

## **APPENDIX A**

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### **BACKGROUND**

Since the late 1970's, the Air Quality Management Plan (AQMP) has been used to guide the development of the AQMD's regulatory program and reduce the emission of smog precursors and other air contaminants. Since that time, a growing focus has been on air toxic emissions and the health effects associated with their release into the air. The AQMD conducted a study in 1987 to assess air toxics levels in the Basin. That study, called the Multiple Air Toxics Exposure Study (MATES I), integrated measured ambient concentrations, population distribution, and health risk data for 20 Toxic Air Contaminants (TACs) to estimate regional inhalation exposure, risk, and number of potential excess cancer cases.

The concept for a final draft Air Toxics Control Plan was an outgrowth of the Environmental Justice principles and the Environmental Justice Initiatives adopted by the Governing Board in October 1997. Extensive air monitoring under Environmental Justice Initiative #2 (MATES II) and work under Environmental Justice Initiative #10 (related to air toxics rules for new and existing sources) highlighted the need for a more systematic approach to reducing air toxics emissions. The Air Toxics Control Plan was approved by the Governing Board in March 2000 as a further tool to addressing air toxic emissions and reducing exposure. The Air Toxics Control Plan relies upon the findings of MATES II relative to focusing efforts to maximize public health protection. MATES II is further discussed below.

### Local Programs

#### AQMP

The first AQMP was prepared and approved by the AQMD in 1979 and has been updated and revised many times. The California Clean Air Act (CCAA) requires a three-year plan review and update to the AQMP. Implementation of the AQMP has resulted in significant progress towards meeting federal and state air quality standards over the last several decades and has contributed to the overall reduction of cumulative impacts of air pollution (criteria as well as air toxic pollutants) throughout the Basin.

The 2003 AQMP will provide an updated air pollution control strategy to attain federal ambient air quality standards. In addition, the AQMP will include an initial analysis of the estimated emission reductions needed to achieve new federal eight-hour and fine particulate ambient air quality standards.

#### Air Toxics Control Plan

The final draft Air Toxics Control Plan was approved by the AQMD Governing Board in March 2000 and utilized valuable information developed as a part of the MATES II monitoring and modeling study. This planning document was designed to examine the overall direction of the AQMD's air toxics control program. Development and implementation of strategic initiatives have required partnerships with other agencies, the regulated community, environmental groups, and the public. The plan is not required by state or federal law, so it was not submitted as a part of the State Implementation Plan (SIP).

The final draft Air Toxics Control Plan identifies potential strategies to reduce toxic levels in the Basin over the next ten years. To the extent the strategies are implemented by the relative agencies, the plan will improve public health by reducing health risks associated with both mobile and stationary sources.

To date, the majority of strategies have been implemented, making significant progress in many areas. These include increased emission reductions, and therefore health risk reduction, from sources such as gas stations, dry cleaners, motion picture film processing, metal plating, and on road motor vehicles. In addition, AQMD Rules 1401 and 1402 have been strengthened to reduce air toxic exposures from new and

existing stationary sources, respectively. In addition, ARB will be implementing CARB Phase III gasoline production requirements after January 1, 2004, which is anticipated to significantly lower motor vehicle emissions. Appendix B contains a table summarizing the progress made in implementing the March 2000 Air Toxics Control Plan.

### **Rule 1401 – New Source Review of Toxic Air Contaminants**

Permits for new, modified or relocated equipment that emits toxic air contaminants must meet limits for cancer and non-cancer impacts. Rule 1401 is updated periodically to reflect new information on air toxics that is developed by the state. Individual equipment must meet one-in-one million or use Toxic Best Available Control Technology (T-BACT) to reduce their health risk below ten-in-one million in order to obtain a permit. Equipment must also be below a hazard index of 1.0 (for acute and chronic impacts). Rule 1401 has been amended numerous times in the last five years to implement risk values approved by the state and now encompasses more than 200 compounds.

### **Rule 1402 – Control of Air Toxic Emissions from Existing Sources**

Existing facilities that emit TACs must meet facility-wide limits for cancer and non-cancer impacts. This rule utilizes the same list of compounds as Rule 1401. Rule 1402 impacts are assessed every time the state introduces new risk values. Rule 1402 was amended in March 2000 and the action risk levels of the rule were lowered to a facility-wide cancer risk level of 25 in 1 million or a non-cancer hazard index of 3.0.

### **AB 2588 Program**

The AB 2588 program requires certain facilities to inventory their TACs. Public notifications are required by companies whose facility-wide cancer risk exceeds 10-in-one million or a noncancer hazard index (chronic or acute exposure) of 1.0. Risk reductions are required through Rule 1402 if their cancer risk is above 25 in one million or the hazard index (HI) exceeds 3.0. Through this program, public notification and disclosure have proven to be a valuable tool in reducing air toxic emissions and many companies make changes at their facilities to reduce below notification thresholds. Voluntary reductions undertaken by these facilities are responsible for significant toxic reductions.

### **AQMD Regulation XIII and BACT**

This regulation is designed to meet state and federal statutory requirements and ensure that the construction and operation of new or modified sources will not interfere with progress towards attainment of National Ambient Air Quality Standards (NAAQS). Permits for new, modified, or relocated equipment must meet offset and BACT requirements. Reductions in volatile organic compound (VOC) and particulate matter (PM) often result in concurrent toxic reductions. Review of permits at the new source review stage ensures that adequate controls are installed to meet rule requirements.

