

AIR TOXICS INFORMATION CLEARINGHOUSE



Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

000R85105

STAPPA / ALAPCO

State and Territorial Air Pollution Program Administrators
Association of Local Air Pollution Control Officials

Second Interim Report of Selected Information on State and Local Agency Air Toxics Activities

March 1985

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AIR TOXICS INFORMATION CLEARINGHOUSE:

SECOND INTERIM REPORT OF SELECTED INFORMATION
ON STATE AND LOCAL AGENCY
AIR TOXICS ACTIVITIES

Final Report

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PREFACE

EPA has focused most of its past efforts in the control of air toxics on the Clean Air Act §112 programs (National Emission Standards for Hazardous Air Pollutants). The amount of time involved for §112 listing and eventual control is extensive. The public is concerned over continuing exposure to potentially toxic air pollutants. The resultant public pressure has had an impact such that many state and local agencies have developed or are now actively developing air toxics regulatory programs apart from Federal activities.

In response to state and local agency requests for assistance in information exchange, EPA has formed an information dissemination center, known as the Air Toxics Information Clearinghouse. It is being implemented in close coordination with the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO).

The purpose of this report is to disseminate information provided to the Clearinghouse by state and local air agencies on their air toxics activities. This report supersedes "Interim Report of Selected Information on State and Local Agency Air Toxics Activities," published in September 1984. It both updates and extends the information in the first report. This report includes air toxics contacts, regulatory program information, acceptable ambient concentrations and standards, research and methods development activities, permitting information, source testing information, and ambient monitoring information.

When the Clearinghouse automated database is fully implemented and the collected data are entered into the automated system, it will be possible to select and sort the data by state or locality, pollutant, source, and other key words. Plans call for the data provided by state and local air agencies to be expanded and updated on a regular basis. The Clearinghouse will distribute this information in regular periodic reports to Clearinghouse users. Users also will be able to directly query the database and view the response

on a terminal or printout, if compatible equipment is available. In addition, the Clearinghouse staff will respond to specific written or telephone inquiries made directly to them or through the EPA Regional Offices.

This report was submitted in partial fulfillment of Contract No. 68-02-3889, Work Assignment 15, by Radian Corporation under the sponsorship of the U.S. Environmental Protection Agency. Compilation of the data was completed on March 8, 1985.

This report is one of several documents designed to initiate information exchange on air toxics prior to completion of implementation of the Clearinghouse database. Other documents published by the Clearinghouse during the interim period include the Air Toxics Information Clearinghouse Newsletter (ongoing), a bibliography of selected EPA reports and Federal Register notices, a bibliography of selected health effects and risk assessment information, and a report on on-going research and regulatory development projects.

The data contained in this report have been presented essentially as received by the Clearinghouse from state and local agencies. Updates or corrections to these data should be reported to:

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PART 1. INTRODUCTION

In May 1984 the first Clearinghouse data collection form was distributed to the 271 state, territorial, and local air agencies on the STAPPA and ALAPCO mailing lists. This form (Clearinghouse Form 1) requested air toxics program contact names and telephone numbers in six areas of expertise: regulatory program, permitting, source tests, ambient monitoring, emissions inventory, and health effects. Based on the response to Form 1, additional data collection forms were distributed in June 1984 to the identified state and local agency contacts. These forms were designed to collect information on state and local regulatory programs, sources of air toxics, ambient monitoring and toxicity testing. The first "Interim Report of Selected Information on State and Local Agency Air Toxics Activities" (September 1984) presented selected portions of data submitted to the Clearinghouse by state and local agencies as of August 17, 1984.

In January 1985, a second phase of data collection was initiated to update the regulatory program information and to collect permitting and source testing information. This report presents data submitted by state and local agencies during both the first and second phases of data collection as of March 8, 1985.

All of the data will be entered into an automated database system located at EPA, Office of Air Quality Planning and Standards in Research Triangle Park, NC. When the automated database is fully operational (scheduled for mid 1985), it will be possible to select and sort the data by state or locality, pollutant, source, and other key words. Plans call for the data provided by state and local agencies to be expanded and updated on a regular basis. The Clearinghouse will distribute this information in regular periodic reports to Clearinghouse users. Users also will be able to directly query the database and view the response on a terminal or printout, if compatible equipment is available. In addition, the Clearinghouse staff will respond to specific written or telephone inquiries made directly to them or through the EPA Regional Offices.

Part 2 of this report lists air toxics contact names and telephone numbers. Part 3 contains updated summaries of state and local air toxics programs. Information on occupational standards and recommendations and acceptable ambient concentrations or standards established by state and local agencies is presented in Part 4. This part also lists safety factors used by state and local agencies to derive acceptable ambient concentrations from occupational limits. Part 5 describes pollutant research and methods development activities reported by state and local agencies. Parts 6 and 7 present state and local permitting and source testing information, respectively. Part 8 is comprised of ambient monitoring data supplied by state and local agencies.

PART 2. AIR TOXICS CONTACTS

State and local air toxics contact names and telephone numbers have been compiled for six areas of expertise: regulatory program, permitting, source testing, ambient monitoring, emissions inventory, and health effects. Forty-nine states, two territories, and 23 localities provided contacts in at least one of these areas. These are listed in Table 1 for states and Table 2 for localities. These contacts will be able to provide more detailed information about a state's or locality's air toxics activities than is contained in this report. If the reader has a question regarding source testing activities in the State of Minnesota, for example, the contact name listed for source testing in Minnesota should be consulted. If a contact name is not listed for a specific area of expertise, the primary Clearinghouse contact (marked with a "**") should be consulted.

The contact names are provided to promote the exchange of information on air toxics activities among state and local agencies and other interested parties. These contact names supersede the original list of air toxics contacts compiled by the Clearinghouse and distributed in March 1983 and update the list presented in "Interim Report of Selected Information on State and Local Agency Air Toxics Activities," published in September, 1984.

TABLE 1. STATE AGENCY AIR TOXICS CONTACTS

State	State Agency Address	Air Toxics Contacts (Name/Telephone)					
		Regulatory Program	Permitting	Source Testing	Ambient Monitoring	Emissions Inventory	Health Effects
Alabama	Alabama Dept. of Environ. Management State Capitol Montgomery, AL 36130	*Richard E. Grunick 205/271-7861	Richard E. Grunick 205/271-7861	--	--	--	--
Alaska	Alaska Dept. of Environ. Conservation Pouch O Juneau, AK 99811	*Stan Hungerford 907/463-2666	Dave Estes 907/465-2666	--	--	--	--
Arizona	Bureau of Air Quality Control Arizona Dept. of Health Services 2005 N. Central Phoenix, AZ 85004	*James L. Guyton 602/257-0022	James L. Guyton 602/257-0022	James L. Guyton 602/257-0022	James L. Guyton 602/257-0022	James L. Guyton 602/257-0022	James L. Guyton 602/257-0022
Arkansas	Arkansas Dept. of Pollution Control and Ecology Air Division 8001 National Drive Little Rock, AR 72209	Wilson Tolofree 501/562-7444	Cecil Harrell 501/562-7444	*John Mitchell 501/562-7444	John Mitchell 501/562-7444	John Mitchell 501/562-7444	--
California	CA Air Resources Board P.O. Box 2815 Sacramento, CA 95812	Peter D. Venturini 916/445-0650	*William V. Loscutt 916/322-6023	William V. Loscutt 916/322-6023	G.C. Bass 818/575-6806	Terry McGuire 916/322-5350	Dr. John Holmes 916/445-0753
Colorado	CO Dept. of Health 4210 E. 11th Avenue Denver, CO 80220	*John Clouse/ Nadine Quigley 303/320-4180	--	--	--	--	--
Connecticut	Air Compliance Unit Dept. of Environ. Prot. 165 Capital Ave., Rm. 144 Hartford, CT 06106	*John Gove 203/566-2690	John Gove 203/566-2690	--	John Gove 203/566-2690	--	--
Delaware	Air Resources Section Div. of Environ. Control 89 Kings Highway P.O. Box 1401 Dover, DE 19903	*Charles Wilkins 302/736 4791	Charles Wilkins 302/736-4791	Charles Wilkins 302/736-4791	Charles Wilkins 302/736-4791	Charles Wilkins 302/736-4791	Charles Wilkins 302/736-4791

*Primary Clearinghouse contact. (Continued)

TABLE 1. Continued

State	State Agency Address	Air Toxics Contacts (Name/Telephone)					Health Effects
		Regulatory Program	Permitting	Source Testing	Ambient Monitoring	Emissions Inventory	
Florida	Bar. of Air Quality Mgmt. Div. of Environ. Programs Dept. of Environ. Reg. State of Florida Twin Towers Office Bldg. 2600 Blair Stone Road Tallahassee, FL 32301	*Ed Huck 904/488-1344	Ed Huck 904/488-1344	Ed Huck 904/488-1344	Ed Huck 904/488-1344	Ed Huck 904/488-1344	Ed Huck 904/488-1344
Georgia	Air Protection Branch Environ. Protect. Div. Dept. of Natural Resources 270 Washington St. SW Atlanta, GA 30334	*Marvin M. Lowry 404/656-6900	John W. Mitchell 404/656-6900	--	--	--	--
Hawaii	Environ. Protec. and Health Services Div. Hawaii State Dept. of Health 1250 Punchbowl Street Honolulu, HI 96813	--	--	--	--	*Gary Sin 808/348-6410	--
Idaho	IDHE-Div. of Environ. Air Quality Bureau 450 W. State Street Boise, ID 83720	*Ken Brooks 208/334-5630	Ken Brooks 208/334-5630	John Ledger 208/334-5362	John Ledger 208/334-5362	Ken Brooks 208/334-5630	Ken Brooks 208/334-5630
Illinois	IL Environ. Prot. Agency Div. of Air Pollution Control 2200 Churcilli Rd. Springfield, IL 62706	*Paul M. Purse-glove 217/782-1830	Paul M. Purse-glove 217/782-1830	Fred Smith 312/345-9780	Daniel R. D'Auben 217/782-1830	Paul M. Purse-glove 217/782-1830	Paul M. Purse-glove 217/782-1830
Indiana	IN State Bld. of Health 1330 W. Michigan Street P.O. Box 1964 Indianapolis, IN 46206	*Eugene J. Dumitriu 317/633-0648	Timothy L. Jones 317/633-0663	--	Larry Fedor 317/633-0668	--	--
Iowa	Dept. of Water, Air and Waste Management Henry A. Wallace Bldg. 900 E. Grand Avenue Des Moines, IA 50309	*Rexford A. Walker 515/281-8924	--	--	Mark Johnson 515/281-6253	Mark Johnson 515/281-6253	--

*Primary Clearinghouse contact. (Continued)

