

**2016 Annual Report to the Governor and Legislature  
on the California Air Resources Board's  
Expenditure of Fees on Nonvehicular Sources,  
Consumer Products, and Architectural Coatings  
for Fiscal Year 2015-2016**

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# **2016 Annual Report to the Governor and Legislature on the California Air Resources Board's Expenditure of Fees on Nonvehicular Sources, Consumer Products, and Architectural Coatings for Fiscal Year 2015-2016**

## **Introduction**

The California Clean Air Act, Assembly Bill (AB) 2595 (Sher, Chapter 1568, Statutes of 1988), requires attainment of State ambient air quality standards by the earliest practicable date. As part of that mandate, the California Air Resources Board (CARB or the Board) and the local air quality and air pollution control districts (air districts) are directed to reduce air pollution from motor vehicles, industrial facilities, and other sources of emissions. CARB has primary responsibility for control of air pollution from vehicular sources and consumer products, while air districts have primary responsibility for control of other, non-vehicular sources of pollution, such as stationary sources (Health and Safety Code Section 39002).

Health and Safety Code Sections 39612 and 39613 further authorize CARB to assess fees on stationary sources and manufacturers of consumer products and architectural coatings in order to recover the costs of CARB programs related to these sources. The facilities subject to the nonvehicular fees are those authorized by an air district to emit 250 tons or more per year of an air pollutant that forms ozone or particulate matter. The fees for consumer products and architectural coatings apply to manufacturers with total sales in California that result in 250 tons per year or more of volatile organic compound (VOC) emissions. Section 39612(g) of the Health and Safety Code also requires CARB to report to the Governor and the Legislature annually on the expenditure of the fees collected.

For fiscal year 2015-2016, CARB staff collected approximately \$21.6 million in consumer product, architectural coatings, and stationary source fees to partially fund program expenditures. The fees allow CARB to fulfill responsibilities as California's designated air pollution control agency for all purposes set forth in federal law, as specified in Health and Safety Code Section 39602. These responsibilities include setting air quality standards, monitoring air pollutants, developing air pollution emission inventories, conducting research into the causes of and solutions to air pollution, and coordinating efforts to attain and maintain health-based ambient air quality standards. This report provides information on program activities that were funded by fiscal year 2015-2016 fees authorized by Health and Safety Code Sections 39612 and 39613.

## Fiscal Year 2015-2016 Fee Collections

CARB staff prepares fee invoices (determinations) pursuant to Sections 90800.8(c) and (d) of the Nonvehicular Source, Consumer Products, and Architectural Coatings Fee Regulations (California Code of Regulations, title 17, Sections 90800.8-90806) (Fee Regulation). The Board has approved two adjustments made to each fiscal year's fee determinations pursuant to Section 90800.8(c)(6) of the Fee Regulation. The first is a three percent adjustment amount (Section 90800.8(c)(2) of the Fee Regulation) to allow for recovery of unforeseen reductions in funds collected each fiscal year due to unexpected business closures and bankruptcies. CARB staff has determined from experience that a three percent upward adjustment is needed to account for potential collection shortfalls, which adds about \$600,000 to fee determinations when the needed revenues are \$20 million. Staff may make a second adjustment to the current fiscal year's fee determinations if there is a carry-over balance, as defined in Section 90800.8(c)(3) of the Fee Regulation, from the amount collected in the previous fiscal year in excess or below the authorized revenues for that fiscal year.

Total funds collected each year may also fluctuate depending upon business closures and bankruptcies, loss of fee payers when emissions fall below applicable thresholds, addition of newly identified fee payers, changes in fee payers' emissions, or other factors. A carry-over balance may occur with either a low or high rate of collection. Any excess funds collected in a given fiscal year are carried over to reduce the total fee determinations for the next fiscal year, and any under-collection of fees are added to the total fee determination for the next fiscal year.

