ATTACHMENT A

CALIFORNIA AIR TOXICS "HOT SPOTS" INFORMATION AND ASSESSMENT ACT (AB 2588)

2016 Air Toxics "Hot Spots" Program Report for San Diego County

(date of adoption)

SAN DIEGO COUNTY
AIR POLLUTION CONTROL DISTRICT
10124 Old Grove Road
San Diego, CA 92131

2016 Air Toxics "Hot Spots" Program Report
For
San Diego County

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Air Toxics "Hot Spots" Information and Assessment Act requires stationary sources of air pollutants to report the types and quantities of certain substances routinely released into the air. Emissions of interest are those that result from the routine operation of a facility or are predictable, including but not limited to continuous and intermittent releases and process upsets or leaks.

The goals of the Air Toxics "Hot Spots" Act are to collect emissions data, identify facilities having localized impacts, determine facility-wide health risks, notify nearby residents of high risk facilities in their vicinity, and have the owners of facilities reduce significant risks to below the level of significance.

The San Diego County Air Pollution Control District (District) implements this program by reviewing the data submitted by facilities, determining what actions facilities must undertake, and ensuring those facilities fully comply with the requirements of the Hot Spots Act.

This is an annual report that summarizes the program elements and results from the latest analysis, including stationary and mobile source emissions estimates, results of local Health Risk Assessments (HRAs), and the current status of public notifications.

INTRODUCTION

The California Air Toxics "Hot Spots" Information and Assessment Act (AB2588, Statutes of 1987) was enacted to address public concern over the extent of airborne emissions of toxic air contaminants from stationary industrial sources and the potential public health impacts of those emissions. The law requires facilities emitting toxic substances to quantify air toxics emissions, identify impacted areas, notify individuals exposed to elevated risks, and then develop and implement strategies to reduce potential significant risks.

One requirement of AB2588 is for local air pollution control districts to provide the public with an annual progress report on the program and that is the purpose of this report.

Although toxic air contaminant emissions from stationary sources have been substantially reduced, significant emissions of toxic air contaminants still occur. Prioritizing and reducing these emissions further will require continued collaborative efforts among the public, industry, environmental groups, the California Air Resources Board (CARB) and the District.

BACKGROUND

Approximately 3,000 San Diego facilities are required to comply with AB2588. The law requires facilities to submit information that is used to achieve the objectives of the program. Collected information includes:

- **Emission Inventory Reports** – Facilities must submit the information needed by the District to prepare a toxic emissions inventory report. Those facilities with a potentially elevated risk must conduct a health risk assessment.

- **Health Risk Assessments** – Facilities who submit HRAs must determine the level of public exposure to their emitted compounds and the potential adverse public health impacts.

- **Public Notification** – If the HRA reveals an elevated public risk the facility must provide notice to all exposed persons.

- **Risk Reduction Audits and Plans** – Facilities with a potentially significant public health risk must notify exposed persons and submit a plan to reduce air contaminants to acceptable levels within specified timeframes.

CARB lists more than 700 compounds that are assessed under the "Hot Spots" Program and are potentially carcinogenic or may cause acute and chronic non-cancer health problems.

Facilities subject to the “Hot Spots” Program are required to update their toxic inventories at least once every four years. Because the program can be labor intensive and time consuming the District has developed streamlined reporting procedures and automated processes to assist the facilities in meeting its requirements. Facilities can provide their information through a web-based Emissions Inventory System or in other ways that work best for them.

The District reviews and approves the data submitted by facilities, and those data are compiled and included in this annual report.

Toxic air contaminant emissions have varying degrees of potential harm. Each air contaminant and its quantities must be evaluated to determine risk and identify any health concerns. The "Hot Spots" Program does just that and has resulted in significantly reduced health risks since its inception in 1989.

