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AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

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County Public Health Officers for the counties in the San Joaquin Valley

From: Arnaud Marjollet, Director of Permit Services

RE: **2013 Annual Report on Toxic Emissions from Valley Facilities**

As required by State Law, the attached report is being distributed to city and county officials throughout the San Joaquin Valley.

This report describes emissions of toxic air contaminants from Valley facilities, and the actions taken by the District and affected facilities to reduce those emissions. The District is providing you with this report to keep you informed of air toxics issues that may affect you and the communities you serve.

Should you or your staff have any questions regarding this report or the District's air toxics programs, please call Arnaud Marjollet at (559) 230-5900.

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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING

2013

Annual Air Toxics Report

March 20, 2014

Executive Summary

The San Joaquin Valley Air Pollution Control District has spent the last two decades implementing a wide variety of methods of reducing the emissions of toxic air contaminants in the San Joaquin Valley. Based on the latest 2010 California Toxics Inventory (CTI), only 14% of all air toxics in the San Joaquin Valley are emitted from stationary sources of pollution under the direct control and regulation of the District, while 52% comes from mobile sources such as cars and trucks, and the remaining 34% is emitted from area-wide sources like road dust, paints, solvents, and other consumer products. Mobile and area-wide sources of emissions are generally under the regulatory authority of the State of California and the federal government.

The District's multifaceted approach to addressing and reducing risks from toxic air contaminants has taken three main paths: reducing air toxic emissions from existing stationary sources of emissions; preventing the creation of new or modified stationary sources of significant risk; and finding creative and cooperative methods of reducing risk from emissions sources that the District does not typically regulate.

The District's implementation of AB 2588, California's *Air Toxics "Hot Spots" Information and Assessment Act*, has resulted in dramatic reductions in emissions of air toxics from existing sources in the San Joaquin Valley. Under this right-to-know law, the District has worked with Valley facilities to quantify emissions of air toxics, determine the health risk caused by those emissions, report emissions and any significant risks through written public reports and neighborhood public meetings, and take steps to reduce such risks. As a result of this effort, and the resulting emissions reductions, no Valley facility currently poses a significant risk under this program.

A number of regulations have also been adopted by the District, the state, and the federal government to directly reduce existing emissions from specific types of facilities and sources of air toxic compounds. Examples of emissions sources that have drastically reduced toxic air contaminant emissions in the San Joaquin Valley because of such rules include dry cleaners, chrome platers, gas stations, and diesel internal combustion engines.

In addition to the above efforts to reduce emissions from existing sources of air pollution, the District also performs comprehensive and conservative emissions evaluation and computer modeling before issuing permits to new sources of emissions to assure the District does not allow the creation of a new health risk.

These risk calculation processes are expected to be revised in the coming year, as the District implements the state Office of Environmental Health Hazard Assessment's (OEHHA's) revised Risk Assessment Guidelines designed to provide enhanced protection of children. The draft revisions have been shared with the District, and are expected to be finalized in 2014. The District Governing Board has directed staff to incorporate the revisions upon OEHHA's issuance of the final revised guidance and after an appropriate public process in which the District explains the revisions and the District's proposed implementation of those revisions. The District's initial assessment indicates that these

changes will more than double the calculated risk, as compared to the current methodology, for identical circumstances. As a result, the number of "Significant Risk Facilities" will increase along with the associated public notifications required under the Air Toxics "Hot Spots" Information and Assessment Act. In addition, the approvability of various permitting projects, such as emergency generators and gas stations, may be impacted. These issues will be discussed and addressed in the District public process and implementation of the revised state guidelines.

The District has also implemented numerous methods of reducing emissions from mobile sources and other sources of emissions that the District does not traditionally regulate. For instance, the District developed the first Indirect Source Review rule in the nation, designed to reduce emissions from construction equipment and mobile sources associated with new developments. The District also provides assistance and guidance to the cities and counties in the San Joaquin Valley so that they can be assured that land-use decisions are based on a full understanding of the potential for increasing emissions of air toxics and new air toxics risks can be avoided. One of the most effective methods of reducing emissions of air toxics from emissions sources not directly regulated by the District has been the incentive grant program that has leveraged hundreds of millions of dollars in reducing emissions from diesel internal combustion engines on trucks, tractors and agricultural irrigation operations.

Finally, the District's "Health-Risk Reduction Strategy" to prioritize air pollution control measures that provide the most health-protective result is the cornerstone in developing and implementing future risk-reduction efforts that provide the maximum public health benefit.

This Annual Air Toxics Report for 2013 more fully describes the District's ongoing efforts to regulate and reduce air toxic emissions. An electronic version of this report may be found on the District's website at:

http://www.valleyair.org/busind/pto/air_toxics_annual_reports.htm.

Questions regarding the District's air toxics reduction programs may be directed to:

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Table of Contents

Summary of Toxic Air Contaminants in the San Joaquin Valley **1**

State Air Toxics "Hot Spots" Act **4**

Implementation 4
Collecting Emissions Data 5
Industry-wide Surveys 6
Assessing the Risk to the Public 7
Prioritizing Facilities 7
Health Risk Assessment 7
Risk Reduction Audits and Plans 8
District Assistance and Streamlining Efforts 8
Air Toxics Hot Spots Program Cost 8
OEHHA'S Draft Changes to the Risk Assessment Guidelines 10

Preventing Health Risks **12**

Preventing Future Toxics Hot Spots - Risk Management Reviews 12

Reducing Regional Health Risks **13**

Diesel Exhaust Risk Reduction 13
Reducing Health Risk through State ATCMs 13

Implementation of Federal Air Toxics Mandates **17**

Current Status of Delegation 18

California Environmental Quality Act and Health Risk Reduction **20**

Modeling Guidance and Tools 20
Public Assistance 20

Air Dispersion Modeling **21**

EPA Regulatory Model (AERMOD) 21
Meteorological Data 21
Modeling Guidance 21
Modeling Support to Public Agencies, State-wide, and Others 22

The District's Health-Risk Reduction Strategy **23**

District's Health-Risk Reduction Strategy Implementation 23

Summary of Toxic Air Contaminants in the San Joaquin Valley

The U.S. EPA and the California Air Resources Board have identified over 700 substances that are emitted into the air that may affect human health. Some of these substances are considered to be carcinogens (cancer-causing), while others are known to have other adverse health effects. As part of ongoing efforts to identify and assess potential health risks to the public, the District has collected and compiled air toxics emissions data from industrial and commercial sources of air pollution throughout the Valley. The State has developed similar inventories for mobile sources of air pollution. These District and State inventories have been combined into the California Air Resources Board's California Toxics Inventory (CTI), which provides emissions estimates for hazardous air pollutants of concern from all sources. A summary of the CTI data for key pollutants, based on the draft 2010 CTI (most current version released), is given in Table 1 below.

Table 1 - San Joaquin Valley Hazardous Air Pollutant Emissions

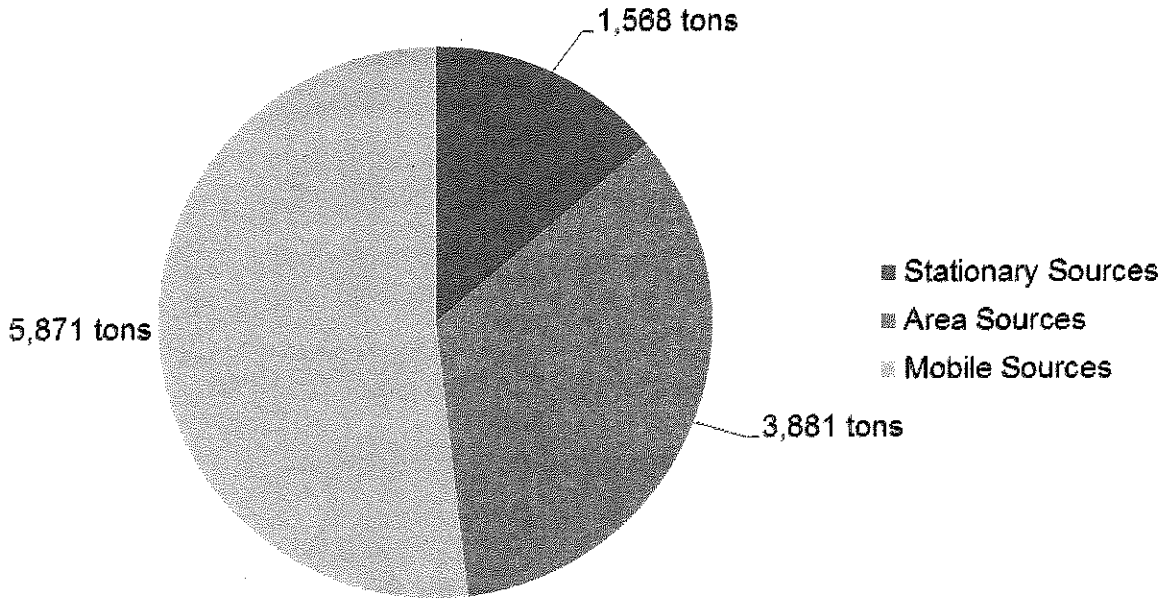
Pollutant	2010 CTI (tons/yr)
Acetaldehyde	3,512
Diesel Particulate Matter	2,520
Formaldehyde	2,318
Benzene	1,020
Perchloroethylene	448
1,3-Butadiene	269
Methylene Chloride	247
p-Dichlorobenzene	130
Carbon Tetrachloride	0
Chromium, Hexavalent	0

A more detailed summary of emissions estimates for the San Joaquin Valley is provided in Table A-1 in Appendix A.