### **Source Specific Rules**

AQMD has, over the years, adopted prohibition rules (Regulation IV) and rules for Best Available Retrofit Control Technology, or BARCT, (Regulation XI) to reduce criteria pollutants, largely as part of AQMP implementation. Reductions of emissions from VOC and PM sources can also result in toxic reductions through reformulation, add-on controls or process changes. Adopted rules with future compliance dates and continuous implementation of the 1999 Amendment to the 1997 AQMP are expected to further reduce VOC emissions. Zero or near-zero coating and solvent technologies, and enhanced controls on VOC fugitive emissions from industrial processes will benefit air toxics emission reductions as well. During the rule development of future AQMP measures, corresponding air toxics impacts will be closely examined to maximize potential air toxics reductions.

### **AQMD Regulation XIV**

In addition to the programmatic rules, Regulation XIV contains a number of source-specific air toxics rules applicable to existing sources. The regulation contains fifteen rules, including asbestos abatement, dry cleaning operations, chrome plating, and motion picture film processing.

### **Technology Incentive Programs**

The AQMD manages several technology incentive programs that use monies from several different sources to fund projects that not only lower emissions of criteria air pollutants, but toxic air contaminants as well. These programs lower diesel particulates from school and transit buses, heavy duty on/off road vehicles, and marine vessels. Included in these programs are the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), the Lower-Emission School Bus Program, the State Emissions Mitigation Program, the Air Quality Investment Program (AQIP), and the Mobile Source Air Pollution Reduction Review Committee (MSRC). These programs fund, in whole or in part, retrofit or replacement of higher emitting diesel engines that significantly reduce diesel particulate emissions, as well as other programs that directly benefit the public's health through reduction of air toxic emissions.

Relative to these programs, a state law was signed by the Governor in October 2001 on the distribution of state funds (AB 1390, Firebaugh). Each air district must spend at least 50% of their allotted funds to directly benefit communities that are disproportionately impacted by air pollution.

### **2002-03 EJ Enhancements**

In September 2002, the Governing Board approved a series of enhancements to the AQMD's Environmental Justice Program. Several of those enhancements will contribute to reduce cumulative impacts in the Basin. These EJ Enhancements include:

- Subregional analysis (I-3);
- Localized impact thresholds via the CEQA process (I-4);
- Lowest feasible air toxics emissions alternative for rules with significant impacts under CEQA (II-1)
- Electronic posting of air toxic emissions (II-4)
- Off-road Intermodal equipment (III-1)
- Super mitigation (III-2)

EJ Enhancement I-3 focuses on subregional studies. AQMD staff conducted an air quality impact study on the Mira Loma area to analyze cumulative emissions impacts from distribution centers/warehouse facilities (especially due to diesel exhaust), and to identify potential control opportunities. The study encompassed a three-step process, including: 1) the development of a land use map and data base per the local General Plan along with facility permit activity, 2) estimation of diesel truck emissions from these activities, and 3) computer modeling to estimate cumulative impacts from air toxics and fine particulate. The analysis also includes working on methodology to separate out transported and locally generated PM.

This enhancement calls for the continuance and expansion of these subregional analyses to other areas of the Basin which may be specially impacted by hazardous air pollutants (HAPs) and/or fine particulates in a manner that poses a potential environmental justice concern. The end product of these efforts will likely be

refined emission inventory data, improved air quality modeling estimates of pollution levels, and proposed mitigation measures, if needed. Staff anticipates that one of these studies might be conducted on an annual basis, as needed. The next subregional analysis is anticipated to be conducted for the Alameda Corridor. Any proposed mitigation measures will be within current legal authority of AQMD or other responsible agencies.

EJ Enhancement I-4 calls for AQMD staff to continue pursuing the Governing Board direction of February 2002, to develop and evaluate the implications of localized significance thresholds (primarily for NO<sub>2</sub>, PM<sub>10</sub>, and CO) for potential inclusion in a revision of AQMD's CEQA Air Quality Handbook. The Handbook serves as a guidance document to assist local government agencies and consultants in developing the environmental analysis required pursuant to CEQA.

Currently, significance is based on regional thresholds (except for CO hot-spots analysis for mobile sources). Localized analysis would provide a second test of significance, and provide additional information to decision-makers who are considering a proposed project for approval. A working group has provided feedback to the staff analysis regarding potential significance threshold values and public workshops have been conducted to solicit additional comments and suggestions.

The purpose of CEQA is to require public disclosure of potential impacts to the air, as well as other environmental media, due to projects and to require mitigation measures, as necessary, to limit risk and public health exposure. CEQA mitigation measures can include actions affecting mobile sources, as well as measures to be taken by stationary sources. Appendix D contains a summary of how cumulative impacts are analyzed as a part of the CEQA process. Significant cumulative impacts from air toxic emissions are, for the purposes of AQMD's local CEQA program, set at a cancer risk equal to or greater than 10 in 1 million or a noncancer health impact equal to or greater than a Hazard Index (HI) of 3.0.

EJ Enhancement II-1 calls for AQMD staff, in CEQA documents comparing specific project alternatives, to include a least toxic alternative, where feasible, which considers the proposed project or rule from a "least harmful" perspective with regard to hazardous air emissions. Such alternative would pertain to major equipment or processes under review that create a significant environmental impact and would feature the lowest feasible air toxics emissions and/or exposure of the alternatives being analyzed, and would present comparative impacts and potential trade-offs for the particular project.

EJ Enhancement II-4 calls for AQMD to streamline and expedite the electronic posting of its own information on the Basin air toxics and health risk assessments, to be publicly available on the internet. Such posting would be similar to the access given to the federal Toxics Release Inventory (TRI) reporting data for interested members of the public. This tool would allow more direct monitoring of environmental performance by permit-holders.

