



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

**2006 Annual Report on the
District's Air Toxics Program**

About this Report

This “2006 Annual Report on the District’s Toxics Program” was prepared by your San Joaquin Valley Air Pollution Control District. The District is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality-management strategies. State law requires the District to prepare and distribute an annual report describing the implementation of the State Air Toxics Hot Spots Information and Assessment Act. Implementing the State Air Toxics Hot Spots Act, however, is only one part of the District’s air toxics program. Therefore, in addition to describing the District’s efforts and progress in implementing the State Hot Spots Act, the Annual Air Toxics Report also addresses the other District efforts aimed at reducing Valley residents’ exposure to toxic air contaminants. Since the inception of this program, these efforts have resulted in significant reductions in the exposure of Valley residents to health risk from exposure to toxic air contaminants. This past year saw substantial reductions in risk to Valley residents due to exposure to toxic air contaminants, as detailed in this report.

Questions regarding the District’s air toxics program may be directed to

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Emissions of Toxic Air Contaminants in the San Joaquin Valley

The U.S. EPA and the California Air Resources Board have identified over 800 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 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 is given in Table 1 below.

Table 1 - San Joaquin Valley Hazardous Air Pollutant Emissions

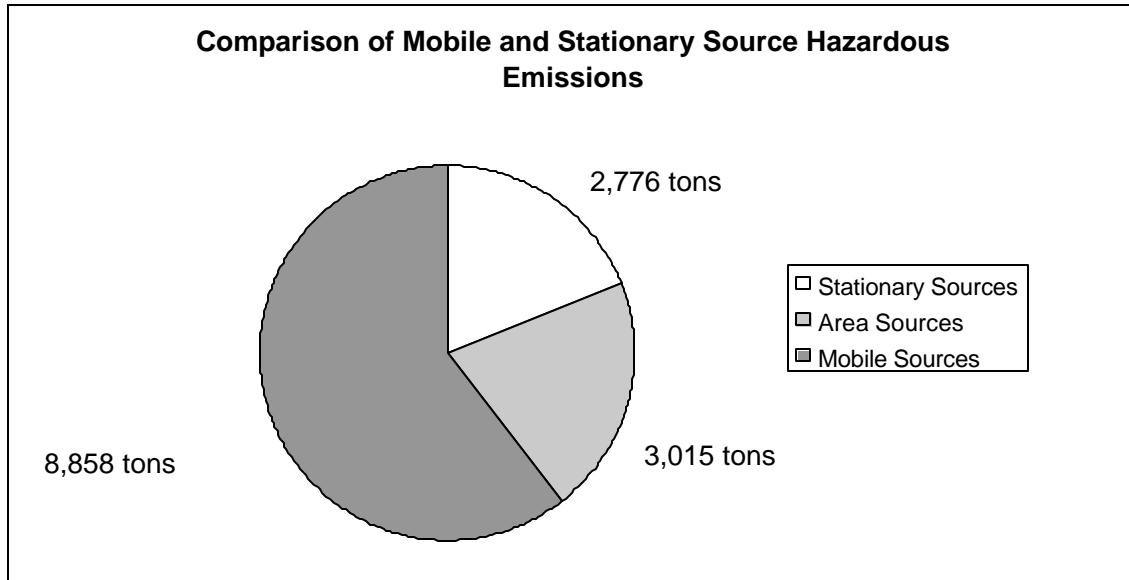
Pollutant	Emissions (tons per year)
Diesel Particulate Matter	4,124
Formaldehyde	3,517
Benzene	1,879
Acetaldehyde	1,139
1,3-Butadiene	446
Perchloroethylene	571
Acrolein	563
Methylene Chloride	437
PAHs	418

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

Toxic Air Contaminants 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, which are primarily regulated by the District. Figure 1 below shows a comparison of mobile and stationary source emissions of hazardous air pollutants in the San Joaquin Valley. Approximately 60% of hazardous air pollutant emissions are from mobile sources.