TABLE 1. Continued

State	State Agency Address	Regulatory Program	Air Toxics Contacts (Name/Telephone)				Health Effects
			Permitting	Source Testing	Ambient Monitoring	Emissions Inventory	
Kansas	Bureau of Air Quality and Occupational Health KS Dept. of Health and Environment Forbes Field Topeka, KS 66620	*David J. Romano 913/862-9360 ext. 266	--	--	Jan Sides 913/862-9360	Lacy Hinther 913/862-9360	--
Kentucky	Div. of Air Pollution Control KY Natural Resources & Environ. Prot. Cabinet 18 Reilly Road Frankfort, KY 40601	*Hisham W. Said 502/564-3382	James W. Dills 502/564-3382	Gerald Slucher 502/564-3382	Diana Andrews 502/564-3382	Diana Parker 502/564-3382	--
Louisiana	Air Quality Division Office of Environ. Affairs Dept. of Natural Resources P.O. Box 44066 Baton Rouge, LA 70804	Gus Von Boudungen 504/342-1206	Bharat Contractor 504/342-1206	Bob Wesconick 504/342-1206	*Leonard Medal 504/342-1206	Bharat Contractor 504/342-1206	Gus Von Boudungen 504/342-1206
Maine	Bur. of Air Qual. Control Dept. of Environ. Protec. Statehouse Station 17 Augusta, ME 04333	*Ronald Severance 207/289-2437	Ronald Severance 207/289-2437	Ronald Severance 207/289-2437	Ronald Severance 207/289-2437	Ronald Severance 207/289-2437	Norman Anderson 207/289-3591
Maryland	Air Management Admin. Office of Environ. Prog. Dept. of Health & Mental Hygiene 201 W. Preston Street O'Connor Bldg., 2nd Fl. Baltimore, MD 21201	*Susan Wierman 301/383-2494	--	Don Andrew 301/383-3147	Bob Roman 301/383-3147	--	--
Massachusetts	Div. of Air Qual. Control Dept. of Environ. Qual. Engineering One Winter St., 8th Fl. Boston, MA 02108	*James F. Neely 617/292-5629	James F. Neely 617/292-5629	James F. Neely 617/292-5629	James F. Neely 617/292-5629	James F. Neely 617/292-5629	Dr. Halina Brown 617/292-5509
Michigan	Air Quality Division Dept. of Natural Res. P.O. Box 30028 Lansing, MI 48909	*Dr. George Su 517/322-1339	Jerry Avery 517/322-1333	Tim Buchanan 517/322-1339	John Schroeder 517/322-1339	John Shaffer 517/322-1339	Catherine Simon 517/322-1339

*Primary Clearinghouse contact.

(Continued)

TABLE 1. Continued

State	State Agency Address	Air Toxics Contacts (Name/Telephone)				
		Regulatory Program	Permitting	Source Testing	Ambient Monitoring	Emissions Inventory
Minnesota	MN Pollution Control Ag. Div. of Air Quality 1935 W. County Rd. B-2 Roseville, MN 55113	Brad Beckham 612/296-7265	Louis Cham- berlain 612/296-7324	Ed Crowley 612/296-7284	Gary Eckhardt 612/296-7330	*John Seitz 612/296-7262
Mississippi	MS Dept. of Natural Res. Bar. of Pollution Control 2380 Highway 80 West Jackson MS 39209	*Dwight K. Wylie 601/961-5171	Dwight K. Wylie 601/961-5171	Dwight K. Wylie 601/961-5171	Dwight K. Wylie 601/961-5171	Dr. Velma Shannon 612/296-7799
Missouri	Air Pollution Control Program Div. of Environ. Qual. Dept. of Natural Res. P.O. Box 1368 Jefferson City, MO 65102	*Nick Nikkila 314/751-4817	Nick Nikkila 314/751-4817	Nick Nikkila 314/751-4817	Nick Nikkila 314/751-4817	Nick Nikkila 314/751-4817
Montana	Air Quality Bureau MT State Dept. of Health and Environ. Sciences Cogswell Bldg. Helena, MT 59620	*Hal Robbins 406/444-3454	Harry Keltz 406/444-3454	Harry Keltz 406/444-3454	Bob Ralsch 406/444-3454	Hal Robbins 406/444-3454
Nebraska	Air Pollution Division Dept. of Environ. Cntl. P.O. Box 94877 Lincoln, NE 68509	*Gene Robinson 402/571-2186	Gene Robinson 402/571-2186	Gene Robinson 402/571-2186	Gene Robinson 402/571-2186	Gene Robinson 402/571-2186
Nevada	Air Quality Control Dept. of Conservation and Natural Resources 201 S. Fall Street Carson City, NV 89710	*Dick Sertox 702/885-4670	Dick Sertox 702/885-4670	--	--	--
New Hampshire	NE Air Resources Agency Health & Welfare Bldg. Hazen Drive Concord, NE 03301	*Richard Andrews 603/271-4582	Richard Andrews 603/271-4582	Richard Andrews 603/271-4582	Richard Andrews 603/271-4582	Richard Andrews 603/271-4582
New Jersey	NJ Bar. of Air Po. Cntl. Div. of Environ. Qual. Dept. of Environ. Protec. CN 027 Trenton, NJ 08625	*Bob Myers 609/984-5292	--	Lou Mikolaj- czyk 609/984-4173	Ron Harkov 609/984-2207	--

*Primary Clearinghouse contact. (Continued)

TABLE 1. Continued

State	State Agency Address	Regulatory Program	Air Toxics Contacts (Name/Telephone)				Health Effects
			Permitting	Source Testing	Ambient Monitoring	Emissions Inventory	
New Mexico	Environ. Improvement Div. Air Quality Bureau P.O. Box 968 Santa Fe, NM 87503	*Craig Eberhart 505/984-0020	David Duran 505/984-0020	David Duran 505/984-0020	David Duran 505/984-0020	David Duran 505/984-0020	--
New York	Division of Air NY State Dept. of Environ. Conservation 50 Wolf Road Albany, NY 12233	*Art Fossa 518/457-7454	John Davis 518/457-5618	Robert Kerr 518/457-7454	Dr. William Webster 518/457-7454	Edward Anna 518/547-7454	Molasses Riano 518/547-7454
North Carolina	Air Quality Section Div. of Environ. Mgmt. P.O. Box 27687 Raleigh, NC 27611	Lee Daniel *Glenn Ross 919/733-7015	Mike Sewell 919/733-7015	Lee Daniel 919/733-7015	George Murray 919/733-7015	Lee Daniel 919/733-7015	--
North Dakota	ND State Dept. of Health Div. of Environ. Engin. 1200 Missouri Ave., Room 304 Bismarck, ND 58501	*Dana Mount 701/224-2348	--	--	--	--	--
Ohio	Ohio Environ. Prot. Agency Air Pollution Control 361 E. Broad Street Columbus, OH 43216	*Bob Hodan- bosi 614/466-6116	--	--	John Martz 614/466-7390	--	--
Oklahoma	Air Quality Service OK State Dept. of Hlth. 1000 NE 10th Street P.O. Box 53551 Oklahoma City, OK 73152	John Drake 405/271-5220	Grant Mar- burger 405/271-5220	Grant Marburger 405/271-5220	Randall Ward 405/271-5220	Larry Trent 405/271-5220	*Mike Thornton 405/271-5220
Oregon	Dept. of Environ. Quality Air Quality Control Div. P.O. Box 1760 Portland, OR 97207	Pete Bosser- man 503/229-6278	*Wendy Sims 503/229-5259	Wendy Sims 503/229-5259	Dennis Duncan 503/229-5983	Wendy Sims 503/229-5259	--
Pennsylvania	Bur. of Air Quality Con. Dept. of Environ. Res. Commonwealth of PA 200 N. Third Street Harrisburg, PA 17120	*John McGrogan Jack Knauber 717/787-4310	John McGrogan Jack Knauber 717/787-4310	--	--	--	--

(Continued)

*Primary Clearinghouse contact.

TABLE 1. Continued

State	State Agency Address	Air Toxics Contacts (Name/Telephone)					Health Effects
		Regulatory Program	Permitting	Source Testing	Ambient Monitoring	Emissions Inventory	
Rhode Island	Div. of Air & Haz. Mat. Dept. of Environ. Mgmt. 204 Cannon Bldg. 75 Davis Street Providence, RI 02908	*Barbara Morin 401/277-2808	--	--	--	--	--
South Carolina	Bur. of Air Qual. Cntl. SC Dept. of Health and Environmental Control 2600 Bull Street Columbia, SC 29201	*Otto Pearson 803/758-5406	Gary Nelson 803/758-5406	Jake Frick 803/758-5406	Gene Slice 803/758-4702	Dennis Ellenwood 803/758-5406	--
South Dakota	Office of Air Quality and Solid Waste SD Dept. of Water and Natural Resources Foss Building Pierre, SD 57501	*Joel Smith 605/773-3329	--	--	--	--	--
Tennessee	Div. of Air Pol. Cntl. TN Dept. of Public Hlth. 150 Ninth Ave. North TERRA Bldg. Nashville, TN 37203	*Barry Stevens 615/741-3931	James Haynes 615/741-3931	Jeryl Stewart 615/741-3931	Robert Foster 615/741-3931	Barry Stevens 615/741-3931	Robert Foster 615/741-3931
Texas	TX Air Control Board 6330 Highway 290 East Austin, TX 78723	Beverly Fowler 512/451-5711 ext. 262	Lawrence Pawlitt 512/451-5711 ext. 203	Maxine Jenks 512/451-5711 ext. 268	Joe Pennington 512/451-5711 ext. 441	Jim Gise 512/451-5711 ext. 441	*Jim Price 512/451-5711 ext. 432
Utah	UT State Dept. of Hlth. Bur. of Air Quality P.O. Box 2500 Salt Lake City, UT 84110	*Dave McNeill 801/533-6108	Montie Keller 801/533-6108	--	--	--	--
Vermont	Air and Solid Waste Prog. Environ. Engin. Div. State Office Bldg. Montpelier, VT 05602	Richard Valentinetti *Alan Phillip 802/828-3395	Larry Miller 802/828-3395	Chris Jones 802/828-3395	Gregory Heil 802/828-3395	Larry Miller 802/828-3395	--
Virginia	State Air Pollution Control Board Room 801 Ninth St. Office Bldg. Richmond, VA 23219	*Melinda S. Osborne 804/786-4867	--	--	--	James. F. Lahan, Jr. 804/786-4867	--

*Primary Clearinghouse contact.

