024; the 2008 8-hour ozone standard (75 ppb) by 2032; the 2012 annual PM2.5 standard (12 μ g/m³) by 2025; the 2006 24-hour PM2.5 standard (35 μ g/m³) by 2019; and the revoked 1979 1-hour ozone standard (120 ppb) by 2023. The 2016 AQMP consists of three components: 1) the SCAQMD's Stationary, Area, and Mobile Source Control Measures; 2) State and Federal Control Measures provided by the California Air Resources Board; and 3) Regional Transportation Strategy and Control Measures provided by the Southern California Association of Governments. The 2016 AQMP includes emission inventories and control measures for stationary, area and mobile sources, the most current air quality setting, updated growth projections, new modeling techniques, demonstrations of compliance with state and federal Clean Air Act requirements, and an implementation schedule for adoption of the proposed control strategy.

In 2017, staff prepared the Final Socioeconomic Assessment of the 2016 AQMP which included three final documents: 1) main report containing final estimates of benefits, costs, and regional economic impacts, 2) appendices, and 3) responses to comments. The 2016 AQMP control strategy will seek emission reductions from stationary and mobile sources through command-and-control regulations and incentives to help accelerate the deployment of cleaner equipment for the purpose of achieving federal and state air quality standards.

Incremental Costs and Public Health Benefits

The incremental costs and public health benefits of the 2016 AQMP are expected to alter, to various degrees, the economic decisions made by households, businesses, and other economic actors. Some businesses would see production costs go up while other businesses would benefit from a greater demand for their services and technologies. For consumers who consider purchasing or replacing vehicles or certain household appliances, the proposed control strategies would also change or widen the range of product choices that differ in fuel types, energy efficiencies, effective unit prices, and thus potential payback periods. Improved public health would contribute to higher labor productivity and reduce healthcare-related expenditures, while also increasing the region's attractiveness to economic migrants.

All of these direct effects would then cascade through the regional economy and would produce indirect and induced macroeconomic impacts.

The total incremental cost of the 2016 AQMP was estimated to be \$15.7 billion in present worth value (expressed in 2015 dollars) over the life of all equipment and fleets that are expected to be put into operation. Between 2017 and 2031, the amortized annual average incremental cost would be \$848 million, which is less than one tenth of a percent (0.07 percent) of the \$1.3 trillion worth of annual gross domestic output in the region.

About 60 percent or \$9.3 billion of the total incremental cost is related to CARB mobile source control strategies affecting the Basin. About 36 percent or \$5.7 billion is associated with SCAQMD control measures for stationary sources, and the remaining four percent or \$0.6 billion represents SCAQMD's local mobile source measures. The proposed incentives, in the amount of \$14.6 billion, would be distributed to eligible industries and consumers and offset more than 90 percent of the total incremental cost estimated for the 2016 AQMP.

The region will also experience benefits from the implementation of the 2016 AQMP. Air pollution continues to be linked to increases in death rates (mortality) and increases in illness and other health effects (morbidity). It was estimated that, as a result of implementing the 2016 AQMP, an average of 1,600 premature deaths would be avoided per year. Numerous other non-fatal health conditions were also estimated to be avoided annually, including about 2,500 asthma-related emergency department visits, about 700 hospital admissions related to asthma, cardiovascular, or respiratory conditions, and more than 200,000 person-days of work and school absences. Due to these lowered mortality and morbidity risks, an estimated \$173 billion worth of public health benefits are expected to accrue in the four-county region, cumulatively from 2017 to 2031. This represents an average of \$16.5 billion in public health benefits per year. Over 95 percent of the estimated public health benefits are associated with avoided premature deaths from reduced long-term exposure to PM2.5. Although not quantified in this report, there exist additional public welfare benefits related to clean air from preventing damage to agriculture, ecology, visibility, buildings, and materials.

Regional Economic and Job Impacts

As a result of incremental costs and health benefits associated with the 2016 AQMP, the overall job impact on the four-county region of Los Angeles, Orange, Riverside, and San Bernardino is projected to range from 9,000 jobs foregone to 29,000 jobs gained per year from 2017 to 2031, relative to the baseline job forecast where the 2016 AQMP control strategies are not implemented. In an economy with nearly 18 million people and more than 10 million jobs, the projected changes in the total number of regional jobs are expected to have a minimal impact on the region's long-term job growth. The region's projected annualized job growth rate between 2016 and 2031 will remain at slightly above one percent (1.01 to 1.04 percent) under all 2016 AQMP scenarios examined with macroeconomic impact modeling.

Under the main scenario (i.e., incentives funded by existing state revenue sources and full air-related public health benefits for regional amenity adjustments), the region is expected to gain an average of about 14,000 jobs per year from 2017 to 2031. The annualized job growth

rate would increase slightly to 1.04 percent from the baseline rate of 1.02 percent between 2016 and 2031. In the beginning years, however, large amounts of incentives would directly result in funds diverted from local spending and thus jobs foregone in many sectors of the regional economy, among which state and local governments would be most adversely impacted, followed by construction, retail trade, and healthcare and social assistance sectors. Over time, as the control strategies are implemented and public health benefits are realized, increased regional amenity is expected to attract more economic migrants and enlarge the pie of the regional economy, thereby creating more jobs.

To provide stakeholders with more information about how the 2016 AQMP would potentially impact different sub-county communities within the region, sub-regional distributions for incremental costs, public health benefits, and net job impacts were also provided. The average annualized incremental costs between 2017 and 2031, if spread among the region's population, would range from approximately \$21 million in Orange North, a sub-region of Orange County to \$61 million in the San Fernando sub-region of Los Angeles County. The average annual public health benefits range from \$122 million in Other San Bernardino, the northern sub-region of San Bernardino County, to \$2.1 billion in the Central sub-region of Los Angeles County. Of the 14,000 jobs expected to be gained on average each year during the period of 2017-2031, the Central Los Angeles sub-region of Los Angeles County is expected to see the largest gain of jobs, with nearly 2,000 jobs being added on average each year to the baseline forecast levels, while the Riverside sub-region of Riverside Other will see about 40 jobs foregone on average each year during the same period.

Environmental Justice Impacts

The SCAQMD defines Environmental Justice (EJ) as "equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution." It is akin to the U.S. EPA's definition: "Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies." California state law similarly defines EJ as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."

For the 2016 AQMP, the EJ analysis was significantly enhanced and expanded compared to previous AQMPs by investigating the distributional impact of the 2016 AQMP based on multiple alternative definitions of EJ communities. Specifically, staff examined whether estimated reductions in health risks associated with air pollution would reduce or exacerbate baseline inequality in the Basin. Inequality between EJ and non-EJ communities was also analyzed to identify any potential differences. First, as a result of implementing the 2016 AQMP, greater per-capita monetized public health benefits are anticipated to accrue in EJ communities than non-EJ communities. Next, in terms of the distribution of health risk related to air pollution exposure, inequality in mortality-related risk more likely to affect the

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² See http://www3.epa.gov/environmentaljustice/.

³ California Senate Bill 115, Solis, 1999; California Government Code Section 65040.12(c).

elderly population was found to decrease overall, which is also true between the EJ and non-EJ communities. This finding is consistent for both mortality-related risk associated with long-term exposure to PM2.5 and short-term exposure to ozone. However, the inequality of morbidity risk for asthma-related emergency room visits among children that is associated with short-term exposure to ozone are expected to increase slightly between EJ and non-EJ communities, despite a decrease in overall inequality. These general results do not change based on the different EJ definitions analyzed.