The stationary source information included in the CTI is provided by facility operators and/or districts pursuant to the [Air Toxics "Hot Spots" Act of 1987](#) (AB 2588), and from aggregated point source estimates by the ARB and/or districts. [Areawide](#) sources are those that do not have specific locations and are spread out over large areas such as paved or unpaved roads and consumer products. Mobile sources consist of [on-road](#) vehicles such as passenger cars and trucks, motorcycles, busses, and heavy-duty trucks and other mobile. [Other mobile](#) includes but is not limited to trains, ships, off-road equipments, off-road motorcycles, and boats. Natural sources in this inventory contain information for wildfires and petroleum seeps.

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



Implementation of the State Air Toxics “Hot Spots” Act

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.

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

deemed to pose a significant risk to the public are one motivating factor for such reductions in risk from facilities. Of the sixteen Valley facilities that have been deemed to pose significant health risks since implementing the toxics program, fourteen have subsequently reduced those risks to a level no longer considered significant. The only two remaining significant risk facilities are Diamond Walnut Growers, in Stockton, and Kern Oil & Refining Company, in Bakersfield. The significant health risk that once impacted thousands of Valley residents due to these facilities has almost been eliminated. Several examples of these reductions in toxic emissions and health risk are described in the following table.

Table II – Examples of Significant Risk Addressed Under “Hot Spots” Program

Facility Name	Status
Carpenter Company, Lathrop	Found to pose a significant cancer risk in 1999. The facility notified approximately 300 area residents in 1999. During 2001, Carpenter Company submitted an application to modify their operation to stop using Methylene Chloride as the primer-blowing agent. The elimination of Methylene Chloride emissions reduced the facility health risk to a level that is no longer considered significant.
Owens-Brockway, Lathrop	Found to pose a significant cancer risk in 1989, primarily due to hexavalent chromium emissions from the glass furnace. The furnace was subsequently rebuilt, eliminating the source of the hexavalent chromium emissions. The facility notified area residents and performed toxics tests in 1994 and 1995. The tests indicated that the potential health risk was reduced to a level no longer considered significant.
Pacific Wood Preserving, Bakersfield	Submitted a risk assessment which described toxic emissions during the 1990 calendar year. Based on the health risk assessment, the maximum offsite cancer risk was 620 in a million due to creosote emissions from this facility. The facility notified 840 area residents and the risk was subsequently eliminated by changes to the wood preserving process.

Saint Agnes Hospital, Fresno	Found to pose a significant cancer risk in 1991 due to the ethylene oxide emissions resulting from the cleaning of medical instruments. The facility notified 22 area residents. During 1991, Saint Agnes installed ethylene oxide pollution control equipment that reduced the risk to a level no longer considered significant.
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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 still required to provide updates to their emissions reports every four years. In 2006, the District reviewed and approved toxic emissions inventory reports and updates for 37 Valley facilities. New data from these reports was entered into the California Emission Inventory Data and Reporting System (CEIDARS). The following table summarizes the 37 updates and reports approved by the District in 2006.

Table II – 2006 Reports and Updates Approved

Facility Name	Location
California State Prison	Corcoran
Del Monte Corporation Plant 1	Modesto
Gallo Glass Company	Modesto
Hershey Chocolate & Confectionary	Oakdale
BP West Coast Products LLC	Stockton
Applied Aerospace Structures Corporation	Stockton
Silgan Containers	Riverbank
Pacific Coast Products	Lodi
Conopco DBA Unilever Best Foods N America	Stockton
Stockton Municipal Utility	Stockton

Stockton RWCF	Stockton
Thermal Energy Development Corporation LTD	Tracy
California State Prison-Avenal	Avenal
J.P. Oil Company, Inc.	Kettleman Hills
Chevron USA, Inc.	Heavy Oil Production, Fresno
Coalinga Cogeneration Company	Coalinga
Duncan Enterprises	Fresno
Hanford LP	Hanford
Calmat Company	Friant
AES Mendota, LP	Mendota
PCPC/Rock – Tenn Company	Kerman
Pacific Gas & Electric Company	Avenal
Agri-Cel Inc.	Delano
Consolidated Fiberglass	Bakersfield
Kern Oil & Refining Company	Bakersfield
Kraft General Foods (Knudsen)	Visalia
MacPherson Oil Company	Heavy Oil Central
McKittrick Limited	McKittrick
Schaefer Oil Company	Heavy Oil Central
Stockdale Oil & Gas, Inc.	Heavy Oil Central
CDR Systems Corporation	Corcoran
Conoco Phillips Pipe line Company	Lost Hills
Waterman Industries Inc.	Exeter
Sun-Maid Growers of California	Kingsburg
J G Boswell Company Oil Mill	Corcoran
Visalia Wastewater Treatment	Visalia
West Kern Water District	Taft