EJ Enhancement III-1 calls for developing a rule to require emission reductions from off-road intermodal fleets, such as those operating at ports or large distribution centers, through use of low emission and clean equipment technologies. As a part of rule development, staff will examine the feasibility of additional emission reductions from the on-road vehicles visiting such facilities.

EJ Enhancement III-2 included a proposal to expedite the CEQA analysis process for any major project which contains commitments and milestone schedules for implementation of "super mitigation" actions.

This proposed enhancement would offer the incentive of an expedited CEQA review in return for emission reduction components to a project that are not otherwise legally required.

### **EPA Programs**

Since the 1990 Clean Air Act Amendments were enacted, federal Environmental Protection Agency has promulgated NESHAPs to reduce Hazardous Air Pollutants. In addition, EPA has been developing programs to further address urban air toxics, the residual risk after federal standards have been implemented, and cumulative impacts associated with multiple sources. These are summarized below.

#### National Emission Standards for Hazardous Air Pollutants (NESHAPS)

Under Section 112 of the Clean Air Act (CAA), EPA is required to regulate sources that emit one, or more, of the 188 federally listed HAPs. More than 55 NESHAPs have been promulgated by EPA and more than twenty more source categories have had standards proposed, many of which were proposed in 2002. EPA develops standards that require the application of Maximum Achievable Control Technology (MACT) to control emissions from "major sources," those sources emitting greater than 10 tons per year of a single HAP or greater than 25 tons per year of multiple HAPs. To implement NESHAPs, AQMD adopts a rule, or rule amendment, or directly implements the NESHAP. AQMD rules must contain requirements that are at least as stringent as the NESHAP requirements. However, the NESHAPs are often based on controlled sources in the Basin. On this basis, many of the sources that would have been subject to the federal requirements already comply or are exempt.

#### Integrated Urban Air Toxics Strategy

The Urban Air Toxics Strategy is a program developed by EPA that will seek to reduce emissions of 30 key TACs from 70 area source categories. This includes mobile sources using diesel engines. Thirty of these HAPs have been identified as coming from small industrial sources (or area sources). Development and implementation of the Urban Air Toxics Strategy includes a series of reports, development of vehicle and fuels standards, and promulgation of standards for new area source categories.

#### Residual Risk

The residual risk program is a requirement of the federal CAA and applies to all source categories for which a federal MACT standard has been promulgated by EPA. Residual risk refers to the public health and environmental risk remaining after technology-based standards have been promulgated and applied to emission sources of HAPs. The Residual Risk Report to Congress was prepared by the Office of Air Quality Planning and Standards, Research Triangle Park, March 1999, and contains EPA's general framework for assessing risks to public health or the environment. Under the program, each MACT standard is to be revisited 10 years after promulgation to assess the residual risk after full implementation. EPA has begun the residual risk review process, such as that for halogenated solvent cleaning.

#### Cumulative Exposure Project

This strategy will address adverse health impacts due to cumulative TAC exposures if toxic hot spots are identified. This program will likely include a multi-government approach to address the issue of cumulative impacts, dependent on the source and type of toxic hot spots identified. Additional data and support programs may require development as a part of this strategy, including, but not limited to, improved database and air quality modeling development, and source-specific rule adoptions or amendments.

### Regional Air Impact Modeling Initiative (RAIMI) Pilot Study – Initial Phase

The purpose of the RAIMI pilot study is to establish a program for a region-wide prioritization of potential for community-level health risks as a result of exposure to multiple air contaminants from multiple sources through multiple exposure pathways. Also, RAIMI is designed to complement concurrent federal air toxics programs, including the Cumulative Exposure Project, Integrated Urban Air Toxics Program, and residual risk. The RAIMI pilot study is a two phase process. Under the initial phase EPA investigated test methods for source prioritizations based on risks resulting from direct inhalation. The initial phase has been completed and EPA recently completed assessment on three entire counties at the same level of detail as the pilot study (see Appendix E for more details). EPA is currently examining the results from these assessments from an implementation and enforcement standpoint to lower community level inhalation risks. The intent is to have all counties in the major areas of the region (primarily Texas and Louisiana) fully mapped in the next five years. Under the second phase, EPA is studying indirect exposures resulting from air-related sources. Here, the focus of this stage of the pilot study is indirect exposures resulting from air-related sources. This element of the pilot project will focus on other pathways of exposure besides inhalation, such as ingestion. Work on this phase is anticipated for completion by the end of 2003, to be followed by a review stage prior to publishing. Under this phase, EPA will be examining surrogates to effectively and accurately determine the impacts from indirect exposures.

### **State Programs**

CARB has several programs that reduce the impact of cumulative emissions. Two key programs are summarized, as follows:

#### California Airborne Toxic Control Measures (ATCM)

In 1983, the California Legislature adopted the Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner), which established a two-step process of risk identification and risk management to protect Californians from the health effects of toxic substances in the air. The first step is the identification of a toxic air contaminant (TAC). In the risk identification phase, staff of the Air Resources Board (ARB) and California's Office of Environmental Health Hazard Assessment (OEHHA) evaluates the potential for human exposure to a suspect air contaminant (from a prioritized list of substances) and health effects of exposure to the contaminant. The staff's evaluation is subject to the Scientific Review Panel (SRP) approval of the report. The SRP develops specific scientific findings that are officially submitted to CARB. CARB uses this information to determine whether to identify a substance as a TAC.

Once a substance is identified as a TAC, CARB determines if regulatory action is needed to reduce the risk associated with that substance through a risk management evaluation. In this evaluation, CARB investigates the need, feasibility, and cost of reducing emissions of that substance. If controls are feasible and needed, CARB adopts airborne toxic control measures (ATCMs) and local Districts are then required to adopt and enforce equivalent or more restrictive measures to reduce emissions of the TAC. In some instances, AQMD adopts rules to implement these state ATCMs. To date, the state has adopted 11 ATCMs.