(Continued)

TABLE 1. Continued

State	State Agency Address	Regulatory Program	Air Toxics Contacts (Name/Telephone)				Emissions Inventory	Health Effects
			Permitting	Source Testing	Ambient Monitoring			
Washington	Office of Hazardous Substances & Air Quality Cntl. 206/459-6711 Dept. of Ecology Rose Six P.E. - 11 Olympia, WA 98504	*Bill Ingram	--	--	--	--	--	--
West Virginia	WV Air Poll. Cntl. Com. 1558 Washington St., East Charleston, WV 25311	--	--	--	--	--	--	--
Wisconsin	WI Dept. of Nat. Res. Bar. of Air Mgmt. Box 7921 Madison, WI 53707	Jim Rickan 608/266-7547	*Dale Ziege 608/266-0113	Joe Perez 608/266-8401	Julian Chazin 608/266-1902	Dean Packard 608/266-0171	Jim Rickan 608/266-7347	
Wyoming	Air Quality Division Dept. of Environ. Qual. 401 W. 19th Street Cheyenne, WY 82002	*Randolph Wood 307/777-7391	--	--	--	--	--	--
Puerto Rico	Puerto Rico Environ. Quality Board P.O. Box 11488 Sanjurjo, Puerto Rico 00910	*Juan Merced 809/774-6420	--	--	--	--	--	--
Virgin Islands	Dept. of Conservation and Cultural Affairs U.S. Virgin Islands P.O. Box 4340 Charlott Amalie, St. Thomas Virgin Islands 00801	*Vernon Richards 809/725-5140	--	--	--	--	--	--

*Primary Clearinghouse contact.

TABLE 2. LOCAL AGENCY AIR TOXICS CONTACTS

State	Local Agency Address	Regulatory Program	Air Toxics Contacts (Name/Telephone)				Health Effects
			Permitting	Source Testing	Ambient Monitoring	Emissions Inventory	
Arizona	Bureau of Air Pollution Control	Lawrence Crisafulli 602/258-6381	Lawrence Crisafulli 602/258-6381	--	--	--	--
	Maricopa Co. Dept. of Health Services	1825 E. Roosevelt St. Phoenix, AZ 85006					
	Bay Area Air Quality Man. Dist.	Ed Miller 415/771-6000	Dan Goalwin 415/771-6000	Gale Karelzgi 415/771-6000	Dario Levaggi 415/771-6000	Toch Mangat Steven Hill 415/771-6000	--
	939 Ellis Street San Francisco, CA 94109						
California	S. Coast Air Qual. Man. Dist.	L. Bowen Jeb Stuart 818/572-6445	E. Camarena 818/572-6296 S. Weiss 818/572-6431	E. Camarena 818/572-6296	E. Camarena 818/572-6296	S. Weiss 818/572-6431	--
	9130 Flair Drive El Monte, CA 91731						
	Sacramento Co. Air Pollution Control Dist.	Eric Skelton Bruce Nixon 916/366-2107	Eric Skelton or Bruce Nixon 916/366-2107	Eric Skelton Bruce Nixon 916/366-2107	Eric Skelton Bruce Nixon 916/366-2107	Eric Skelton or Bruce Nixon 916/366-2107	--
	9323 Tech Center Dr. Suite 800 Sacramento, CA 95826						
	Monterey Bay Unified Air Pollution Control Dist.	--	Fred Thoits 408/443-1135	Fred Thoits 408/443-1135	--	Fred Thoits 408/443-1135	--
	1164 Monroe St., #10 Salinas, CA 93906						
	Santa Barbara Co. Air Pollution Control Dist.	Alan Frederick 805/937-6365	K. George Philip 805/937-6365	K. George Philip 805/937-6365	Kathy Milway or Ann Terry 805/964-8658	Kathy Milway or Ann Terry 805/964-8658	--
	315 Camino Del Remedio Santa Barbara, CA 93110						
Colorado	San Diego Co. Air Pollution Control Dist.	Richard Smith 619/565-3930	Mike Lake 619/565-3918	Stella Willcox 619/565-3947	Stella Willcox 619/565-3947	Paul Sidhu 619/565-3940	--
	9130 Chesapeake Drive San Diego, CA 92123						
	Environmental Health Department	Lee Cassin 303/925-2020	--	--	--	--	--
	City of Aspen 130 South Galena Aspen, CO 81611						

(Continued)

*Primary Clearinghouse contact.

TABLE 2. Continued

State	Local Agency Address	Air Toxics Contacts (Name/Telephone)					Health Effects
		Regulatory Program	Permitting	Source Testing	Ambient Monitoring	Emissions Inventory	
Florida	Bio-Environ. Svcs. Div. City of Jacksonville 515 W. 6th Street Jacksonville, FL 32206	*Khurshid Mehta 904/633-3033	Jerry Woosley 904/633-3033	George Hawkins 904/633-3033	Marion DeGrove 904/633-3033	Jerry Woosley 904/633-3033	Khurshid Mehta 904/633-3033
Illinois	Dept. of Inspections & Permits City of Evanston 2100 Ridge Avenue Evanston, IL 60204	*Vern Odom 312/866-2932	Vern Odom 312/866-2932	Dwight Roopenack 312/866-2932	Dwight Roopenack 312/866-2952	Ronald E. Britt 312/866-2952	--
Indiana	Hammond Air Pollution Control 5925 Calumet Avenue Hammond, IN 46320	*Rafiu I. Danis 219/853-6306	Rafiu I. Danis 219/853-6306	Charles Hatten 219/853-6308	Milan Kruszynski 219/884-0378	Lorinda Ramos 219/853-6307	Ronald Novak 219/853-6306
Michigan	Air Pollution Control Division Wayne Co. Health Dept. 1311 E. Jefferson St. Detroit, MI 48207	*Thomas Shoens 313/224-4671	Alvin Scheans 313/224-4693	Thomas Shoens 313/224-4671	Thomas Shoens 313/224-4671	Alvin Scheans 313/224-4693	Peter Warner, Ph.D. 313/224-4681
Nevada	Air Pollution Control Division Dist. Health Dept. of Clark Co. 625 Shadow Lane Las Vegas, NV 89106	--	*Michael Naylor 702/383-1276	David Lee 702/383-1276	Janette Smith 702/383-1276	David Lee 702/383-1276	--
New Jersey	Hudson Regional Health Comm. 313 Harrison Ave. Harrison, NJ 07029	*Robert Ferraiolo 201/483-7001	--	--	--	--	--
New York	Bureau of Air Pollution Control Nassau Co. Dept. of Hlth. Div. of Envir. Hlth. 240 Old Country Road Mineola, NY 11501	*Robert Close Bruce Smith 516/535-3671	Robert Close Bruce Smith 516/535-3671	Robert Close Bruce Smith 516/535-3671	Robert Close Bruce Smith 516/535-3671	--	--

*Primary Clearinghouse contact.

(Continued)

TABLE 2. Continued

State	Local Agency Address	Air Toxics Contacts (Name/Telephone)					
		Regulatory Program	Permitting	Source Testing	Ambient Monitoring	Emissions Inventory	Health Effects
Ohio	Cleveland Div. of Air Pollution Control Dept. of Public Hlth. and Welfare 2735 Broadway Ave. Cleveland, OH 44115	*Richard A. Dell 216/664-3591	--	--	--	--	--
		Montgomery Co. Regional Air Pollution Control Agency 451 W. Third St. P.O. Box 972 Dayton, OH 45422	--	--	--	*Chris Parker 513/225-4898	--
Oregon	Environmental Services Agency 26 Main Street Toledo, OH 43605	*Paul F. Munn 419/693-0350	Paul F. Munn 419/693-0350	Paul F. Munn 419/693-0350	Rick Z. Usilowski 419/693-0350	Paul F. Munn 419/693-0350	Paul F. Munn 419/693-0350
		Lane Regional Air Pollution Authority 1244 Walnut Eugene, OR 97403	Paul Willhite 503/686-7618	Jerry Boyum 503/686-7618	Jerry Boyum 503/686-7618	Ralph Johnston 503/686-7618	--
Pennsylvania	Air Management Services Dept. of Public Health 500 S. Broad St., 2nd Fl. Philadelphia, PA 19146	*Robert T. Ostrowski 215/686-7842	Norman Glazer 215/686-7893	Clemens Lazenka 215/288-5177	Clemens Lazenka 215/288-5177	Norman Glazer 215/686-7893	Nicholas Cicceretti 215/686-7893
		Allegheny Co. Bureau of Air Pollution Control 301 39th Street Pittsburgh, PA 15201	J.D. Graham 412/578-8116	Harilal Patel 412/578-8143	Harilal Patel 412/578-8143	Richard Baker 412/578-8131	Richard Baker 412/578-8131
Tennessee	Chattanooga-Hamilton Co. Air Pollution Control Bur. 3511 Rossville Blvd. Chattanooga, TN 37407	*J. Wayne Cropp 615/867-4321	Rodney D. Hames 615/867-4321	Rodney D. Hames 615/867-4321	Betty Lynn Duley 615/867-4321	Rodney Hames 615/867-4321	--
		Puget Sound Air Pollution Control Agency P.O. Box 9863 Seattle, WA 98109	David Kircher 206/344-7335	James Nolan 206/344-7335	David Kircher 206/344-7335	David Kircher 206/344-7335	--

*Primary Clearinghouse contact.

PART 3. REGULATORY PROGRAM INFORMATION

Regulatory program information has been collected from 39 states, 1 territory, and 15 localities. Tables 3 and 4, for states and localities respectively, describe the programs in terms of the status of air toxics program development, the structure of the program, the scope of the program, program application, and comments concerning the program and/or related research activities. Information on acceptable ambient concentrations or standards for individual pollutants is given in Part 4. Pollutant research and methods development activities are described in Part 5. The reader should address any questions or requests for additional information about a state or local regulatory program to the regulatory program contacts identified in Tables 1 and 2 in Part 2.

TABLE 3. STATE AGENCY REGULATOR PROGRAM INFORMATION

State	Program Status	Program Structure	Program Scope	Application	Comments
Alabama	In place	Promulgated general regulation prohibiting air pollution. Informal guidelines based on use of TLVs to estimate acceptable ambient concentrations.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from 2.5% TLV/1 hr.	Program applies to all pollutants emitted by new sources.
Arizona	Evaluating need	-	-	-	-
Arkansas	In place	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from 1% TLV. Use of control technology requirements.	All sources controlled through permit program.
California	In place (effective 1/1/84)	Legislation which established a multi-step procedure for air toxics identification and control.	Specified list of pollutants -- 47 candidates for regulation, 3 of these presently being considered.	Use of control technology requirements. Use of risk assessment on a case-specific basis.	Extensive research efforts: source tests, ambient monitoring, dispersion modeling, ambient exposure, pollutant research on benzene, ethylene dibromide, and ethylene dichloride.
Colorado	In preparation	Promulgated regulations (tentative).	Specific list of pollutants (tentative).	Toxics inventory in progress.	-
Connecticut	In preparation (late 1985 or early 1986)	Promulgated regulations.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from 0.5%, 1%, or 2% TLV/8 hr, depending on pollutant group. Use of formally adopted ambient standards. Use of control technology requirements. Emissions inventory.	-
Delaware	In preparation (Sept. 1985)	Promulgated regulations.	Not limited to specific list of pollutants, sources, or source categories.	-	-

(Continued)

TABLE 3. Continued

State	Program Status	Program Structure	Program Scope	Application	Comments
Georgia	In preparation (9/1/84)	Informal guidelines.	Includes substances with known toxic effects but which are not specifically regulated by Federal or state statutes.	Use of acceptable ambient concentrations derived from 1% TLV/24 hr if not known human carcinogen, 0.33% TLV/24 hr if known human carcinogen.	Program will apply to all toxic pollutants from proposed new or modified sources.
Hawaii	None planned	-	-	-	-
Idaho*	In preparation	-	-	-	-
Illinois	In place	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentration derived from 0.33% TLV if non-carcinogen; some standards based on original health effects research. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on case-by-case basis; currently reviewing risk assessment procedures of other agencies. Maintenance of emissions inventory for air toxics.	Methods development: ambient monitoring, dispersion modeling, emergency response, indoor/outdoor lead levels, emissions modeling for lead from slag pile.
Indiana	In preparation	Informal guidelines (tentative).	Specified list of pollutants (tentative).	Use of acceptable ambient concentrations derived from 1% TLV. Use of control technology requirements.	Program is largely on a volunteer basis. State makes suggestions, but currently has no authority to mandate.
Iowa	In preparation	Informal guidelines	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from other state guidelines. Initial emissions inventory complete in 1985.	-
Kansas	None planned	-	-	-	-

*Information obtained by phone.