Based on the submitted update summaries, three facilities will be required to submit Toxic Emissions Inventory Reports in 2007. These facilities are:

Table III – 2006 Reports and Updates Approved

Facility Name	Location
Pacific Gas & Electric	Avenal
Sun Maid Growers	Kingsburg
Visalia Wastewater Treatment	Visalia

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. The District prepared updated toxic emissions inventories for these facilities in 2003, and will update this data again this coming year in 2007.

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 Toxic Emission Inventory Report, if there has been a significant increase in emissions since the facility's previous report was submitted, the District performs a prioritization 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. District personnel perform the prioritizations using computerized spreadsheets and database programs. The following table summarizes the 10 prioritizations performed for Valley facilities in 2006.

Table IV – 2006 Prioritization Statistics

Facility Name	Location	Prioritization
Visalia Wastewater Treatment	Visalia	Low
Earth Grains	Fresno	Intermediate
Saint-Gobain Containers, Inc.	Madera	Intermediate
Prompt Precision Metals	Ceres	Intermediate
General Mills	Lodi	Intermediate
Spreckels Sugar	Mendota	Intermediate
Dairy Farmers of America	Hughson	Intermediate
Chevron USA	Lost Hills	Intermediate
Crimson Resource Management	Taft	Intermediate
Chevron USA Inc.	Light & Heavy Oil Western	Intermediate

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. 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. The actual risk may be much less

than the calculated risk. The District did not approve any new or revised health risk assessments in 2006; however the below significant risk facilities have some new developments with regard to their health risk assessments.

Diamond Walnut Growers

The Diamond Walnut Growers operation located in Stockton, CA submitted an updated toxic emissions inventory report for calendar year 2004 and was determined to be a high priority facility again due to their fumigation emissions. In 2006, Diamond Walnut Growers submitted a refined health risk assessment to determine the exposure to the surrounding public. In addition, Diamond Walnut Growers recently modified their fumigation operation to include additional control equipment that has reduced their fumigation emissions and exposure to the public. The District is currently reviewing the refined health risk assessment submitted by Diamond Walnut, which is expected to show a reduction in potential health risk from the facility.

Diamond Walnut Growers was previously designated as a significant risk facility with a cancer risk of 13.0 in a million and performed public notification as required under State law in 2005. They will be required to repeat the public notification process in 2007.

Kern Oil & Refining Company

Kern Oil & Refining Company was also previously designated as a significant risk facility with a cancer risk of 14.5 in a million and performed public notification as required under State law in 2005. They will be required to repeat the public notifications process in 2007. In 2006, Kern Oil & Refining Company submitted an updated toxic emissions inventory report for calendar year 2004. The District is currently reviewing this updated report. Depending on the prioritization for Kern Oil & Refining Company based on the updated report, a revised health risk assessment may be required.

District Assistance to Toxics Hot Spots Sources and Streamlining Efforts

The District remains in close contact with facilities tracked through the Toxics Hot Spots Program to assist them in meeting ongoing requirements. The District offers technical assistance to these facilities, minimizing the economic impact on the sources while increasing the accuracy of reported toxics information. 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 has also made other efforts at providing assistance to facilities, such as developing air dispersion modeling guidelines, being the first district in California to

implement the use of the “AERMOD” modeling program, and continuing training of District staff in CARB’s HARP program - all of which improve the quality of service offered to affected facilities and the public.

Preventing the Creation of Future Toxics Hot Spots - Risk Management

Activities

The goal of District risk management efforts is to ensure that new and modified sources of air pollution do not pose 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. This risk management review is performed by 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, 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 generally 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 toxic

emissions control devices or limiting the operation of the proposed equipment. During 2006, District staff performed risk management reviews for over 900 projects with increases in hazardous air pollutant emissions.

Reducing Public Exposure to Health Risks

District activities aimed at limiting and reducing emissions of toxic air contaminants include: 1) addressing the risk due to diesel exhaust; 2) implementing state air toxics mandates and other efforts; 3) implementing federal air toxics mandates; and 4) Risk Reduction Audits and Plans performed as part of Air Toxics Hot Spots Requirements.

