2013 Annual Report to the Governor and Legislature on the Air Resources Board's Expenditure of Fees on Nonvehicular Sources, Consumer Products, and Architectural Coatings for Fiscal Year 2012-2013

Document Availability

Electronic copies of this report can be obtained at:
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Introduction

Health and Safety Code (HSC) Sections 39612 and 39613 authorize the California Air Resources Board (ARB or the Board) to assess fees on nonvehicular sources and manufacturers of consumer products and architectural coatings in order to recover the costs of ARB programs related to these sources. Section 39612(g) of the HSC also requires ARB to report to the Governor and the Legislature on the expenditure of the fees collected. The facilities subject to the nonvehicular fees are those authorized by the air pollution control and air quality management districts (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 emissions of 250 tons per year or more of volatile organic compounds (ozone precursors).

For fiscal year 2012-2013, ARB staff sent out fee invoices totaling $19.6 million, plus adjustments, to partially fund program expenditures. Pursuant to HSC Sections 39612 and 39613, the fees allow ARB to fulfill responsibilities as California's designated air pollution control agency for all purposes set forth in federal law, as specified in HSC Section 39602, and to carry out activities necessary to implement the California Clean Air Act of 1988 and as amended. This report provides information on the program activities that were funded by the fees.

Fiscal Year 2012-2013 Fee Collections

ARB staff prepares fee invoices (determinations) pursuant to Sections 90800.8(c) and (d) of the Nonvehicular Source, Consumer Products, and Architectural Coatings Fee Regulations (title 17, California Code of Regulations, Sections 90800.8-90806) (Fee Regulation). To ensure collection of the needed funds authorized by the Legislature, the Board approved two adjustments made to each fiscal year's fee determinations pursuant to Section 90800.8(c)(6) of the Fee Regulation. The first adjustment is a 3 percent Adjustment Amount (Section 90800.8(c)(2) of the Fee Regulation) to the needed revenue for recovering unforeseen reductions in collection of funds due to unexpected business closures and bankruptcies. From experience, ARB staff has determined that 3 percent is the appropriate Adjustment Amount, which adds about $600,000 to the 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 needed revenues for that fiscal year.

Collections of funds may fluctuate from fiscal year to fiscal year. Collections may be impacted for a number of reasons including business closures and bankruptcies; loss of fee payers when emissions fall below applicable thresholds; addition of newly identified fee payers; and changes in fee payers' emissions. A Carry-over Balance may occur with either a low or high rate of collection. Any excess funds collected are carried over to reduce the total fee determinations for the next fiscal year. Any amount of funds undercollected will be added to increase the total fee determinations for the next fiscal year.

Fee collections for fiscal year 2012-2013 are shown in Table 1 below, totaling about $19.6 million. The amount under $20 million collected in fiscal year 2012-2013 is the undercollection that will be applied to fees assessed for fiscal year 2013-2014.

Table 1
Fees Collected for Fiscal Year 2012-2013

Activities	Fees Collected
Facilities	$11,064,892.32
Consumer Products and Architectural Coatings	$8,504,926.43
Total Collected	**$19,569,818.75**

Major Activities Funded by the Fees

The fees collected by this program are used in part to implement requirements related to federal and State mandated air quality standards. Implementation activities include air quality monitoring, air quality data assessment, emission inventory development, research, test method development, modeling, air quality planning, regulatory development, implementation of certification programs, product sampling and laboratory analysis, and enforcement. Below is an overview of key programs that are funded through the fees.

Rule Development and Implementation

Nonvehicular Sources

The Clean Air Act**,** implemented by the United States Environmental Protection Agency (U.S. EPA), sets national ambient air quality standards for the nation. In order to implement the air quality standards, ARB must undertake air quality attainment planning, which includes developing, maintaining and updating emission inventories; evaluating air quality trends and indicators; and conducting sophisticated air quality modeling to identify emissions levels that enable attainment of the air quality standards. The planning effort culminates with State and local measures that will provide emission reductions needed for attainment. ARB staff works on an

ongoing basis with air districts to ensure the limits for ozone and particulate matter precursor emissions from sources under district authority are set and implemented. For example, during this fiscal year, ARB staff worked directly with air district staff on their plans for attaining the federal 24-hour fine particulate matter (PM2.5) standard.