Toxic Air Contaminants (TAC) are emitted from mobile sources (i.e., cars, trucks, buses, tractors, etc.), which are primarily regulated by the State and U.S.EPA; area sources (i.e., consumer products, dry cleaners), which are regulated the State, U.S.EPA, and the District; and from stationary sources regulated primarily by the District. Figure 1 below shows a comparison of mobile, area and stationary sources emissions of hazardous air pollutants in the San Joaquin Valley. Of these sources approximately 86% of hazardous air pollutant emissions occurring in the Valley are from mobile sources and area sources.

Stationary sources include point source emissions provided by facility operators and/or districts and aggregated point source emissions estimated by the ARB and/or districts. This stationary source information is included in the CTI pursuant to the Air Toxics "Hot Spots" Act of 1987 (AB 2588). Areawide sources are sources without specific locations that spread out over large areas, such as paved or unpaved roads or consumer products. Mobile sources consist of on-road vehicles such as passenger cars and trucks, motorcycles, busses, and heavy-duty trucks and other mobile. The "Other mobile" category includes but is not limited to trains, ships, off-road equipment, off-road motorcycles, and boats.

Figure 1 – Comparison of Mobile, Area, and Stationary Source Emissions



Stationary Area sources were reported with the Stationary Point sources, and the "Area Sources" category contains only area-wide sources as defined above and by the California Air Resources Board (CARB). The District and CARB continued their collaborative efforts to improve the toxics emissions inventories in 2013.

Although mobile sources are primarily regulated by the State and U.S.EPA, the District has developed grant and incentive programs to assist in risk reduction from these sources. For example, the Heavy-Duty Engine Program, which is the District's largest and most successful incentive program, utilizes incentive funds to repower, replace, or retrofit existing high-polluting diesel equipment or vehicles. This program has removed or retrofitted over 17,000 diesel engines resulting in eliminating over 3,800 tons of diesel particulate matter.

State Air Toxics "Hot Spots" Act

Implementation

The Air Toxics "Hot Spots" Information and Assessment Act was enacted in September 1987. Under this act, stationary sources are required to report the types and quantities of certain substances their facilities routinely release into the air. The goals of the Air Toxics "Hot Spots" Act are:

- to collect emission data,
- to identify facilities having localized impacts,
- to ascertain health risks,
- to notify nearby residents of significant risks, and
- to require that owners of significant-risk facilities reduce their risks below the level of significance in accordance with the provisions of the "Emissions Inventory Criteria and Guidelines Report" adopted by the Air Resources Board in 1989.

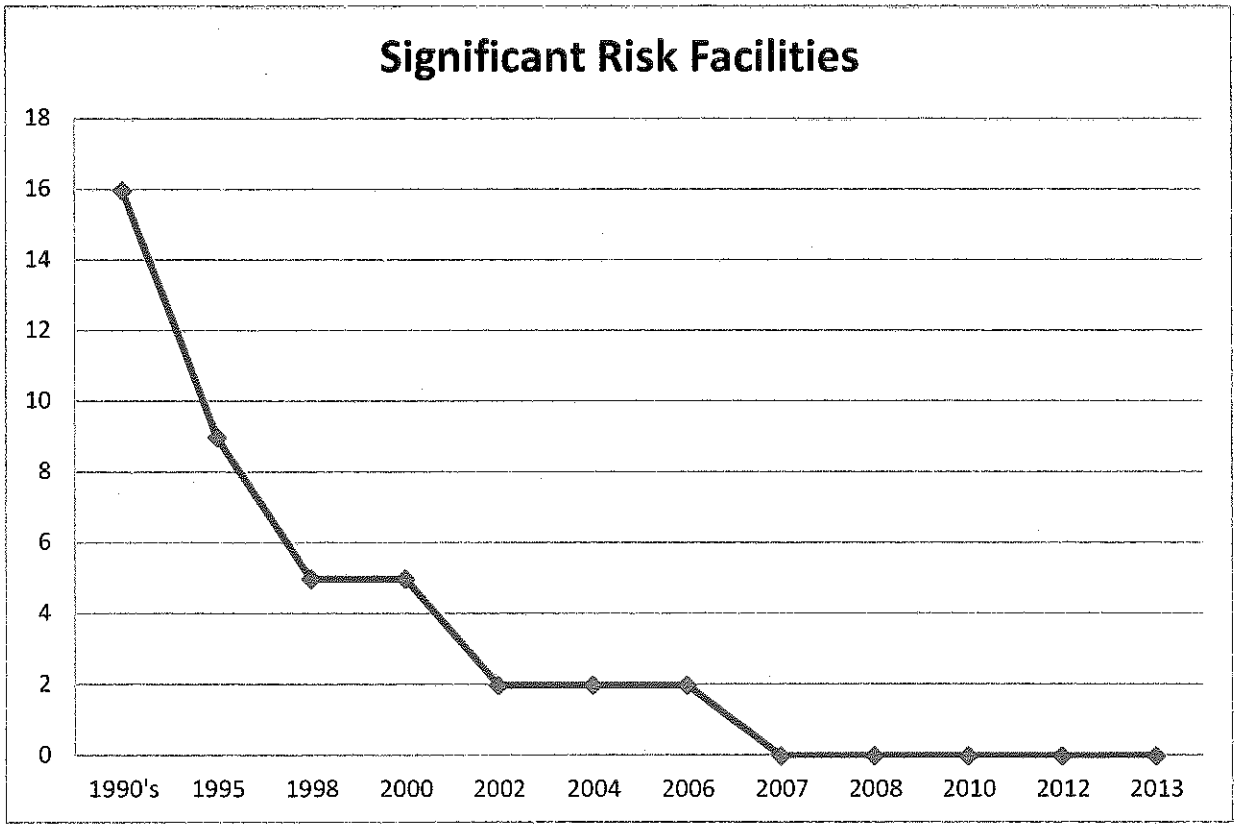
A flowchart summarizing the AB2588 Toxic "Hot Spots" implementation process is provided in Appendix B.

The "Emissions Inventory Criteria and Guidelines Report" was last amended on August 27, 2007 to include: general reporting requirements for diesel engines; reporting requirements for some agricultural engines to after 2011; reporting requirements for stationary emergency standby diesel engines that will be retrofitted, replaced or removed at a hospital building subject to the Alquist Hospital Facilities Seismic Safety Act of 1983 beginning 2012; reporting requirements for diesel engines less than or equal to 50 horsepower, and portable diesel engines of any size, which occurred in 2010.

The District's implementation of the Air Toxics Hot Spots requirements has resulted in significant reductions in the public's exposure to toxic air contaminants. The public notification required under the Air Toxics Hot Spots program for facilities found to pose a significant risk to the public is one motivating factor for facility operators to pursue such reductions in risk. Implementation of this regulation was a significant driver for hundreds of facilities throughout the Valley to switch from burning fuel oil to natural gas in combustion equipment, add air pollution control equipment, and reduce the use of toxic compounds.

Since 2006, no Valley facility has posed a significant risk according to the State of California's Air Toxics Hot Spots program. (*See figure below*)

Figure 2 – Number of Significant Risk Facilities



Collecting Emissions Data

The District collects and compiles toxic emissions data for industrial and commercial facilities as required by the State Air Toxics Hot Spots Information and Assessment Act. Although this process was completed for most Valley facilities during the early years of the Air Toxics Hot Spots program (1989-1991), approximately 200 of the highest emitting operations are required to provide updates to their emissions reports every four years. In 2013 the District received, reviewed and approved update summaries for 42 Valley facilities summarized in the following table.