Fee collections for fiscal year 2015-2016 are shown in Table 1 below, totaling about \$21.6 million. The amount over \$20 million collected in fiscal year 2015-2016 reflects an over-collection that will result in an equivalent discounting of fees assessed for the following fiscal year 2016-2017.

**Table 1:**

**Fees Collected for Fiscal Year 2015-2016**

<b>Activities</b>	<b>Fees Collected</b>
Facilities	\$12,410,159.70
Consumer Products and Architectural Coatings	\$9,230,495.40
<b>Total Collected</b>	<b>\$21,640,655.10</b>

## Major Activities Funded by the Fees

The fees collected by this program are used in part to implement requirements related to attainment of State and federal air quality standards. The federal Clean Air Act (42 U.S.C. sec. 7401 et seq.), administered by the United States Environmental Protection Agency (U.S. EPA), sets national ambient air quality standards for the nation. In order to demonstrate attainment of federal air quality standards, CARB must develop, maintain and update emission inventories; evaluate air quality trends and indicators; and conduct sophisticated air quality modeling. The planning effort culminates with adoption of State and local measures, included in local Air Quality Management Plans and the State Implementation Plan (SIP), that commit to achievement of emission reductions needed to demonstrate attainment. The success of these efforts is evident in the air quality progress seen across the State. Today, more than 20 million people live in communities with air quality that meet current federal standards. This improved air quality provides significant health and economic benefits, including fewer premature deaths for people with preexisting heart and lung disease; reduced hospital admissions; and reduced emergency room visits. This report provides an overview of key CARB programs funded through the fees authorized by Health and Safety Code Sections 39612 and 39613 that have helped California to achieve these air quality improvements.

### Research

CARB conducts research to improve understanding of the causes and effects of air pollution, as well as innovative, new air pollution control strategies, enables CARB to identify emerging air quality challenges and develop cost-effective, science-based strategies for reducing air pollution and protecting public health. This research supports intelligent and efficient implementation of CARB's consumer products and stationary source programs by identifying potential health and atmospheric impacts of the diversity of existing and new VOCs. In addition, research efforts also evaluate the interaction between greenhouse gases, air toxics, and criteria pollutants to understand the potential co-benefits of policies and programs addressing these pollutants. Below are some examples of VOC-related research projects conducted or funded by CARB:

- Investigators at The University of California (UC), Berkeley, completed follow-up analyses of VOC data from a previous CARB-funded study of environmental exposures in daycare centers. The investigators further analyzed the 38 known VOCs identified in the original study and also identified 119 "unknown" peaks in the original chromatographs and assessed their known or potential health impacts. Based on health and exposure considerations, 12 compounds were recommended for further study, including several terpenes, fragrance compounds, and siloxanes.
- CARB Indoor Air Quality staff evaluated the use of the ConsExpo model to better determine the impacts of 1-chloro-3,3,3-trifluoropropene (HFO 1233zd) and aminomethyl propanol (AMP) on indoor air quality and personal exposures. The two compounds are under consideration for exemption from the VOC definition in CARB's Consumer Products Regulation due to their potentially low reactivity.

- UC Davis, in collaboration with the California Institute of Technology initiated a study entitled “Improving Chemical Mechanisms for Ozone and Secondary Organic Carbon” in February 2013. Two primary objectives of this study are to:
  - 1) extend the Statewide Air Pollution Research Center chemical mechanisms to allow for prediction of secondary organic aerosol (and ultimately, fine particulate matter) formation; and
  - 2) refine understanding of the reactivity (and therefore ozone forming potential) of a diversity of VOCs. This project is expected to be completed in March 2017.
- UC Riverside completed a study entitled “Air Quality Impacts of Low Vapor Pressure-Volatile Organic Compounds (LVP-VOCs)” in December 2016. This study utilized laboratory and environmental chamber experiments to identify relative volatility and other key parameters of several low vapor pressure VOCs used in consumer products, in order to determine the ozone and secondary organic aerosol formation potential of these compounds. More information regarding this [project](https://www.arb.ca.gov/research/single-project.php?row_id=65165) can be found at: [https://www.arb.ca.gov/research/single-project.php?row\\_id=65165](https://www.arb.ca.gov/research/single-project.php?row_id=65165).