CEQA Alternatives

The 2016 AQMP also examined the potential socioeconomic impacts of CEQA alternatives to the proposed 2016 AQMP. The Final Program Environmental Impact Report included four alternatives: Alternative 1 - No Project; Alternative 2 - Mobile Source Emission Reductions Only; Alternative 3 - CARB and SCAQMD Regulations Only; and Alternative 4 - Expanded Incentive Funding. All the alternatives above, except the No Project Alternative, are required to be realistic and provide a viable path to attainment of NAAQS, thus achieving similar or greater public health benefits. Therefore, for Alternatives 2, 3, and 4, only incremental costs and the associated job impacts were analyzed and compared to the corresponding impacts of the proposed 2016 AQMP. For purposes of the socioeconomic assessment, Alternatives 2 and 3 were analyzed based on the assumption that they would lead to NAAQS attainment with CAA Section 182(e)(5) measures (i.e., "black box" measures). Alternative 4 assumes additional or accelerated emission reductions achievable by expanded incentive funding. Incremental costs of both Alternatives 2 and 3 are projected to result in fewer jobs foregone than the proposed 2016 AQMP; whereas, incremental costs for Alternative 4 are projected to result in more jobs foregone, mainly due to higher incentive amounts assumed to be provided by existing sources of state funds for local spending. Alternative 4 would result in more emission reductions, however, which would also likely increase public health benefits above the 2016 AQMP. Caution should be exercised, however, as the projected cost estimates and job impacts are highly dependent on the assumptions made for each alternative.

Future Enhancements

Staff will continue working to update the technical aspects of its analyses which includes updating methodologies to quantify visibility, material, and agricultural benefits, developing methods to properly normalize the magnitude of adjustment to the amenity coefficient in REMI, evaluating the use of other modeling tools such as partial equilibrium modeling to supplement REMI for small scale impacts, updating best practices for estimating small business impacts, and closely monitoring the U.S. EPA Science Advisory Board's Economy-Wide Modeling Panel discussions and recommendations, particularly on the macroeconomic modeling of non-market benefits. Retrospective studies, when feasible, will be considered as part of the implementation plan to enhance the uncertainty analysis.

CHAPTER II ENGINEERING AND PERMITTING ACTIVITIES

ENGINEERING AND PERMITTING

As shown in Table 1, during calendar year 2017, SCAQMD dispositioned a total of 10,504 applications. The majority of these applications were for Permits to Operate (3,774), Area Sources & Certified/ Registrations (2,927), and Changes of Operators (1,236). Also, 910 permits were not renewed. The total number of dispositioned applications for 2017 is about 6% higher than the total for 2016, mainly attributed to the SCAQMD's continuing Permit Application Backlog Reduction efforts.

TABLE - 1 Permit Applications Completed During	g Calendar Year 2017
Туре	Count
Permits to Construct	451
Permits to Operate	3774*
Changes of Operator	1236
Denials	42
Cancellations	864
ERCs	71
Plans	857
TV/RECLAIM	282
Area Sources & Certified/Registrations	2927
Total	10,504
Permits Not Renewed	910

^{*}This includes 2,414 applications for Permit to Construct that were issued as Permits to Construct/Operate

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
111219	Other Vegetable (except Potato) and Melon Farming									1	
111320	Citrus (except Orange) Groves		2								
111332	Grape Vineyards									10	
111421	Nursery and Tree Production										2
111920	Cotton Farming									3	
111998	All Other Miscellaneous Crop Farming		6	5				1		1	
112120	Dairy Cattle and Milk Production		1	1				1		2	
112511	Finfish Farming and Fish Hatcheries									1	
112990	All Other Animal Production		1							2	
115112	Soil Preparation, Planting, and Cultivating		1								
115114	Postharvest Crop Activities (except Cotton Ginning)									1	
115115	Farm Labor Contractors and Crew Leaders									3	
115210	Support Activities for Animal Production	1	4								
115310	Support Activities for Forestry		1								
211110	Oil and Gas Extraction									5	
211111	Crude Petroleum and Natural Gas Extraction	6	26	66		20	1	2	6	16	4
211112	Natural Gas Liquid Extraction		2	2		1			1	9	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
212311	Dimension Stone Mining and Quarrying										2
212312	Crushed and Broken Limestone Mining and Quarrying		2								
212319	Other Crushed and Broken Stone Mining and Quarrying	2	1			1			1		
212321	Construction Sand and Gravel Mining		8			4					1
212322	Industrial Sand Mining		6			1			3		
212391	Potash, Soda, and Borate Mineral Mining		1								
212399	All Other Nonmetallic Mineral Mining		4							5	
213111	Drilling Oil and Gas Wells		1							5	
213112	Support Activities for Oil and Gas Operations		4	19						9	4
221111	Hydroelectric Power Generation							3		1	
221112	Fossil Fuel Electric Power Generation	5	61			21	1	7	18	37	2
221118	Other Electric Power Generation	35	4	18		19		4	7	13	1
221121	Electric Bulk Power Transmission and Control									1	
221122	Electric Power Distribution		3							1	
221210	Natural Gas Distribution		6					5	2	3	
221310	Water Supply and Irrigation Systems	1	55	1		3		4		25	3

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
221320	Sewage Treatment Facilities	1	54			11		26		6	
221330	Steam and Air-Conditioning Supply									1	
236115	New Single-Family Housing Construction (except For-Sale Builders)		25	2	1	4		1		74	4
236116	New Multifamily Housing Construction (except For-Sale Builders)		2					4			1
236117	New Housing For-Sale Builders										3
236118	Residential Remodelers		1							12	
236210	Industrial Building Construction		9								
236220	Commercial and Institutional Building Construction		6	11				7		27	1
237110	Water and Sewer Line and Related Structures Construction		1	25	1	2	1	2		1	
237120	Oil and Gas Pipeline and Related Structures Construction	1	1		1	2				1	1
237210	Land Subdivision		3	1				13		10	4
237310	Highway, Street, and Bridge Construction		15			1		3		1	3
237990	Other Heavy and Civil Engineering Construction							1		1	6
238110	Poured Concrete Foundation and Structure Contractors		16	4	3			3		6	
238130	Framing Contractors		1	1							3

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
238140	Masonry Contractors		3								
238160	Roofing Contractors		1							16	4
238190	Other Foundation, Structure, and Building Exterior Contractors			1							
238210	Electrical Contractors and Other Wiring Installation Contractors		9							2	4
238220	Plumbing, Heating, and Air- Conditioning Contractors		3	1		1				8	
238290	Other Building Equipment Contractors				1						
238310	Drywall and Insulation Contractors					1				2	
238320	Painting and Wall Covering Contractors	1	6	1						12	8
238330	Flooring Contractors		1								
238340	Tile and Terrazzo Contractors		9			3					
238350	Finish Carpentry Contractors		2								
238910	Site Preparation Contractors		3					4		123	2
238990	All Other Specialty Trade Contractors		15	1				1		81	5
311111	Dog and Cat Food Manufacturing		4			9					
311119	Other Animal Food Manufacturing		1								
311211	Flour Milling		8								
311340	Nonchocolate Confectionery Manufacturing										1