Consumer Products and Architectural Coatings

In order to ensure the Consumer Products regulatory requirements are applied consistently to all affected parties, a 2012 Rulemaking to modify provisions for automotive windshield washer fluid products was complete during this fiscal year. The modifications became legally effective on July 1, 2013, and clarified the use parameters for windshield wiper fluid in areas of California prone to freezing temperatures. The documents pertaining to this rulemaking are available at http://www.arb.ca.gov/regact/2012/cp2012/cp2012.htm. In order to complete this rulemaking, ARB staff held several workshops to discuss staff's proposals for amendments to the Consumer Products Regulation. Staff also evaluated Consumer Products data, prepared background documentation and held multiple public workshops for the Rulemaking to Consider Amendments to the Antiperspirants and Deodorants Regulation; Consumer Products Regulation; Aerosol Coating Products Regulation; The Tables of Maximum Incremental Reactivity Values; Test Method 310; and Proposed Repeal of the Hairspray Credit Program that was presented to the Board on September 26, 2013.

Additionally, ongoing implementation of the regulatory updates and consumer products program activities occurred. For example, staff reviewed and evaluated requests and applications for product determinations, charcoal lighter material certifications, alternative control plans and annual reports, and innovative product exemptions. Staff also responded to numerous inquiries from manufacturers, consultants, product certification/labeling programs, and other regulatory agencies.

During the first half of 2013, ARB staff initiated discussions regarding the resources needed, scope and timing for the Consumer and Commercial Products Survey (Survey). The Survey is designed to collect product sales and ingredient information for consumer products sold in California. The last comprehensive Survey was completed in 2003 with more targeted Surveys completed in 2006, 2008, and 2010.

South Coast Air Quality Management District (SCAQMD) staff continued to implement Rule 1143, "Consumer Paint Thinners and Multi-Purpose Solvents." As allowed by State law, this rule established requirements specific to "Paint Thinners" and "Multi-Purpose Solvents" sold, supplied, offered for sale, or manufactured for sale in the SCAQMD. ARB staff worked closely with staff from SCAQMD to ensure the categories were defined similarly to those in the Consumer Products Regulations.

As part of ARB's participation in the Leadership Council for the California Green Chemistry Initiative, staff continued to provide input on proposals released by the Department of Toxic Substances Control 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.

Air Monitoring and Laboratory Analysis

Nonvehicular Sources

The laboratory plays a key role in efforts that are used in measuring progress towards attainment of the State and federal ambient air quality standards. Activities included measuring ambient air levels of gaseous and particulate criteria air pollutants from samples collected from the State's air monitoring network.

Consumer Products and Architectural Coatings

As part of consumer products implementation, the laboratory plays a large role in compliance and enforcement of consumer products regulations. ARB staff conducted laboratory analyses of products submitted for determination of compliance with applicable volatile organic compounds (VOC) and reactivity limits and used the test results to support enforcement efforts. In response to several external inquiries/requests, laboratory staff conducted special studies involving: (1) evaluation of solvents with respect to low vapor pressure VOC criteria; (2) analysis of hydrocarbon solvents; (3) evaluation of Method 310 applicability for analysis of several new and proposed categories of consumer products; (4) analytical method development for new and proposed categories; (5) analytical method development for lower standards set for existing categories; and (6) extensive analyses and consultation with the California Office of the Attorney General to resolve enforcement cases involving consumer products.

Enforcement

Nonvehicular Sources

ARB's enforcement programs and activities include training on regulations and their implementation, assisting local districts with inspections of stationary sources, investigating complaints, issuing notices of violations, evaluating district variances for compliance with statutory requirements, obtaining and analyzing evidence to determine the date of onset, cause, and extent of violation of air pollution regulations, and reviewing air district rules for enforceability. Key programs and activities involved providing enforcement assistance to local air districts and other local and regional environmental agencies; responding to air pollution complaints, conducting investigations, and referring them to other agencies when appropriate; reviewing all air district hearing board orders for compliance with Health and Safety Code requirements; gathering and analyzing data from emission monitoring devices required by air districts at stationary sources; reviewing air district rules for enforceability, compliance with State laws, clarity, and accuracy; and developing 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