These and other projects funded in fiscal year 2015-2016 provide CARB with the technical foundation to identify and implement cost-effective and health-protective strategies for meeting State and federal ambient air quality standards.

### **Air Quality Monitoring**

Air monitoring field operations and the laboratory play key roles in efforts used to measure progress towards attainment of the State and federal ambient air quality standards for criteria pollutants and reduction of toxic air contaminants. Field operations include real-time ambient air quality measurements of gaseous pollutants and particulate matter (PM). Analytical services provided by the laboratory support PM mass analysis, PM chemical speciation, and toxic air contaminant analysis (e.g. metals, VOCs, and carbonyls) from samples collected throughout the State’s air quality monitoring network. Air quality data generated by field and laboratory operations are submitted to U.S. EPA’s Air Quality System (AQS) database for public record. Combined, the field operation and laboratory annually submit over two million hourly measurements and 425,000 sample results to AQS, respectively, from over 250 air monitoring stations located throughout California and Northern Mexico.

CARB’s Aerometric Data Analysis and Management System (ADAM) and Air Quality and Meteorological Information System (AQMIS) provide official and preliminary air quality and meteorological data and statistics to the public via the Internet. The data and statistics for criteria pollutants, toxics, and speciation profiles for particulate matter are part of the foundation from which intelligent air quality strategies are developed. ADAM provides official air quality statistics on the iADAM website and the data are regularly updated from the U.S. EPA’s AQS. AQMIS is a web-based source with automated quality assurance for real-time air quality and meteorological data. Official ADAM data replace preliminary AQMIS data on the AQMIS website. AQMIS provides a hybrid of preliminary and official data which can be downloaded.

AQMIS is also used for smoke management and air pollution forecasting. In addition, near real-time monitoring data for ozone and particulate matter of 2.5 microns diameter or less (PM<sub>2.5</sub>) is publicly available on Breathewell, a mobile website. Finally, Today's Air Quality Index forecast monitors and provides public information regarding air quality conditions by zip code or states.

These data collection efforts also support air quality emergency response for events such as wildfires and industrial releases. CARB's Office of Emergency Response (OER) also provides a wide selection of specialized equipment for use in emergency events. This equipment includes PM monitors, as well as gas analyzers, meteorological sensors, and plume modeling software. These are all utilized to aid both first responders and the surrounding community in the event of an air emergency.

In addition to CARB's robust on-going air quality monitoring program, CARB also provided air districts and other public agencies with monitoring equipment during fourteen wildfires during fiscal year 2015-2016. This included deployment of PM<sub>2.5</sub> monitors to help the public to better understand their exposure to fine particulate matter. This data is reported on a real time basis during emergencies to the U.S. EPA [AirNow](http://www.airnow.gov) database ([www.airnow.gov](http://www.airnow.gov)) and is available along with regulatory data to inform the public during wildfire emergencies.

## **Emissions Inventories**

CARB compiles and maintains a detailed and comprehensive inventory of air pollution sources and their emissions. These inventories of criteria pollutants and their precursors provide the technical foundation for air quality modeling of future year emissions needed to demonstrate attainment of health-based air quality standards, and form the basis for air quality planning and regulatory development processes. Emission estimates are refined and updated regularly to reflect updated emission estimation methodologies and the phasing-in of applicable new emission reduction requirements. CARB routinely publishes comprehensive emission inventories for all California air basins, conducts air district training, and implements website improvements to facilitate public access to emissions data. Similarly, CARB staff has provided technical support for air districts in identifying and addressing sources of pollution impacting local communities, including those disproportionately impacted by poor air quality. In fiscal year 2015-2016, CARB completed the emission inventory improvements identified below.