(Continued)

TABLE 3. Continued

State	Program Status	Program Structure	Program Scope	Application	Comments
Kentucky	In preparation (1985, tentative)	Promulgated regulations (tentative).	Specified list of pollutants (tentative).	Use of acceptable ambient concentrations. Use of ambient standards for H ₂ S, gaseous fluorides, and technology requirements for sources of specified pollutants. Use of risk assessment on a case-specific basis.	-
Maine	In preparation (1985)	-	Not limited to specific list of pollutants, sources, or source categories.	Use of safety factor on TLV (tentative); use of original health effects research. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-by-case basis (tentative).	Emissions inventory currently in progress. Results will determine regulatory approach. Report of inventory results will be presented to legislature in February 1985.
Maryland	In preparation (Sept. 1985)	-	-	-	-
Massachusetts	In preparation (summer 1985)	-	-	-	-
Michigan	In place	Promulgated regulations. Informal guidelines to carry out rules.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient air concentrations based on TLV, original health effects research (toxics model). Use of control technology requirements for sources of specified pollutants. Use of risk assessment used on case-by-case basis.	Have developed models and applications for emissions from landfills and landfill excavation, time scaling factors for different averaging times, dilution factor matrix.
Minnesota	In place (new sources); in preparation for existing sources (1/87)	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient air concentrations (1% TLV), original health effects research. Use of risk assessment on a case-specific basis.	State of Michigan framework used as policy for new sources. Conducting ambient monitoring with portable photoionization chromatograph and adsorption tubes. Measuring acidic deposition (and deposition content) in wet and dry forms. Unique dry sampler.

(Continued)

TABLE 3. Continued

State	Program Status	Program Structure	Program Scope	Application	Comments
Mississippi	In place	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from 3% TLV (usually); original health effects research. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-specific basis.	-
Montana	No formal program	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of formally adopted ambient standards for P- and H ₂ S, acceptable ambient air concentrations for others (TLV/42). BACT required for all permitted sources with uncontrolled emissions >25 tons/yr.	-
Nebraska	None planned	-	-	-	-
Nevada	In place	Promulgated regulations.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from 10% TLV. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-specific basis.	-
New Hampshire	In preparation (1985)	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from 1% TLV. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-specific basis.	Regulation Amendment is expected to be required for enforcement of the guidelines. Developing methods for solid absorbent collection of various VOC's and monitoring of ambient TMS.
New Jersey	In place	Promulgated regulations and informal guidelines.	Limited to specific lists of pollutants. Not limited to specific list of sources or source categories.	Use of acceptable ambient concentrations, control technology requirements for sources of specified pollutants, and risk assessment on a case-by-case basis.	Involved in ambient monitoring of non-traditional sources such as landfills.

(Continued)

TABLE 3. Continued

State	Program Status	Program Structure	Program Scope	Application	Comments
New Mexico	In preparation	Promulgated regulations.	-	Use of formally adopted standards for H ₂ S, ammonia, HCN, and HCl. Air toxics emissions inventory required by air pollution control grant.	Required by air pollution control grant to develop an air toxics program plan.
New York	In place	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations. Maintains emissions inventory.	Has pollutant research and toxicity testing program.
North Carolina	In preparation (11/1/85)	Undecided.	Limited to specific list of pollutants.	Use of acceptable ambient concentrations derived from TLVs (tentative). Emissions inventory planned.	-
Oregon	In place for specific sources. Expanded program in preparation (6/85)	-	Current program limited to specific sources. Expanded program will not be limited to specific list of sources or source categories.	-	Program in place for control of fluorides from aluminum plants and H ₂ S and mercaptans from kraft mills. Some other plants controlled by permit on case-by-case basis.
Rhode Island	In preparation (9/84)	Promulgated regulations.	Limited to specific list of pollutants. Not limited to specific list of sources or source categories.	Use of acceptable ambient concentrations derived from 1% TLV/24 hr, original health effects research. Use of control technology requirements on a case-specific basis. Maintenance of emissions inventory.	-
South Carolina	In place	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient air concentrations (1/420 TLV). Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-specific basis.	Air toxics program being developed may lead to specific regulations.
South Dakota	None planned in immediate future	-	-	-	Intends to perform state-wide non-criteria pollutant emissions inventory in 1985. Will evaluate need for program and perhaps develop program in next two-three years.

(Continued)

TABLE 3. Continued

State	Program Status	Program Structure	Program Scope	Application	Comments
Tennessee	In place	Promulgated regulations and informal guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from TLVs. Use of control technology requirements.	Air toxics evaluations performed on case-by-case basis using any available information including health assessment documents, ambient air standards set by other agencies, EPA guidelines, modeling techniques, TLV levels, etc.
Texas	In place	Informal guidelines.	Not limited to specific list of pollutants, sources, or source categories	Use of acceptable ambient concentrations derived from 1% occupational standard for 30-min. max and 0.1% occupational standard for annual max); original health effects research. Use of control technology requirements for sources of specified pollutants. Maintenance of emissions inventory which includes air toxics.	Developing data base for 800 sub-stances. Conducting R&D in source testing, ambient monitoring, emergency response procedures, ambient exposure assessment, assessment of human exposure to complex mixtures of contaminants.
Vermont	In place for new sources; new program for existing and new sources in preparation (10/84)	Not yet decided; probably will be formally adopted regulation.	Limited to specific list of pollutants.	Use of acceptable ambient concentrations (1/420 TLV). Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-by-case basis.	
Virginia	In place	Promulgated regulations.	Limited to specific list of pollutants and sources or source categories.	Use of acceptable ambient concentrations derived from 1% TLV for carcinogens and 1.7% TLV for non-carcinogens.	The program in place is considered a pilot program and is subject to change.
Washington	In preparation (1986)	Informal guidelines (tentative).	Limited to specific list of pollutants. Not limited to a specific list of sources or source categories (tentative).	Engaged in establishing state-wide emissions inventory of traditional point and non-point sources of air toxics.	Regulatory processes and options are under discussion and evaluation. Program will rely on extent of problem based on data collected in emissions inventory.

(Continued)

TABLE 3. Continued

State	Program Status	Program Structure	Program Scope	Application	Comments
Wisconsin	In preparation (12/85)	Informal guidelines (tentative).	Not limited to specific list of pollutants, sources, or source categories (tentative).	Use of acceptable ambient concentrations derived from 2.4% TLV. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-specific basis.	Currently specifies emissions limits for beryllium and asbestos and ambient concentrations for lead and mercury. General limitations for cadmium, chromium, chlorine, fluoride, lead, pesticides, and radioactive material.
Virgin Islands*	In preparation (Fiscal 1985)	-	-	-	-

*Information obtained by phone.

TABLE 4. LOCAL AGENCY REGULATORY PROGRAM INFORMATION

Locality	Program Status	Program Structure	Program Scope	Application	Comments
Maricopa Co., AZ	In preparation (1986), inventory in progress	Promulgated regulations and informal guidelines (tentative).	Limited to specific list of pollutants, but not limited to specific list of sources or source categories (tentative).	Use of formally adopted standard, basis not decided. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-by-case basis (tentative). Emissions inventory in progress.	-
Sacramento Co., CA	In place	Formal, written set of guidelines.	Not limited to specific list of pollutants, sources, or source categories.	Use of projected concentration numbers at receptor sites for risk assessment purposes.	-
Santa Barbara Co., CA	In place	Promulgated regulations.	Not limited to specific list of pollutants, sources, or source categories.	Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-by-case basis. Maintenance of emissions inventory.	-
South Coast AQMD, CA	In place	Promulgated regulations and informal guidelines.	Limited to specific lists of pollutants, sources, or source categories.	Use of acceptable ambient concentrations and formally adopted standards. Use of control technology requirements for sources of specified pollutants. Risk assessment conducted by State.	-
Jacksonville, FL	In preparation (1985)	-	-	Establishment of acceptable ambient concentrations in toxics rule following risk assessment (tentative).	Plans to develop control strategy for non-criteria pollutants following an air toxics inventory in field and laboratory research.
Evanston, IL	In place	Promulgated regulations.	Limited to specific lists of pollutants, sources, or source categories.	Use of acceptable ambient concentrations derived from TVs and original health effects research. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-by-case basis.	R&D on Dräger pump, decibels meter, high vol flow meter, pagers for emergency response.

(Continued)

TABLE 4. Continued

Locality	Program Status	Program Structure	Program Scope	Application	Comments
Clark Co., NY	No formal program	Informal guidelines.	Limited to specific list of sources or source categories. Not limited to specific list of pollutants.	Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-by-case basis. Maintenance of emissions inventory.	-
Hudson Regional Health Comm. (NJ)	In preparation	Informal guidelines.	Limited to specific list of pollutants, but not limited to specific list of sources or source categories.	Maintenance of carefully monitored registration/inventory program.	No enforcement authority in cases involving contravention to informal standards.
Cleveland, OH	In preparation (1985)	Informal guidelines at this time; promulgated regulations tentative.	Not limited to specific list of pollutants, sources, or source categories (tentative).	Use of acceptable ambient concentrations and formally adopted standards (tentative) based on original health effects research. Use of control technology requirements for sources of specified pollutants. Use of risk assessment on a case-specific basis.	Lead studies, rare earth tracer studies with NASA, indoor formaldehyde studies.
Toledo, OH	None planned	-	-	-	Review air toxics as part of State new source review/permit program. BACT required for all new sources. Existing sources may be addressed on nuisance basis.
Lane Regional Air Pollution Authority (OR)	In preparation (1986)	Informal guidelines. Promulgated regulations for TRS.	-	Use of BACT on new sources of any pollutant. Emissions inventory of selected pollutants planned.	Initiating initial steps of problem definition to determine what, if any, further air toxics controls are appropriate.
Allegheny Co., PA	In preparation	-	-	Completion of air toxics inventory in 1985.	-
Philadelphia, PA	In place	Informal guidelines.	Limited to specific list of pollutants, but not limited to specific list of sources or source categories.	Use of acceptable ambient concentrations (1/42 TLV or 1/420 TLV); original health effects research. Maintenance of emissions inventory.	Involved with EPA (EMSL) in TENAL-OC/MS methods development, involved with EPA (JEMP) in multi-media toxics study.