Addressing Risk Due to Diesel Exhaust

In August of 1998, following a comprehensive 10-year scientific investigation, the California Air Resources Board 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, the 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, they chose to establish an advisory committee of interested parties, and develop

a comprehensive risk management plan that would result in significant reductions in emissions of diesel particulate matter. In September 2000, the California Air Resources Board (ARB) adopted the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles*. The Plan's goals are a 75 percent reduction in diesel PM by 2010 and an 85 percent reduction by 2020 from the 2000 baseline.

Addressing Diesel Risk Through Cleaner Fuels

California's diesel fuel is the least polluting in the nation. In 2003, the ARB adopted a new regulation lowering the sulfur content of diesel fuel to enable the use of advanced emission control technologies for diesel engines. The California diesel regulations for sulfur and aromatics are estimated to result in 25 percent less PM and about seven percent less oxides of nitrogen (NOx) emissions. Sulfur levels in diesel fuel were required to be less than 15 parts per million by July, 2006 (as compared to the previous standard of 500 parts per million). This lower-sulfur diesel fuel requirement is fully implemented now, throughout the San Joaquin Valley, and has resulted in significantly reduced diesel PM emissions.

Addressing Diesel Risk Through Cleaner Engines

1. District Rule 4702 and the Airborne Toxic Control Measure for Stationary Compression Ignition Engines

On July 16, 2005, the District adopted Rule 4702, which contains stringent emissions standards and operational requirements for internal combustion engines that impact existing diesel engines, including agricultural pump engines. On November 8, 2004, and subsequently on November 10, 2006, ARB approved an Airborne Toxic Control Measure (ATCM) to control diesel PM emissions and other air pollutants from diesel engines. The ATCM includes stringent emissions standards and operational requirements for new and existing stationary diesel engines, including requirements for existing agricultural engines similar to Rule 4702.

In 2006, implementation of these rules significantly reduced diesel PM emissions from emergency backup engines by reducing the number of hours allowed for engine testing and maintenance, from 200 hours per year, to 20 to 50 hours per year, depending on the level of diesel PM emissions from the specific engine. This reduction equates to a 75-90% reduction in diesel PM emissions during engine testing and maintenance. To reflect these new lower levels of operation, the District modified nearly 2,000 permits for emergency backup engines in 2006.

Additionally, many agricultural pump engines were replaced in 2006 in anticipation of these new requirements. Over 700 diesel agricultural pump engines were contracted for replacement in 2006 through the District's incentive funding program, with approximately 500 of the engines being replaced with electric motors, and 200 being replaced with cleaner certified diesel engines.

These incentive-funded replacements result in a reduction of over 100 tons per year of diesel PM emissions. In addition to replacements funded through District programs, many more diesel agricultural pump engines have been either electrified or replaced with cleaner diesel engines. The diesel PM reductions resulting from replacement of existing agricultural pump engines is expected to continue at an aggressive pace over the next several years, bringing a tremendous reduction of diesel PM emissions to the Valley.

2. ATCM for Portable Diesel-Fueled Engines

On February 26, 2004, the 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 are required to be certified by January 1, 2010, and all new portable engines are required to meet the latest certification standards. In addition, the ATCM contains stringent diesel PM fleet standards that apply after 2010. In 2006, the District began implementing these new standards in the review of applications for District Portable Registrations. This ATCM is expected to result in a substantial reduction in Valley diesel PM emissions over the next several years.

3. District Incentive Program

In addition to implementing regulations requiring reductions in diesel PM emissions, the District has programs in place to provide incentives for owners of

higher polluting diesel engines or vehicles to replace that equipment with cleaner, less-polluting equipment. In 2006, some of the components of District's incentive program that have brought about substantial reductions in diesel PM are:

1. Agricultural Pump Engines
2. School Bus PM Retrofits
3. School Bus Replacements
4. Forklifts
5. Locomotive Engines
6. Heavy Duty On-Road Vehicles
7. Heavy Duty Off-Road Vehicles

Addressing Diesel Risk Through Toxic Best Available Control Technology

(TBACT)