	Tatal Applications	451	3774	1226	42		71	857	282	2927	910
	Total Applications:	451	3//4	1236	42	864	/1	85/	282	2921	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
311411	Frozen Fruit, Juice, and Vegetable Manufacturing		1							1	
311412	Frozen Specialty Food Manufacturing	2	2								
311511	Fluid Milk Manufacturing		11			4	1			2	
311513	Cheese Manufacturing							1			
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing			1				2			
311520	Ice Cream and Frozen Dessert Manufacturing									1	
311611	Animal (except Poultry) Slaughtering			11						2	
311612	Meat Processed from Carcasses		4			7		2			
311613	Rendering and Meat Byproduct Processing	4	5			1			4		
311710	Seafood Product Preparation and Packaging		1								
311811	Retail Bakeries			1						1	3
311812	Commercial Bakeries	3	7	1		20		3	1	29	
311821	Cookie and Cracker Manufacturing		4			2				2	
311824	Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour		4			3		2	1		
311830	Tortilla Manufacturing		1			14					

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
311911	Roasted Nuts and Peanut Butter Manufacturing	3	4			3		1			
311919	Other Snack Food Manufacturing		12			7		2	1	1	
311920	Coffee and Tea Manufacturing		7			3					
311930	Flavoring Syrup and Concentrate Manufacturing		11					1			
311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing		1					1			
311942	Spice and Extract Manufacturing		3								
311991	Perishable Prepared Food Manufacturing		1								
311999	All Other Miscellaneous Food Manufacturing		15			4		1			
312111	Soft Drink Manufacturing		8	9		1					
312112	Bottled Water Manufacturing		3			2					
312120	Breweries	2	11			3			2		
312130	Wineries									1	
313210	Broadwoven Fabric Mills		3	6					1		
313310	Textile and Fabric Finishing Mills	5	7	2		6			3		
313320	Fabric Coating Mills	2	2						1		2
314110	Carpet and Rug Mills		2			4			1		
314120	Curtain and Linen Mills									3	
314999	All Other Miscellaneous Textile Product Mills		1	1							

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
315240	Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing										1
316210	Footwear Manufacturing		1								
316998	All Other Leather Good and Allied Product Manufacturing		7			1					
321114	Wood Preservation		4	4							
321211	Hardwood Veneer and Plywood Manufacturing										6
321911	Wood Window and Door Manufacturing										1
321918	Other Millwork (including Flooring)		2								
321920	Wood Container and Pallet Manufacturing		1								
321999	All Other Miscellaneous Wood Product Manufacturing			1							2
322110	Pulp Mills		4								
322121	Paper (except Newsprint) Mills		1							6	
322211	Corrugated and Solid Fiber Box Manufacturing	1	14	12		2			1		
322212	Folding Paperboard Box Manufacturing		1							1	
322219	Other Paperboard Container Manufacturing		3								
322220	Paper Bag and Coated and Treated Paper Manufacturing	3	4			1			1	1	6

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
323111	Commercial Printing (except Screen and Books)	4	22	11		9		1	6	3	8
323113	Commercial Screen Printing			1						1	
324110	Petroleum Refineries	32	157	7		97	2	64	41	50	2
324121	Asphalt Paving Mixture and Block Manufacturing	9	21	4	1	7			11		4
324122	Asphalt Shingle and Coating Materials Manufacturing	5	28			9	3		4	1	
324191	Petroleum Lubricating Oil and Grease Manufacturing		15			1		2	4	3	
324199	All Other Petroleum and Coal Products Manufacturing									1	
325110	Petrochemical Manufacturing	3	11	3							
325120	Industrial Gas Manufacturing		3			2			1	1	
325130	Synthetic Dye and Pigment Manufacturing	3	3			3					17
325180	Other Basic Inorganic Chemical Manufacturing		28			19				2	
325193	Ethyl Alcohol Manufacturing		1								
325211	Plastics Material and Resin Manufacturing	4	42			4	1	4	1	2	
325212	Synthetic Rubber Manufacturing	1	6	2		4		3			
325311	Nitrogenous Fertilizer Manufacturing					1					
325314	Fertilizer (Mixing Only)		5								

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
	Manufacturing										
325320	Pesticide and Other Agricultural Chemical Manufacturing		4							2	
325411	Medicinal and Botanical Manufacturing		3							3	
325412	Pharmaceutical Preparation Manufacturing		40	20		28		6	3	9	2
325414	Biological Product (except Diagnostic) Manufacturing		3			1			1	2	
325510	Paint and Coating Manufacturing	1	11	11		12		2	1	1	
325520	Adhesive Manufacturing		1	7				2		1	
325611	Soap and Other Detergent Manufacturing		2								
325612	Polish and Other Sanitation Good Manufacturing		7			1				1	3
325620	Toilet Preparation Manufacturing		32			14				4	
325910	Printing Ink Manufacturing		2			1			1		
325991	Custom Compounding of Purchased Resins					1					
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing		13	54		3		1		2	
326111	Plastics Bag and Pouch Manufacturing	1	2								
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing		6			2					

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
326121	Unlaminated Plastics Profile Shape Manufacturing		1								9
326122	Plastics Pipe and Pipe Fitting Manufacturing		5								
326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing			16	1			1			
326140	Polystyrene Foam Product Manufacturing		9						4	1	
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing		18								
326160	Plastics Bottle Manufacturing		5							1	
326191	Plastics Plumbing Fixture Manufacturing		3			2		1	1		
326199	All Other Plastics Product Manufacturing	20	102	1		16		3	5		2
326211	Tire Manufacturing (except Retreading)		1	1							
326291	Rubber Product Manufacturing for Mechanical Use		3								
326299	All Other Rubber Product Manufacturing		12	8							
327110	Pottery, Ceramics, and Plumbing Fixture Manufacturing		3			1					2
327120	Clay Building Material and Refractories Manufacturing		1						3		
327211	Flat Glass Manufacturing		2	5					2		

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
327212	Other Pressed and Blown Glass and Glassware Manufacturing							1		1	
327213	Glass Container Manufacturing	4								1	
327215	Glass Product Manufacturing Made of Purchased Glass		2						1		
327310	Cement Manufacturing		9			7					
327320	Ready-Mix Concrete Manufacturing		10	10							1
327331	Concrete Block and Brick Manufacturing		1			2					
327332	Concrete Pipe Manufacturing		3							1	
327390	Other Concrete Product Manufacturing		12			1		1			3
327410	Lime Manufacturing					1					
327420	Gypsum Product Manufacturing		5	1							
327991	Cut Stone and Stone Product Manufacturing			2							
327992	Ground or Treated Mineral and Earth Manufacturing		11						1		
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing		7							1	
331110	Iron and Steel Mills and Ferroalloy Manufacturing		4							1	
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	9	10			1		5	1	6	

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	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
331221	Rolled Steel Shape Manufacturing	3	2			18	9			2	1
331222	Steel Wire Drawing		6								
331313	Alumina Refining and Primary Aluminum Production	2	1						2		
331315	Aluminum Sheet, Plate, and Foil Manufacturing					1			1		
331318	Other Aluminum Rolling, Drawing, and Extruding		16			2			2		
331410	Nonferrous Metal (except Aluminum) Smelting and Refining		5			1					
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding		10			2		1			
331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)		17			2		1	2		
331512	Steel Investment Foundries					1				1	
331513	Steel Foundries (except Investment)		8	12							
331523	Nonferrous Metal Die-Casting Foundries		8								
331524	Aluminum Foundries (except Die- Casting)		7			1			2		
332111	Iron and Steel Forging		1	2					1		
332112	Nonferrous Forging	28	8			22			4	8	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
332119	Metal Crown, Closure, and Other Metal Stamping (except Automotive)		5								2
332215	Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing										1
332216	Saw Blade and Handtool Manufacturing		4								
332311	Prefabricated Metal Building and Component Manufacturing		2								
332312	Fabricated Structural Metal Manufacturing		3	3							
332313	Plate Work Manufacturing		2								4
332321	Metal Window and Door Manufacturing	1				1					
332322	Sheet Metal Work Manufacturing	3	7	6							3
332323	Ornamental and Architectural Metal Work Manufacturing					1					
332431	Metal Can Manufacturing		14						4		
332439	Other Metal Container Manufacturing		2			2		1	1		
332510	Hardware Manufacturing		2					1		1	1
332613	Spring Manufacturing					1					
332710	Machine Shops	1	1	10		2					2
332721	Precision Turned Product Manufacturing		1								