#### ARB's Community Health Program – EJ & Neighborhood Assessment Program

The Environmental Justice Policies and Actions adopted by the ARB in December 2001 include the consideration of cumulative health risks in our programs. Among those specific actions is the development of technical tools for performing assessments of cumulative emissions, exposures, and health risks on a neighborhood scale. Since that time, the ARB staff is developing a visualization tool for mapping emission

sources on the Internet that will allow the public to view a map of a community and the spatial array of facilities and emissions in that community.

Other ARB efforts include developing statewide cumulative impact maps that will allow the public to view cumulative risk at a much more refined scale than is currently available. The ARB staff is also assessing microscale and regional inventories and modeling, as well as tracer and toxics studies as part of the ARB's Neighborhood Assessment Program (NAP) in Barrio Logan (San Diego) and Wilmington (Los Angeles).

Tools such as the ARB's Air Quality Handbook for Land-Use Planners are also under development that will provide local decision-makers with information for assessing cumulative air pollution impacts of proposed projects. Upon completion, all newly developed models and methods will be subject to a peer review process as routinely followed by the ARB.

## **APPENDIX B**

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### **AIR TOXIC CONTROL PLAN IMPLEMENTATION PROGRESS**

**Air Toxics Control Plan  
Implementation Progress**

The final draft Air Toxics Control Plan was approved by the AQMD Governing Board in March 2000. It is a comprehensive plan that was designed to examine the overall direction of the AQMD's air toxics control program and listed potential strategies to reduce toxic levels in the Basin over the next ten years. To the extent the strategies are implemented by the relative agencies, the plan will improve public health by reducing health risks associated with both mobile and stationary sources. The plan is not required by state or federal law, so it was not submitted as a part of the State Implementation Plan (SIP).

To date, a number of strategies have been implemented that will increase protection of the public's health from the emission of air toxics. These include increased emission reductions, and therefore health risk reduction, from sources such as gas stations, motion picture film processing, and on road motor vehicles. In addition, AQMD Rules 1401 and 1402 have been strengthened to reduce air toxic exposures from new and existing stationary sources, respectively. The following table provides an implementation status of the Air Toxic Control Plan control strategies. Shaded rows indicate those control strategies which have been completed. Unshaded rows indicate those control strategies that are in progress.

**Appendix B**

<b>RULE</b>	<b>Title</b>	<b>Scheduled Adoption Date</b>	<b>Adoption date</b>	<b>TAC</b>	<b>Estimated Reductions</b>	<b>Implementation date</b>
461	Gasoline Transfer and Dispensing	Apr-00	4/21/2000	Benzene, hexane	27.3 tpd (total VOC)	2001
1401	New Source Review of TACs	As needed	8/18/2000	Chronic Compounds	Cannot be determined	8/18/2000
1401	New Source Review of TACs	As needed	6/15/2001	Chronic Compounds	Cannot be determined	6/15/2001
1401	New Source Review of TACs	As needed	5/3/2002	Chronic Compounds	Cannot be determined	5/3/2002
1401	New Source Review of TACs	As needed	2/7/2003	Chronic Compounds	Cannot be determined	2/7/2003
1401	New Source Review of TACs	As needed	5/2/2003	Cancer Compounds	Cannot be determined	5/2/2003
1402	Control of TACs from Existing Sources	As needed	3/17/2000	Numerous	Cannot be determined	3/17/2000
1402	Control of TACs from Existing Sources	As needed	8/18/2000 report*	Chronic Compounds	Cannot be determined	5/19/2001
1402	Control of TACs from Existing Sources	As needed	6/15/2001 report*	Chronic Compounds	Cannot be determined	3/16/2002
1402	Control of TACs from Existing Sources	As needed	5/3/2002 report*	Chronic Compounds	Cannot be determined	3/1/2003
1402	Control of TACs from Existing Sources	As needed	2/7/2003 report*	Chronic Compounds	Cannot be determined	11/1/2003
1402	Control of TACs from Existing Sources	As needed	5/2/2003 report*	Cancer Compounds	Cannot be determined	3/7/2004
CARB	Phase 3 California Gasoline Regulation	None given		Benzene, MTBE	6 tpd	begin 12/31/03
431.2	Sulfur Content of Liquid Fuels	None given	8/18/2000	Diesel PM	1.1 tpd	2005 (?)
1122	Emission Reductions from Degreasing Operations	None given	9/21/2001	Perchloroethylene, 1,1,1-trichloroethane, trichloroethylene, methylene chloride	0.81 tpd	2003

**Appendix B**

<b>RULE</b>	<b>Title</b>	<b>Scheduled Adoption Date</b>	<b>Adoption date</b>	<b>TAC</b>	<b>Estimated Reductions</b>	<b>Implementation date</b>
1131	Food Manufacturing and Processing Operations	None given	9/15/2000	IPA	2.4 tpd if by solvent reformulation; 2.1 tpd if by air pollution control option	2002
1186.1	Less-polluting Sweepers	None given	8/18/2000	Diesel PM	48 tons cumulative thru 2011; thereafter 10.7 tons per year	2012
1191	Clean On-road Light- and Medium-duty Public Fleet Vehicles	None given	6/16/2000	Diesel PM		
1192	Clean On-road Transit Buses	None given	6/16/2000	Diesel PM	0.9 tons per year	2003
1193	Clean On-road Residential and Commercial Refuse Vehicles	None given	6/16/2000	Diesel PM	7 tons per year	2001
1194	Commercial Airport Ground Access	None given	8/18/2000 partial adoption delayed on taxis until 10/00	Diesel PM	60 tons -cumulative	2010
1195	Clean On-road School Buses	None given	4/20/2001	Diesel PM	90 tons per year	2001
1196	Clean On-road Heavy-duty Public Fleet Vehicles	None given	10/20/2000	Diesel PM	1.0 tons per year	2003
1405	Control of Ethylene Oxide and CFC Emissions from Sterilizers	Mar-01	2001	Ethylene Oxide	rule is not necessary due to reduced usage an efficiency of controls	
1421	Control of Perchloroethylene Emissions from Dry Cleaning Operations	Mar-01	12/6/2002	Perchloroethylene	849 tons - cumulative	2021