Although the vast majority of diesel engines are associated with mobile sources of air pollution (trucks, locomotives, tractors, etc.) regulated by the State, many industrial and commercial operations also use stationary and transportable diesel engines that are subject to District permitting requirements. Under the District's Risk Management Policy for New and Modified Sources, Toxic Best Available Control Technology (TBACT) is required for emission units that pose a "greater than "de minimus" increase in risk. However, before the requirements of this policy could be implemented for diesel engines, TBACT still had to be determined. This TBACT determination came in October of 2000, when the ARB approved the Risk Management Guidance for the Permitting of New Stationary

Diesel-Fueled Engines, which was developed by the state-wide advisory committee of interested parties. In approving the guidance, the State Board found that catalyzed diesel particulate filters, which have been used successfully for a wide variety of applications, are TBACT for stationary non-emergency engines, and that an emission rate of 0.149 grams per Horsepower-hour or less is TBACT for emergency engines, a reduction of 60% from typical diesel combustion emissions levels. The District began implementing the State guidance for stationary diesel engines in March of 2001. Since that time, the District has approved hundreds of proposals for new cleaner engines meeting these TBACT requirements.

Implementation of State Air Toxics Mandates and Other Efforts

In 2006, ARB and the District implemented several regulations and efforts aimed at reducing the public exposure to toxic air contaminants. These regulations and efforts include the following, and are discussed in more detail in this section.

1. Amendments to the Hexavalent Chromium ATCM for Chrome Plating and Chrome Acid Anodizing Operations;
2. Proposed Amendments to the ATCM for Emissions of Perchloroethylene (PERC) from Dry Cleaning Operations.
3. Adoption of ARB's Suggested Control Measure (SCM) for Automotive Coatings through amendments to District Rule 4602, (Motor Vehicle and Mobile Equipment Coating Operations).
4. Statewide Railroad Pollution Reduction Agreement

1. Amendments to the Hexavalent Chromium ATCM for Chrome Plating and Chrome Acid Anodizing Operations

The ARB approved amendments to the Chrome Plating and Anodizing ATCM on December 7, 2006. The amended ATCM will require small facilities to use chemical fume suppressants. Large and intermediate facilities are required to meet stringent emission limits, as demonstrated through a source test. ARB and the California districts are working together to develop a standard protocol for this compliance testing. Implementation of the amended ATCM will be staggered over a period of four years. There are currently 19 operations in the Valley impacted by this new regulation, with most being of a small or intermediate size. The reductions in emissions resulting from this regulation are expected to substantially reduce the exposure to toxic hexavalent chromium emissions by the public living and working near these operations.

2. Proposed Amendments to the ATCM for Emissions of Perchloroethylene (PERC) from Dry Cleaning Operations

During 2006, ARB staff also worked to amend the ATCM for dry cleaning PERC emissions, proposing amendments to the ATCM on May 25, 2006. The ARB decided not to proceed with the proposed amendments to the ATCM and requested that its staff revise the proposal to include a phase-out of perchloroethylene usage in the State. The reductions in emissions resulting from

this regulation are expected to substantially reduce the exposure to toxic PERC emissions by the public living and working near these operations.

3. Adoption of ARB's Suggested Control Measure (SCM) for Automotive Coatings through amendments to District Rule 4602, (Motor Vehicle and Mobile Equipment Coating Operations)

On October 20, 2005, the ARB adopted a SCM limiting the volatile organic compound (VOC) content of automotive coatings. The SCM contained an exemption for the use of tertial-Butyl Acetate (TBAC) in reformulated coatings. As part of incorporating the SCM into District Rule 4602 (*Motor Vehicle and Mobile Equipment Coating Operations*), District staff analyzed the potential impacts of exempting TBAC from the emissions requirements of the rule, and found that there would be no significant impact. Amendments to District Rule 4602 to reduce the allowable VOC content of automotive coatings were approved by the District board on September 21, 2006.