PROGRAM DESCRIPTION AND STATUS

Emissions Inventory

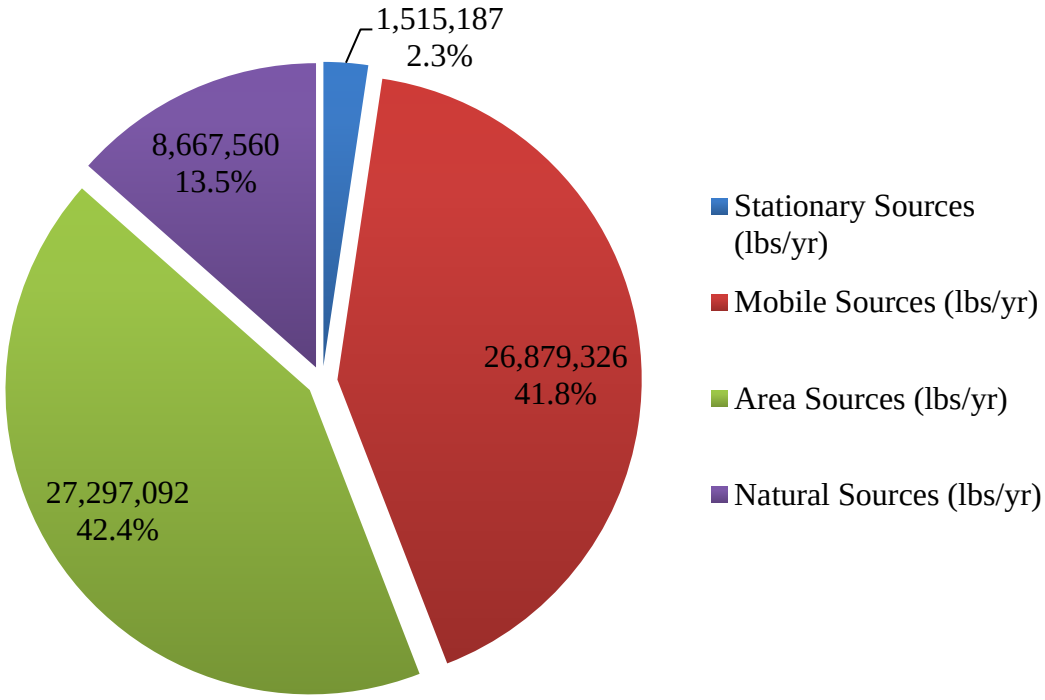
Facilities subject to this program are required to update their toxic air contaminant inventories at least every four years. An estimate of current toxic air contaminant emissions (for calendar years 2011-2014) from these industrial sources is presented in Appendix A of this report.

The emission inventory covers approximately 3,000 facilities. Stationary source emission estimates, by facility, are available on the District's website: www.sdapcd.org. This can be accomplished by hovering the cursor over the *Programs* tab, selecting *Toxics and Emissions* on the drop down list and then clicking on the *Facility Emissions* link. Stationary source emissions inventories are also available upon request for those without internet access by calling (858) 586-2600. In 2016, five new inventory reports were approved by the District, bringing the historical number of reports to 4,155.

Overall, local emissions of toxic air contaminants from industrial sources have decreased substantially since the program was initiated. The most significant reductions were due to the use of "green" solvents and improved equipment controls of heavy metals emissions. However, the increased use of paints/coatings, solvents and gasoline have offset some of the emissions reductions otherwise accomplished by this program.

Countywide emissions for non-industrial sources (mobile, area, and natural sources) are also presented in Appendix A. Mobile sources include on-road vehicles, off-road vehicles, trains, mobile equipment and utility equipment that, together, comprise the largest source of air contaminants within San Diego County (approximately 42%). Area sources include residential fuel combustion, road dust, outdoor burning, solvent use, and pesticide application. Natural sources include wildfires and biogenic emissions. The estimates of mobile, area, and natural source emissions can be found at http://www.arb.ca.gov/toxics/cti/cti.htm. Emissions for the mobile, area, and natural source subcategories are presented in Figure 1, along with the stationary source emissions.

Figure 1: Comparison of Estimated Toxic Air Contaminant Emissions from All Sources



Facility Prioritization

The purpose of facility prioritization is to 1) identify facilities that may have elevated risk levels that need to be reported to the public, and 2) identify those that need to undertake risk reduction measures because of the potential health risks their emissions pose to the public. Requiring a facility to prepare a risk assessment based on their prioritization score does not necessarily mean the facility poses a significant risk to public health, only that their potential risks need to be further evaluated.

Based on their prioritization score facilities are placed into one of three categories: Category A is for facilities that are required to prepare and submit an HRA; Category B is for facilities that are currently not required to conduct an HRA but may be required to at a future date if conditions change and their potential health risks were to increase; and Category C applies to facilities that are not required to conduct an HRA.