Table 2 – 2012 Update Summaries Approved

Facility Name	Location
Turlock Memorial Park	575 n Soderquist Rd, Turlock
Elk Corporation of Texas	6200 Zerker Rd, Shafter
Turlock Irrigation District	4500 Crows Landing Rd, Modesto
Rio Bravo Fresno	3350 S Willow Ave, Fresno
ExxonMobil Oil Corporation	Midway Pumping Station
Kingsburg Cogen Facility	11765 Mountain View, Kingsburg
Tricor Refining, LLC	1134 Manor Street, Bakersfield
General Mills Operations, Inc.	2000 W Turner Road, Lodi

Las Palmas Oil and Dehydration Company	3121 Standard St, Bakersfield
Taft Production Company	950 N Petroleum Club Road, Taft
Alon Bakersfield Refining	6451 Rosedale Hwy (Area 1 & 2), Bakersfield
Alon Bakersfield Refining	3663 Gibson St (Area 3), Bakersfield
Freeport-McMoran Oil & Gas LLC	Light Oil Western Stationary Source, Western Kern
Holz Rubber Company, Inc.	1129 S Sacramento Street, Lodi
Fineline Industries, Inc.	455 Grogan Avenue, Merced
Chevron USA Inc.	Heavy Oil Central.
Ro-Lab Rubber Company Inc.	8830 Linne Rd, Tracy
Land O' Lakes, Inc.	400 South "M" St., Tulare
Guardian Industries	1485 E Curtis Ave., Reedley
Dairy Farmers of America	2331 Tully Rd., Hughson
Modesto Plating	436 Mitchell Rd, Ste D, Modesto
Prompt Precision Metals Inc.	1649 Whitmore Ave., Ceres
Chevron USA Inc.	Kern Pump Station
Calmat Company, DBA Vulcan Materials Co.	Wheeler Ridge Plant, Wheeler Ridge
Safety Kleen Systems, Inc.	1000 South "I" St., Reedley
Sealed Air Corporation	1835 W Almond Ave., Madera
H.J. Heinz Company, L.P.	1905 McHenry, Escalon
A C Plating	317 Mt Vernon Ave, Bakersfield
Keystone Automotive Industries Inc.	1627 Army Ct #7, Stockton
Vintage Production California LLC	9571 S Roberts Rd, Stockton
Ripon Cogeneration	944 S Stockton Ave, Ripon
Covanta Delano, Inc.	31500 Pond Rd., Delano
SFPP, L.P.	4149 S Maple Ave., Fresno
Saint-Gobain Containers	24441 Avenue 12 & Road 24 ½
Kern Oil & Refining Company	Panama Lane & Weedpatch Hwy, Bakersfield
Vulcan Materials Company, Western Division	8517 Panama Lane, Bakersfield
Jain Irrigation Inc.	2851 E Florence Ave., Fresno
Spreckels Sugar Company	29400 W Whitesbridge Rd, Mendota
Chevron - Kettleman City Pump Station	Interstate 5 & Highway 41, Kettleman City
California State University Fresno	5241 N Maple Ave., Fresno
PACTIV Corporation	2024 Norris Rd, Bakersfield
Owens-Brockway Glass Container	14700 W Schulte Road, Tracy

Based on the submitted update summaries, three facilities were required to submit Toxic Emissions Inventory Reports in 2013. These facilities are:

Table 3 – 2013 Toxic Emissions Inventory Reports Required

Facility Name	Location
RIO BRAVO FRESNO	3350 S WILLOW AVE, FRESNO
LAS PALMAS OIL & DEHYDRATION COMPANY	3121 STANDARD ST, BAKERSFIELD
KERN OIL & REFINING COMPANY	PANAMA LN & WEEDPATCH HWY, BAKERSFIELD

Industry-wide Surveys

For common types of smaller commercial facilities that may emit toxic air contaminants, the District uses Industry-wide surveys, which provide a more streamlined and cost-effective method of preparing toxics inventories. Valley gasoline dispensing facilities, dry cleaning operations, printing operations, and

automotive painting facilities have been categorized as industry-wide survey facilities. With the added streamlining effort of combining the point source emissions inventory with the toxics inventory, these industry-wide facilities are surveyed on an annual basis, allowing for expeditious screening risk assessments and improved quality of the state's inventory.

Assessing the Risk to the Public

The State Air Toxics "Hot Spots" Act requires the District to compile an inventory of toxic emissions from Valley facilities, prioritize facilities for health risk assessment, evaluate public health risks for facilities ranked as high priority, and notify individuals who may be impacted by any significant health risks. Although the Hot Spots program is primarily a public notification program, the public awareness achieved through the Hot Spots program has led many Valley businesses to voluntarily reduce their toxic emissions to ease community concerns.

Prioritizing Facilities

After the approval of a facility's updated Toxic Emission Inventory Report, which is required if there has been a significant increase in emissions since the facility's previous report submittal, the new data from the report is entered into the California Emission Inventory Data and Reporting System (CEIDARS). The District prioritizes and ranks the health risk posed by the facility as "low", "intermediate", or "high" priority. Facilities ranked as high priority are required to perform health risk assessments. The District then prioritizes these facilities using computerized spreadsheets and database programs. The following table summarizes the four prioritizations performed for Valley facilities in 2013 based on the 2012 reporting requirements.

Table 4 – 2013 Prioritization Statistics

Facility Name	Location	Prioritization	Ranking
CHEVRON PIPELINE CO -TANK FARM	KETTLEMAN CITY	0.0368	LOW

Health Risk Assessment

The District and State Office of Environmental Health Hazard Assessment (OEHHA) are required by the Air Toxics "Hot Spots" Act to review each Health Risk Assessment (HRA). Based on the results of the risk assessment, facilities may be determined to pose a significant risk. Risk calculation involves a great deal of uncertainty. The uncertainty arises from lack of data in many areas necessitating the use of assumptions. The assumptions used are designed to err on the side of health protection in order to avoid underestimating the risk to the

public. Therefore, while the actual risk may be much less than the calculated risk, it is very unlikely to be higher than calculated.

HRA's are required of facilities that receive a "high" priority ranking. No facilities in the Valley were ranked as "high" priority, and therefore no HRA's were required under the AB 2588 "Hot Spots" program in 2013.

Risk Reduction Audits and Plans

Facilities that pose health risks above District action levels are required to submit plans to reduce their risk. Action levels for risk were established in the District's Board-Approved Risk Reduction policy. The action level for cancer risk is 100 cases per million exposed persons, based on the maximum exposure beyond facility boundaries at a residence or business. The action level for non-cancer risk is a hazard index of five at any point beyond the facility boundary where a person could reasonably experience exposure to such a risk.

There are currently no Valley facilities that have been determined to pose risks in excess of action levels.

District Assistance and Streamlining Efforts

The District remains in close contact with facilities tracked through the Toxics Hot Spots Program to assist them in meeting ongoing toxics requirements. To further minimize the economic impact on these facilities, the District has integrated the Air Toxics and Emissions Inventory programs, an enhancement that eliminates the need for duplicate reporting efforts by the facilities and allows for quick and accurate processing of update TEIR reports or health risk assessments with the most current facility information. This, in turn, expedites the determination for potential further reporting by the sources. The District made other efforts to provide facilities with assistance, such as developing air dispersion modeling guidelines and being the first district in California to implement the use of the "AERMOD" modeling program along with the continuing training of District staff in CARB's HARP program. These efforts also improve the quality of service offered to affected facilities and the public.