4. Statewide Railroad Pollution Reduction Agreement

Railroad yards have been found to potentially cause a significant risk to the public living near the yards. On June 24, 2005, the Executive Officer of the Air Resources Board (ARB or Board) entered into a statewide railroad pollution reduction agreement (Agreement) with Union Pacific Railroad (UP) and BNSF Railway (BNSF). This Agreement was developed to implement near term measures to reduce diesel particulate matter (PM) emissions in and around rail

yards by approximately 20 percent through cleaner fuels, cleaner locomotives, idle reduction devices, and visible emissions inspections. Under the Agreement, sixteen new health risk assessments at designated rail yards are to be completed in calendar year 2007. In 2006, the District started working with ARB to review emissions data and health risk assessments to determine the impact to the surrounding public. The following rail yards are currently being evaluated under this agreement:

1. Stockton – 3 rail yards
 - a. BNSF – Intermodal Stockton
 - b. BNSF – Downtown Stockton
 - c. UP - Stockton
2. Bakersfield – 1 rail yard
 - a. BNSF – Bakersfield
3. Fresno – 2 rail yards
 - a. BNSF – Calwa
 - b. UP – Fresno
4. Riverbank – 1 rail yard
 - a. BNSF - Riverbank

Implementation of Federal Air Toxics Mandates

Title III of the 1990 Federal Clean Air Act Amendments rewrote Section 112 of the Act requiring the EPA to embark on a ten-year effort to develop detailed technology-based standards for 189 hazardous air pollutants. These new federal

Maximum Achievable Control Technology (MACT) Standards affect over 70 source categories, many of which are already subject to State regulation. Other Title III mandates may also duplicate existing State and local requirements.

Under the District's Air Toxics Program and federal regulations, there are several options for implementing new technology-based federal standards:

- 1) Straight Delegation -- Accepting delegation of the federal standard as written;
- 2) Rule Adjustment -- Proposing minor changes to the federal MACT rule that make the adjusted rule no less stringent than the federal standard;
- 3) Rule Substitution -- Substituting one or more existing, new, or amended District rules for the federal standard;
- 4) 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.
- 5) Program Substitution -- Using existing programs to assure compliance with the requirements of federal standards.

The District must choose the most appropriate option for implementing each federal standard. Options chosen for implementing these federal standards through past workshops are given in Appendix B.

EPA has promulgated several standards since the last District public workshops in 2004. The District will hold public workshops to obtain public input on the implementation of these additional Federal MACT standards.

Risk Reduction Audits and Plans

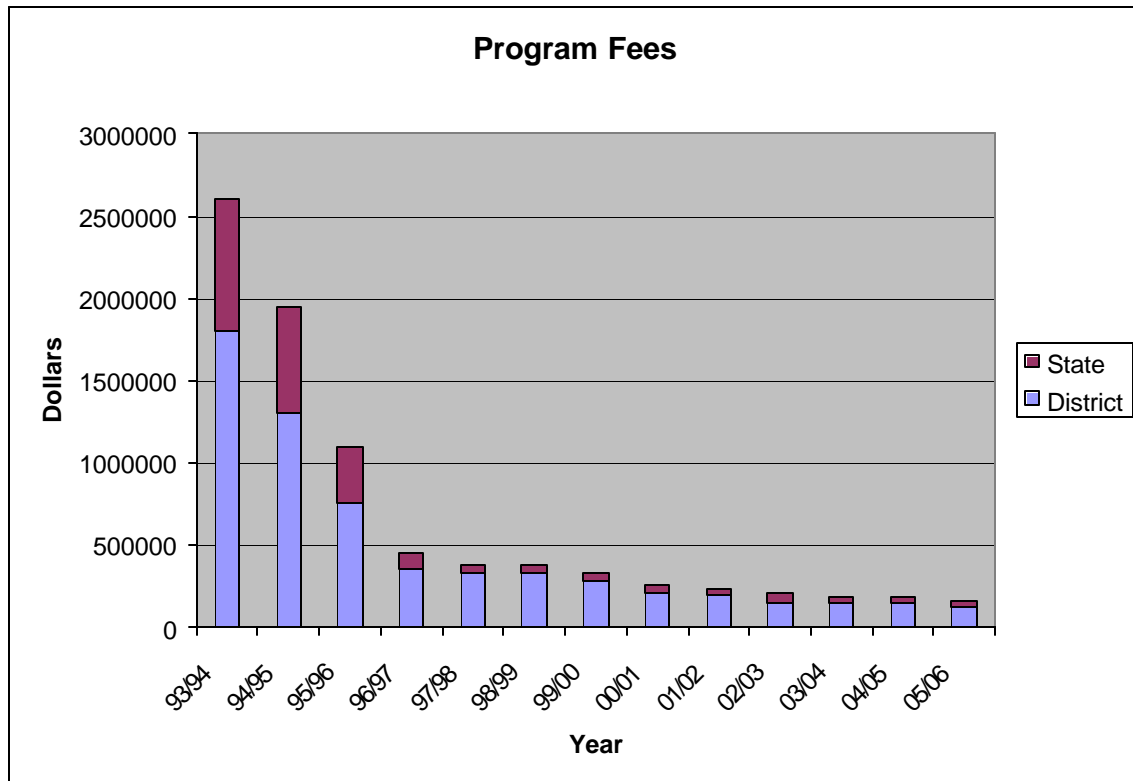
Facilities that pose health risks above District action levels are required to submit plans to reduce their risk. Action levels for risk were established in the District's Board-Approved Risk Reduction policy. The action level for cancer risk is 100 cases per million exposed persons, based on the maximum 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.