8-Hour Ozone SIP. CARB staff continued the development and refinement of emission inventories that, along with air quality monitoring and air quality modeling, provide the technical foundation for the SIP attainment demonstrations for the federal 8-hour [75 part per billion (ppb)] ozone standard due to U.S. EPA in 2016. CARB, along with air districts and other stakeholders, refined SIP base and future year emission estimates based upon the latest technical information. This included updating the district rule-specific control profiles, evaluating and updating the growth factors to reflect the latest socioeconomic forecasts associated with specific source

categories, and other emissions inventory improvements. CARB expects to release the 2016 Proposed State Strategy for the SIP and present to the Board in 2017.

San Joaquin Valley PM2.5 SIP. During fiscal year 2015-2016, CARB staff developed base and future year emission inventories for PM2.5 and its precursors in support of the San Joaquin Valley Air Pollution Control District integrated annual and 24-hour PM2.5 SIP that was due in late 2017. This inventory reflects the most current emission estimates available from facility reports, areawide emission data, and mobile source models, growth and control profile updates incorporated into the 8-hour ozone SIP inventories, and use of state-of-the art inventory development methodologies. CARB staff worked directly with San Joaquin Valley Air District staff on assessing Valley for emission levels and the needed reductions in the development of their air quality plans attaining the federal 8-hour ozone standard and the PM2.5 standards.

Consumer Products Survey.

In fiscal year 2015-2016, CARB staff continued implementing the Consumer and Commercial Products Survey (Survey) for calendar years 2013, 2014, and 2015. This comprehensive survey generated updated product sales and ingredient data from nearly 300,000 consumer products sold in California from thousands of manufacturers. Data derived from this survey will be used to update the consumer products VOC emission inventory and inform future rulemaking efforts. An accurate and up-to-date inventory of VOC emissions from consumer products, including VOC reactivity and toxicity information, will inform the regulatory efforts CARB staff undertakes to meet its 2016 State Strategy consumer product VOC reduction commitment of 1-2 tons per day (tpd) by 2023 and 4-5 tpd by 2031 in the South Coast Air Basin, and 8-10 tpd statewide by 2031.

As part of the Survey, companies were required to submit sales, labels, and detailed formulations for all consumer products sold in California.

**Why Survey Consumer Products?**

The California Clean Air Act requires CARB to adopt regulations to achieve the maximum feasible reduction in VOCs emitted by consumer products. Ground level ozone, or smog, is formed when VOCs evaporate and react with oxides of nitrogen (NOx), a product of combustion, in the presence of sunlight. While each person's detergents, cleansers, hairsprays, lubricants, glues and other consumer products may not be a significant source of smog-forming emissions, cumulatively, these common household products are one of the greatest sources of VOC emissions in California. After years of reductions in response to CARB control measures, reactive VOC emissions from consumer products are projected to increase in the years ahead as the State's population continues to grow. Understanding these products' sales and characteristics via this survey enables CARB to devise effective strategies to address emission growth and improve air quality.

The following Survey activities occurred in fiscal year 2015-2016:



- Manufacturer on-line reporting of products sold in 2014 occurred between July 1, 2015 and November 1, 2015, while data reporting for 2015 opened on July 1, 2016, with product information due by November 1, 2016.
- CARB staff assisted manufacturers and product formulators with on-line data submittals, and held two recorded webinars attended by over 900 companies. In August 2015, data summaries listing the participating responsible parties for the 2013 Survey were released.
- A chemical list and VOC assignments for the 2013 Survey were released in February 2016.