Facilities are reprioritized at the time of each toxic inventory report submittal. The prioritization procedures can be found on the District's website at http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Toxics_Program/APCD_Air_Toxics_Hot_Spots_Prioritization_Procedures.pdf.

Health Risk Assessments

A Health Risk Assessment (HRA) is a detailed study of the possible public health risks due to the emissions of toxic air contaminants from a facility. The assessment incorporates worst case scenarios as required by the state, so the results of an HRA may overstate actual health risks. For example, a risk assessment typically will estimate the increased cancer risk for a person who would remain at the one location with the greatest potential risk to toxic air contaminant emissions for 70 years. While such a scenario is unlikely to ever occur, the calculations are designed to provide a very careful estimate of "worst-case" risk to ensure an adequate margin of safety for the public who is unwittingly exposed to industrial emissions.

Each HRA is reviewed by the District and the State Office of Environmental Health Hazard Assessment (OEHHA) and any deficiencies must be corrected by the facility. Since 1991, HRAs have been completed for 79 facilities. The results of all risk assessments prepared under this program are available for public review.

Public Notification and Risk Reduction

Once an HRA has been approved the Air Toxics "Hot Spots" Program requires facilities with elevated risk levels to provide public notice to all exposed persons. Facilities with potentially significant risks are required to reduce emissions to acceptable levels within five years. These risk levels are presented in Table 1.

Table 1: Public Notification and Significant Risk Levels

	Public Notification Threshold	Significant Risk Threshold
Maximum Incremental Cancer Risk (1)	10.0 in one million	100.0 in one million
Cancer Burden (2)	1.0	1.0
Total Chronic Noncancer Health Hazard Index (3)	1.0	1.0
Total Acute Noncancer Health Hazard Index (4)	1.0	1.0

1. Maximum Incremental Cancer Risk is the maximum lifetime excess cancer risk estimate (per million) at an occupational or residential receptor (whichever is greater). The maximum estimated risk generally is possible at only one location. All other locations show lower risks. This estimate assumes that a person resides at the location of maximum impact 24 hours per day, 365 days per year with 70 years of exposure, or a person works at the location of maximum impact 8 hours per day, 245 days per year, with 40 years of exposure. Actual cancer risk will likely be less.
2. Cancer Burden is an estimate of the increased number of cancer cases in a population (i.e., all census tracts within or partially within the area exposed to an Incremental Cancer Risk of one in one million or greater) as a result of exposure to emitted substances. Actual cancer burden will likely be less.
3. Total Chronic Health Hazard Index (THI) is the sum of the ratios of the average annual exposure level of each compound to the compound's Reference Exposure Level (REL). Actual chronic THI will likely be less.
4. Total Acute Health Hazard Index (THI) is the sum of the ratios of the maximum one-hour exposure level of each compound to the compound's REL. Actual acute THI will likely be less.

Facilities required to perform public notification must distribute notices to each household and business that may be exposed to elevated risks. Notifications are issued biennially until the facility demonstrates it has lowered the potential health risk to non-reporting levels.

Historically, there have been 20 facilities with estimated risks above public notification levels and which have been required to inform the public of their HRA results. Of these 20 facilities, four have ceased operations, ten have reduced their risk to below the notification thresholds, and six are still required to conduct biennial public notification. Based on requests from the public, four of these facilities were required to hold public meetings to provide further information.

Facilities with potentially significant public health risks must implement a risk reduction plan. Historically, 13 facilities had estimated risks above the significant risk level and were required to reduce risk. Of these 13 facilities, six have ceased operations and five have reduced their risk to below the public notification levels (one of these must still notify for a different purpose). Two facilities currently have reduction plans in effect, but are under further review for possible updates.

The HRA results of active facilities required to implement a risk reduction plan and/or conduct biennial public information notification are presented in Table 2. A list of facilities with previously approved HRAs but that are not required to implement a risk reduction plan and/or conduct biennial public notification are presented in Appendix B.

Table 2: Health Risk Assessment Results

HRA Evaluation Period	Facility		Max. Incremental Cancer Risk per million	Cancer Burden	Chronic THI	Acute THI
Facilities required to implement a risk reduction plan and conduct biennial public notification.						
2005	S.D. City Miramar Landfill	San Diego	8.5	0.19	2.06	0.37
2012	GKN Chemtronics	El Cajon	1.01	< 1.0	0.64	1.84
Facilities required to conduct biennial public notification.						
2003	Pacific Ship Repair	San Diego	41	< 1	0.24	< 0.1
2005	S.D. City Pump Station 2	San Diego	33	< 1.0	0.3	0.1
2009	National Steel & Shipbuilding	San Diego	21.2	0.38	0.57	0.76
2005	USN Air Station/North Island	Coronado	13.5	0.19	< 0.1	0.72

The facilities currently required to conduct biennial public notification and the status of those notifications are listed in Table 3.