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 District air toxics program costs that have been realized in the past 13 fiscal years.

Table V - Toxics Program Fees



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

Activities by California Air Resources Board 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.

Appendix A- Table A-1

Pollutant	Emissions (tons per year)
Diesel Particulate Matter	4,124
Formaldehyde	3,517
Benzene	1,879
Acetaldehyde	1,139
1,3-Butadiene	446
Perchloroethylene	571
Acrolein	563
Methylene Chloride	437
PAHs	418
p-Dichlorobenzene	189
Manganese	162
Styrene	131
Nickel	40
Chromium	31
Trichloroethylene	29
Lead	25
Vinyl Chloride	8.66
Acrylonitrile	8.59
Arsenic	6
Cadmium	4
Mercury	2.42
Ethylene Oxide	2.35
Chloroform	2
Ethylene Dichloride	0.04
Beryllium	0.04
Carbon Tetrachloride	0.01
Dioxins/Benzofurans	0.01
Chromium, Hexavalent	0.007

1 Emissions for eight counties of San Joaquin Valley from California Air Resources Board California Toxics Inventory (CTI) for 2004, the latest available year. Data for CTI was obtained from a variety of District and State sources.

Appendix B - Options chosen for Implementing MACT Standards

Straight Delegation – SD; Rule Substitution (RS); Streamlining Multiple Applicable Requirements (SMAR)

40 CFR 63 Source Category Option

Subpart F-I	Synthetic Organic Chemical Mfg. (HON)	SD
Subpart L	Coke Oven Batteries	SD
Subpart M	Dry Cleaning	RS
Subpart N	Chromium Electroplating and Anodizing	RS
Subpart O	Ethylene Oxide Sterilization Facilities	SD
Subpart Q	Industrial Process Cooling Towers	SD
Subpart R	Gasoline Distribution	SMAR
Subpart S	Pulp and Paper Industry	SD
Subpart T	Halogenated Solvent Cleaning	RS
Subpart U	Group I Polymers and Resins	SD
Subpart W	Epoxy Resins and Non-Nylon Polyamides	SD
Subpart X	Secondary Lead Smelting	SD
Subpart Y	Marine Tank Vessel Loading Operations	SD
Subpart U	Group I Polymers and Resins	SD
Subpart AA	Phosphoric Acid Manufacturing Plants	SD
Subpart BB	Phosphate Fertilizer Production Plants	SD
Subpart CC	Petroleum Refineries	SMAR
Subpart DD	Off-Site Waste and Recovery Operations	SMAR
Subpart EE	Magnetic Tape Manufacturing	SD
Subpart GG	Aerospace Manufacturing and Rework	SD
Subpart HH	Oil and Natural Gas Production Facilities	SMAR
Subpart II	Shipbuilding and Repair (Surface Coating)	SD
Subpart JJ	Wood Furniture Manufacturing	SD
Subpart KK	Printing and Publishing Industry	SD
Subpart LL	Primary Aluminum Reduction Plants	SD
Subpart YY	Generic MACT	SD
Subpart CCC	Steel Pickling	SD
Subpart DDD	Mineral Wool Production	SD
Subpart GGG	Pharmaceutical Production	SD
Subpart HHH	Natural Gas Transmission and Storage	SMAR
Subpart III	Flexible Polyurethane Foam Production	SMAR
Subpart JJJ	Group IV Polymers and Resins	SD
Subpart LLL	Portland Cement Manufacturing	SD
Subpart MMM	Pesticide Active Ingredient Manufacturing	SD
Subpart NNN	Wool Fiberglass Manufacturing	SMAR
Subpart OOO	Manufacture of Amino/Phenolic Resins	SD
Subpart PPP	Polyether Polyol Production	SD
Subpart RRR	Secondary Aluminum Production	SD
Subpart TTT	Primary Lead Smelting	SD