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	10	29	2		4		2	2	18	
332811	Metal Heat Treating	5		4					2		
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	6	25	21		5		3	3		16
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	12	74		1	17		8	1	1	23
332912	Fluid Power Valve and Hose Fitting Manufacturing									1	
332913	Plumbing Fixture Fitting and Trim Manufacturing	10	1								
332919	Other Metal Valve and Pipe Fitting Manufacturing		1							4	
332991	Ball and Roller Bearing Manufacturing		1								
332996	Fabricated Pipe and Pipe Fitting Manufacturing		3						1	3	
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	2	7								
333111	Farm Machinery and Equipment Manufacturing		1								
333131	Mining Machinery and Equipment Manufacturing		1								

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	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
333241	Food Product Machinery Manufacturing		2			4					
333249	Other Industrial Machinery Manufacturing		1								8
333314	Optical Instrument and Lens Manufacturing		4								
333316	Photographic and Photocopying Equipment Manufacturing									2	
333318	Other Commercial and Service Industry Machinery Manufacturing		6	5		1					
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing										2
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipme	3				1				24	
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	1				3					
333519	Rolling Mill and Other Metalworking Machinery Manufacturing		2								
333613	Mechanical Power Transmission Equipment Manufacturing		1								
333912	Air and Gas Compressor Manufacturing		11								

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
333921	Elevator and Moving Stairway Manufacturing		1								
333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing		2								
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing							1	1		
333992	Welding and Soldering Equipment Manufacturing										1
333993	Packaging Machinery Manufacturing		2								
333999	All Other Miscellaneous General Purpose Machinery Manufacturing	1	2							3	
334112	Computer Storage Device Manufacturing		1			1					
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing		5							5	
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	3	3						4	3	
334290	Other Communications Equipment Manufacturing		7			1					1
334310	Audio and Video Equipment Manufacturing		2								
334412	Bare Printed Circuit Board								1		

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
	Manufacturing										
334413	Semiconductor and Related Device Manufacturing	2	17			8		3	5	13	1
334416	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing							1	1		
334417	Electronic Connector Manufacturing									2	
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing		27	1			3	1	1	1	4
334419	Other Electronic Component Manufacturing		4					1		1	6
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing		3					2		7	
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufactu									1	
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industria		2								
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals		1							1	1
334519	Other Measuring and Controlling Device Manufacturing		5			3					1

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
335110	Electric Lamp Bulb and Part Manufacturing		1	1							
335121	Residential Electric Lighting Fixture Manufacturing		3								
335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	1	2								
335129	Other Lighting Equipment Manufacturing		1								
335221	Household Cooking Appliance Manufacturing		3								
335311	Power, Distribution, and Specialty Transformer Manufacturing					1				1	
335312	Motor and Generator Manufacturing		1								
335314	Relay and Industrial Control Manufacturing									2	
335911	Storage Battery Manufacturing	6	29			7		7		2	
335931	Current-Carrying Wiring Device Manufacturing		3								
335991	Carbon and Graphite Product Manufacturing		14			5		3	3		
336111	Automobile Manufacturing	1									
336211	Motor Vehicle Body Manufacturing								1		1
336213	Motor Home Manufacturing	5									
336214	Travel Trailer and Camper			15				2	2		1

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
	Manufacturing										
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing		1								
336390	Other Motor Vehicle Parts Manufacturing	6	6					1	4	9	
336411	Aircraft Manufacturing	15	22			3		7	6	27	
336412	Aircraft Engine and Engine Parts Manufacturing	19	14			5			7	8	
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	9	13	13		3		7	2	11	1
336414	Guided Missile and Space Vehicle Manufacturing		3			3				2	
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing		3			1			2	9	
336611	Ship Building and Repairing		1								
336612	Boat Building										5
337110	Wood Kitchen Cabinet and Countertop Manufacturing		3			1					1
337122	Nonupholstered Wood Household Furniture Manufacturing		1			1			1	1	1
337127	Institutional Furniture Manufacturing		6			1		1		1	
337211	Wood Office Furniture Manufacturing		1						2		4

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	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
337214	Office Furniture (except Wood) Manufacturing		1								
337215	Showcase, Partition, Shelving, and Locker Manufacturing		1								
337910	Mattress Manufacturing									1	4
339112	Surgical and Medical Instrument Manufacturing		5	2		7		3		7	
339113	Surgical Appliance and Supplies Manufacturing			1						1	
339114	Dental Equipment and Supplies Manufacturing		4								
339115	Ophthalmic Goods Manufacturing		2			3				1	
339910	Jewelry and Silverware Manufacturing			2						1	
339930	Doll, Toy, and Game Manufacturing									3	
339940	Office Supplies (except Paper) Manufacturing										1
339950	Sign Manufacturing	1	1					2			
339991	Gasket, Packing, and Sealing Device Manufacturing								1		
339992	Musical Instrument Manufacturing	1	1								
339999	All Other Miscellaneous Manufacturing		16	1		2					19

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
	Total Applications:	431	3//4	1230	42	804	/1	837	202	2921	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	1	4			1				1	
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers		2	4						1	3
423130	Tire and Tube Merchant Wholesalers			1							
423140	Motor Vehicle Parts (Used) Merchant Wholesalers		3					2			
423210	Furniture Merchant Wholesalers		2	1		1				1	1
423220	Home Furnishing Merchant Wholesalers		2					1			
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers			1						1	1
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers		6	5						1	
423410	Photographic Equipment and Supplies Merchant Wholesalers							8		1	
423420	Office Equipment Merchant Wholesalers									1	
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	5	6					1		1	
423440	Other Commercial Equipment Merchant Wholesalers									1	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers		2					3		2	1
423490	Other Professional Equipment and Supplies Merchant Wholesalers					1					
423510	Metal Service Centers and Other Metal Merchant Wholesalers		7			2		1			
423520	Coal and Other Mineral and Ore Merchant Wholesalers									1	
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers		3								1
423690	Other Electronic Parts and Equipment Merchant Wholesalers		3	6						2	
423710	Hardware Merchant Wholesalers		1	1							
423730	Warm Air Heating and Air- Conditioning Equipment and Supplies Merchant Wholesalers									2	
423740	Refrigeration Equipment and Supplies Merchant Wholesalers					1					
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers		3	2						6	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS	NAICS Code Description	Permit to	Permit to	Change	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert	Permit Not
code		Construct	Operate	of Operator						& Registration	Renewed
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers		1								2
423830	Industrial Machinery and Equipment Merchant Wholesalers	2	6			3					2
423840	Industrial Supplies Merchant Wholesalers		2			1		1		4	
423850	Service Establishment Equipment and Supplies Merchant Wholesalers		2	1						1	
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers									1	
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers		6								1
423920	Toy and Hobby Goods and Supplies Merchant Wholesalers			2							
423930	Recyclable Material Merchant Wholesalers	1	9			2		1	2		
423990	Other Miscellaneous Durable Goods Merchant Wholesalers		1			2				2	4
424110	Printing and Writing Paper Merchant Wholesalers	2	1			1				1	
424120	Stationery and Office Supplies Merchant Wholesalers									1	1