(Continued)

TABLE 4. Continued

Locality	Program Status	Program Structure	Program Scope	Application	Comments
Chattanooga, TN (Hamilton Co.)	Developed but not adopted	Informal guide-lines (tentative).	Use of specific list of pollutants as well as broad definition of toxics (tentative).	Use of acceptable ambient concentrations (2% TLV for non-carcinogen, 0.33% TLV for carcinogen). Use of control technology requirements for sources of specified pollutants (tentative).	-
Puget Sound, WA	In place for arsenic only; air toxics inventory in progress	Promulgated regulations for arsenic.	Arsenic only - specific list of sources and source categories. Regulations drafted for wood treating plants and waste oil combustion.	Use of control technology requirements for sources of arsenic. Air toxics inventory (1983 base year) complete for point sources. Area sources scheduled for completion in 1985.	Studying applicability of chemical mass balance to arsenic control program development and techniques for ambient air arsenic monitoring.

PART 4. ACCEPTABLE AMBIENT CONCENTRATIONS OR STANDARDS

Many states and localities use some form of ambient guideline or standard for the control of toxic air pollutants. Most of these use "factored" occupational values as a basis for developing the ambient limit, at least for some pollutants. A factored occupational value is the use of a constant fractional value to apply to all of a specific set of occupational limits to convert from a workplace guideline (based on exposure to a particular contaminant over an eight-hour day, five days a week) to an ambient guideline. Some states and localities apply different factors to different categories of pollutants based on toxicity or carcinogenicity.

The occupational limits used most commonly for this purpose are the Threshold Limit Value-Time Weighted Averages (TLV-TWAs) for workplace exposures established by the American Conference of Governmental Industrial Hygienists (ACGIH), the Occupational Safety and Health Administration (OSHA) permissible exposure levels for airborne substances in the work place, and the National Institute for Occupational Safety and Health (NIOSH) recommended criteria for occupational exposures in air. The ACGIH TLV-TWA is the time-weighted average concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect. They are based on the best available information from industrial experience, from experimental human and animal studies, and when possible, from a combination of the three. NIOSH, which is the research arm of OSHA, prepares "criteria documents" which are used by OSHA in promulgation of its occupational standards. The NIOSH recommendations are based primarily on medical science, whereas OSHA considers technical feasibility and economic factors in its role as regulator.

The safety factors and averaging times used by some states and localities to derive ambient limits are indicated in Table 5. The safety factors range from 1/1000 (0.1%) all the way to 100% (no safety factor) for selected pollutants. Commonly used safety factors are 1/420, 1/300, 1/100, 1/50, 1/42, and 1/30. Generally, the smaller the fraction used to adjust the occupational limit, the more stringent is the ambient guideline. Equally important, however, is the averaging time over which the concentration is computed. The

shorter the averaging time, the more stringent is the guideline. Averaging times used in conjunction with the safety factors by state and local agencies include 30-minute, 1-hour, 8-hour, 24-hour, and 1-year.

Table 6 lists acceptable ambient concentrations or standards and averaging times established by five states and two localities: Connecticut, Illinois, Michigan, Nevada, New York, the South Coast Air Quality Management District (SCAQMD) in California, and Philadelphia, Pennsylvania. These 7 states and localities reported a significant number of values for specific pollutants, or specified a means to derive the values. All of the values are reported in units of $\mu\text{g}/\text{m}^3$, unless otherwise indicated. Values reported in other units (ppm or ppb) were converted to $\mu\text{g}/\text{m}^3$ using the ratio between ppm and mg/m^3 employed by ACGIH to establish TLV-TWAs. It should be noted that the values listed for Connecticut have been proposed but are not yet adopted.

Table 6 also records the TLV-TWAs for workplace exposures established by ACGIH, the OSHA permissible exposure levels for airborne substances in the work place, the NIOSH criteria for occupational exposures in air, and various lists of carcinogens compiled by ACGIH, the International Agency for Research on Cancer (IARC), the National Cancer Institute (NCI) and the National Toxicology Program (NTP). These sources of information, together with original health effects research, are frequently used by states and localities to derive acceptable ambient concentrations or standards.

Table 7 lists acceptable ambient concentrations or standards established by 7 additional states and localities that reported only a limited number of values. These values are reported separately only because there was not sufficient room to include them in Table 6.

Tables 6 and 7 report ambient limits only if the state or locality specified the values by pollutant or provided sufficient information with which to calculate the values. Values were calculated for Nevada and New York. Although most states and localities rely primarily on the ACGIH TLVs for this

purpose, some use NIOSH criteria, OSHA standards, or a combination of these occupational limits. Moreover, some states and localities apply a safety factor to an entire set of occupational limits, whereas others derive acceptable ambient concentrations in this manner only for selected pollutants. It is the intention of the Clearinghouse to expand Table 6 to include values established using the factored occupational limit approach. The Clearinghouse will solicit details from state and local agencies to make these calculations and publish a report with more complete listings of acceptable ambient concentrations in the near future.

TABLE 5. SAFETY FACTORS USED TO DERIVE ACCEPTABLE AMBIENT
CONCENTRATIONS FROM OCCUPATIONAL LIMITS

State or Locality	Safety Factor Applied to Occupational Limit	Averaging Time
Alabama	2.5% (1/40)	1 hour
Arkansas	1% (1/100)	24 hour
Connecticut ¹	0.5% (1/200), 1% (1/100), or 2% (1/50), depending on pollutant group	8 hour
Georgia ¹	0.33% (1/300) if known human carcinogen, 1% (1/100) if not known human carcinogen	24 hour
Illinois	0.33% (1/300) for non carcinogens	24 hour
Indiana ¹	1% (1/100)	24 hour
Michigan	1% (1/100) for selected pollutants	8 hour
Minnesota	1% (1/100)	8 hour
Mississippi	3.3% (1/30), usually	NA ²
Montana	2.4% (1/42)	1 year ³
Nevada	10% (1/10)	8 hour
New Hampshire ¹	1% (1/100)	NA ²
New York	0.33% (1/300), 2% (1/50) depending on toxicity category	1 year
Rhode Island ¹	1% (1/100)	24 hour
South Carolina	0.24% (1/420)	NA ²
Texas	1% (1/100), 0.1% (1/1000)	30 minute 1 year

(Continued)

TABLE 5. Continued

State or Locality	Safety Factor Applied to Occupational Limit	Averaging Time
Vermont	0.24% (1/420)	24 hour or 1 year depending on pol- lutant
Virginia	1% (1/100) for carcino- gens 1.7% (1/60) for non- carcinogens	24 hour 24 hour
Wisconsin ¹	2.4% (1/42)	NA ²
Wyoming ³	2.4% (1/42), 2% (1/50), 0.33% (1/300)	1 year, 24 hour, 1 hour
SCAQMD, California	100% for selected pol- lutants	8 hour
Philadelphia, Pennsylvania	0.24% (1/420) or 2.4% (1/42)	1 year

¹Tentative: program in preparation.

²Not available at the time of this writing.

³As reported in Radian Corporation, "Survey of State and Local Agency Programs for Control of Toxic Air Pollutants," Draft Report, Prepared for U.S. EPA, Office of Air Quality Planning and Standards, State and Territorial Air Pollution Program Administrators, and Association of Local Air Pollution Control Officials, June 8, 1983.

TABLE 6. OCCUPATIONAL LIMITS AND SELECTED ACCEPTABLE AMBIENT CONCENTRATIONS
OR STANDARDS ESTABLISHED BY STATE AND LOCAL AGENCIES

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr)d	IL (1 yr)d	MI (1 yr)d	NV (8 hr)d	Phil SCAQMD (8 hr)d
Acetaldehyde	75-07-0	100	180	360	--	--	3600	--	--	18000	600
Acetamide	60-35-5	--	--	--	--	--	--	--	--	--	--
Acetic acid	69-19-7	10	25	25	--	--	500	--	250(8-hr)	2500	--
Acetic anhydride	108-24-7	5 ^e	20 ^e	20	--	--	400	--	--	2000	67
Acetone	67-64-1	750	1780	2400	590	--	11800	--	--	178000	35600
Acetone cyanohydrin	75-86-5	--	--	--	4(15-min)	--	--	--	--	--	--
Acetonitrile	75-05-8	40	70	70	34	--	680	--	--	7000	1400
2-Acetylaminofluorene	53-96-3	--	--	--	--	L	--	--	--	--	--
Acetylene	74-86-2	--	--	--	2662 ^e	--	--	--	--	--	--
Acetylene dichloride	540-59-0	200	790	790	--	--	15800	--	--	79000	--
Acetylene tetrabromide	79-27-6	1	15	14	--	--	140	--	--	1500	--
Acetylsalicylic acid	50-78-2	--	5	--	--	--	100	--	--	500	--
Acrolein	107-02-8	0.1	0.25	0.25	--	--	5	--	--	25	0.83
Acrylamide	79-06-1	--	0.3	0.3	0.3	--	6	--	--	30	1
Acrylic acid	79-10-7	10	30	--	--	--	600	--	--	3000	100
Acrylonitrile	107-13-1	2	4.5	4.4	8.7(4-hr)	B,G	22	0.012	10.4	450	15
Actinomycin D	1402-38-6	--	--	--	--	C,L	--	--	--	--	--
Adiponitrile	111-69-3	--	--	--	18	--	360	--	--	--	--
Adriamycin	23214-92-8	--	--	--	--	C,K,L	--	--	--	--	--
Aflatoxins	83219-44-7 83219-45-8	--	--	--	--	B	--	--	--	--	--
Aldicarb	116-06-3	--	--	--	--	--	--	--	--	--	2