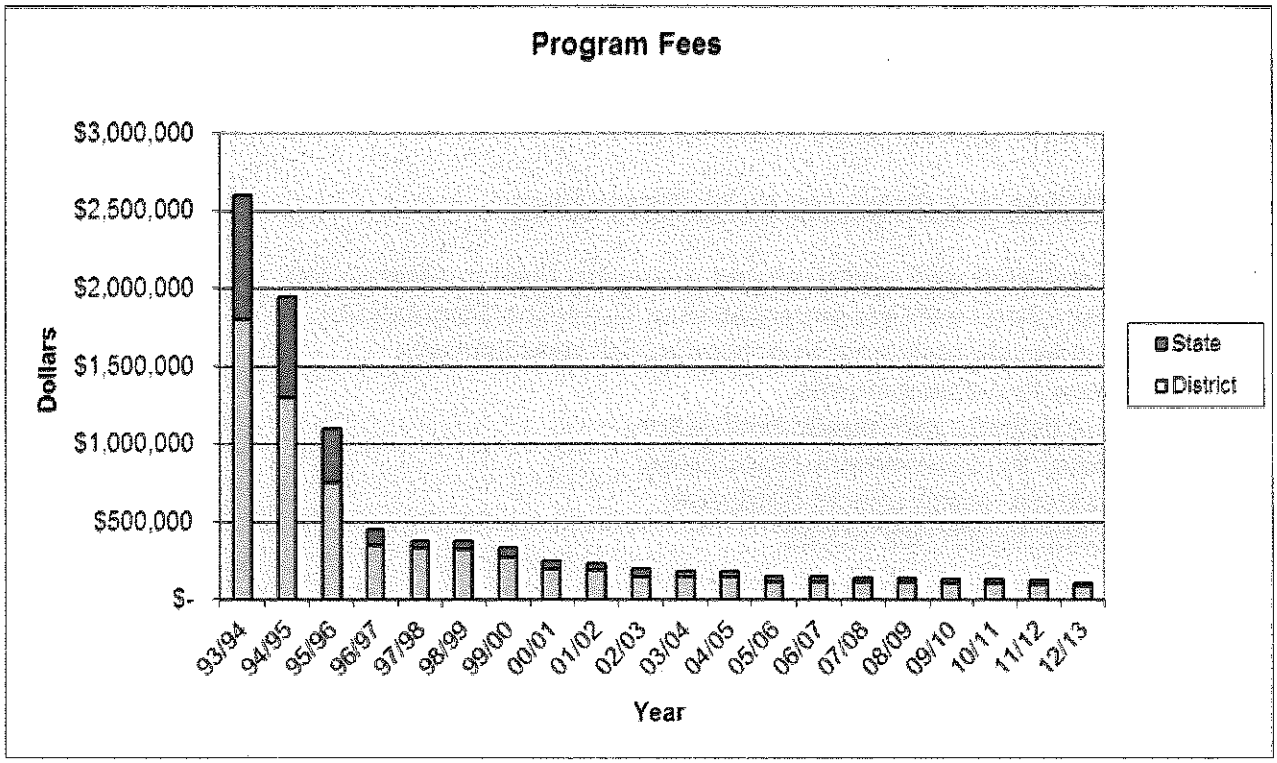
Air Toxics Hot Spots Program Cost

Minimizing Program Costs

During the course of implementing the Toxics "Hot Spots" Program, the District has made significant progress in making air toxics reduction efforts more cost effective. These reductions have been made possible by efforts to identify and exempt facilities that could not be expected to pose a health risk to the public and other

program streamlining measures. These cost reductions, which were achieved in spite of increases in federal program requirements, translate directly into lower overall fees charged to Valley facilities. The following graph shows the reduction in the District's air toxics program costs that have been realized in the past two decades, a total reduction of approximately 96%.

Figure 3 - Toxics Program Fees



The total program fees collected from industry have been reduced by approximately 9% this year, from $122,223 in 2012 to $111,033 in 2013, as a result of existing stationary source facilities continuing to reduce toxic emissions through implementation of the District's Air Toxics program.

The fees collected support the following activities that CARB, OEHHA, and the District must undertake to administer Air Toxics Programs:

California Air Resources Board Activities Supported by Air Toxics Fees

1. Review potential additions to the toxics substances list;
2. Develop source test methods;
3. Assist districts in implementing the guideline regulations;
4. Assist facility operators in preparing protocols and risk assessments;
5. Assist districts in reviewing risk assessments and protocols;
6. Manage the statewide "Hot Spots" data

District Activities Supported by Air Toxics Fees

1. Review of toxic emission inventory plans and reports;
2. Review of updates;
3. Rank facilities for health risk assessment;
4. Review and approve risk assessments;
5. Participate in notification process;
6. Perform budgeting and billing functions;
7. Prepare public reports;
8. Review of applications for new and modified sources of air toxics;
9. Risk Management Review;
10. Title III Implementation Activities

OEHHA Activities Supported by Air Toxics Fees

1. Assist CARB with updating and reviewing toxic substance list;
2. Assist CARB with implementation of Guideline Regulations;
3. Assist facility operators in preparing risk assessments;
4. Review risk assessments;
5. Assist districts with public notification;
6. Update risk assessment procedures;
7. Develop a health effects database;
8. Develop health risk values

OEHHA'S Draft Changes to the Risk Assessment Guidelines

In 2013, the state Office of Environmental Health Hazard Assessment's (OEHHA's) issued a draft revised Risk Assessment Guidelines designed to provide enhanced protection of children. The District's initial assessment indicates that these changes will more than double the calculated risk, as compared to the current methodology, for identical circumstances. As a result, the number of "Significant Risk Facilities" will increase along with the associated public notifications required under the Air Toxics "Hot Spots" Information and Assessment Act.

Following the District Governing Board recommendation, District staff will be proposing, through a public process, to incorporate the expected revisions to OEHHA's Risk Assessment as follows:

- Retain the District's current public notification and health risk reduction thresholds used in implementing the Air Toxics "Hot Spots" Information and Assessment Act, in order to enhance the public's right-to-know and health protection;
- Adjust permitting risk thresholds, as necessary, to prevent unreasonable restrictions on permitting of stationary sources and California Environmental Quality Act (CEQA) projects, while preventing any relaxations of current health protections;

- Incorporate all possible streamlining of the health risk assessment process to minimize administrative costs and burden to Valley businesses; and
- Develop effective outreach tools and processes to communicate with communities and businesses regarding revised procedures and risk estimates.

District activities associated with updating the District's risk management policies will proceed upon OEHHA's public release of their final proposed revisions.

Preventing Health Risks

Preventing Future Toxics Hot Spots - Risk Management Reviews

One goal of District risk management efforts is to ensure that new and modified sources of air pollution do not introduce new and unacceptable health risks at nearby residences and businesses. In order to achieve this goal, the District reviews the risk associated with each proposed permitting action where there is an increase in emissions of hazardous air pollutants or change in operations. This risk management review is performed by expert District staff as part of the engineering evaluation for these projects. Since risk management reviews are performed concurrently with other project review functions using streamlined procedures including improved modeling tools developed by District staff, use of appropriate designated modeling programs, and utilizing the most current and applicable meteorological data processed by District staff, the process does not extend the length of time necessary to process applications.

Under the District's risk management policy (Policy APR-1905), Toxic Best Available Control Technology must be applied to all units that may pose greater than de minimus levels of risk. Projects that would pose significant health risks at nearby residences or businesses are not approvable. When a project is determined not to be approvable as proposed, District staff will work with the applicant to find approvable low-risk alternatives, such as installing air toxic emissions control devices or limiting the operation of the proposed equipment.

During the year 2013, District staff performed risk management reviews for over 900 projects.

Reducing Regional Health Risks

Diesel Exhaust Risk Reduction

In August of 1998, following a comprehensive 10-year scientific investigation, the State ARB identified particulate matter emissions from diesel-fueled engines as a toxic air contaminant with the potential to pose a significant cancer risk to the public. In the analysis prepared for this determination, ARB estimated the cancer risk from the exhaust of diesel internal combustion engines to be over 500 cancer cases per million, which is far higher than the estimated cancer risk from all other sources of air pollution combined. Because of the extremely high level of risk associated with diesel exhaust, and because of the prevalence of the engines, the State chose not to address diesel exhaust using the existing risk management guidance. Instead, the State decided to establish an advisory committee of interested parties, and developed a comprehensive risk management plan that would result in significant reductions in emissions of diesel particulate matter. In September 2000, the California ARB adopted the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles. The Plan's goals were a 75 percent reduction in diesel PM by 2010 and an 85 percent reduction by 2020 from the 2000 baseline.

Reducing Health Risk through State ATCMs

ATCM for Portable Diesel-Fueled Engines

On February 26, 2004, ARB adopted an ATCM for portable diesel-fueled engines. The ATCM became effective on March 11, 2005 and contains stringent emissions standards and operational requirements that impact new and existing portable diesel engines. All existing portable diesel engines were required to be certified by January 1, 2010, and all new portable engines were required to meet the latest certification standards. In addition, the ATCM contains stringent diesel PM fleet standards that apply after 2010. The District has been implementing these new standards in the review of applications for District Portable Registrations or permits for portable diesel engines. This ATCM is expected to result in a substantial reduction in Valley diesel PM emissions over the next several years.