Architectural Coatings Survey. CARB also implemented an architectural coatings survey during fiscal year 2015-2016. Architectural coatings manufacturers were required to submit California sales and ingredient data for 2014 to CARB by May 1, 2015. During fiscal year 2015-2016, CARB staff assisted a diversity of architectural coatings companies and product formulators in completing the 2014 survey. The information collected in the survey will be used to help CARB track the VOC emitted by architectural coatings in California, and to ensure future potential regulations are based upon the latest product population data and formulations. CARB has also provided regulatory and policy guidance through the development of a Suggested Control Measure for Architectural Coatings (for use by air districts) that was first adopted in 1977, and was amended in 1985, 1989, 2000, and 2007. For more information on the both the [consumer product and architectural coatings surveys](http://www.arb.ca.gov/coatings/arch/survey/2014/2014survey.htm), visit: [www.arb.ca.gov/coatings/arch/survey/2014/2014survey.htm](http://www.arb.ca.gov/coatings/arch/survey/2014/2014survey.htm).

### **Identifying, Assessing, and Mitigating the Transport of Air Pollutants**

The identification, assessment, and mitigation air pollutant transport from one region to another are important elements of CARB's efforts to attain State and federal air quality standards. Understanding the nature and impact of air pollution transported within California (typically from coastal to inland regions) informs a broad spectrum of CARB activities, including updates to district attainment designations, and development of attainment plans, control strategies, and mitigation requirements.

The ability to address transport impacts has improved significantly in the last few years due to the use of new highly sophisticated photochemical models, new data analysis techniques, and state of the art air quality studies conducted by the National Aeronautics and Space Administration and other researchers. CARB now uses these photochemical models combined with the latest air quality studies to develop comprehensive federal air quality plans, which consider the role of transport in determining the needed emission controls. Comprehensive photochemical modeling work conducted in fiscal year 2015-2016 has further refined the understanding of transport, and underlies the SIP attainment demonstration for the 75 ppb federal standard. A related CARB study helped to characterize the impacts of conditions aloft on surface air quality, further improving CARB's modeling of ozone concentrations in

the San Joaquin Valley, and expanding the technical ability to identify regional and international transport impacts from aloft conditions.

CARB is responsible for assessing the relative transport contribution of ozone and/or ozone precursors between air districts and for establishing mitigation requirements. CARB first adopted transport mitigation requirements for air districts in 1990 based on an analysis of transport relationships between districts. These relationships have subsequently been updated several times. CARB regulations identify transport couples consisting of an upwind area (source of transported emissions), the corresponding downwind area (receptor of transported emissions), and the required mitigation requirements. Identified upwind air districts have been implementing mitigation requirements, identified in their State triennial ozone plan update submittals to CARB, for over two decades.

In addition, the federal Clean Air Act includes “interstate transport” provisions, which require states to develop Infrastructure SIPs that assess and address impacts of pollution in downwind states that may originate in upwind states. In recent years, U.S. EPA has strengthened health-based air quality standards for PM<sub>2.5</sub>, sulfur dioxide, and ozone. The updates to these standards triggered a requirement that California assess its pollutant contributions to areas in other states with poor air quality. In December 2015, the Board approved an Infrastructure SIP revision that demonstrates California does not significantly contribute to downwind concentrations of PM<sub>2.5</sub>, sulfur dioxide, and ozone. This interstate transport SIP was submitted to U.S. EPA in January 2016.

Finally, CARB also conducted the California Baseline Ozone Transport Study (CABOTS) field measurement campaign between May and August 2016 to better understand the spatial and temporal variations in baseline ozone entering California and its effect on surface air quality. The data will also help to refine our understanding of the contribution of global background ozone relative to California emissions on air quality in downwind states.

## **Rule Development and Implementation**

*Nonvehicular Sources.* A provision of the California Clean Air Act requires air districts in nonattainment for State air quality standards to adopt reasonably available control technology (RACT) and best available retrofit control technology (BARCT) rules to reduce emissions from existing stationary sources. While the California Clean Air Act does not define RACT, for existing sources RACT is generally considered to be those emission limits that would result from the application of demonstrated technology to reduce emissions. BARCT is defined in the Health and Safety Code Section 40406, but applicable statewide in this case, as “an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.” The Health and Safety Code Section 40918(a)(2), requires nonattainment areas that are classified as moderate for the State ozone standard to include in their attainment plan the use of RACT for all existing stationary sources, and BARCT for existing stationary sources

permitted to emit 5 tons or more per day or 250 tons or more per year of nonattainment pollutants or their precursors. This requirement applies to the extent necessary to achieve standards by the earliest practicable date.