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr)/d (1 yr)/d	IL (1 yr)/d	MI (1 yr)/d	NV (8 hr)/d (1 yr)/d	NY SCAQMD Phil (8 hr)/d (1 yr)/d	
Aldrin	309-00-2	--	0.25	0.25	0.15	D,I	1.5	--	--	25	--	0.035
Allyl alcohol	107-18-6	2	5	5	--	--	100	--	--	500	--	--
Allyl chloride	107-05-1	1	3	3	3.1	--	60	--	--	300	10	3000
Allyl glycidyl ether	106-92-3	5	22	45	45 ^e	--	440	--	--	2200	--	--
Allyl propyl disulfide	2179-59-1	2	12	12	--	--	240	--	--	1200	--	--
Aluminum	7429-90-5	--	10	--	--	--	200	--	--	1000	--	--
metal and oxide		--	5	--	--	--	100	--	--	500	--	--
pyro powders		--	5	--	--	--	100	--	--	500	--	--
welding fumes		--	2	--	--	--	40	--	--	200	--	--
soluble salts		--	2	--	--	--	--	--	--	200	--	--
alkyls		--	--	--	--	--	--	--	--	--	--	--
2-Aminanthraquinone	117-79-3	--	--	--	--	K	--	--	--	--	--	--
4-Aminodiphenyl	92-67-1	--	--	--	--	--	--	--	--	--	--	0.8
1-Amino-2-methylanthraquinone	82-28-0	--	--	--	--	K	--	--	--	--	--	--
p-Aminazobenzene	60-09-3	--	---	--	--	--	--	--	--	--	--	--
p-Aminodiphenyl	92-67-1	no exposure	--	--	--	A,F,I	40	--	--	--	--	--
2-Aminoethanol	141-43-5	3	8	6	--	--	120	--	--	800	--	--
n-Aminopropyl triethoxy silane	919-39-2	--	--	--	--	--	--	--	--	--	0.2	--
2-Aminopyridine	509-29-0	0.5	2	2	--	--	40	--	--	200	--	--
3-Amino-1,2,4-triazole (Amitrole)	61-82-5	--	-- (0.2) ²	--	--	C,G,I	--	--	--	--	--	1.8
Ammonia	7664-41-7	25	18	34.8	34.8(5-min)	--	360	--	--	1800	360	--
Ammonium bromide	12124-97-9	--	--	--	--	--	--	--	--	--	30	--
Ammonium chloride - fume	12125-02-9	--	10	--	--	--	200	--	--	1000	--	--
Ammonium persulfate	7727-54-1	--	-- (5) ²	--	--	--	--	--	--	--	--	--
Ammonium sulfamate	7773-06-0	--	10	15	--	--	200	--	--	1000	--	--
iso-Amyl acetate	123-91-2	100	530	--	--	--	10500	--	--	53000	--	--

^aProposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (μg/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	NI (1 yr) ^d	NY (8 hr) ^d	Phil (1 yr) ^d
n-Amyl acetate	628-63-7	100	530	525	--	--	10500	--	--	53000	--
sec-Amyl acetate	626-38-0	125	670	655	--	--	13000	--	--	67000	--
tert-Amyl acetate	628-63-7	--	--	--	--	--	--	--	--	--	--
Aniline & homologues	62-53-3	2	10	19	--	D, L	100	--	1000	0.4	--
o-Anisidine	29191-52-4	0.1	0.5	--	--	K	5	--	50	--	--
p-Anisidine	104-94-9	0.1	0.5	--	--	--	10	--	50	1.7	--
o-Anisidine hydrochloride	134-29-2	--	--	--	--	--	--	30	--	--	--
Anthracene	120-12-7	--	--	--	--	--	--	--	--	--	--
Antimony & compounds (as Sb)	7440-36-0	--	0.5	0.5	0.5	--	10	--	50	1.7	1.2
Antimony trioxide (as Sb)	1309-64-4	--	0.5	--	--	G	5	--	50	1.7	--
ANTU	86-88-4	--	0.3	--	--	--	6	--	30	--	--
Aramite	140-57-8	--	--	--	--	K	--	--	--	--	18
Arsenic & compounds (as As)	7440-38-2	--	0.2	0.01 ¹	0.002 ¹ (15-min)	A, J ¹	0.05	0.00033	20	0.67	0.024
Arsenic pentoxide	1303-28-2	--	--	--	--	A	--	--	--	--	--
Arsenic trioxide (as As)	1327-53-3	--	--	--	--	A, G	--	--	--	--	--
Arsine	7784-42-1	0.05	0.2	0.2	--	A	1	--	20	0.67	200
Asbestos	1332-21-4	--	--	2 ¹	0.1 ²	A, F, J	0.0005 ¹	--	--	2 ¹	0.005 ¹
Amosite	0.5 ¹	--	--	--	--	--	0.0025 ¹	--	50 ¹	--	--
Chrysotile	2 ¹	--	--	--	--	--	0.01 ¹	--	200 ¹	--	--
Crocidolite	0.2 ¹	--	--	--	--	--	0.001 ¹	--	20 ¹	--	--
Other Forms	2 ¹	--	--	--	--	--	--	--	200 ¹	--	--
Asphalt (petroleum) fumes	8052-42-4	--	5	--	5	--	100	--	500	--	--
Atrazine	1912-24-9	--	5	--	--	--	100	--	500	--	--
Auramine	2465-27-2	--	--	--	--	A, J	--	--	--	--	--

¹Inorganic.²Certain arsenic compounds.³Fibers >5μm/cc.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (μg/m ³)				Phil SCAQMD (1 yr) ^d
		TLV-TWA ^a ppm	mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NY (8 hr) ^d	
Azathioprine	446-86-6	--	--	--	--	A	--	--	--	--	--
Azinphos-methyl	86-50-0	--	0.2	0.2	--	--	4	--	--	20	--
Barium, soluble compounds (as Ba)	7440-39-3	--	0.5	--	--	--	10	--	--	50	1.7
Barium sulfate, total dust	7727-43-7	--	--	--	--	--	--	--	--	--	--
		(10) ¹									
Baygon (propoxur)	114-26-1	--	0.5	--	--	--	5	--	--	50	--
Benomyl	17804-35-2	0.8	10	--	--	--	200	--	--	1000	--
Benzyl chloride	98-87-3	--	--	--	--	D,L	--	--	--	--	--
Benzamide	55-21-0	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	56-55-3	--	--	--	--	K,L	--	--	--	--	--
Benzene	71-43-2	10	30	32	3.2(1-hr)	A,G,J	150	0.14	132	3000	100
Benzenethiol	108-98-5	--	--	--	0.5(15-min)	--	--	--	--	--	--
Benzidine	92-87-5	No exposure	--	--	--	A,F,J	--	--	--	--	30
Benz(o,b)fluoranthene	205-99-2	--	--	--	--	K,L	--	--	--	--	--
Benzo(r,s,t)pentaphene	189-35-9	--	--	--	--	K,L	--	--	--	--	--
Benzo(a)pyrene	50-32-8	--	--	--	--	G	--	--	--	--	0.0007
p-Benzquinone	106-51-4	0.1	0.4	--	--	--	8	--	--	40	--
Benzotrichloride	98-07-2	--	--	--	--	C,K	--	--	--	--	--
Benzoyl chloride	98-88-4	--	--	--	--	D	--	--	--	--	--
Benzoyl peroxide	94-36-0	--	5	5	5	--	100	--	--	500	--
Benzyl chloride	100-44-7	1	5	5	5(15-min)	D,L	50	--	--	500	17
Beryllium	7440-41-7	--	0.002	0.002	0.0005 ^e	B,G,K	0.01	3.7x10 ⁻⁶	--	0.2	--
Beryllium oxide	1304-56-9	--	--	--	--	B	--	--	--	--	--

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					Phyl SCAQM (1 yr) ^d
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NV (8 hr) ^d	NY (1 yr) ^d	
Beryllium sulfate	13510-49-1	--	--	--	--	B	--	--	--	--	--	--
BHCs and Lindane	58-89-9	--	0.5	0.5	--	K,L	5	--	--	50	--	1.2
Biphenyl	92-52-4	0.2	1.5	1.0	--	--	20	--	--	150	5	--
Bismuth telluride	1304-82-1	--	10	--	--	--	200	--	--	1000	--	--
Bismuth telluride, Se-doped	--	--	5	--	--	--	100	--	--	500	--	--
Bleomycins	--	--	--	--	--	D,L	--	--	--	--	--	--
Borates, tetra, sodium salts anhydrous	1303-96-4	--	1	--	--	--	20	--	--	100	--	--
decahydrate		--	5	--	--	--	100	--	--	500	--	--
pentahydrate		--	1	--	--	--	20	--	--	100	--	--
Boron oxide	1303-86-2	--	10	15	--	--	200	--	--	1000	--	--
Boron tribromide	10294-33-4	1 (10) ¹	10 (100) ¹	--	--	--	200	--	--	1000	--	--
Boron trifluoride	7637-07-2	10	30	3	--	--	60	--	--	300	--	--
Brilliant Blue FCF salts	2650-18-2	--	--	--	--	--	--	--	--	--	--	--
Bromacil	314-40-9	1	10	--	--	--	200	--	--	1000	--	--
Brominated biphenyls	--	--	--	--	--	K,L	--	--	--	--	--	--
Bromine	7726-95-6	0.1	0.7	0.7	--	--	14	--	--	70	2.3	--
Bromine pentafluoride	7789-30-2	0.1	0.7	--	--	--	14	--	--	70	--	--
Bromochloromethane (chloro bromomethane)	74-97-5	200	1050	--	--	--	21000	--	--	105000	--	--
Bromoform	75-25-2	0.5	5	5	--	--	50	--	--	500	--	--
Bromomethane (methyl bromide)	74-83-9	5	20	80	--	--	400	--	--	2000	--	--
1,3-Butadiene	106-99-0	1000 (10) ¹	2200 (22) ¹	2200	--	G	44000	--	--	220000	--	--
Butane	106-97-8	800	1900	--	--	--	38000	--	--	190000	--	--

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					Phil SCAQM (1 yr)d (8 hr)d (1 yr)d (8 hr)d (1 yr)d
		TLV-TWA ^e ppm	TLV-STEL ^e mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d	MI (1 yr)d	NY (1 yr)d	NY (8 hr)d	
Butanethiol (1-, and 2-isomers)	109-79-5	0.5	1.5	35	1.8(15-min)	--	30	--	--	150	5	--
2-Butanone	78-93-3	200	590	590	--	--	11800	--	--	59000	--	--
2-Butoxyethanol	111-76-2	25	120	240	--	--	2400	--	--	12000	--	--
n-Butyl acetate	123-86-4	150	710	710	--	--	14200	--	--	71000	14200	--
sec-Butyl acetate	105-46-4	200	950	950	--	--	19000	--	--	95000	--	--
tert-Butyl acetate	540-88-5	200	450	950	--	--	19000	--	--	95000	--	--
Butyl acrylate	140-32-2	10	55	--	--	--	1100	--	--	5500	--	--
n-Butyl alcohol	71-36-3	50 ^e	150 ^e	300	--	--	3000	--	--	15000	3000	--
sec-Butyl alcohol	78-92-2	100	305	450	--	--	6100	--	--	30500	--	--
tert-Butyl alcohol	75-65-1	100	300	300	--	--	6000	--	--	30000	--	--
Butylamine	109-73-9	5 ^e	15 ^e	15	--	--	300	--	--	1500	50	--
Butyl benzyl phthalate	85-68-7	--	--	--	--	--	--	--	--	--	100	--
tert-Butyl chromate (as CrO ₃)	1189-85-1	--	0.1 ^e	0.1	--	--	2	--	--	10	--	--
n-Butyl glycidyl ether (BGE)	2426-08-6	25	135	270	30(15-min)	--	2700	--	--	13500	--	--
n-Butyl lactate	138-22-7	5	25	--	--	--	500	--	--	2500	--	--
Butyl mercaptan	109-79-5	0.5	1.5	35	--	--	30	--	--	150	--	--
o-sec-Butyl phenol	89-72-5	5	30	--	--	--	600	--	--	3000	--	--
p-tert-Butyl toluene	98-51-1	10	60	60	--	--	1200	--	--	6000	--	--
n-Butyronitrile	109-74-0	--	--	--	22	--	440	--	--	--	--	--
Cadmium	7440-43-9	--	--	--	0.02(15-min)	C, E ¹ , L	--	0.00043 ¹	--	--	--	--
Cadmium, dust & salts (as Cd)	7440-43-9	--	0.05	--	--	C	0.5	--	--	5	2	0.12
Cadmium chloride	10108-64-2	--	--	--	--	--	--	--	--	--	--	--
Cadmium oxide, fume (as Cd)	1306-19-0	--	0.05 ^e	0.1	0.04	C	0.5	--	--	5	0.17	--