State Control Measure for In Use Off-road Diesel Vehicle Rule

On July 26, 2007, ARB adopted a regulation to reduce diesel PM and oxides of nitrogen (NO_X) emissions from in-use (existing) off-road heavy-duty diesel vehicles. The regulation applies to self-propelled diesel-fueled vehicles that cannot be registered and licensed to drive on-road. Examples include loaders, crawler tractors, skid steers, backhoes, forklifts, and airport ground support equipment. Vehicles with engines less than 25 horsepower are exempt. The regulation is expected to reduce diesel exhaust emissions by an average of 1,560 tons per year statewide between 2010 and 2030. This represents a 73% reduction in diesel PM

from emissions levels anticipated in the absence of this regulation, preventing an estimated 4,000 premature deaths.

Diesel Particulate Matter Control Measure for On-road Heavy-duty Diesel-fueled Vehicles Owned or Operated by Public Agencies and Utilities

On December 6, 2006, ARB adopted the Diesel Particulate Matter Control Measure for On-road Heavy-duty Diesel-fueled Vehicles Owned or Operated by Public Agencies and Utilities. This control measure will reduce emissions from these types of vehicles over several deadlines, with the first groups of vehicles required to be in compliance by December 31, 2007. This control measure is particularly effective because it reduces diesel PM emissions in the heart of residential communities where municipal and utility vehicles frequently conduct business, and where the public is significantly impacted by diesel PM emissions.

ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling

On October 20, 2005, ARB adopted an ATCM to reduce emissions of toxics and criteria pollutants by limiting idling of new and in-use sleeper berth-equipped diesel trucks. The emission performance requirements require technologies used as alternatives to idling the truck's main engine. The new engine requirements required 2008 and newer model year heavy-duty diesel engines to be equipped with non-programmable engine shutdown systems that automatically shut down the engine after five minutes of idling or, alternatively, meet a more stringent NO_X idling emission standard. Beginning January 1, 2008, in-use truck requirements require operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes at any location within California. Each year heavy-duty diesel truck idling contributes to hundreds of pounds of PM as well as other pollutants to the Valley. The District Incentive Program has subsidized truck stop support equipment to reduce diesel truck idling along the main goods movement corridors. Tests conducted by the District and ARB have determined that an idling truck can consume up to a gallon of diesel fuel an hour. The idling of heavy-duty trucks, at the time of delivery, represents a high percentage of emissions around developed areas in the San Joaquin Valley.

ATCM for Transport Refrigeration Units

On February 26, 2004, ARB adopted an ATCM to reduce emissions of diesel PM from Transport Refrigeration Units (TRUs). TRUs are refrigeration systems powered by diesel internal combustion engines designed to refrigerate or heat perishable products that are transported in various containers, including semi-trailers, truck vans, shipping containers, and rail cars. Although TRU engines are relatively small, ranging from 9 to 36 horsepower, significant numbers of these engines congregate at distribution centers, truck stops, and other facilities, resulting in the potential for health risks to those that live and work nearby. ARB

estimates that diesel PM emissions from TRUs will be reduced 65% by 2010, and 92% by 2020.

ATCM for Hexavalent Chromium for Decorative and Hard Chrome Plating and Chromic Acid Anodizing Facilities

This revision to the existing ATCM for chrome plating operations became effective on October 24, 2007. It established new, more stringent emission limitations that depend upon size and nearness to sensitive receptors, limited the use of chemical fume suppressants, and adopted new housekeeping, education, monitoring, recordkeeping, and reporting requirements. The District chose to implement this ATCM by revising Rule 7011 to incorporate the revised ATCM by reference. The District also required submission of a compliance plan and applications for Authorities to Construct (ATCs). A compliance workshop was held on November 17, 2007 to assist facility owners and operators in complying with the ATCM. The District's Governing Board adopted the rule on January 17, 2008. In late 2012, ARB scheduled a workshop to revise the ATCM to conform with; a new limit on surface tension requirements, prohibition of a specific chemical in fume suppressants, and housekeeping requirements in the federal NESHAP. That workshop was held in January 2013. Since then, ARB has not proceeded on any further rulemaking. Note that the chrome plating ATCM is the California equivalent of the federal NESHAP. Thus, the NESHAP is not enforced separately.

ATCM for Perchloroethylene Emissions from Dry Cleaning Operations

The ARB adopted an ATCM for dry cleaners using perchloroethylene on January 25, 2007. The amendments will phase out the use of Perc dry cleaning machines and related equipment by January 1, 2023. In addition, the amendments will put in place revisions to the Curriculum for the Environmental Training Program for Perc Dry Cleaning Operations (Training Curriculum). There were changes to the operational requirements for dry cleaners as well. For example, the revised ATCM requires that owners/operators maintain a spare set of gaskets on-site. Also, the trained operator must now be on-site whenever the machine is operated. These amendments became effective upon final approval by the Office of Administrative Law on December 27, 2007. The District adopted the revised ATCM in 2008 by reference.

Composite Wood Product ATCM

Formaldehyde is produced on a large scale worldwide. One major use includes the production of wood binding adhesives and resins. On April 26, 2007, ARB approved an ATCM to reduce formaldehyde emissions from composite wood products including hardwood plywood, particleboard, medium density fiberboard, thin medium density fiberboard, and also furniture and other finished products made with composite wood products. ARB developed a modified version of the Composite Wood Product ATCM that was released for a 15-day public comment period on January 31, 2008, and was approved April 18, 2008, by the Office of

Administrative Law. Further amendments to this ATCM were approved in May of 2012.

Other ATCMs

The following ATCMs have been adopted by the District as regulations:

- Hexavalent Chromium - Cooling Towers
- Ethylene Oxide - Sterilizers and Aerators
- Dioxin - Medical Waste Incinerators
- Fluorides - Phosphoric Acid Plants
- Asbestos - Containing Material for Surfacing Applications
- Toxic Metals from Non-Ferrous Metal Melting

Other ATCMs are implemented primarily through the permitting process. These include the ATCM for Stationary Compression Ignition Engines and the ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater.

Using the 2010 California Toxics Inventory (CTI) the District quantified the actual emissions reductions achieved by the implementation of ATCMs and other air toxic control measures. Examples of the resulting emissions reductions can be found in Appendix D.

Implementation of Federal Air Toxics Mandates

The Federal Environmental Protection Agency (EPA) has issued National Emission Standards for Hazardous Air Pollutants (NESHAPS) through Part 61 and Part 63 of Title 40 of the Code of Federal Regulations (CFR). The Part 61 NESHAPS were issued prior to the adoption of the Federal Clean Air Act Amendments of 1990. Those NESHAPS are specific to a particular hazardous air pollutant (HAP). Due to little activity in adopting NESHAPs, the 1990 amendments to the Federal Clean Air Act established a new procedure for developing NESHAPS. A list of 189 HAPs was established. EPA identified industries that emitted those HAPs and established a prioritized list of over 70 source categories for which Maximum Achievable Control Technology (MACT) standards would be promulgated. These MACT standards apply to major sources of HAPs, defined as sources with emissions greater than 10 tons per of a single HAP, or 25 tons per year of combined HAPs. Many of these source categories are already subject to state and local regulation, which have traditionally been more stringent than the federal regulations. EPA has already adopted MACT standards to address the majority of the source categories identified.

In addition to the MACT standards for major sources, EPA is also required to adopt NESHAP standards to reduce the health risk associated with area (non-major) sources of HAPs. As the result of a lawsuit, EPA was under court order to promulgate area source NESHAPS for 4 categories of sources by December 15, 2006; for 6 categories by June 15, 2007; and for 10 categories each 6 months thereafter until June 15, 2009. Similar to the MACT standards for major sources, many of the area sources subject to these standards are already subject to state and local regulation. Area source NESHAPS have already been promulgated for Oil and Natural Gas Production Facilities; Polyvinyl Chloride and Copolymers Production, Primary Copper Smelting, Secondary Copper Smelting, and Primary Nonferrous Metals-- Zinc, Cadmium, and Beryllium; Acrylic and Modacrylic Fibers Production, Carbon Black Production, Chemical Manufacturing: Chromium Compounds, Flexible Polyurethane Foam Production and Fabrication, Lead Acid Battery Manufacturing, and Wood Preserving; Clay Ceramics Manufacturing, Glass Manufacturing, and Secondary Nonferrous Metals Processing; Electric Arc Furnace Steelmaking Facilities; and Hospital Ethylene Oxide Sterilizers.

An amendment to 40 CFR part 63, subpart ZZZZ (control of HAPs from reciprocating internal combustion engines) was proposed on June 6, 2012, and was finalized by EPA on January 14, 2013. This regulation requires reductions in hazardous air pollutants from stationary internal combustion engines over the next several years, and requires significant recordkeeping and monitoring of the engines affected. The District is currently developing processes and policies to assist those facilities affected to comply with the new requirements.