Subpart VVV	Publicly Owned Treatment Works	SD
Subpart XXX	Ferroalloys Production	SD
Subpart J -	Polyvinyl Chloride and Copolymers	SD
Subpart MM -	Chemical Recovery Combustion	SD
Subpart QQQ -	Primary Copper Smelting	SD
Subpart UUU -	Petroleum Refineries: Catalytic, SRUs	SD
Subpart AAAA -	Municipal Solid Waste Landfills	SD
Subpart EEEE -	Organic Liquids Distribution (Non-Gasoline)	SD
Subpart CCCC -	Manufacturing of Nutritional Yeast	SD
Subpart DDDD -	Plywood and Composite Wood Products	SD
Subpart FFFF -	Miscellaneous Organic Chemical Mfg.	SD
Subpart GGGG -	Solvent Extraction for Vegetable Oil	SMAR
Subpart HHHH -	Wet-Formed Fiberglass Mat Production	SD
Subpart IIII -	Surface Coating of Autos and Lt Trucks	SD
Subpart JJJJ -	Paper and Other Web Coating	SD
Subpart KKKK -	Surface Coating of Metal Cans	SD
Subpart LLLL -	Asphalt Processing and Roofing Mfg	SD
Subpart MMMM -	Surface Coating of Metal Parts and Products	SD
Subpart NNNN -	Surface Coating of Large Appliances	SD
Subpart OOOO -	Printing, Coating, and Dyeing of Textiles	SD
Subpart PPPP -	Surface Coating of Plastic Parts and Products	SD
Subpart QQQQ -	Surface Coating of Wood Building Products	SD
Subpart RRRR -	Surface Coating of Metal Furniture	SD
Subpart SSSS -	Surface Coating of Metal Coil	SD
Subpart TTTT -	Leather Finishing Operations	SD
Subpart UUUU -	Cellulose Products Manufacturing	SD
Subpart VVVV -	Boat Manufacturing	SMAR
Subpart WWWW -	Reinforced Plastic Composites	SMAR
Subpart XXXX -	Rubber Tire Manufacturing	SD
Subpart YYYY -	Stationary Combustion Turbines	SMAR
Subpart ZZZZ -	Stationary Reciprocating I.C. Engines	SMAR
Subpart AAAAA -	Lime Manufacturing Plants	SMAR
Subpart BBBB -	Semiconductor Manufacturing	SD
Subpart CCCC -	Coke Ovens: Pushing, Quenching, and Stacks	SD
Subpart DDDDD -	ICI Boilers and Process Heaters	SD
Subpart EEEEE -	Iron and Steel Foundries	SD
Subpart FFFFF -	Integrated Iron and Steel Manufacturing	SD
Subpart GGGGG -	Site Remediation	SD
Subpart HHHHH -	Miscellaneous Coating Manufacturing	SD
Subpart IIIII -	Mercury From Mercury Cell Chlor-Alkali	SD
Subpart JJJJJ -	Brick and Structural Clay Products Mfg	SD
Subpart KKKKK -	Clay Ceramics Manufacturing	SD
Subpart MMMMM -	Flexible Polyurethane Foam Fabrication	SD

Subpart NNNNN -	Hydrochloric Acid Production	SD
Subpart PPPPP -	Engine Test Cells/Stand	SD
Subpart QQQQQ -	Friction Materials Manufacturing Facilities	SD
Subpart RRRRR -	Taconite Iron Ore Processing	SD
Subpart SSSSS -	Refractory Products Manufacturing	SD
Subpart TTTTT -	Primary Magnesium Refining	SD