Table 3: Biennial Public Notification Statuses

HRA Evaluation Period	Facility		Most Recent Notification Year
2008	GKN Chemtronics	El Cajon	2017*
2009	National Steel & Shipbuilding	San Diego	2017*
2003	Pacific Ship Repair	San Diego	2017*
2005	S.D. City – Pump Station 2	San Diego	2017*
2005	S.D. City – Miramar Landfill	San Diego	2016
2005	USN Air Station / North Island	Coronado	2016

* Notification is in process with the District.

Recent and Expected Changes to the Program

In March 2015, OEHHA finalized health-protective updates to the methodologies for conducting HRAs, known as *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.* These changes considered exposure duration, age-based sensitivity factors, and the varying breathing rates of different age groups. The combined effects of these updates will, in most cases, result in a higher estimated risk, even if the emissions are not increasing. In turn, this will lead to additional risk reduction plans to further reduce toxic air contaminants and increase public health protection.

OTHER REGULATIONS

At the federal level, the 1990 Clean Air Act (CAA) Amendments required the U.S. Environmental Protection Agency (EPA) to develop nationwide control measures for air toxics. The CAA now lists 187 substances as hazardous air pollutants (HAPs) and the EPA develops the federal National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for large and small sources of HAPs. Under state law newly adopted NESHAPs become state Air Toxic Control Measures (ATCMs) automatically unless the state elects to adopt a separate regulation.

At the state level, CARB continues to develop regulations, called ATCMs, to reduce emissions of toxic air contaminants. Once ATCMs are adopted by CARB the local air districts must implement these new standards.

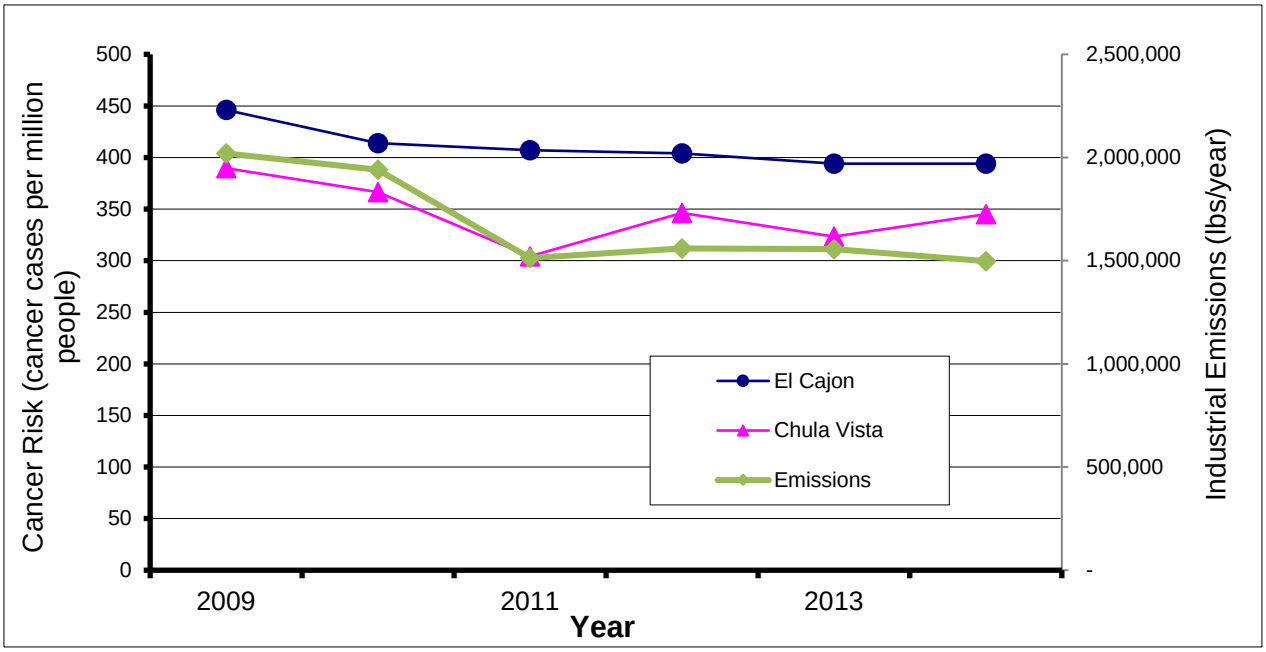
At the local level, District Rule 1200 regulates potential public health risks from new and expanding business operations. In 2016, the District evaluated 167 applications that were subject to Rule 1200. Out of the 167 applications, 75 had minimal risk requiring no further action. The remaining 92 applications had elevated risks and were required to utilize the best available controls for maximum emission reductions.