## Appendix B

RULE	Title	Scheduled Adoption Date	Adoption date	TAC	Estimated Reductions	Implementation date
1425	Motion Picture Film Labs	Mar-01	3/16/2001	Perchloroethylene	39.5 tons per year (including NESHAP)	2003
1426	Metal Finishing	Mar-01	May-03	Nickel, Cadmium, Lead, Copper, Chromic Acid	No reductions realized - recordkeeping only	N/A
1427	Rubber Manufacturing	Mar-01	N/A	various	staff recommended that this rule is not necessary due to limited emissions	
1437	Furniture Stripping	Mar-03	Jun-03	Methylene chloride	tbd	tbd
1469	Hexavalent Chromium Emissions	Mar-01	5/2/2003	Hexavalent Chromium	48 lbs/year	5/5/2005

\* The list of Toxic Air Contaminants was updated in conjunction with amendments to Rule 1401.

Note: Shaded rules have been adopted or determined to not be necessary

## **APPENDIX C**

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### **CONFIRMED ODOR-COMPLAINTS AND NOV<sub>s</sub> ISSUED**

Notice of Violation (NOV) data shown on the following table cover the period from January 1, 1988 to June 30, 2003. A brief explanation of each column heading is as follows:

- **SIC Code** – This table includes standard industrial categories that had complaints which resulted in the issuance of an NOV. There are several additional industrial categories that received complaints (usually fewer than 10 complaints were received) that were not issued a NOV.
- **Confirmed Odor Complaints** – This refers to the number of complaints that were received that could be traced back to a permitted facility that has an AQMD facility ID number. There were approximately 104,000 total complaints logged, although these were not all confirmed.
- **Notices of Violation (NOVs) Issued** – This is the number of Notices of Violation that were issued as a result of complaints received that were tied to a valid facility ID or SIC code.

There is not a one-to-one correspondence between complaints and NOVs. An NOV may be issued for one or more incidences that generated multiple complaints.

**Appendix C**

<b>SIC Code</b>	<b>Description</b>	<b>Confirmed Odor Complaints</b>	<b>Notices of Violation (NOVs) Issued</b>
2911	PETROLEUM REFINING	8399	109
4953	REFUSE SYSTEMS	4099	120
4952	SEWERAGE SYSTEMS	3039	48
1794	EXCAVATING AND FOUNDATION WORK	1188	26
1311	CRUDE PETRO AND NATURAL GAS	803	18
2077	ANIMAL & MARINE FATS AND OILS	691	57
7538	GENERAL AUTO REPAIR SHOPS	634	34
2992	LUBRICATING OILS AND GREASES	598	14
7532	TOP & BODY REPAIR/PAINT SHOPS	543	44
9511	AIR WATER & SOLID WASTE MANAG	461	1
4214	LOCAL TRUCKING AND STORAGE	410	40
3341	SECONDARY NONFERROUS METALS	364	15
2824	ORGANIC FIBERS, NONCELLULOSIC	363	21
2819	INDUSTRIAL INORGANIC CHMLS,NEC	352	10
4911	ELECTRIC SERVICES	285	1
3088	PLASTICS PLUMBING FIXTURES	243	9
2821	PLASTICS MATERIALS AND RESINS	240	12
5093	SCRAP & WASTE MATERIALS	233	5
7216	DRY CLEANING PLANTS, EXC RUG	230	13
3089	PLASTICS PRODUCTS, NEC	228	8
3479	METAL COATING/ALLIED SERVICES	209	10
2399	FABRICATED TEXTILE PROD, NEC	199	10
5541	GASOLINE SERVICE STATIONS	173	36
3792	TRAVEL TRAILERS AND CAMPERS	173	16
5171	PETRO BULK STATIONS/TERMINALS	157	8
3471	PLATING AND POLISHING	152	12
2951	PAVING MIXTURES AND BLOCKS	144	5
7261	FUNERAL SERVICE & CREMATORIES	139	9
5199	NONDURABLE GOODS, NEC	119	9
3365	ALUMINUM FOUNDRIES	111	13
3599	INDUSTRIAL MACHINERY, NEC	107	3
2047	DOG AND CAT FOOD	106	8
1761	ROOFING AND SHEET METAL WORK	103	6
2099	FOOD PREPARATIONS, NEC	101	5
3079	MISC PLASTICS PRODUCTS	100	4
3321	GRAY IRON FOUNDRIES	85	3
2295	COATED FABRICS, NOT RUBBERIZED	85	1
3714	MOTOR VEHICLE PARTS/ACCESORIES	82	1
2434	WOOD KITCHEN CABINETS	78	2
7699	REPAIR SERVICES, NEC	68	4
3711	MOTOR VEHICLES AND CAR BODIES	57	1
2499	WOOD PRODUCTS, NEC	55	5
4959	SANITARY SERVICES, NEC	54	3
4011	RAILROAD, LINE-HAUL OPERATING	53	7