Since enactment of the California Clean Air Act in 1988, CARB has developed stationary source control measures for direct administration by CARB or for adoption and implementation by air districts. CARB's RACT/BARCT determinations aid air districts in developing regulations to attain and maintain the state ambient air quality standards. The RACT/BARCT determinations also have incorporated metrics of cost-effectiveness in selecting appropriate levels of emission control, and promote consistency of controls for similar emission sources among districts with the same air quality attainment designations.

CARB and the California Air Pollution Control Officers Association also maintain technical evaluation documents and a database of BACT decisions for use in the permitting of new stationary sources. This clearinghouse identifies source categories and the most stringent performance standards adopted by air districts, as well as information on the most stringent PM regulations adopted by CARB and air districts for a spectrum of stationary, area, and mobile source categories. These control equipment and emission limit specifications serve as the basis for identifying the next round of cost-effective stationary source regulations to be considered by air districts when air quality plans are upgraded to meet State air quality standards. These requirements are periodically updated through the collaborative efforts of CARB and air districts via the rule review process, including analyses of cost-effectiveness and emission reduction potential for current emission control technologies. For more information on CARB's [RACT/BARCT](#) technical evaluations, visit: [www.arb.ca.gov/ractbarc/ractbarc.htm](http://www.arb.ca.gov/ractbarc/ractbarc.htm) or [www.arb.ca.gov/bact/docs/ssrcalifornia.htm](http://www.arb.ca.gov/bact/docs/ssrcalifornia.htm).

Consumer Products. In fiscal year 2015-2016, CARB staff continued implementation of flexibility provisions within the consumer product regulations geared to drive development of innovative, lower-emitting consumer products. CARB's Alternative Control Plan (ACP) Regulation for Consumer Products and Aerosol Coating Products (California Code of Regulations, title 17, Sections 94540 – 94555) provides participating manufacturers with regulatory flexibility by allowing a product with VOC content above the VOC standard to be offset by a product with emissions below the standard. CARB's Innovative Product Exemption (IPE) provisions, on the other hand, allow for a product that exceeds the applicable VOC limit, yet results in less VOC emissions compared to a "representative consumer product" of the same product category. Such a product may result in lower emissions than a representative product due to special features such as a more efficient application technique, a greater percentage of active ingredients, or more effective active ingredients. Both the ACP and IPE programs provide manufacturer flexibility, while encouraging innovation to develop products that emit significantly lower VOC than currently required.

CARB also continued to respond to manufacturer requests for product determinations and charcoal lighter material certification applications. Manufacturers often request an official CARB product determination for products with multiple, vague, or unclear

potential uses in order to clarify how the product is defined for regulatory purposes, and the applicable VOC limit. CARB consumer product implementation, enforcement, legal, and laboratory personnel evaluate the product label, formulation, and applicable regulatory definitions in making these determinations. CARB also annually certified hundreds of charcoal lighter materials (CLM), such as lighter fluid and charcoal briquettes, to ensure they meet the applicable VOC limits of 0.02 pounds of VOC emissions per start.

In addition, limits for Aerosol Paint Thinners and Aerosol Multipurpose Solvents of 10 percent VOC by weight, adopted by the Board in September 2013, became legally effective on January 1, 2016. These lower limits achieve approximately 0.10 tpd VOC reductions in 2017. The [September 2013 rulemaking documents](http://www.arb.ca.gov/consprod/regs/regs.htm) are available at: [www.arb.ca.gov/consprod/regs/regs.htm](http://www.arb.ca.gov/consprod/regs/regs.htm).