Many other amendments to existing NESHAPS were finalized in 2012: Chemical Manufacturing, Hard & Decorative Chrome electroplating and HCL supplements,

Polyvinyl Chloride, Nitric Acid Plants, Petroleum Refineries process heaters and flares, etc. While these NESHAPS have lesser applicability in California and the San Joaquin Valley then the engine NESHAP discussed above, the District will identify, notify, and assist those facilities affected.

Current Status of Delegation

The District currently is delegated authority by EPA to implement and enforce NESHAPs through two mechanisms. First, all major sources of HAPs are required to obtain Title V operating permits. The NESHAP requirements for these major sources are included in the Title V permits for which the District is delegated authority by EPA. Second, the District is delegated authority to implement and enforce all area source NESHAPs that are included in District Rule 4002, most recently amended on May 20, 2004. The District, with the advice of counsel, will not seek delegation to implement and enforce the area source NESHAPS. Under the District's Air Toxics Program and federal regulations, there are several options for implementing new NESHAP standards. These options are discussed in more detail below. The District will choose the most appropriate option for implementing each Federal standard, and will hold public workshops to obtain public input on the implementation of these additional standards.

- **Straight Delegation**. Accepting delegation of the federal standard as written by amending Rule 4002 or by agreeing to automatic delegation with an option of opting-out for specific NESHAPS using an approach developed by the California Air Pollution Control Officers Association (CAPCOA);

- **Rule Adjustment**. Proposing minor changes to the federal MACT rule that make the adjusted rule no less stringent than the federal standard;

- **Rule Substitution**. Substituting one or more existing, new, or amended District rules for the federal standard (It should be noted that California Districts have been delegated authority for the chrome plating and dry cleaning NESHAPS because EPA has agreed that the ATCMs for those source categories are equivalent to the NESHAPS.);

- **Streamlining Multiple Applicable Requirements**. Minimizing duplicative requirements by placing the more stringent emission limit or workplace practice standard on the permit along with the corresponding monitoring, recordkeeping, and reporting requirements;

- **Program Substitution**. Using existing programs to assure compliance with the requirements of federal standards;

- **No Delegation**. Using existing programs to reduce the emissions of hazardous air pollutants without delegation of federal standards.

The NESHAPS for which the District has received delegation through Rule 4002 are listed in Table B-1 in Appendix B. All current NESHAPS for which the District has not received delegation through Rule 4002 are listed in Table B-2 in Appendix B.

Regardless of the status and type of delegation, the District believes strongly in working with the affected sources to make them aware of the requirements in a timely manner, and then help them understand and comply with these public health protective regulations.

California Environmental Quality Act and Health Risk Reduction

The California Environmental Quality Act (CEQA) requires public agencies to evaluate project environmental impacts and all feasible alternatives or mitigation measures that can substantially reduce or avoid those impacts. Generally, the main responsibility for satisfying CEQA requirements, or "lead agency" role, falls under the responsibility of city or county planning agencies.

From a health risk perspective, land use decisions are critical to improving and preventing degradation of air quality within the San Joaquin Valley Air Basin because land use patterns greatly influence potential exposure of sensitive receptors to sources of air pollution. Under CEQA, land use agencies must evaluate the potential significance of health risks associated with the projects they approve. However, most land use agencies lack the necessary technical expertise to asses health risk impacts associated with exposure to toxic air contaminants. As a result, there is a great need for the District to provide land use agencies tools that will assist them with incorporating health risk assessment from exposure to toxic air contaminants into their land use decisions.

Modeling Guidance and Tools

The District has traditionally provided guidance to local lead agencies in evaluating and addressing air pollution impacts from projects subject to CEQA. Recognizing the need for information and screening tools to support decision makers as they establish policies and programs for CEQA, the District has revised its Health Risk Assessment (HRA) modeling guidance document to address issues that arise in CEQA HRAs, and distributed this guidance to land use agencies and posted it the District website, www.valleyair.org.

Public Assistance

With concerns about health risk impacts from CEQA projects and the need to streamline the CEQA HRA review process; the District has dedicated a significant amount of effort into providing assistance to proponents and their consultants in preparing CEQA HRAs. This assistance includes providing extensive assistance to consultants regarding health risk modelling. In addition to providing direct assistance, the District carefully reviews the HRAs included in CEQA documents circulated by public agencies for review, and provides further feedback and guidance.

Air Dispersion Modeling

Air quality models use mathematical techniques to simulate the physical and chemical processes that affect air pollutants as they disperse and react in the atmosphere. These models form the backbone of the air toxics management process, as they are used to assess the potential exposure of the public to various toxic emissions. Using inputs of meteorological data and source parameter information such as emission rates and stack height, models predict ambient concentrations of primary pollutants that are emitted. Models are also important to the air quality management process because they determine compliance with National/State Ambient Air Quality Standards (NAAQS/SAAQS), and other regulatory requirements such as New Source Review (NSR).

EPA Regulatory Model (AERMOD)

The American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee (AERMIC) was formed to introduce state-of-the-art modeling concepts into the EPA's air quality models. Through AERMIC, a modeling system, AERMOD, was developed to incorporate air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain.

With the promulgation of AERMOD as the preferred air dispersion model in EPA's *Guideline on Air Quality Models* (signed by the EPA Administrator on October 21, 2005 and published November 9, 2005 in the *Federal Register*), AERMOD is used for appropriate application as a replacement for ISCST3 after November 9, 2006.

Meteorological Data

The District purchased data generated from the MM5 meteorological model for the western part of the San Joaquin Valley. This allowed for better modeling on the Westside of the valley; where there are no Automated Surface Observation System (ASOS) that collect sufficient data needed for met processing.

All processed data is freely available for download on the District's web page at http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

Modeling Guidance

The District developed a modeling guidance document that was designed to address major issues involved with running AERMOD and specific guidance with default modeling parameters for common source types. The modeling guidance

document can be found on the District's web site at http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

In 2012 the Office of Environmental Health Hazard Assessment (OEHHA) developed new modeling guidance. Lakes Environmental is in the process of updating the AERMOD modeling program in order to accommodate the changes in modeling resulting from the new OEHHA guidance.

Modeling Support to Public Agencies, State-wide, and Others

The District is one of the leading air dispersion modeling experts in the State of California by ensuring that the newest models and techniques are implemented and providing modeling guidance to support internal and external users. Additionally, District staff has been called by local government agencies, other Districts, consultants working on projects outside the Valley, and ARB to provide modeling assistance.

The District's Health-Risk Reduction Strategy

In September 2010, the District Governing Board adopted the Health-Risk Reduction Strategy to maximize public health improvements within the District's various strategies and programs. In line with the District's Air Toxic Program, the overall goal of the Health-Risk Reduction Strategy is to minimize the Valley population's exposure to air pollution and corresponding health risk. This risk reduction goal is being pursued through the integration of emerging scientific knowledge into the District's control strategies, incentive programs, public communication, and other strategies to prioritize those efforts that provide the biggest public health benefits.

District's Health-Risk Reduction Strategy Implementation

The District's Health-Risk Reduction Strategy has been implemented through a variety of programs:

- **Attainment Plans and Control Strategies.** Within the District's recent *2012 PM2.5 Plan*, the District prioritized strategies achieving the greatest public health benefits while satisfying applicable attainment planning requirements. The District also analyzed the health benefits that would result from implementation of the plan. Several examples of prioritized control strategies included in the *2012 PM2.5 Plan* include new measures to further reduce emissions from commercial cooking (Rule 4692) and residential wood burning (Rule 4901). These measures will reduce some of the most harmful types of particulate matter when and where those reductions are most needed in urban, highly populated areas. The District has prioritized commitments to strengthen these programs due to the significant and well-researched public health benefits.

- **Research.** The District actively tracks, sponsors, and coordinates research projects related to public health and air quality. For example, in 2010–2011, the District sponsored a first-of-its-kind epidemiological investigation of health effects of air pollution in Modesto, Fresno, and Bakersfield. The study found that high particulate matter and ozone concentrations clearly correlate to increased hospital and ER admission rates, especially for those 19 and younger. The District sponsored a follow-up study in 2011-2012. The District is also sponsoring a pilot study of ultra-fine particulates in Fresno, partnering with UCSF-Fresno, to investigate the quantity and spatial distribution of ultra-fine plumes from motor vehicles, lawn care equipment, wood burning, and restaurants.