¹And certain compounds.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NV (8 hr) ^d	Phil (1 yr) ^d
Cadmium sulfate	10124-36-4	--	--	--	--	C	--	--	--	--	--
Calcium arsenate (as As)	7778-44-1	--	--	--	--	C	--	--	--	--	--
Calcium cyanamide	156-62-7	--	0.5	--	--	--	10	--	--	50	--
Calcium hydroxide	1305-62-0	--	5	--	--	--	100	--	--	500	--
Calcium oxide	1305-78-8	--	2	5	--	--	40	--	--	200	--
Camphor, synthetic	76-22-2	2	12	2	--	--	80	--	--	1200	--
Caprolactam dust	105-60-2	--	1	--	--	--	20	--	--	100	--
Caprolactam vapor	105-60-2	5	20	--	--	--	400	--	--	2000	--
Captafol (difolatan)	2425-06-1	--	0.1	--	--	--	2	--	--	10	--
Captan	133-06-2	--	5	--	--	--	100	--	--	500	35
Carbaryl (Sevin)	63-25-2	--	5	5	5	--	100	--	--	500	3.5
Carbofuran (Furadan)	1563-66-2	--	0.1	--	--	--	2	--	--	10	--
Carbon black	1333-86-4	--	3.5	3.5	3.5 ¹	--	70	--	--	350	12
Carbon dioxide	124-38-9	5000	9000	--	--	--	--	--	--	900000	--
Carbon disulfide	75-15-0	10	30	60	3	--	60	--	--	3000	100
Carbon monoxide	630-08-0	36	40	55	40	--	800 ²	--	--	4000	--
Carbon tetrabromide	558-13-4	0.1	1.4	--	--	--	28	--	--	140	--
Carbon tetrachloride	56-23-5	5	30 (20) ³	63	12.6(1-hr)	C, G, K	300	0.11	--	3000	100
										30000	72
Carbonyl chloride (Phosgene)	75-44-5	0.1	0.4	--	--	--	8	--	--	40	--
Carbonyl fluoride	353-50-4	2	5	--	--	--	100	--	--	500	--
Catechol	120-80-9	5	20	--	--	--	400	--	--	2000	--
Cesium hydroxide	21351-79-1	--	2	--	--	--	40	--	--	200	--
Chloramben	50641-75-3	--	--	--	--	--	--	--	--	--	1333
Chlorambuctil	305-03-3	--	--	--	--	A, J	--	--	--	--	--

¹0.1 mg/m³ in the presence of PAH.²NAAQS takes precedence.³Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-STEL ^a mg/m ³				CT (8 hr)d	IL (1 yr)d	MI (1 yr)d	NY (8 hr)d	Phil SCAQM (1 yr)d
Chloramphenicol	56-75-7	--	--	--	--	C,L	--	--	--	--	--
CFC 113 (Freon 113)	76-13-1	10	45	--	--	--	--	--	4500	--	--
Chlordane	57-74-9	--	0.5	0.5	--	H	2.5	--	--	50	1.7
Chlorinated camphene	8001-35-2	--	0.5	0.5	--	H	2.5	--	--	50	--
Chlorinated diphenyl oxide	55720-99-5	--	0.5	0.5	--	--	10	--	--	50	--
Chlorine	7782-50-5	1	3	3	1.45(15-min)	--	60	--	--	300	10
Chlorine dioxide	10049-04-4	0.1	0.3	0.3	--	--	6	--	--	30	1
Chlorine trifluoride	7790-91-2	0.1 ^e	0.4 ^e	0.4	--	--	8	--	--	40	--
Chloromaphazine	494-03-1	--	--	--	--	A,J	--	--	--	--	--
Chloroacetaldehyde	107-20-0	1 ^e	3 ^e	--	--	--	60	--	--	300	1
2-Chloroacetophenone	532-27-4	0.05	0.3	0.3	--	--	6	--	--	30	--
Chloroacetyl chloride	79-04-0	0.05	0.2	--	--	--	4	--	--	20	--
p-Chloroaniline	106-47-8	--	--	--	0.003	--	0.06	--	--	--	6
Chlorobenzene (Monochloro- benzene)	108-90-7	75	350	350	--	--	7000	--	--	35000	1200
Chlorobenzilate	510-15-6	--	--	--	--	H	--	--	--	--	7
o-Chlorobenzylidene malonitrile	2698-41-1	0.05 ^e	0.4 ^e	0.4	--	--	8	--	--	40	--
Chlorobromomethane (bromo- chloromethane)	74-79-5	200	1050	1050	--	--	21000	--	--	105000	--
2-Chloro-1,3-butadiene	126-99-8	10	45	90	90	D	900	--	--	4500	--
Chlorodifluoromethane	75-45-6	1000	3500	--	--	--	70000	--	--	350000	--
Chlorodiphenyl (42% chlorine)	53449-21-9	--	1	1	--	--	20	--	--	100	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)			
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	Phil (1 yr) ^d
Chlorodiphenyl (54% chlorine)	53449-21-9	--	0.5	0.5	--	--	10	--	50	--
1-Chloro-2,3-epoxy-propane (Epichlorohydrin)	106-89-8	2	10	19	2	C,L	200	0.026	1000	12
2-Chloroethanol	107-07-3	1	3	16	--	--	60	--	300	--
bis (Chloroethyl) ether	111-44-4	--	--	--	--	--	--	--	--	120 ppb
bis-Chloroethyl nitrosourea	108-60-1	--	--	--	--	C,L	--	--	--	--
1-(2-Chloroethyl)-3-cyclo- hexyl-1-nitrosourea (CCNU)	13909-09-6	--	--	--	--	C,L	--	--	--	--
Chloroform	67-66-3	10	50	240	9.78(1-hr)	C,G,H,K,L	250	0.1	5000	170
Chloromadinone acetate	302-22-7	--	--	--	--	D,L	--	--	--	--
Chloromethane (methyl chloride)	74-87-3	50	105	--	--	--	2100	--	10500	2100
bis(Chloromethyl)ether	542-88-1	0.001	0.005	--	--	A,F,J	0.015	--	0.5	0.02
Chloromethyl methyl ether	107-30-2	--	--	--	--	G,J	--	--	--	0.02 ppb
Chloronaphthalene	91-58-7	--	--	--	--	--	--	--	--	--
1-Chloro-1-nitropropane	600-25-9	2	10	100	--	--	200	--	1000	--
Chloropentafluoroethane	76-15-3	1000	6320	--	--	--	126400	--	632000	--
2-Chlorophenol	95-57-8	--	--	--	--	--	--	--	--	--
Chloropicrin	76-06-2	0.1	0.7	0.7	--	--	14	--	70	--
Chloroprene	126-99-8	10	45	90	3.6(15-min)	D,L	450	--	4500	--
o-Chlorostyrene	1331-28-8	50	285	--	--	--	5700	--	28500	--
o-Chlorotoluene	95-49-8	50	250	--	--	--	5000	--	25000	--
p-Chlorotoluene	106-43-4	--	--	--	--	--	--	--	--	--
2-Chloro-6-trichloro- methyl pyridine	1929-82-4	--	10	--	--	--	200	--	1000	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				Phil NY SCAQMD (1 yr)d
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr)d	IL (1 yr)d	MI (1 yr)d	NV (8 hr)d	
Chloropyrifos (Dursban)	2921-88-2	--	0.2	--	--	--	4	--	--	20	--
Chromium	7440-47-3	--	--	--	--	--	--	1.66 (24-hr)	--	--	--
Metal		--	0.5	--	--	J	2.5	--	--	50	--
Cr(III) compounds (as Cr)		--	0.5	--	--	--	10	--	--	50	--
Cr(III) compounds (as Cr)		--	0.5	--	--	--	10	--	--	50	--
Cr(VI) compounds (as Cr)		--	0.05	0.001 ^a	0.001 ^a	F ^a	0.005 ^a	--	--	5	0.12
Chromates of lead and zinc (as Cr)		--	0.05	0.025 ^a	0.025 ^a	G	0.833 ^a	--	--	5	--
Chromic acid and chromates (as Cr)	7738-94-5	--	0.05	0.1	0.05	B	0.25	--	--	5	--
Chromyl chloride	14977-61-8	0.025	0.15	--	--	--	3	--	--	15	--
Chrysene	218-01-9	--	--	--	--	G	--	--	--	--	--
C.I. Disperse Yellow 3	2832-40-8	--	--	--	--	--	--	--	--	--	--
C.I. Solvent Yellow 2	60-11-7	--	--	--	--	--	--	--	--	--	--
Cisplatin	15663-27-1	--	--	--	--	C, L	--	--	--	--	--
Citrus Red No. 2	6358-53-8	--	--	--	--	--	--	--	--	--	--
C.I. Vat Yellow 4	128-66-5	--	--	--	--	--	--	--	--	--	--
Clofibrate	637-07-1	--	--	--	--	D	--	--	--	--	--
Clomiprene	911-45-5	--	--	--	--	D, L	--	--	--	--	--
Clopidol	2971-90-6	--	10	--	--	--	200	--	--	1000	--
Cloramben	133-90-4	--	--	--	--	--	--	--	--	--	--
Coal tar pitch volatiles	8007-45-2	--	0.2 ^a	--	--	F ^a	2	--	--	20 ^a	--
Cobalt, metal, dust & fumes (as Co)	7440-48-4	--	0.1 (0.05) ^a	0.1	--	--	2	--	--	10	0.17
Cobalt carbonyl (as Co)	10210-68-1	--	0.1	--	--	--	2	--	--	10	--