Finally, CARB staff works closely with manufacturers, consultants, research institutions, and other regulatory agencies, such as the U.S. EPA, the California Department of Toxic Substances Control (DTSC), and California air districts to drive development and implementation of effective, health-protective consumer products regulations. For example, as part of CARB's participation in the Leadership Council for the California Green Chemistry Initiative, staff continued to provide input on proposals released by DTSC for its work on Safer Consumer Products Alternatives regulations. The Safer Consumer Products program strives to reduce harmful chemicals in products used by consumers in California.

## **Enforcement**

*Nonvehicular Sources.* CARB's enforcement team provides training regarding CARB regulations to regulated entities, assists air districts with inspections of stationary sources, investigates complaints, issues notices of violations, evaluates air district variances for compliance with statutory requirements, obtains and analyzes evidence to determine the date of onset, cause, and extent of violation of air pollution regulations, and reviews air district rules for enforceability.

In fiscal year 2015-2016, CARB enforcement personnel:

- provided enforcement assistance to air districts and other local and regional environmental agencies;
- responded to air pollution complaints;
- conducted investigations, and referred them to other agencies when appropriate;
- reviewed all air district hearing board orders for compliance with Health and Safety Code requirements;
- enforced the composite wood products regulations;
- gathered and analyzed data from emission monitoring devices required by air districts at stationary sources;
- reviewed air district rules for enforceability, compliance with State laws, clarity, and accuracy; and

- developed a variety of practical, rule-specific publications that describe source processes and emission control equipment, clarify rule requirements, identify compliance issues, and promote self-regulation.

*Consumer Products and Architectural Coatings.* CARB's laboratory plays a critical role in ensuring manufacturers comply with CARB's consumer products regulations. CARB staff conducts laboratory analyses of products selected and submitted by CARB's enforcement team to determine compliance with the applicable VOC and aromatic compound limits, and chlorinated solvent prohibitions. During fiscal year 2015-2016, CARB enforcement staff collected over 700 samples of household and institutional consumer products for laboratory analysis. Sample selections focused on automotive specialty products, hair styling products, lubricants, paint thinners, solvents, and imported products. The laboratory results for approximately 420 samples indicated that multiple products may have exceeded the VOC limits.

As a result of these investigations, CARB issued 33 notices of violation during the fiscal year. After conducting office conferences, CARB staff worked to resolve the enforcement cases through administrative or civil actions. During the fiscal year, staff settled 44 cases involving hair styling products, air fresheners, nail polish removers, and general purpose degreasing products. The \$2,894,518 in penalties collected helped to mitigate more than 250 tons of excess emissions resulting from these violations. Some significant cases involved substantial sales of non-compliant general purpose cleaners, windshield washer fluid products, multi-purpose solvents, and hair styling products. Enforcement Division staff worked alongside CARB attorneys to settle each case. The [annual enforcement report](https://ww2.arb.ca.gov/resources/documents/enforcement-reports) can be found at: <https://ww2.arb.ca.gov/resources/documents/enforcement-reports>.

Finally, CARB's laboratory staff also conducted special studies involving:

- evaluation of solvents per the analysis of ketones in aerosol coatings;
- analysis of hydrocarbon/aromatic solvents;
- analysis of acetates in aerosol coatings;
- evaluation of test method applicability for analysis of several new and proposed categories of consumer products;
- revision of propellant analytical methods to include additional analyses; and
- development of analytical methods to support enforcement of lower VOC limits.

These and other ongoing studies help ensure the most up-to-date science and analytical processes are used to evaluate continuously evolving consumer product formulations and maximize consumer product regulatory compliance.