During fiscal year 2012-2013, ARB enforcement staff collected over 2,100 samples of household and institutional consumer products. Sample selections focused on automotive specialty products, hair styling products, lubricants, paint thinners, solvents, and imported products. The laboratory results for approximately 500 samples indicated that the products may have exceeded the VOC limits. As a result of these investigations, ARB issued 54 notices of violation during the fiscal year. After conducting office conferences, ARB staff worked to resolve the enforcement cases through administrative or civil actions. During the fiscal year, staff settled 67 cases involving hair styling products, air fresheners, nail polish removers, and a general purpose degreasing products. The $2,075,150 in penalties collected helped to mitigate more than 153 tons of excess emissions resulting from these violations. Some significant cases involved substantial sales of noncompliant hair styling products, air fresheners, nail polish removers, and general purpose degreasing products. Enforcement Division staff worked alongside ARB attorneys to settle each case.

Research

ARB's research program activities include research into the causes and effects of, and possible solutions to, the air pollution problems in California. Activities undertaken to address air pollution included investigating the reactivity of VOCs and the atmospheric processes that contribute to ozone and particulate matter formation; conducting vulnerable populations and children's exposure and health studies; and research to support future updating of ambient air quality standards. These studies support ARB's consumer products and stationary source regulation programs by providing scientific and technical information needed to develop reductions in air pollutants and their precursor emissions. In addition, research efforts also evaluate the interaction between greenhouse gases (GHG) and criteria pollutants to understand the potential co-benefits of policies and programs addressing these pollutants. Below are some examples of the research projects funded through ARB:

The University of California, Los Angeles started a study entitled "Determination of the Spatial Distribution of Ozone Precursor and Greenhouse Gas Concentrations and Emissions in the LA-Basin" in April 2010. Measurements were made from an observatory on Mt. Wilson, and computer codes and algorithms are being further developed to interpret the data. This project was completed in February 2015.

The University of California, Berkeley study entitled "Environmental Exposures in Early Childhood Education Environments" was completed in August 2012. This study examined indoor and outdoor levels of VOCs, particles, pesticides, phthalates, flame retardants, metals, and perfluorinated compounds at 40 day care centers and preschools in northern California. Formaldehyde and other chemicals were found at levels above health-based guidelines. A fact sheet and press release regarding the study, and the final report, are available at: http://www.arb.ca.gov/research/single-project.php?row_id=64830.

Status of Program Activities

The following Sections discuss the status of activities related to specific areas outlined in HSC Section 39612.

Updating the Emissions Inventories

ARB compiles and maintains a detailed and complex inventory of air pollution sources and their emissions. Emission inventories form the basis for air quality planning and regulatory development processes. Estimation methodologies in emission inventories are refined on an ongoing basis, and must also be updated to reflect the impact of new regulations. ARB routinely publishes the inventory for all California air basins, conducts air district training, and facilitates website improvements. In fiscal year 2012-2013, some of the major activities ARB completed related to emissions inventories include the following:

Preparation of PM2.5 Emission Inventories: ARB and the local air districts completed the emission inventory updates required as part of the State Implementation Plan (SIP) for the federal 24-hour PM2.5 air quality standard. During the second half of 2012, ARB staff conducted a final review and made adjustments to the inventory to ensure that the forecasted emission trends reflected the latest available socioeconomic data used as growth surrogates for the various emission source categories. The final 24-hour PM2.5 SIPs were presented to the boards of the local air districts in late 2012 and approved by the Air Resources Board in early 2013.

8-Hour Ozone SIP Emission Inventories: ARB staff started the development of emission inventories for the federal 8-hour ozone SIP. ARB emissions inventory staff is leading a group of district staff in the review of the emission estimates for two ozone precursors: oxides of nitrogen and VOCs. As with development of the PM2.5 SIP inventories, the most important tasks include updating the district rule-specific control profiles, evaluating and updating the growth factors to ensure they reflect the latest socioeconomic forecasts associated with specific source categories, and incorporating other emissions data that may have changed since the previous inventory update.