- **District incentive programs.** The District has implemented a number of incentive programs that prioritize public health benefits, including programs that target heavy duty diesel equipment, old school buses, residential wood burning

devices, and more. A significant portion of this funding provides direct benefits to environmental justice communities in the Valley.

- **The District's information and educational programs, including the Real-Time Air Quality Advisory Network (RAAN).** RAAN uses real-time data from air monitoring stations throughout the Valley to provide hour-by-hour air quality updates to schools and other subscribers. Subscribers can use this information to make informed decisions and plan outdoor activities for times with the best air quality, reducing potential air quality health risks.

APPENDICES

Appendix A: Toxic Emissions Summary
Appendix B: AB 2588 District Implementation Flow Chart
Appendix C: Current Status of NESHAP Delegation
Appendix D: ATCM Emissions Reductions

Appendix A

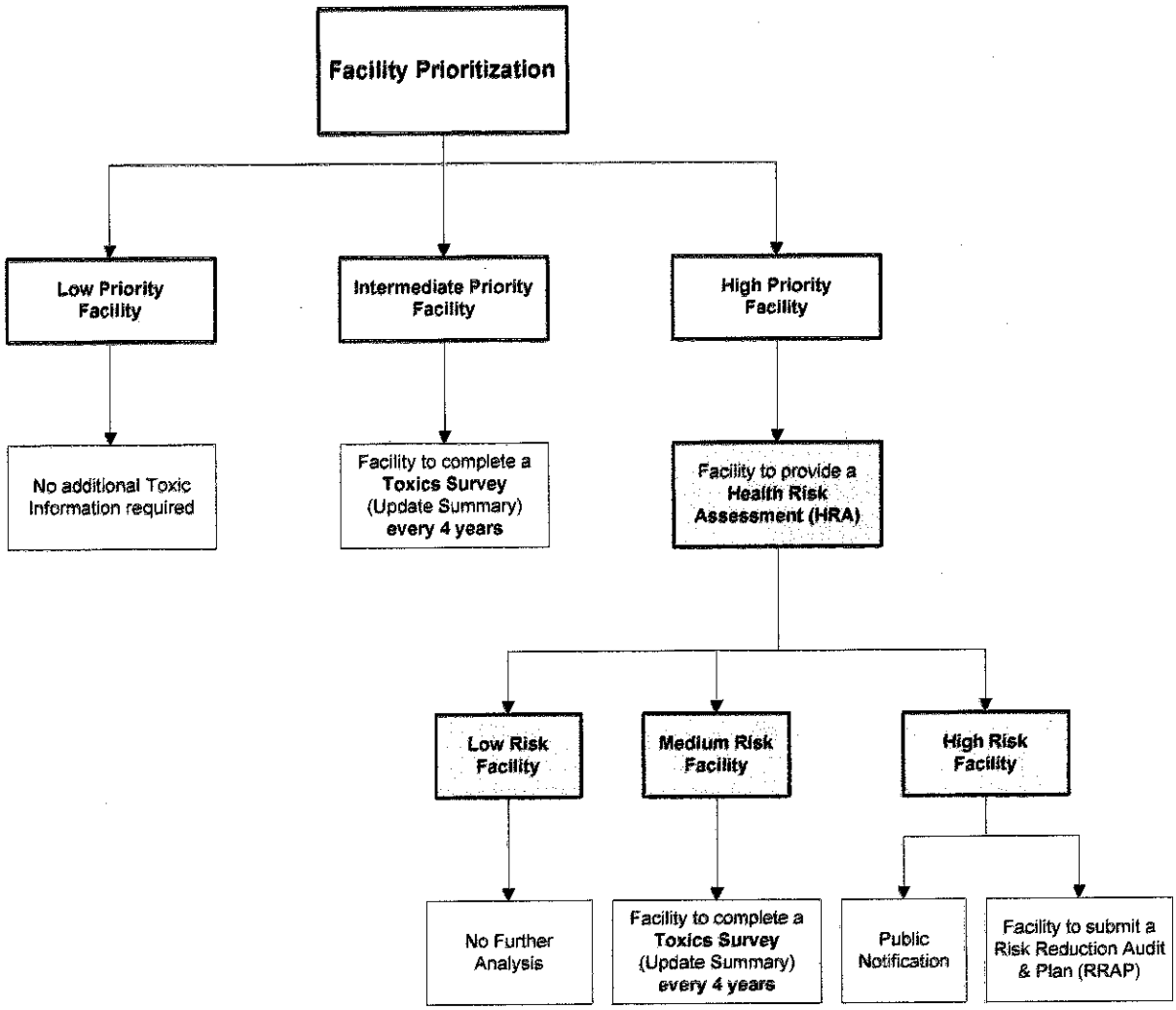
Table A1 - Toxic Emissions Summary

Pollutant	2010 CTI (tons/yr)
Diesel Particulate Matter	2,520
Formaldehyde	2,318
Benzene	1,020
Acetaldehyde	3,512
Acrolein	153
1,3-Butadiene	269
Methylene Chloride	247
Perchloroethylene	448
PAHs	238
p-Dichlorobenzene	130
Manganese	217
Styrene	96
Trichloroethylene	46
Chromium	34
Lead	28
Nickel	18
Acrylonitrile	7
Arsenic	5
Vinyl Chloride	7
Cadmium	3
Mercury	2
Ethylene Oxide	0
Chloroform	2
Ethylene Dichloride	0
Beryllium	0
Carbon Tetrachloride	0
Dioxins/Benzofurans	0
Chromium, Hexavalent	0

Emissions for eight counties of San Joaquin Valley from California Air Resources Board draft California Toxics Inventory (CTI) for 2010, the latest available year. Data for CTI was obtained from a variety of District and State sources.

Appendix B

Figure B1 – AB 2588 Toxic "Hot Spots" District Implementation



Appendix C

Current Status of NESHAP Delegation

NESHAP Delegated

NESHAPS for Which Authority Has Been Delegated to the District Because They Are Included in Rule 4002

Table B-1 - 40 CFR 63

Subpart	*Title*
A	General Provisions
F-I	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry
J	National Emission Standards for Hazardous Air Pollutants from Polyvinyl Chloride and Copolymers Production
L	National Emission Standards for Coke Oven Batteries
R	National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)
S	National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry
T	National Emission Standards for Halogenated Solvent Cleaning (except §63.462 - Batch cold cleaning machine standards)
U	National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins
W	National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production
X	National Emission Standards for Hazardous Air Pollutants From Secondary Lead Smelting
Y	National Emission Standards for Marine Tank Vessel Loading Operations
AA	National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants
BB	National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants
CC	National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries
DD	National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations
EE	National Emission Standards for Magnetic Tape Manufacturing Operations
GG	National Emission Standards for Aerospace Manufacturing and Rework Facilities
HH	National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities
II	National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)

Subpart	Title
JJ	National Emission Standards for Wood Furniture Manufacturing Operations
KK	National Emission Standards for the Printing and Publishing Industry
LL	National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants
MM	National Emission Standards for Hazardous Air Pollutants from Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills
YY	National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology (Generic MACT)
CCC	National Emission Standards for Hazardous Air Pollutants for Steel Pickling--HCl Process Facilities and Hydrochloric Acid Regeneration Plants
DDD	National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production
GGG	National Emission Standards for Hazardous Air Pollutants From Pharmaceutical Production
HHH	National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities
III	National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production
JJJ	National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
LLL	National Emission Standards for Hazardous Air Pollutants for Source Categories; Portland Cement Manufacturing Industry
MMM	National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient Production
NNN	National Emission Standards for Hazardous Air Pollutants for Source Categories; Wool Fiberglass Manufacturing
OOO	National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins
PPP	National Emission Standards for Hazardous Air Pollutants for Polyether Polyols Production
QQQ	National Emission Standards for Hazardous Air Pollutants from Primary Copper Smelting
RRR	National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production
TTT	National Emission Standards for Hazardous Air Pollutants for Primary Lead Smelting
UUU	National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units
VVV	National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works
XXX	National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese
AAAA	National Emission Standards for Hazardous Air Pollutants from Municipal