TOXIC AIR CONTAMINANTS AMBIENT MONITORING

The District has sampled toxic air contaminants at the El Cajon and Chula Vista air monitoring stations since the mid-1980s. A summary of recent results and resulting CARB determined risk results are provided in Figure 2. Note that due to the changes in OEHHA's risk assessment

methodologies discussed above, CARB is now presenting higher cancer risks than were reported in previous reports, even though the previous sampling results have not changed.

Figure 2 – Toxic Air Contaminant Incremental Cancer Risk* and Industrial Toxic Emissions



* Does not include risk from diesel particulate matter from engines.

Excluding diesel particulates, a 12% reduction in the ambient incremental cancer risk occurred at each of the two sites since 2009, as shown in Figure 2. The estimated cancer risks were 345 excess cancer cases in one million people for Chula Vista and 394 cases in one million people for El Cajon in 2014. Diesel particulate matter contributes significantly to ambient risk levels but cannot be measured directly. However, CARB has estimated the excess cancer risk from diesel particulate matter in California in 2012 as 520 in a million (down 68% from the 1990 risk of 1600 in a million).

CONCLUSIONS

Motor vehicles, area sources, and natural sources are by far the largest contributors to the airborne toxic air contaminants in San Diego County (63 million pounds annually). Industrial facilities also emit toxic air contaminants, but in much lower amounts. The facilities that have been inventoried currently emit about 1.5 million pounds of toxic air contaminants annually, and these emissions have been reduced by approximately 25% since 2009 and 88% since the inception of the District's Hot Spots program in 1989. Appendix A provides the current inventories of toxic pollutants for stationary, mobile, area, and natural sources.

Despite the tremendous progress made in reducing the emissions of toxic air contaminants in San Diego County, further reductions are needed in order to better protect human health. Approaches to making these reductions are discussed below.

Stationary Source Emission Reductions

OEHHA's updated and more health-protective methodology for conducting HRAs will result in higher risk estimates for facilities in most cases and demonstrate a need for them to cut emissions. This is because the science has evolved and the evermore refined HRA guidelines now provide better estimates of human health risks associated with people's exposure to toxic air contaminants. In fact, because of the improvements to the risk methodology, the District is reprioritizing all facilities to determine which facilities need to perform new HRAs and then take action where needed to reduce facility emissions and risks to further protect public health.

Mobile and Area Source Emission Reductions

As shown in Figure 1 earlier in this document, the largest sources of toxic air contaminants in our region include mobile sources (41.8%) and area sources (42.8%). Clearly, these emissions must be substantially reduced in order to lower the public's cancer risk levels.

The means to achieve mobile and area source emission reductions is, under law, multifaceted and demands local, state and federal involvement as has long been occurring. For example, consumer products such as cleaners and spray paints contain air toxics and are regulated by CARB, who is continually evaluating and implementing strategies to reduce emissions from them. CARB also regulates vehicle fuels and motor vehicle emissions, and the evolution of cleaner low-emission and zero-emission vehicles is an important step in reducing toxic air contaminants and improving overall air quality. Although California takes the lead on vehicles, at the federal level we have also seen enhancements in vehicle emissions and fuel efficiency standards that help to clean our air. Those efforts to reduce or eliminate vehicular emissions must continue if we are to achieve clean, healthful air.

Especially noteworthy is that the APCD has entered into agreements with the State to enforce laws pertaining to on-road and off-road equipment, which are primarily diesel powered. Having the District ensure the State's mobile source rules are as effective as they are designed to be in reducing mobile emissions (especially oxides of nitrogen and diesel particulate matter, a known carcinogen) is of paramount importance to the County's air quality both from a toxics perspective and in meeting the National Ambient Air Quality Standard for ozone. Additionally, the District provides millions of dollars in grants to clean up and/or replace diesel powered vehicles, agricultural equipment, marine vessels and construction equipment, to name a few. These diesel emission reductions are of paramount importance in reducing health risks.