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
424130	Industrial and Personal Service Paper Merchant Wholesalers		1								
424210	Drugs and Druggists' Sundries Merchant Wholesalers		9					1		2	1
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers									1	
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers										1
424330	Women's, Children's, and Infants' Clothing and Accessories Merchant Wholesalers		1	1							
424410	General Line Grocery Merchant Wholesalers			1						7	
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers		1			2					
424440	Poultry and Poultry Product Merchant Wholesalers									10	
424450	Confectionery Merchant Wholesalers		2							1	
424470	Meat and Meat Product Merchant Wholesalers		4					1		1	1
424480	Fresh Fruit and Vegetable Merchant Wholesalers		2								1
424490	Other Grocery and Related Products Merchant Wholesalers		5			3		6		1	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
424590	Other Farm Product Raw Material Merchant Wholesalers	3									
424610	Plastics Materials and Basic Forms and Shapes Merchant Wholesalers									1	
424690	Other Chemical and Allied Products Merchant Wholesalers		14	1		6					10
424710	Petroleum Bulk Stations and Terminals		43	1		7	2	4	1		
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)		24	10		3		1		8	
424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers		3								
424910	Farm Supplies Merchant Wholesalers		2							1	
424950	Paint, Varnish, and Supplies Merchant Wholesalers		2	2							1
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers		1					1		3	4
441110	New Car Dealers		16	9		3		1		2	
441120	Used Car Dealers		1	1		1					
441210	Recreational Vehicle Dealers		1								
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers		2	2						1	1

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
441310	Automotive Parts and Accessories Stores		10	2		4				1	1
441320	Tire Dealers		5	1				1		2	2
442110	Furniture Stores		3	1				1		1	4
442210	Floor Covering Stores			1							1
442299	All Other Home Furnishings Stores	1	1							1	1
443141	Household Appliance Stores									1	
443142	Electronics Stores		3							2	
444110	Home Centers		8	17				1	1	1	3
444120	Paint and Wallpaper Stores		1	6							
444130	Hardware Stores		4					1		1	
444190	Other Building Material Dealers		9	2		6					1
444220	Nursery, Garden Center, and Farm Supply Stores	2	11								
445110	Supermarkets and Other Grocery (except Convenience) Stores	3	39	7		6	1			343	13
445120	Convenience Stores	4	55	16	1	3				3	
445291	Baked Goods Stores	1						1		1	
445292	Confectionery and Nut Stores									1	
445299	All Other Specialty Food Stores		6			2		1		2	1
446110	Pharmacies and Drug Stores		5							41	
446120	Cosmetics, Beauty Supplies, and Perfume Stores									1	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
446191	Food (Health) Supplement Stores			2							
447100	Gasoline Stations		1								
447110	Gasoline Stations with Convenience Stores	10	30	31		1	2			1	1
447190	Other Gasoline Stations	7	203	44		3	1	8		1	10
448120	Women's Clothing Stores										1
448140	Family Clothing Stores		1							15	
448150	Clothing Accessories Stores									2	
448190	Other Clothing Stores		1	4							3
448210	Shoe Stores		1								1
448310	Jewelry Stores									1	
448320	Luggage and Leather Goods Stores		12								
451110	Sporting Goods Stores		1					3		1	
451120	Hobby, Toy, and Game Stores									2	1
451130	Sewing, Needlework, and Piece Goods Stores										3
451140	Musical Instrument and Supplies Stores		1							1	
451211	Book Stores		1							2	
452111	Department Stores (except Discount Department Stores)			1						27	
452112	Discount Department Stores									31	
452910	Warehouse Clubs and Supercenters		17			3	20			10	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
452990	All Other General Merchandise Stores		2							19	
453110	Florists		2					1		2	
453220	Gift, Novelty, and Souvenir Stores		1								
453310	Used Merchandise Stores		2								
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)		10	2	3	1		6		9	
454110	Electronic Shopping and Mail- Order Houses			2							
454113	Mail-Order Houses			1				1			
454310	Fuel Dealers	1	10	1							
454390	Other Direct Selling Establishments		2		1					1	
481111	Scheduled Passenger Air Transportation	3							1		
481112	Scheduled Freight Air Transportation		2			3				1	
481211	Nonscheduled Chartered Passenger Air Transportation		1								
482111	Line-Haul Railroads		1					1			1
483212	Inland Water Passenger Transportation		1								
484110	General Freight Trucking, Local		4	5		3				1	1
484121	General Freight Trucking, Long- Distance, Truckload		2					1		2	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
484220	Specialized Freight (except Used Goods) Trucking, Local							1			
485111	Mixed Mode Transit Systems		2							4	
485113	Bus and Other Motor Vehicle Transit Systems		2							2	
485310	Taxi Service				1					1	
485410	School and Employee Bus Transportation		1								
486110	Pipeline Transportation of Crude Oil		7						1		
486210	Pipeline Transportation of Natural Gas		2						2	8	
487990	Scenic and Sightseeing Transportation, Other									2	
488111	Air Traffic Control	4	4				1		5	1	
488119	Other Airport Operations	3	4	19		5				2	1
488190	Other Support Activities for Air Transportation		3							1	
488210	Support Activities for Rail Transportation					1					
488310	Port and Harbor Operations		3						3	2	
488320	Marine Cargo Handling		2	2							
488490	Other Support Activities for Road Transportation		1							1	
488510	Freight Transportation Arrangement		2	4				1		4	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
488999	All Other Support Activities for Transportation		5			1		7	2	2	
491110	Postal Service									2	
492110	Couriers and Express Delivery Services		2								
493110	General Warehousing and Storage		10	5		3		3		5	10
493120	Refrigerated Warehousing and Storage		1			2					
493130	Farm Product Warehousing and Storage		5								
511110	Newspaper Publishers		2						1		1
511130	Book Publishers		15								
511199	All Other Publishers									2	
511210	Software Publishers		1	2							2
512110	Motion Picture and Video Production	1	9	2	2	3		15		16	2
512120	Motion Picture and Video Distribution		1							1	
512191	Teleproduction and Other Postproduction Services		7	2		1					
512199	Other Motion Picture and Video Industries									2	1
515111	Radio Networks			1							
515120	Television Broadcasting		1							2	1
515210	Cable and Other Subscription Programming		3								1
517110	Wired Telecommunications		2	2						9	1

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
	Carriers										
517210	Wireless Telecommunications Carriers (except Satellite)		6					1		6	
517410	Satellite Telecommunications									1	
517911	Telecommunications Resellers		7	1		1				23	
517919	All Other Telecommunications		3	1						6	
518210	Data Processing, Hosting, and Related Services		1	6				1		1	
519120	Libraries and Archives		2					8		9	
519130	Internet Publishing and Broadcasting and Web Search Portals		1					10			
519190	All Other Information Services		1	1							
522110	Commercial Banking		1	1						6	7
522120	Savings Institutions								1	1	
522130	Credit Unions		8	2		1		1		9	
522220	Sales Financing		1	1				1		1	
522291	Consumer Lending		1								
522292	Real Estate Credit				1						
522298	All Other Nondepository Credit Intermediation		1							2	
522310	Mortgage and Nonmortgage Loan Brokers		1	1						1	
522320	Financial Transactions Processing, Reserve, and		1								1