Subpart	Title
	Solid Waste Landfills
CCCC	National Emission Standards for Hazardous Air Pollutants from Manufacturing of Nutritional Yeast
EEEE	National Emission Standards for Hazardous Air Pollutants from Organic Liquids Distribution (Non-Gasoline)
FFFF	National Emission Standards for Hazardous Air Pollutants from Miscellaneous Organic Chemical Manufacturing
GGGG	National Emission Standards for Hazardous Air Pollutants from Solvent Extraction for Vegetable Oil Production
HHHH	National Emission Standards for Hazardous Air Pollutants from Wet-Formed Fiberglass Mat Production
JJJJ	National Emission Standards for Hazardous Air Pollutants from Paper and Other Web Coating
KKKK	National Emission Standards for Hazardous Air Pollutants from Surface Coating of Metal Cans
MMMM	National Emission Standards for Hazardous Air Pollutants from Surface Coating of Miscellaneous Metal Parts and Products
NNNN	National Emission Standards for Hazardous Air Pollutants from Surface Coating of Large Appliances
OOOO	National Emission Standards for Hazardous Air Pollutants from Printing, Coating, and Dyeing of Fabrics and Other Textiles
PPPP	National Emission Standards for Hazardous Air Pollutants from Surface Coating of Plastic Parts and Products
QQQQ	National Emission Standards for Hazardous Air Pollutants from Surface Coating of Wood Building Products
RRRR	National Emission Standards for Hazardous Air Pollutants from Surface Coating of Metal Furniture
SSSS	National Emission Standards for Hazardous Air Pollutants from Surface Coating of Metal Coil
TTTT	National Emission Standards for Hazardous Air Pollutants from Leather Finishing Operations
UUUU	National Emission Standards for Hazardous Air Pollutants from Cellulose Products Manufacturing
VVVV	National Emission Standards for Hazardous Air Pollutants from Boat Manufacturing
WWWW	National Emission Standards for Hazardous Air Pollutants from Reinforced Plastic Composites Production
XXXX	National Emission Standards for Hazardous Air Pollutants from Rubber Tire Manufacturing
YYYY	National Emission Standards for Hazardous Air Pollutants from Stationary Combustion Turbines
AAAAA	National Emission Standards for Hazardous Air Pollutants from Lime Manufacturing Plants
BBBBB	National Emission Standards for Hazardous Air Pollutants from Semiconductor Manufacturing
CCCCC	National Emission Standards for Hazardous Air Pollutants from Coke

Subpart	***Title***
	Ovens: Pushing, Quenching, and Battery Stacks
EEEEE	National Emission Standards for Hazardous Air Pollutants from Iron and Steel Foundries
FFFFF	National Emission Standards for Hazardous Air Pollutants from Integrated Iron and Steel Manufacturing
GGGGG	National Emission Standards for Hazardous Air Pollutants from Site Remediation
HHHHH	National Emission Standards for Hazardous Air Pollutants from Miscellaneous Coating Manufacturing
IIIII	National Emission Standards for Hazardous Air Pollutants from Mercury Emissions From Mercury Cell Chlor-Alkali Plants
JJJJJ	National Emission Standards for Hazardous Air Pollutants from Brick and Structural Clay Products Manufacturing
KKKKK	National Emission Standards for Hazardous Air Pollutants from Clay Ceramics Manufacturing
LLLLL	National Emission Standards for Hazardous Air Pollutants from Asphalt Processing and Asphalt Roofing Manufacturing
MMMMM	National Emission Standards for Hazardous Air Pollutants from Flexible Polyurethane Foam Fabrication Operations
PPPPP	National Emission Standards for Hazardous Air Pollutants from Engine Test Cells/Stands
QQQQQ	National Emission Standards for Hazardous Air Pollutants from Friction Materials Manufacturing Facilities
RRRRR	National Emission Standards for Hazardous Air Pollutants from Taconite Iron Ore Processing
SSSSS	National Emission Standards for Hazardous Air Pollutants from Refractory Products Manufacturing
TTTTT	National Emission Standards for Hazardous Air Pollutants from Primary Magnesium Refining

NESHAP Not Delegated

NESHAPS For Which Authority Has Not Been Delegated to the District Because They Are Not Included in Rule 4002

Table B-2 - 40 CFR 63

Subpart	*Title*
L	National Emission Standards For Coke Oven Batteries
M	National Perchloroethylene Air Emission Standards For Dry Cleaning Facilities – California Not Delegated Authority To Enforce 17 CCR 93109 Instead Of Subpart M For Major Sources.
N	National Emission Standards For Chromium Emissions From Hard And Decorative Chromium Electroplating And Chromium Anodizing Tanks – California Delegated Authority To Enforce 17 CCR 93102 Instead Of Subpart N. Applies To Old ATCM.
O	Ethylene Oxide Emissions Standards For Sterilization Facilities
Q	National Emission Standards For Hazardous Air Pollutants For Industrial Process Cooling Towers
OO	NATIONAL Emission Standards For Tanks - Level 1
PP	National Emission Standards For Containers
QQ	National Emission Standards For Surface Impoundments
RR	National Emission Standards For Individual Drain Systems
SS	National Emission Standards For Closed Vent Systems, Control Devices, Recovery Devices And Routing To A Fuel Gas System Or A Process
TT	National Emission Standards For Equipment Leaks - Control Level 1
UU	National Emission Standards For Equipment Leaks - Control Level 2 Standards
VV	National Emission Standards For Oil-Water Separators And Organic-Water Separators
WW	National Emission Standards For Storage Vessels (Tanks) - Control Level 2
XX	National Emission Standards For Ethylene Manufacturing Process Units: Heat Exchange Systems And Waste Operations
EEE	National Emission Standards For Hazardous Air Pollutants From Hazardous Waste Combustors
DDDD	National Emission Standards For Hazardous Air Pollutants: Plywood And Composite Wood Products
IIII	National Emission Standards For Hazardous Air Pollutants: Surface Coating Of Automobiles And Light-Duty Trucks
ZZZZ	National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines
DDDDD	National Emission Standards For Hazardous Air Pollutants For Industrial, Commercial, And Institutional Boilers And Process Heaters
NNNNN	National Emission Standards For Hazardous Air Pollutants: Hydrochloric Acid Production
WWWWW	National Emission Standards For Hospital Ethylene Oxide Sterilizers
YYYYY	National Emission Standards For Hazardous Air Pollutants For Area

Subpart	Title
	Sources: Electric Arc Furnace Steelmaking Facilities
ZZZZZ	National Emission Standards For Hazardous Air Pollutants For Iron And Steel Foundries Area Sources
BBBBBB	National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities
CCCCCC	National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Dispensing Facilities
DDDDDD	National Emission Standards For Hazardous Air Pollutants For Polyvinyl Chloride And Copolymers Production Area Sources
EEEEEE	National Emission Standards For Hazardous Air Pollutants For Primary Copper Smelting Area Sources
FFFFFF	National Emission Standards For Hazardous Air Pollutants For Secondary Copper Smelting Area Sources
GGGGGG	National Emission Standards For Hazardous Air Pollutants For Primary Nonferrous Metals Area Sources - Zinc, Cadmium, And Beryllium
HHHHHH	National Emission Standards For Hazardous Air Pollutants: Paint Stripping And Miscellaneous Surface Coating Operations At Area Sources
LLLLLL	National Emission Standards For Hazardous Air Pollutants For Acrylic And Modacrylic Fibers Production Area Sources
MMMMMM	National Emission Standards For Hazardous Air Pollutants For Carbon Black Production Area Sources
NNNNNN	National Emission Standards For Hazardous Air Pollutants For Chemical Manufacturing Area Sources: Chromium Compounds
OOOOOO	National Emission Standards For Hazardous Air Pollutants For Flexible Polyurethane Foam Production And Fabrication Area Sources
PPPPPP	National Emission Standards For Hazardous Air Pollutants For Lead Acid Battery Manufacturing Area Sources
QQQQQQ	National Emission Standards For Hazardous Air Pollutants For Wood Preserving Area Sources
RRRRRR	National Emission Standards For Hazardous Air Pollutants For Clay Ceramics Manufacturing Area Sources
SSSSSS	National Emission Standards For Hazardous Air Pollutants For Glass Manufacturing Area Sources
TTTTTT	National Emission Standards For Hazardous Air Pollutants For Secondary Nonferrous Metals Processing Area Sources

Appendix D

Table D1 - ATCM Emission Reductions

ATCM	Pollutant	Effective Date	Pre-ATCM Emissions (ton/yr)	2010 Emissions (ton/yr)	% Reduction
On-road Heavy Duty Diesel Vehicles	Particulate Matter	12/31/2007	4,591.63	1,825	60%
Hexavalent Chromium (Plating)	Hexavalent Chromium	1/17/2008	0.23	0.16	30%
Perchloroethylene (Dry Cleaning)	Perchloroethylene	12/12/2007	375.14	38.90	90%
Composite Wood Product	Formaldehyde	4/18/2008	756	245	68%