While mobile emissions are the region's largest contributor to air quality degradation, the District will continue to collaborate with others and work towards reducing health risks for residents and visitors alike via the development and implementation of measures that help to clean up the air we breathe. Examples include enhanced energy conservation to reduce fuel usage, improvements in fuel burning equipment and home appliances, consumer product improvements and other measures that reduce emissions of harmful air pollutants.

APPENDIX A – Estimated Toxic Air Contaminant Emissions – All Sources

Toxic Air Contaminant	SDAPCD stationary sources (2011-2014) in lbs/yr	Mobile Source (lbs/yr) [1]	Area Source (lbs/yr) [1]	Natural Source (lbs/yr) [1]	Total San Diego County Emissions (lbs/yr)
Ammonia	29,553	3,872,504	7,802,824	2,028,962	13,733,843
Aluminum [2]	8,024	1,697	12,114,847	4,491	12,129,059
Methanol	6,580	104,969	488,729	4,718,772	5,319,050
Toluene	148,439	3,429,983	831,257		4,409,679
Diesel Particulate Matter [2, 3]	21,904	3,536,120			3,558,024
Xylenes	130,750	3,039,683	36,102		3,206,535
Propylene	661	1,879,831	52,499	851,157	2,784,147
Formaldehyde	59,576	2,406,814	111,826		2,578,217
Trimethylpentane, 2,2,4-	12,205	2,045,047	88,988		2,146,240
Acetaldehyde	8,186	969,207	89,599	822,296	1,889,288
Isopropyl Alcohol	144,094		1,437,539		1,581,633
Benzene	12,806	1,458,295	7,269		1,478,371
Hexane	47,950	836,500	275,647		1,160,097
Ethyl Benzene	40,232	759,473	45,654		845,359
Trimethylbenzene, 1,2,4-	96,047	675,942	41,996		813,985
Methylene Chloride	29,541		602,661		632,202
Ethylene Glycol	3,033		510,224		513,257
PAHs, Unspecified [2]	537	384,477	111,909	3,178	500,101
Ethylene Glycol Butyl Ether	8,877		457,985		466,862
Butadiene, 1,3-	1,253	334,291	26,663	103,846	466,053
Chlorine	558	160,981	258,436	39,020	458,995
Perchloroethylene	53,449		354,201		407,650
Methyl Ethyl Ketone	39,994	137,455	199,608		377,057
Phosphorus [2]	23	1,161	254,738	2,108	258,030
Acrolein	1,639	158,063	19,635	71,670	251,007
Dichlorobenzene	175		244,012		244,187
Naphthalene [2]	720	151,170	87,262		239,152
Barium [2]	56,409	51,498	117,308		225,215
Butanol	173,035		25,716		198,751
Trichloroethane, 1,1,1-	819		150,398		151,217
Zinc [2]	2,455	12,816	92,449	20,272	127,993
Manganese [2]	1,045	2,787	112,591	720	117,144
Styrene	18,233	74,131	5,002		97,366
Propylene Glycol Methyl Ether	36,835		35,187		72,022
Methyl Isobutyl Ketone	29,295		39,548		68,843
Trichloroethylene	4,786		44,218		49,004
Lead [2]	104	7,186	34,151	466	41,907
Copper [2]	1,704	11,965	17,400	201	31,270
Phenol	2,977	6,537	8,646		18,160
Chromium, Non-Hexavalent [2]	202	2,246	10,934		13,381
Arsenic [2]	34	6,714	1,951	244	8,943
Cobalt [2]	4	1,120	6,327		7,451
Nickel [2]	336	2,416	4,210		6,963

APPENDIX A – Estimated Toxic Air Contaminant Emissions – All Sources (continued)