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	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
	Clearinghouse Activities										
522390	Other Activities Related to Credit Intermediation		1							1	
523110	Investment Banking and Securities Dealing									1	
523910	Miscellaneous Intermediation	1	4	3		1				3	1
523920	Portfolio Management									2	
523930	Investment Advice	1	5	1				1		3	1
523991	Trust, Fiduciary, and Custody Activities									2	
524113	Direct Life Insurance Carriers			4						1	
524114	Direct Health and Medical Insurance Carriers							1		3	4
524126	Direct Property and Casualty Insurance Carriers		1	1				1		5	
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers										1
524210	Insurance Agencies and Brokerages			1						4	2
525110	Pension Funds		2					1			
525910	Open-End Investment Funds									1	
531110	Lessors of Residential Buildings and Dwellings	1	19	4	2			13		23	2

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)		12	15				12	1	31	2
531190	Lessors of Other Real Estate Property		2					1		2	1
531210	Offices of Real Estate Agents and Brokers		23	30	2	3		28	1	72	24
531311	Residential Property Managers									1	
531312	Nonresidential Property Managers	1	6	1				17		8	
531390	Other Activities Related to Real Estate		1								
532111	Passenger Car Rental		1	1							7
532112	Passenger Car Leasing										1
532120	Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing		1	1				3			
532220	Formal Wear and Costume Rental		1							1	
532230	Video Tape and Disc Rental	1					1				
532299	All Other Consumer Goods Rental									2	1
532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	1	1			3		1			1
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing			1		4				14	3

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing		13	1				4		4	2
541110	Offices of Lawyers		4	1				2		5	
541213	Tax Preparation Services						1				
541219	Other Accounting Services		1	2				1		3	
541310	Architectural Services									4	
541320	Landscape Architectural Services		7			2				3	
541330	Engineering Services		21	2		5		4		3	6
541380	Testing Laboratories		1							9	
541410	Interior Design Services			1							
541430	Graphic Design Services	1	1								
541490	Other Specialized Design Services										2
541511	Custom Computer Programming Services		2	2						1	1
541512	Computer Systems Design Services		1	5						5	
541513	Computer Facilities Management Services			2							
541519	Other Computer Related Services										1
541611	Administrative Management and General Management Consulting Services		12	52		5	9	2	2	12	3
541613	Marketing Consulting Services						2				
541618	Other Management Consulting Services		27	1		3		2		24	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
541620	Environmental Consulting Services	1	15		1	3		5		22	2
541690	Other Scientific and Technical Consulting Services		10	4	1	6		4		1	8
541711	Research and Development in Biotechnology		4			2		2	1	2	11
541712	Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)		16			1		5		15	4
541720	Research and Development in the Social Sciences and Humanities		1					6		3	
541810	Advertising Agencies	1	2	1						2	4
541820	Public Relations Agencies		1							1	
541850	Outdoor Advertising		2								1
541860	Direct Mail Advertising		2							1	
541890	Other Services Related to Advertising		3								
541910	Marketing Research and Public Opinion Polling							2		2	
541922	Commercial Photography									1	
541930	Translation and Interpretation Services		1								
541940	Veterinary Services		2							1	
541990	All Other Professional, Scientific, and Technical Services		15	2		4	2	3	1	43	28

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
551112	Offices of Other Holding Companies		8	6				3			
561110	Office Administrative Services		6	5		9		6	1	15	7
561210	Facilities Support Services		1	1						64	2
561311	Employment Placement Agencies					2					
561320	Temporary Help Services									1	
561440	Collection Agencies									1	2
561499	All Other Business Support Services		24	8		3		3		20	3
561510	Travel Agencies					1				1	
561599	All Other Travel Arrangement and Reservation Services		1					2		1	
561612	Security Guards and Patrol Services		1								
561621	Security Systems Services (except Locksmiths)		1								2
561622	Locksmiths		1								
561710	Exterminating and Pest Control Services									1	
561720	Janitorial Services		6	5		1				2	6
561730	Landscaping Services		9	3				1			
561740	Carpet and Upholstery Cleaning Services					1					
561790	Other Services to Buildings and Dwellings		7	1							3
561910	Packaging and Labeling Services			19							

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
561920	Convention and Trade Show Organizers		1								1
561990	All Other Support Services	1	19	11		1		7		9	10
562111	Solid Waste Collection			12		4					
562112	Hazardous Waste Collection		2			1		5	1		
562211	Hazardous Waste Treatment and Disposal	14	5	3		5					
562212	Solid Waste Landfill	1	39	1		21	4	50	9	1	2
562213	Solid Waste Combustors and Incinerators							2	2	1	
562219	Other Nonhazardous Waste Treatment and Disposal	1	26			7		3	1	2	
562910	Remediation Services		11			3		1		54	28
562920	Materials Recovery Facilities		31			7		7	1		1
562991	Septic Tank and Related Services		1					3			
562998	All Other Miscellaneous Waste Management Services		18			16					
611110	Elementary and Secondary Schools		27	7		2		15		152	18
611210	Junior Colleges		20		1	2		35	1	9	
611310	Colleges, Universities, and Professional Schools		49	2	1	1		35	4	36	
611519	Other Technical and Trade Schools									4	
611610	Fine Arts Schools		1								
611620	Sports and Recreation Instruction									1	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
611691	Exam Preparation and Tutoring									1	
611699	All Other Miscellaneous Schools and Instruction		1	1						2	
611710	Educational Support Services		1	1						1	
621111	Offices of Physicians (except Mental Health Specialists)		20	6		1		12		17	1
621112	Offices of Physicians, Mental Health Specialists									1	
621210	Offices of Dentists		1	1				1		5	
621310	Offices of Chiropractors									1	
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists		1								
621420	Outpatient Mental Health and Substance Abuse Centers		1	1					1	1	
621491	HMO Medical Centers							2		3	
621492	Kidney Dialysis Centers		1								
621493	Freestanding Ambulatory Surgical and Emergency Centers									1	
621511	Medical Laboratories			1				1		4	
621512	Diagnostic Imaging Centers									1	
621610	Home Health Care Services		1	3				5		2	1
621991	Blood and Organ Banks			1						3	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
621999	All Other Miscellaneous Ambulatory Health Care Services		5		1	1		2		7	
622110	General Medical and Surgical Hospitals		32	7	1	3		13	7	31	6
622210	Psychiatric and Substance Abuse Hospitals									4	
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals									3	
623110	Nursing Care Facilities (Skilled Nursing Facilities)		6	1		1		2		8	5
623220	Residential Mental Health and Substance Abuse Facilities									1	
623311	Continuing Care Retirement Communities		2		1					1	
623312	Assisted Living Facilities for the Elderly		1					3		1	
623990	Other Residential Care Facilities		3							2	
624110	Child and Youth Services		1								
624120	Services for the Elderly and Persons with Disabilities									1	
624190	Other Individual and Family Services		11			1		1		2	2
624230	Emergency and Other Relief Services										1
624410	Child Day Care Services		1					4		3	
711211	Sports Teams and Clubs									2	1