**Appendix C**

<b>SIC Code</b>	<b>Description</b>	<b>Confirmed Odor Complaints</b>	<b>Notices of Violation (NOVs) Issued</b>
3061	MECHANICAL RUBBER GOODS	51	1
3412	METAL BARRELS, DRUMS, & PAILS	50	5
2759	COMMERCIAL PRINTING, NEC	49	1
2833	MEDICINALS AND BOTANICALS	48	2
3444	SHEET METALWORK	45	3
2431	MILLWORK	40	1
3354	ALUMINUM EXTRUDED PRODUCTS	39	2
2095	ROASTED COFFEE	37	3
3672	PRINTED CIRCUIT BOARDS	35	1
3086	PLASTICS FOAM PRODUCTS	34	5
5511	NEW AND USED CAR DEALERS	33	1
2851	PAINTS AND ALLIED PRODUCTS	32	5
1799	SPECIAL TRADE CONTRACTORS, NEC	30	4
2511	WOOD HOUSEHOLD FURNITURE	29	4
7534	TIRE RETREADING & REPAIR SHOPS	29	2
3621	MOTORS AND GENERATORS	29	1
5169	CHEMICALS & ALLIED PRDCTS, NEC	28	1
7218	INDUSTRIAL LAUNDRERERS	27	1
3999	MANUFACTURING INDUSTRIES, NEC	26	3
3334	PRIMARY ALUMINUM	26	2
3826	ANALYTICAL INSTRUMENTS	25	4
3356	NONFERROUS ROLLING/DRAWING,NEC	24	1
3799	TRANSPORTATION EQUIPMENT, NEC	22	2
2999	PETROLEUM & COAL PRODUCTS, NEC	20	1
3441	FABRICATED STRUCTURAL METAL	19	5
2261	FINISHING PLANTS, COTTON	19	3
181	ORNAMENTAL NURSERY PRODUCTS	17	2
3721	AIRCRAFT	16	3
3543	INDUSTRIAL PATTERNS	14	2
2299	TEXTILE GOODS, NEC	14	1
3261	VITREOUS PLUMBING FIXTURES	13	1
3273	READY-MIXED CONCRETE	9	1
3295	MINERALS, GROUND OR TREATED	9	1
7389	BUSINESS SERVICES, NEC	9	1
7535	PAINT SHOPS	8	2
5211	LUMBER & OTHER BLDG MATERIALS	8	1
7531	TOP & BODY REPAIR SHOPS	8	1
2541	WOOD PARTITIONS AND FIXTURES	6	2
2599	FURNITURE AND FIXTURES, NEC	5	2
2426	HARDWOOD DIMENSION & FLOORING	5	1
2519	HOUSEHOLD FURNITURE, NEC	5	1
3716	MOTOR HOME MANUFACTURE	5	1
7359	EQUIPMENT RENTAL & LEASING,NEC	5	1
7819	SERV ALLIED TO MOTION PICTURES	5	1
7542	CAR WASHES	4	1

**Appendix C**

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<b>SIC Code</b>	<b>Description</b>	<b>Confirmed Odor Complaints</b>	<b>Notices of Violation (NOVs) Issued</b>
3761	GUIDED MISSILES AND SPACE VEH	2	1
134	IRISH POTATOES	1	1
1389	OIL/GAS FIELD SERVICES, NEC	1	1
3572	COMPUTER STORAGE DEVICES	1	1
3695	MAGNETIC & OPTICAL RECDG MEDIA	1	1
5039	CONSTRUCTION MATERIALS, NEC	1	1
5411	GROCERY STORES	1	1
8744	FACILITIES SUPPORT SERVICES	1	1
9999	UNKNOWN	773	52
<b>Total</b>		<b>27,906</b>	<b>936</b>

## **APPENDIX D**

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### **CUMULATIVE IMPACT ANALYSIS REQUIREMENTS PURSUANT TO CEQA**

**CUMULATIVE IMPACT REQUIREMENTS  
PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

The following summarizes the requirement to analyze cumulative impacts pursuant to the California Environmental Quality Act (CEQA), and the procedures by which the AQMD complies with the requirement.

**CUMULATIVE IMPACTS DEFINED**

"Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

**REQUIREMENT TO ANALYZE CUMULATIVE IMPACTS**

An Environmental Impact Report (EIR) shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable.

An adequate discussion of significant cumulative impacts requires:

(1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency. Factors to consider include the nature of each environmental resource being examined, the location of the project and its type. Or

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.

(2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.

(3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

### **REQUIREMENTS WHEN CUMULATIVE IMPACTS ARE LESS THAN SIGNIFICANT**

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

An EIR may determine that a project's contribution to a significant cumulative impact is de minimus and thus is not significant. A de minimus contribution means that the environmental conditions would essentially be the same whether or not the proposed project is implemented. Note that this provision (CEQA Guidelines Section 15130(a)[4]) was challenged by Communities for a Better Environment and has not been resolved. Therefore, the SCAQMD does not rely on this provision to conclude that a project does not have cumulatively significant impacts.

### **CONSIDERATIONS WHEN CONDUCTING CUMULATIVE IMPACT ANALYSES**

"Probable future projects" may be limited to those projects requiring an agency approval for an application which has been received at the time the notice of preparation is released; projects included in an adopted capital improvements program, general plan, regional transportation plan, or other similar plan; projects included in a summary of projections of projects (or development areas designated) in a general plan or a similar plan; projects anticipated as later phase of a previously approved project (e.g. a subdivision); or those public agency projects for which money has been budgeted.

If a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact.