Identifying, Assessing, and Mitigating the Transport of Air Pollutants

Pursuant to State law, the identification, assessment and mitigation of transport of air pollutants from one region to another are important elements of ARB's efforts to attain State and federal air quality standards. Consideration of transport is integrated into a broad spectrum of activities, from the characterization of transport impacts, development of mitigation requirements, and updates to designation, and attainment plan and control strategy development.

ARB is responsible for assessing the relative transport contribution of ozone and/or ozone precursors by air districts and for establishing mitigation requirements. ARB 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. The regulations identified transport couples consisting of an upwind area (source of transported emissions) and a corresponding downwind area (receptor of transported emissions) and the required mitigation requirements. Districts have been implementing the mitigation requirements for over two decades and submit for ARB review their State triennial ozone plan updates.

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 NASA and other researchers that cover both upwind and downwind areas. ARB 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.

Some specific activities related to air quality planning during the fiscal year included the review of the 2012 South Coast Air Quality Management Plan and control strategy; assessment of progress made in the San Joaquin Valley towards attainment of federal ozone standards and close coordination on the development of a revised 1-hour ozone attainment demonstration; review of the San Diego ozone attainment plan for the 1997 ozone standard and redesignation request; and close coordination with U.S. EPA prior to finalization of federal 8-hour ozone designations to ensure that transport was appropriately addressed in the final boundaries of nonattainment areas.

Identifying Indicators to Assess Air Quality Progress

State law directs ARB to develop air quality indicators that can be used to measure progress towards the attainment of State ozone air quality standards. ARB 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, ARB developed a calculation procedure and is now providing 8-hour population weighted and area weighted exposure indicators for State triennial ozone

plan updates. ARB staff provided these indicators to air districts in May 2013. Air quality data 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 are available at: http://www.arb.ca.gov/aqmis2/aqmis2.php.

ARB staff has developed other indictors 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, ARB staff completes weight of evidence assessments to corroborate air quality modeled responses to emission reductions in the SIP, and gives annual air quality updates to the Board.

Ranking Control Measures for Stationary Sources

A provision of the California Clean Air Act requires air districts to adopt reasonably available control technology and best available retrofit control technology rules to reduce emissions from existing stationary sources when air districts are in nonattainment for State air quality standards. Since enactment of the California Clean Air Act in 1988, ARB has implemented a number of programs that have generated stationary source control measures for direct administration by ARB or for adoption and implementation by local air districts. All of these programs have assessed and incorporated metrics of cost-effectiveness in selecting appropriate levels of emission control. The studies and programs include a resource document that was developed in direct response to requirements of the California Clean Air Act. The document identifies source categories and the most stringent performance standards adopted by air districts as well as information on the most restrictive particulate matter emission reduction regulations adopted by ARB and air districts for a spectrum of stationary, area, and mobile source categories. ARB and the California Air Pollution Control Officers Association maintain a database of the best available control technology decisions for use in the permitting of new stationary sources. These control equipment and emission limit specifications serve as the basis for identifying new stationary source regulations to be considered by air districts when air quality plans are upgraded to meet new more stringent State air quality standards.

These requirements are periodically updated through the collaborative efforts of ARB and air districts via the rule review process using cost-effectiveness and emission reduction analyses of current emission control technologies.

For more information on the program activities, please visit http://www.arb.ca.gov.

History of the Fee Program

The Legislature enacted HSC Section 39612 as part of the California Clean Air Act of 1988. The California Clean Air Act requires attainment of State ambient air quality standards by the earliest practicable date. As part of that mandate, the California Clean Air Act also requires ARB and the air districts to take various actions to reduce air pollution from motor vehicles, industrial facilities, and other sources of emissions.

As originally enacted, HSC Section 39612 authorized the ARB 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 ARB 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 the ARB Executive Officer assesses the fees administratively.

In 2003, the Legislature enacted Assembly Bill (AB) AB10X, which amended HSC Section 39612 and added HSC Section 39613. The changes to HSC 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 ARB to collect the fees directly from all sources subject to the fees. In addition, new HSC Section 39613 required ARB 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. ARB must use the fees collected pursuant to 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 AB10X.

In 2004, the Legislature authorized ARB 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 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 ARB's website at: http://www.arb.ca.gov/ei/nscpac_fees/comprehensive_fee_reg.pdf.