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
711219	Other Spectator Sports		1					1			1
711410	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures		2								
711510	Independent Artists, Writers, and Performers		1			1		1		1	
712110	Museums		2					2		5	
712130	Zoos and Botanical Gardens		1								
713110	Amusement and Theme Parks	6	11					5	3	2	
713910	Golf Courses and Country Clubs		7					1		3	
713920	Skiing Facilities			22		4			1		
713940	Fitness and Recreational Sports Centers		3	7				11		54	4
713990	All Other Amusement and Recreation Industries		1								
721110	Hotels (except Casino Hotels) and Motels		11	11	2			28		34	6
721191	Bed-and-Breakfast Inns										5
722000	Food Services and Drinking Places										1
722310	Food Service Contractors		2			2					
722320	Caterers			2				6		4	3
722330	Mobile Food Services									1	
722410	Drinking Places (Alcoholic Beverages)		1					1		4	3
722511	Full-Service Restaurants		11	12		6		6		50	47

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
722513	Limited-Service Restaurants	2	12	3				2		94	31
722514	Cafeterias, Grill Buffets, and Buffets									1	
722515	Snack and Nonalcoholic Beverage Bars		1							1	
811111	General Automotive Repair	2	25	23		2				1	17
811112	Automotive Exhaust System Repair	1	2								
811118	Other Automotive Mechanical and Electrical Repair and Maintenance	1	8							1	2
811121	Automotive Body, Paint, and Interior Repair and Maintenance	8	100	97	1	16					48
811122	Automotive Glass Replacement Shops		1								
811192	Car Washes		7								2
811198	All Other Automotive Repair and Maintenance		6	4						2	1
811211	Consumer Electronics Repair and Maintenance		9	9		1				1	
811212	Computer and Office Machine Repair and Maintenance		1							5	
811213	Communication Equipment Repair and Maintenance										14
811219	Other Electronic and Precision Equipment Repair and Maintenance		3							2	1

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Mai	3	17			1					1
811412	Appliance Repair and Maintenance		4	9						5	2
811420	Reupholstery and Furniture Repair		5								4
811490	Other Personal and Household Goods Repair and Maintenance		2	1							1
812111	Barber Shops									1	
812112	Beauty Salons		4							1	
812113	Nail Salons									1	
812210	Funeral Homes and Funeral Services	1	6	2							
812220	Cemeteries and Crematories	1	4			2		3		2	
812300	Drycleaning and Laundry Services			1							
812310	Coin-Operated Laundries and Drycleaners		2	1		2					1
812320	Drycleaning and Laundry Services (except Coin-Operated)		63	34		1		1		1	43
812331	Linen Supply	1	6	8				3	2		1
812332	Industrial Launderers		1					3			2
812910	Pet Care (except Veterinary) Services		1								

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
812921	Photofinishing Laboratories (except One-Hour)			1						2	
812930	Parking Lots and Garages									1	
812990	All Other Personal Services		3	2	1					3	
813110	Religious Organizations		6		1			2		12	1
813212	Voluntary Health Organizations		1								
813312	Environment, Conservation and Wildlife Organizations									1	
813410	Civic and Social Organizations		5	1				4		10	2
813910	Business Associations									2	
813920	Professional Organizations		1					1		1	
813990	Other Similar Organizations (except Business, Professional, Labor, and Political Organizations)		1			2				7	3
921110	Executive Offices		24	1	3	1		3		27	6
921120	Legislative Bodies		1							1	1
921130	Public Finance Activities			1						1	
921190	Other General Government Support		9			1		1		8	5
922110	Courts		4					2		20	1
922120	Police Protection		8	1	1			4		15	5
922130	Legal Counsel and Prosecution									3	1
922140	Correctional Institutions	2	3					2		3	7
922150	Parole Offices and Probation		2							7	

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
	Offices										
922160	Fire Protection		6					1		6	
922190	Other Justice, Public Order, and Safety Activities		1							2	
923110	Administration of Education Programs									3	
923120	Administration of Public Health Programs		2							4	
923130	Administration of Human Resource Programs (except Education, Public Health, and Veterans' Affairs P		3							4	
923140	Administration of Veterans' Affairs										1
924110	Administration of Air and Water Resource and Solid Waste Management Programs	4	24					13		6	15
924120	Administration of Conservation Programs		9					6		3	
925110	Administration of Housing Programs										2
925120	Administration of Urban Planning and Community and Rural Development							2		1	
926110	Administration of General Economic Programs									1	
926120	Regulation and Administration of Transportation Programs	5	9		1	2		1		4	6

	Total Applications:	451	3774	1236	42	864	71	857	282	2927	910
NAICS code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	RECLAIM/TV	Area Source/Cert & Registration	Permit Not Renewed
926130	Regulation and Administration of Communications, Electric, Gas, and Other Utilities		2					1			
927110	Space Research and Technology		2						2		
928110	National Security	2	3					8	1	4	
999990	Unclassified	1	19	12	2	1	3	14		40	14

Emission Reduction Credit (ERC) and Short Term Emission Reduction Credit (STERC) Transactions for Fiscal Year 2016-17⁴ (California Health and Safety Code Section 40452)

Pursuant to paragraph (c) of section 40452 of the California Health and Safety Code, this report summarizes data on emission offset transactions and applications, by pollutant, during the previous fiscal year. Note that during Fiscal Year 2016-17, no applications were denied for a permit for a new source for the reason of failure to provide the required emission offsets.

Table 3 summarizes privately held Emission Reduction Credit (ERC) and Short Term Emission Reduction Credit (STERC) transactions for Fiscal Year 2016-17, including totals, by pollutant, of the number of emission offset transactions and the quantity of emission offsets transferred in units of pounds per day and tons per year. Table 4 summarizes ERC banking applications processed during Fiscal Year 2016-17, including the number of newly generated STERCs by pollutant in units of pounds per day and tons per year.

Tables 5 and 6 provide details on the amount of each emission offset transaction and processed ERC banking application respectively.

Table 3: Emission Offset Transactions – Fiscal Year 2016-17

Criteria Pollutant	Numl		sion Offset sactions ⁵	Transfer	Q		Emission Obstacle sferred o/day)	ffsets	Ann	Offsets T	antity of Ei Transferred n/year)	
	ERC	STERC ⁷	STERC ⁸	TOTAL	ERC	STERC ⁴	STERC ⁵	TOTAL	ERC	STERC ⁴	STERC ⁵	TOTAL
ROG	33	7	0	40	395	82	0	477	72.2	14.9	0	87.1
NOX	0	9	0	9	0	18	0	18	0	3.4	0	3.4
SOX	3	0	0	3	47	0	0	47	8.6	0	0	8.6
СО	0	0	0	0	0	0	0	0	0	0	0	0
PM10	0	0	0	0	0	0	0	0	0	0	0	0

Table 4: Emission Offset Applications – Fiscal Year 2016-17

Criteria Pollutant	Number of Banking Applications Resulting in the Issuance of New STERCs ⁹	Quantity of Emission Reductions Achieved (STERCs) ¹⁰ (lb/day)	Annualized Quantity of Emission Reductions Achieved ⁷ (ton/year)
ROG	0	0	0
NOX	0	0	0
SOX	0	0	0
CO	0	0	0
PM10	0	0	0

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⁴ This report does not include RECLAIM Trading Credit (RTC) transactions.

⁵ Includes all emission offset certificates that transferred ownership.

⁶ Includes the total amount of emission offsets transferred.

⁷ STERC transfer transactions including the long term emission offset, those that have an ending year of 9999.

⁸ STERC transfer transactions not including the long term emission offset in which the emission offset with the greatest year is treated like a long term emission offset.

⁹ Includes all emission offset applications resulting in the generation of new certificates.

¹⁰ Includes the total amount of emission offsets generated.