When analyzing the cumulative impacts of a project, the Lead Agency is required to discuss not only approved projects under construction and approved related projects not yet under construction, but also unapproved projects currently under environmental review with related impacts or which result in significant cumulative impacts. The analysis should include a discussion of projects under review by the Lead Agency and projects under review by other relevant public agencies, using reasonable efforts to discover, disclose, and discuss the other related projects.

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR.

With some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis.

### **AQMD COMPLIANCE WITH CEQA CUMULATIVE IMPACT ANALYSIS REQUIREMENT**

The AQMD has two primary roles under CEQA. As a Lead Agency, the AQMD is responsible for preparing environmental analyses in the form of EIRs, Negative Declarations, or Environmental Assessments. As a Commenting Agency, the AQMD is responsible for review and comment on air quality analyses prepared by other public agencies.

The AQMD, as Lead Agency, complies with all cumulative impact analysis requirements when preparing CEQA documents. As a Commenting Agency, the AQMD recommends that other public agencies perform cumulative impact analyses relative to air quality in the same manner as does AQMD. The following discussion focuses on how AQMD complies with the cumulative impact analysis as a Lead Agency.

The SCAQMD's regulatory program (i.e., development of rules and regulations) has been certified by the Secretary of the Resources Agency per Public Resources Code Section 21080.5. This means the SCAQMD prepares environmental analyses, including cumulative analyses, in documents other than EIRs and Negative Declarations. AQMD documents are always called Environmental Assessments.

As Lead Agency preparing Environmental Assessments for rule projects, AQMD evaluates requirements of the proposed rule as well as other AQMD rules with future compliance dates and AQMP control measures to determine if the proposed project may significantly contribute to cumulative impacts.

When AQMD is Lead Agency for a non-SCAQMD project (i.e., permit projects), standard CEQA requirements apply and Negative Declarations and EIRs are prepared. By definition, projects that qualify for a Negative Declaration do not have cumulative impact.

For permit projects, AQMD evaluates cumulative impacts relative to other projects within a geographical sphere of influence as well as other related projects. While cumulative impact analyses include projects undergoing a CEQA review, AQMD also typically requires the consultant to contact the city/county in which the project is located to identify projects where applications have been submitted, but the project has not yet undergone an environmental analysis. For these projects, general plan growth projections are applied to estimate impacts as applicable.

As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is  $HI \geq 1.0$  while the cumulative (facility-wide) is  $HI \geq 3.0$ . It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

### References

*Title 14, California Code of Regulations.* Chapter 3 - Guidelines for Implementation of the California Environmental Quality Act. Article 9 - Contents of EIRs, Section 15130 - Discussion of Cumulative Impacts and Article 20 – Definitions, Section 15355 - Cumulative Impacts.

Governor's Office of Planning and Research. Discussion relative to CEQA Guidelines Section 15130 ([http://ceres.ca.gov/topic/env\\_law/ceqa/guidelines/art9.html](http://ceres.ca.gov/topic/env_law/ceqa/guidelines/art9.html)).

**Note:** Authority cited for CEQA Guidelines Section 15130: Sections 21083 and 21087, Public Resources Code. Reference: Sections 21083(b), 21093, 21094, and 21100, Public Resources Code; Whitman v. Board of Supervisors (1979) 88 Cal.App.3d 397; San Franciscans for Reasonable Growth v. City and County of San Francisco (1984) 151 Cal.App.3d 61; Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692; Laurel Heights Homeowners Association v. Regents of the University of California (1988) 47 Cal.3d 376; Sierra Club v. Gilroy (1990) 220 Cal.App.3d 30; Citizens to Preserve the Ojai v. County of Ventura (1985) 176 Cal.App.3d 421; Concerned Citizens of South Cent. Los Angeles v. Los Angeles Unified Sch. Dist. (1994) 24 Cal.App.4th 826; Las Virgenes Homeowners Fed'n v. County of Los Angeles (1986) 177 Cal.App.3d 300; San Joaquin Raptor/Wildlife Rescue Ctr v. County of Stanislaus (1994) 27 Cal. App.4th 713; and Fort Mojave Indian Tribe v. Cal. Dept. Of Health Services (1995) 38 Cal.App.4th 1574.

## **APPENDIX E**

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### **RAIMI PILOT STUDY, INITIAL PHASE**

**Cumulative Impacts Summary of the  
Regional Air Impact Modeling Initiative (RAIMI) Pilot Study – Initial Phase  
By: USEPA, Region VI**

- Purpose:** To establish a Regional Air Impact Modeling Initiative (RAIMI) program for a region-wide prioritization of potential for community-level health risks as a result of exposure to multiple air contaminants from multiple sources through multiple exposure pathways. Also, to complement concurrent federal air toxics programs including Cumulative Exposure Project, Integrated Urban Air Toxics Program, and residual risk after the establishment of standards for maximum achievable control technology (MACT).
- Process:** Conduct a pilot study comprised of 2 phases: 1) investigate test methods for source prioritizations based on risks resulting from direct inhalation; and 2) study indirect exposures resulting from air-related sources. (The Region VI report addresses the initial phase of the pilot.)
- Goals:** The RAIMI pilot project has five stated goals, summarized as follows:
1. Use as a permitting tool, independently or combined, applicable for cross media permitting.
  2. Provide a standardized and consistent means by which permitting authorities could account for and assess aggregate health effects from multiple contaminants from multiple sources, which are often subject to multiple permitting schemes (local, RCRA, CAA, etc.) but cumulatively impact the same receptor area.
  3. Provide necessary level of detailed information, at a community level, to prioritize, and identify potential solutions, for sources subject to unacceptable risks by estimating combined health effects resulting from multiple contaminants and sources.
  4. Calculate and track potential risks from numerous sources and contaminants based on actual emissions data. New data can be directly entered into the program for real time risk updates.
  5. Serve as a versatile and dynamic platform, allowing for rapid use of the program tools.
- Design:** RAIMI is designed to provide a prioritization based on the estimate of potential health risks resulting from multiple air contaminants and sources (point, area, and mobile sources) within a pre-defined geographical area and to a community level of resolution. The level of detail is intended to be sufficient enough to allow association of risk to a specific contaminant, source, and exposure pathway. The intent is to have a flexible and dynamic platform that would allow active updates to data for rapid identification, characterization, assessment, and management of aggregate environmental exposures based on relevant and current exposures. Data completeness and accuracy that are contained within the platform are of greatest importance.
- Benefits:** The potential for RAIMI, under complete and successful implementation, is that it can be used by EPA, state, and local agencies to provide input on risk management decisions, policies regarding cumulative health risks, permitting, regulatory development, land use decisions and planning, and contribute to cross media regulatory protections.
- Results:** The Phase I RAIMI Pilot Study successfully demonstrated its stated design objectives. The most significant limitation and uncertainty is the potential lack of complete emissions characterization. Complete, accurate, and timely data are crucial to successful use of the