Toxic Air Contaminant	SDAPCD stationary sources (2011-2014) in lbs/yr	Mobile Source (lbs/yr) [1]	Area Source (lbs/yr) [1]	Natural Source (lbs/yr) [1]	Total San Diego County Emissions (lbs/yr)
Chromium, Hexavalent [2]	6	6,754	2		6,762
Ethylene Oxide	0		3,766		3,766
Cadmium	19	852	1,444		2,316
Methyl Methacrylate	979		705		1,684
Mercury [2]	39	86	1,550		1,675
Ethylene Glycol Ethyl Ether Acetate	46		1,496		1,542
Thallium [2]	13		1,339	21	1,373
Vinyl Acetate	25		1,127		1,152
Chlorobenzene	319	56	688		1,064
Ethylene Glycol Ethyl Ether	1		1,027		1,028
Selenium [2]	13	678	293	32	1,016
Dibutyl Phthalate	42		827		869
Methylene Diphenyl Isocyanate	41		562		603
Methyl Tert-Butyl Ether	0	575			575
Silver [2]	28	50	389	106	572
Ethylene Glycol Methyl Ether	5		53		58
Propylene Oxide	0		11		11
Cyclohexane	No data available	347,193	23,664		Unknown
Silica, Crystalline [2]	144,261				Unknown
Hydrogen Chloride	58,450				Unknown
Glycol Ethers, Unspecified	26,441				Unknown
Hydrogen Sulfide	13,654				Unknown
Hydrogen Fluoride	10,096				Unknown
Chlorobenzotrifluoride,para	5,482				Unknown
Dimethyl Sulfide	5,081				Unknown
Isocyanates, Unspecified	2,736				Unknown
Vinyl Chloride	2,148				Unknown
Ethylene Dichloride	1,634				Unknown
Chlorofluorocarbons	1,539				Unknown
Nitric Acid	1,485				Unknown
M-Pyrol	1,453				Unknown
Dioxane,1,4-	1,087				Unknown
Chloroform	771				Unknown
Carbon Disulfide	720				Unknown
Acrylonitrile	478				Unknown
Carbonyl Sulfide	308				Unknown
Vinylidene Chloride	196				Unknown
Quinone	155				Unknown
Propylene Glycol	151				Unknown
Carbon Tetrachloride	146				Unknown
Sodium Hydroxide [2]	50				Unknown

APPENDIX A – Estimated Toxic Air Contaminant Emissions – All Sources (continued)

Toxic Air Contaminant	SDAPCD stationary sources (2011-2014) in lbs/yr	Mobile Source (lbs/yr) [1]	Area Source (lbs/yr) [1]	Natural Source (lbs/yr) [1]	Total San Diego County Emissions (lbs/yr)
Benzyl Chloride	9				Unknown
Beryllium [2]	1				Unknown
Sulfuric Acid	1				Unknown
Acrylamide	0.4				Unknown
TOTALS [4]	**1,515,187**	**26,879,326**	**27,297,092**	**8,667,560**	**63,359,165**

1. Emission data obtained from CARB's 2008 California Toxics Inventory.
2. This toxic air contaminant is emitted as a particulate.
3. The estimate of diesel particulate matter emissions are from diesel internal combustion engines only. Individual toxins of diesel particulate matter (i.e., arsenic, cadmium, copper, hexavalent chromium, lead, nickel, selenium, and zinc) from sources other than diesel internal combustion engines are reported as individual pollutants in above table.
4. Total of most recent available estimates for industrial, mobile, area, and natural sources.