Table 5: Emission Offset Transaction Summary – Fiscal Year 2016-17 Sorted by Pollutant and Amount

Sorted by Pollutant and Amount									
SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	ТҮРЕ	START YEAR	END YEAR			
SC1617-001	ROG	4	0.7	ERC	N/A	N/A			
SC1617-002	ROG	14	2.6	ERC	N/A	N/A			
SC1617-003	ROG	18	3.3	ERC	N/A	N/A			
SC1617-004	ROG	0	0	STERC	2016	2016			
SC1617-005	ROG	0	0	STERC	2017	2017			
SC1617-006	ROG	0	0	STERC	2018	2018			
SC1617-007	ROG	12	2.2	STERC	2019	9999			
SC1617-008	ROG	0	0	STERC	2016	2016			
SC1617-009	ROG	0	0	STERC	2017	2017			
SC1617-010	ROG	0	0	STERC	2018	2018			
SC1617-011	ROG	0	0	STERC	2019	2019			
SC1617-012	ROG	0	0	STERC	2020	2020			
SC1617-013	ROG	4	0.7	STERC	2021	9999			
SC1617-014	ROG	0	0	STERC	2016	2016			
SC1617-015	ROG	0	0	STERC	2017	2017			
SC1617-016	ROG	0	0	STERC	2018	2018			
SC1617-017	ROG	9	1.6	STERC	2019	9999			
SC1617-018	ROG	1	0.2	ERC	N/A	N/A			
SC1617-019	ROG	0	0	STERC	2016	2016			
SC1617-020	ROG	0	0	STERC	2017	2017			
SC1617-021	ROG	0	0	STERC	2018	2018			
SC1617-022	ROG	6	1.1	STERC	2019	9999			
SC1617-023	ROG	11	2	ERC	N/A	N/A			
SC1617-024	ROG	19	3.5	ERC	N/A	N/A			
SC1617-025	ROG	4	0.7	ERC	N/A	N/A			
SC1617-026	ROG	11	2	ERC	N/A	N/A			
SC1617-027	ROG	0	0	STERC	2016	2016			
SC1617-028	ROG	0	0	STERC	2017	2017			
SC1617-029	ROG	0	0	STERC	2018	2018			
SC1617-030	ROG	45	8.2	STERC	2019	9999			
SC1617-031	ROG	1	0.2	ERC	N/A	N/A			
SC1617-032	ROG	3	0.5	ERC	N/A	N/A			
SC1617-033	ROG	4	0.7	ERC	N/A	N/A			
SC1617-034	ROG	10	1.8	ERC	N/A	N/A			
SC1617-035	ROG	7	1.3	ERC	N/A	N/A			
SC1617-036	ROG	1	0.2	ERC	N/A	N/A			
SC1617-037	ROG	0	0	STERC	2016	2016			
SC1617-038	ROG	0	0	STERC	2017	2017			
SC1617-039	ROG	0	0	STERC	2018	2018			
SC1617-040	ROG	5	0.9	STERC	2019	9999			
SC1617-041	ROG	0	0	STERC	2016	2016			
SC1617-042	ROG	0	0	STERC	2017	2017			

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	ТҮРЕ	START YEAR	END YEAR
SC1617-043	ROG	0	0	STERC	2018	2018
SC1617-044	ROG	1	0.2	STERC	2019	9999
SC1617-045	ROG	70	12.8	ERC	N/A	N/A
SC1617-046	ROG	10	1.8	ERC	N/A	N/A
SC1617-047	ROG	6	1.1	ERC	N/A	N/A
SC1617-048	ROG	3	0.5	ERC	N/A	N/A
SC1617-049	ROG	1	0.2	ERC	N/A	N/A
SC1617-050	ROG	20	3.7	ERC	N/A	N/A
SC1617-051	ROG	1	0.2	ERC	N/A	N/A
SC1617-052	ROG	1	0.2	ERC	N/A	N/A
SC1617-053	ROG	5	0.9	ERC	N/A	N/A
SC1617-054	ROG	1	0.2	ERC	N/A	N/A
SC1617-055	ROG	17	3.1	ERC	N/A	N/A
SC1617-056	ROG	35	6.4	ERC	N/A	N/A
SC1617-057	ROG	1	0.2	ERC	N/A	N/A
SC1617-058	ROG	12	2.2	ERC	N/A	N/A
SC1617-059	ROG	4	0.7	ERC	N/A	N/A
SC1617-060	ROG	6	1.1	ERC	N/A	N/A
SC1617-061	ROG	4	0.7	ERC	N/A	N/A
SC1617-062	ROG	19	3.5	ERC	N/A	N/A
SC1617-063	ROG	71	13	ERC	N/A	N/A
Total		477	87.1	_	N/A	

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	ТҮРЕ	START YEAR	END YEAR
SC1617-064	NOX	6	1.1	STERC	2016	9999
SC1617-065	NOX	3	0.5	STERC	2016	9999
SC1617-066	NOX	2	0.4	STERC	2016	9999
SC1617-067	NOX	2	0.4	STERC	2016	9999
SC1617-068	NOX	1	0.2	STERC	2016	9999
SC1617-069	NOX	1	0.2	STERC	2016	9999
SC1617-070	NOX	1	0.2	STERC	2016	9999
SC1617-071	NOX	1	0.2	STERC	2016	9999
SC1617-072	NOX	1	0.2	STERC	2016	9999
Total		18	3.4		N/A	

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	ТҮРЕ	START YEAR	END YEAR
SC1617-073	SOX	1	0.2	ERC	N/A	N/A
SC1617-074	SOX	26	4.7	ERC	N/A	N/A
SC1617-075	SOX	20	3.7	ERC	N/A	N/A
Total		47	8.6		N/A	

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	ТҮРЕ	START YEAR	END YEAR
N/A	CO		No	Records		
Total		0	0	N/A		

SC	CAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	ТҮРЕ	START YEAR	END YEAR
	N/A	PM10	No Records				
	Total		0	0	N/A		

Table 6: Emission Offset Application Summary – Fiscal Year 2016-17 Sorted by Pollutant and Amount

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	ТҮРЕ	START YEAR	END YEAR	
No Banking Application Approved during Fiscal Year 2016-2017							
Т	N/A	N/A		N/A			

CHAPTER III FISCAL YEAR 2018-2019 BUDGET

[Attached herein as Chapter III]

Due to the bulk of these materials, Chapter III is available online at http://www.aqmd.gov/docs/default-source/LPA-Outreach/sb-1928-report-to-legislature-july-2018.pdf?sfvrsn=8. Anyone who would like to obtain a hard copy may do so by contacting SCAQMD's Public Information Center at (909) 396-2001.

CHAPTER IV CLEAN FUELS PROGRAM 2017 ANNUAL REPORT AND 2018 PLAN UPDATE

[Attached herein as Chapter IV]

Due to the bulk of these materials, Chapter IV is available online at http://www.aqmd.gov/docs/default-source/LPA-Outreach/sb-1928-report-to-legislature-july-2018.pdf?sfvrsn=8. Anyone who would like to obtain a hard copy may do so by contacting SCAQMD's Public Information Center at (909) 396-2001.

CHAPTER V ANNUAL RECLAIM AUDIT REPORT FOR 2016 COMPLIANCE YEAR

[Attached herein as Chapter V]

Due to the bulk of these materials, Chapter V is available online at http://www.aqmd.gov/docs/default-source/LPA-Outreach/sb-1928-report-to-legislature-july-2018.pdf?sfvrsn=8. Anyone who would like to obtain a hard copy may do so by contacting SCAQMD's Public Information Center at (909) 396-2001.