RAIMI platform. Uncertainties also exist relative to air and risk modeling programs and respective inputs.

**Next Steps:** The initial phase of the pilot study was a test for application to larger areas. USEPA Region VI has recently completed an assessment on three entire counties at the same level of detail. EPA is currently examining the results from the assessments from an implementation and enforcement standpoint to lower community level inhalation risks. The intent is to have all counties in the major areas of the region (primarily Texas and Louisiana) fully mapped in the next five years.

The second phase of the pilot is to study indirect exposures resulting from air-related sources. This element of the pilot will focus on other pathways of exposure besides inhalation, such as ingestion. Work on this phase is anticipated for completion by the end of 2003, to be followed by a review stage prior to publishing. Under this phase, EPA will be examining surrogates to effectively and accurately determine the impacts from indirect exposures.

## **APPENDIX F**

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### **COMMUNITY FORUM SUMMARY**

**Summary**  
**Community Forums**  
**For Addressing Cumulative Impacts**

In May and June 2003, staff held a series of 5 evening and weekend Community Forums. The meetings were held in Mira Loma, Santa Ana, Sun Valley, Fontana, and Wilmington. The intent of the meetings were to seek input for addressing cumulative impacts from sources of air pollution. One of the primary goals was to receive feedback on a list of 19 options (see attached) developed by the Cumulative Impacts Working Group. The meetings were attended by about 150 individuals representing environmental and community groups, local government, and neighboring residents.

A summary of key comments and concerns raised at the individual meetings follows:

- **Mira Loma:** The primary concerns raised related to the heavy rail and diesel truck traffic and lengthy idling associated with the large number of warehouses and distribution centers. These structures are located in and around the 15/60 freeway interchange, which are in close proximity to schools. Concerns were also raised regarding proposed increased numbers of warehouses in the same vicinity. Another major concern was regarding a particular facility that conducts manufacturing of foam, plastic, and rubber products.
- **Santa Ana:** Although there were several questions on the cumulative impact effort, no specific concerns regarding local issues were raised.
- **Sun Valley:** A number of concerns were raised relative to the high local concentration of landfills and waste processing, strip mining (quarries), vehicle scrap yards, plating facilities, and rail and freeway transportation corridor. Due to the dust, odors, and other emissions, concerns were raised regarding the high incidence of asthma in children in the area. A number of requests were specifically made for air monitoring in the local area, particularly around schools. Therefore, requests for increased inspector field presence. This community also wanted AQMD staff to come back to this area.
- **Fontana:** The major concern raised was increased vehicle traffic due to relocated and new businesses, including manufacturing, into the area.
- **Wilmington:** Attendees stressed that a strong cumulative impacts program should be developed and implemented, and should include indicators other than cancer risk only. Several attendees testified that the program should address both stationary and mobile sources. Concerns were raised regarding the high incidence of asthma and nose bleeds of local residents. The rail and diesel truck traffic associated with the ports and the Alameda Corridor are of key concern, as well as density of local facilities, such as refineries, auto body shops, plating facilities, and vehicle scrap yards. Requests were made for increased localized monitoring and neighborhood assessment modeling. Several groups offered to support the AQMD regarding legislation to increase its authority over ships, trucks, and trains. Several concerns were also raised by residents located near the runway of the Santa Monica airport, citing high exposure to airplane emissions due to the increased number of planes idling prior to take-off.

Specific suggestions from the combined meetings included:

- Legislation to mandate disclosures of environmental problems in the community by landlords when leasing or selling residential or commercial real estate.
- Information was requested on whether screens or trees around schools would decrease particulate pollution.
- Request for notices to schools in areas of high pollution at levels lower than traditionally notified based on the Air Quality Index ratings.
- Inspectors are requested to respond to all complaints during the middle of the night.
- The AQMD should have more involvement in the 710 freeway expansion project.
- Reduced idling of trucks, trains, and ships when near residential communities should be required;
- Thresholds in Rules 1401 and 1402 should be reduced;
- Rail traffic along the Alameda Corridor should be electrified;
- Enforcement programs should be stronger, including greater field presence and penalties;
- AQMD should exert more and better influence on land use decisions;
- Require controls on small diesel engines;
- Require a buffer zone around certain types of factories or do not allow more new sources;
- Provide incentives for air purification systems for homes;
- Incentives and requirements for pollution prevention and reduction should be pursued;
- The AQMD should help the community with resources to address localized issues; and
- Repeat visits to the community should be made regarding this and other subjects.