APPENDIX B – Historical Health Risk Assessments

HRA Evaluation Period	Facility	
Active facilities required to implement a risk reduction plan and conduct biennial public notification.		
2005	S.D. City Miramar Landfill	San Diego
2012	GKN Chemtronics (previous HRA in 1993 and 2008)	El Cajon
Active facilities required to conduct biennial public notification.		
2003	Pacific Ship Repair	San Diego
2005	S.D. City Pump Station 2	San Diego
2009	National Steel & Shipbuilding (previous HRA in 1993 and 2005)	San Diego
2005	USN Air Station/North Island (previous HRA in 1993 and 1998)*	Coronado
Active facilities that implemented a risk reduction plan and currently have risks below the public notification level.		
1995	Flame Spray Inc.	San Diego
1994	Senior Flexonics, Ketema Division	El Cajon
1993	USN Amphibious Base	Coronado
2005	Vision Systems	El Cajon
Active Facilities not required to implement a risk reduction plan and not required to conduct biennial public notification.		
1989	ARCO	San Diego
1993	Asphalt Inc.	Lakeside
1993	BAE / Southwest Marine	San Diego
2006	BF Goodrich / Rohr Industries (previous HRA in 1993)	San Diego
1989	Bonsall Landfill	Vista
1989	Cabrillo Power / SDG&E / Encina Plant	Carlsbad
2003	Cabrillo Power II LLC - Kearny Mesa	San Diego
1989	Chevron USA Inc.	San Diego
1999	Chromalloy San Diego	El Cajon
2004	City of Oceanside - Water Utilities	Oceanside
1994	Continental Maritime	San Diego
1993	Deutsch Co.	Oceanside
1989	Equillon Enterprises / Shell Oil Co - Mission Rd	San Diego
1993	Frazee Paint	San Diego
2003	Goal Line	Escondido
1993	Hanson Aggregates / Nelson & Sloan / Tri Way	Lakeside
1993	Hanson Aggregates / Sim J. Harris	San Diego
1993	Hanson Aggregates / South Coast Materials	Carlsbad
1993	Hanson Aggregates/H.G. Fenton/East County Mtls	El Cajon
1993	Hanson Aggregates/Nelson & Sloan - 7th & Main	Chula Vista
1993	Hanson Aggregates/Nelson & Sloan - Birch Quarry	Chula Vista
1989	Kelco/Div. Merck & Co. Inc.	San Diego
2003	Kyocera America	San Diego
2003	Neptune Society	El Cajon
1994	Ogden Power Pacific	Chula Vista
1989	Otay Landfill	San Diego
2004	Pacific Gas Turbine	San Diego
1989	Palomar Airport Landfill	Carlsbad
2003	Palomar Medical Center	Escondido
1989	S.D. City Pt. Loma Waste Water Treatment. Plant	San Diego
1989	San Diego State University	San Diego
1989	San Marcos Landfill	San Marcos
1993	Santa Fe Pacific Pipeline	San Diego
1993	Solar Turbines - Pacific Hwy	San Diego

APPENDIX B – Historical Health Risk Assessments (continued)

HRA Evaluation Period	Facility	
Active facilities not required to implement a risk reduction plan and not required to conduct biennial public notification (continued).		
1993	Solar Turbines - Ruffin Rd	San Diego
1989	Sony	San Diego
1989	Southern California Edison Co.	San Onofre
2004	Southwest Airlines	San Diego
2004	Space & Naval Warfare Systems	San Diego
1993	Superior Ready Mix / Canyon Rock	San Diego
1989	Sycamore Landfill	San Diego
1989	Texaco Refining & Marketing, Inc.	San Diego
1989	UCSD Campus	San Diego
2004	United Airlines	San Diego
1989	USMC Base/Camp Pendleton	Pendleton
2005	USMC Miramar / USN Miramar (previous HRA in 1993)	San Diego
2005	USN Navy Station, 32nd St. (previous HRA in 1993)	San Diego
2005	USN Point Loma Naval Complex (previous HRA in 1993)	San Diego
2003	Veterans Administration Hospital	San Diego
1989	Vulcan / CALMAT Co. - Black Mountain Rd	San Diego
1989	Vulcan / CALMAT Co. - Friars Rd	San Diego
1989	Vulcan / CALMAT Co. - Hwy 76	Pala
1993	Wyroc	Vista
Facilities that have ceased operation or are no longer subject to the Hot Spots program.		
1989	Cabrillo Power / SDG&E - 32nd St. Naval Station	San Diego
1989	Cabrillo Power / SDG&E - Naval Training Center	San Diego
1989	Cabrillo Power/SDG&E Company - USN North Island	Coronado
1995	Campbell Marine	San Diego
1989	Duke Energy / SDG&E - South Bay Plant	Chula Vista
1995	Escon Tool and Manufacturing	San Marcos
1989	General Dynamics - Kearny Villa Rd	San Diego
1989	General Dynamics - Pacific Hwy	San Diego
1993	Hanson Aggregates / H.G. Fenton - Carrol Cyn.	San Diego
1994	Hues Metal Finishing	San Marcos
1989	Knight & Carver Inc. - Hancock St	San Diego
1995	Palomar Plating	Escondido
1989	Powerine Oil Co.	San Diego
1993	Signet Armorlite	San Marcos
2013	Southern California Plating (previous HRA in 2002 and 2009)	San Diego
1993	Teledyne Ryan Aeronautical	San Diego

* USN Air Station/North Island successfully implemented a risk reduction plan for acute risk as demonstrated by their updated 1998 acute HRA results.