### **Identifying Indicators to Assess Air Quality Progress**

State law directs CARB to develop air quality indicators that can be used to measure progress towards the attainment of State ozone air quality standards. CARB developed indicators for assessing peak ozone concentration and exposure. These indicators are used for assessing progress in State triannual ozone plans proposed by

air districts. Because 8-hour ozone concentrations drive the State attainment status, CARB developed a calculation procedure and is now providing 8-hour population weighted and area weighted exposure indicators for State triennial ozone plan updates. [Air quality data](http://www.arb.ca.gov/adam/) can be viewed at: <http://www.arb.ca.gov/adam/>. A real-time air quality database is also available, which is an important tool that allows the public and air districts to continually track and measure progress. [Real-time air quality data](http://www.arb.ca.gov/aqmis2/aqmis2.php) are available at: <http://www.arb.ca.gov/aqmis2/aqmis2.php>.

CARB staff has developed other indicators to illustrate and evaluate progress towards both State and federal standards. These include air quality contour maps, which have been used to evaluate how the spatial extent of elevated concentrations has been reduced over time. In addition, CARB staff completes weight of evidence assessments to corroborate air quality modeled responses to emission reductions in the SIP. Finally, CARB staff conducted in-depth assessments of air quality trends in the South Coast and San Joaquin Valley, Coachella Valley, Western Mojave Desert, Ventura County and the Sacramento region in order to evaluate progress and better understand future emission control needs.

## **History of the Fee Program**

As originally enacted in 1988, Health and Safety Code Section 39612 authorized CARB to assess fees on nonvehicular sources (i.e., facilities) that were allowed by air district permits to emit 500 tons or more per year of any air pollutant that forms ozone or particulate matter.

In 1989, the Board approved the California Clean Air Act Nonvehicular Source Fee Regulation (Nonvehicular Source Fee Regulation). The original regulation included the fee rate and amounts to be remitted to CARB by the air districts for the first year of the program, fiscal year 1989-1990. In subsequent years, the Board approved amendments to the Nonvehicular Source Fee Regulation identifying the amount of fees to be collected by each air district for the following fiscal year. To streamline the process, in 1998 the Board approved amendments that established a process whereby CARB's Executive Officer assesses the fees administratively.

In 2003, the Legislature enacted AB 10X (Oropeza, Chapter 1, Statutes of 2003), which amended Health and Safety Code Section 39612 and added Health and Safety Code Section 39613. The changes to Health and Safety Code Section 39612, included: (1) increasing the cap on facilities fees from \$3 million to \$13 million, and allowing the fees to be adjusted annually thereafter for inflation; (2) expanding the universe of facilities subject to the fees by specifying that the fees are to be collected from facilities authorized by air district permits to emit 250 tons (instead of the previous 500 tons) or more per year of any air pollutant that forms ozone or particulate matter; and (3) authorizing CARB to collect the fees directly from all sources subject to the fees. In addition, Health and Safety Code Section 39613 requires CARB to assess fees on manufacturers of consumer products and architectural coatings sold in California. The fees are assessed on manufacturers whose total California sales of consumer products or architectural coatings result in VOC emissions of 250 tons or more per

year. CARB must use the fees collected pursuant to Health and Safety Code Section 39613 solely to mitigate or reduce air pollution in the State created by consumer products and architectural coatings. In July 2003, the Board approved amendments to the Nonvehicular Source Fee Regulation to collect the fees authorized by AB 10X.

In 2004, the Legislature authorized CARB to assess an additional \$2.6 million on facilities for a total of \$20 million. In November 2004, the Board approved amendments to the Nonvehicular Source Fee Regulation, renamed the Nonvehicular Source, Consumer Products, and Architectural Coatings Fee Regulation, to establish a procedure to collect the additional \$2.6 million for fiscal year 2004-2005 and onward from facilities. The amendments also provided for collection from facilities of any legislatively-approved fees in fiscal years beyond fiscal year 2004-2005 that are in excess of \$17.4 million. The full text version of the [Nonvehicular Source Fee Regulation](#) can be found on CARB's website at:  
[http://www.arb.ca.gov/ei/nscpac\\_fees/comprehensive\\_fee\\_reg.pdf](http://www.arb.ca.gov/ei/nscpac_fees/comprehensive_fee_reg.pdf).