^aCarcinogenic Cr (VI).^bNon carcinogenic Cr (VI).^cCertain water insoluble compounds.^dAs benzene solubles.^eProposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (ug/m ³)					
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d	IL (1 yr)d	MI (1 yr)d	NV (8 hr)d	NY (1 yr)d	Phil SCAQM (1 yr)d
Cobalt hydrocarbonyl (as Co)	16842-03-8	--	0.1	--	--	--	2	--	--	10	--	--
Cobalt oxide	1307-96-6	--	--	--	--	--	--	--	--	--	--	--
Cobalt sulfide	1317-42-6	--	--	--	--	--	--	--	--	--	--	--
Coke oven emissions	--	--	--	--	--	J	--	--	--	--	--	--
Copper Fume	7440-50-8	--	0.2	0.1	--	--	2	--	--	20	4	--
Dusts & mists (as Cu)	--	--	1	1	--	--	20	--	--	100	20	--
Cotton dust, raw	--	--	0.2	1.0	0.2	--	4	--	--	20	--	--
Crag herbicide	556-22-9	--	--	15	--	--	300	--	--	--	--	--
p-Cresidine	120-71-8	--	--	--	--	K	--	--	--	--	--	--
Cresol (all isomers)	1319-77-3	5	22	22	10	--	200	--	--	2200	73	--
Crotonaldehyde	123-73-9	2	6	6	--	--	120	--	--	600	--	--
Crofonate	229-86-5	--	5	--	--	--	100	--	--	500	--	--
Cumene	98-82-8	50	245	245	--	--	4900	--	--	24500	--	--
Cupferron	135-20-6	--	--	--	--	K,L	--	--	--	--	--	--
Cyanamide	420-04-2	--	2	--	--	--	40	--	--	200	6.7	--
Cyanoic acid (potassium salt)	590-28-3	See Cyanogen	--	--	--	--	--	--	--	--	--	--
Cyanoic acid (sodium salt)	917-61-3	See Cyanogen	--	--	--	--	--	--	--	--	--	--
Cyanides (as Cn)	151-50-8 143-33-9	--	5	5	5 (10-min)	--	100	--	--	500	17	--
Cyanoacetamide	107-91-5	See Cyanide	--	--	--	--	--	--	--	--	--	--
Cyanogen	460-19-5	10	20	--	--	--	400	--	--	2000	67	--
Cyanogen chloride	506-77-4	0.3 ^e	0.6 ^e	--	--	--	12	--	--	60	--	--
Cycasin	14901-08-7	--	--	--	--	K,L	--	--	--	--	--	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d (1 yr) ^d	IL (1 yr) ^d (1 yr) ^d	NI (8 hr) ^d (1 yr) ^d	NY (8 hr) ^d (1 yr) ^d	Phil SCAQMD (8 hr) ^d (1 yr) ^d
Cyclamates	100-88-9	--	--	--	--	D	--	--	--	--	--
Cyclohexane	110-82-7	300	1050	1050	--	--	21000	--	105000	21000	--
Cyclohexanethiol	1569-69-3	--	--	--	2.4(15-min)	--	--	--	--	--	--
Cyclohexanol	108-93-0	50	200	200	--	--	4000	--	20000	--	--
Cyclohexanone	108-94-1	25	100	200	100	--	2000	--	10000	--	--
Cyclohexene	110-83-8	300	1015	1015	--	--	20300	--	101500	--	--
Cyclohexylamine	108-91-8	10	40	--	--	--	800	--	4000	--	--
Cyclohexylmethane-4,4'- diisocyanate	--	--	--	--	0.055	--	1.1	--	--	--	--
Cyclonite	121-82-4	--	1.5	--	--	--	30	--	150	--	--
Cyclopentadiene	542-92-7	75	200	200	--	--	4000	--	20000	--	--
Cyclopentane	287-92-3	300	850	--	--	--	17000	--	85000	--	--
Cyclophosphamide	50-18-0	--	--	--	--	A, J	--	--	--	--	--
Cyhexatin	13121-70-5	--	5	--	--	--	--	--	500	--	--
2,4-D	94-75-7	--	10	10	--	D	200	--	1000	--	--
DDG	72-55-9	--	--	--	--	--	--	--	--	--	1.8
DDT	50-29-3	--	1	1	0.5	C, L	5	--	100	--	1.8
Dacarbazine	4342-03-4	--	--	--	--	C	--	--	--	--	--
Dalapon	75-99-0	1	6	--	--	--	120	--	600	--	--
Dapsone	80-08-0	--	--	--	--	D	--	--	--	--	--
Decaborane	17702-41-9	0.05	0.3	0.3	--	--	6	--	30	--	--
Decabromodiphenyl oxide	1163-19-5	--	--	--	--	--	--	--	--	--	--
Decanethiol	143-10-2	--	--	--	3.6(15-min)	--	--	--	--	--	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NY (8 hr) ^d	Phil SCAQMD (8 hr) ^d
Demeton	8065-48-3	0.01	0.1	--	--	--	2	--	--	10	--
Diacetone alcohol	123-42-2	50	240	240	240	--	4800	--	--	24000	--
Diallyl malonate	999-21-3	--	--	--	--	--	--	--	--	6	--
2,4-Diaminodisole sulfate	39156-41-7	--	--	--	--	K	--	--	--	--	--
1,2-Diaminoethane	107-15-3	10	25	25	--	--	500	--	--	2500	--
2,4-Diaminotoluene	95-80-7	--	--	--	--	K,L	--	--	--	--	--
2,5-Diaminotoluene	95-70-5	--	--	--	--	--	--	--	--	--	--
o-Dianisidine	119-90-4	--	--	--	--	C	--	--	--	--	--
Diazinon	333-41-5	--	0.1	--	--	--	2	--	--	10	--
Diazomethane	334-88-3	0.2	0.4	0.4	--	--	8	--	--	40	1.3
Dibenz(a,h)acridine	226-36-8	--	--	--	--	K	--	--	--	--	--
Dibenz(a,j)acridine	224-42-0	--	--	--	--	K,L	--	--	--	--	--
Dibenz(a,h)anthracene	53-70-3	--	--	--	--	K,L	--	--	--	--	--
7H-Dibenzo(c,g)carbazole	194-59-2	--	--	--	--	M	--	--	--	--	--
Dibenzo(a,h)pyrene	189-64-0	--	--	--	--	M	--	--	--	--	--
Dibenzo(a,i)pyrene	189-55-9	--	--	--	--	M	--	--	--	--	--
Diborane	19287-45-7	0.1	0.1	0.1	--	--	2	--	--	10	--
Dibrom	300-76-5	--	--	3	--	--	60	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	--	--	0.01	0.1 ^e	H,K	0.05	--	--	--	0.1 ppb
Dibromoethane (ethylene dibromide)	106-93-4	--	--	154	1(15-min)	C,G,K,L	775	--	--	--	2.4 ppb
2-n-Dibutylaminoethanol	102-81-8	2	14	--	--	--	280	--	--	1400	--
Dibutyl phosphate	107-66-4	1	5	5	--	--	100	--	--	500	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d	IL (1 yr)d	MI (1 yr)d	NV (8 hr)d	Phil (1 yr)d
Di-n-butyl phthalate	84-74-2	--	5	5	--	--	50	--	--	500	--
Dichloroacetylene	7572-29-4	0.1 ^e	0.4 ^e	--	--	--	8	--	--	40	--
1,2-Dichlorobenzene	95-50-1	50 ^e	300 ^e	300	--	D	6000	--	--	30000	1000
1,3-Dichlorobenzene	541-73-1	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	106-46-7	75	450	450	--	D,K,L	4500	--	--	4500	--
3,3'-Dichlorobenzidine	91-94-1	--	--	--	--	C,G	--	--	--	--	--
Dichlorobromomethane	75-27-4	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane	75-71-8	1000	4950	4950	--	--	99000	--	--	495000	--
1,3-Dichloro-5,5-dimethyl hydantoin	118-52-5	--	0.2	0.2	--	--	4	--	--	20	--
1,1-Dichloroethane	75-34-3	200	790	790	--	--	15800	--	7900 (8-hr)	79000	--
1,2-Dichloroethane (ethylene dichloride)	107-06-2	10	40	200	4	H,K	200	0.083	--	4000	0.2
1,2-Dichloroethylene	540-59-0	200	790	790	--	--	15800	--	7900 (8-hr)	79000	--
Dichloroethyl ether	111-44-4	5	30	90	--	--	600	--	--	3000	--
Dichloromethane (methylene chloride)	75-09-2	100	350	--	--	D	7000	--	--	35000	1200
Dichloromonofluoromethane	75-43-4	10	40	4200	--	--	800	--	--	4000	--
1,1'-Dichloro-1-nitroethane	594-72-9	2	10	60	--	--	200	--	--	1000	--
2,4-Dichlorophenol	120-83-2	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenoxy acetic acid	94-75-7	--	--	--	--	--	--	--	--	--	105

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d	MI (1 yr)d	NY (8 hr)d (1 yr)d	Phil SCAQM (1 yr)d
1,2-Dichloropropane (propylene dichloride)	78-87-5	75	350	350	--	--	7000	--	--	35000	--
Dichloropropene	542-75-6	1	5	--	--	--	50	--	--	500	--
2,2'-Dichloropropionic acid	75-99-0	1	6	--	--	--	120	--	--	600	--
1,3-Dichloropropylene	542-75-6	--	--	--	--	--	--	--	--	--	--
Dichlorotetrafluoroethane	76-14-2	1000	7000	7000	--	--	140000	--	--	700000	--
Dichlorvos (DDVP)	62-73-7	0.1	1	1	--	--	20	--	--	100	--
Dicrotophos (Bidrin)	141-66-2	--	0.25	--	--	--	5	--	--	25	--
Dicyclohexyl methane-4,4'-diisocyanate	--	--	--	--	0.055	--	1.1	--	--	--	--
Dicyclopentadiene	77-73-6	5	30	--	--	--	600	--	--	3000	--
Dicyclopentadienyl iron	102-54-5	--	10	--	--	--	200	--	--	1000	--
Dieldrin	60-57-1	--	0.25	0.25	--	D.L	2.5	--	--	25	0.035
Dienestrol	84-17-3	--	--	--	--	C	--	--	--	--	--
Diepoxybutane	1462-53-5	--	--	--	--	K.L	--	--	--	--	--
Di-2,3-epoxypropyl ether	2238-07-5	--	--	--	1(15-min)	--	--	--	--	--	--
Diethanol amine	111-42-2	3	15	--	--	--	300	--	--	1500	--
Diethylamine	109-89-7	10	30	75	--	--	600	--	--	3000	--
Diethylaminoethanol	100-37-8	10	50	50	--	--	1000	--	--	5000	--
Diethylene triamine	111-40-0	1	4	--	--	--	80	--	--	400	--
Diethyl ether	60-29-7	See Ether	--	--	--	--	--	--	--	--	--
Di(2-ethylhexyl) phthalate	117-81-7	--	--	--	--	K	--	--	--	--	120
Diethyl ketone	96-22-0	200	705	--	--	--	14100	--	--	70500	--
Diethyl phthalate	84-66-2	--	5	--	--	--	100	--	--	500	17

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	NY (1 yr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Diethylstilboestrol	39011-86-4	--	--	--	--	A,J	--	--	--	--	--
Diethyl sulfate	64-67-5	--	--	--	--	B	--	--	--	--	--
Difluorodibromomethane	75-61-6	100	860	860	--	--	17200	--	--	86000	--
Diglycidal ether (DGE)	2238-07-5	0.1	0.5	2.8	1(15-min)	--	10	--	--	50	--
Diisobutyl ketone	108-83-8	25	150	290	140	--	2800	--	--	15000	--
Diisocyanates (not listed)	--	--	--	--	5 ppb	--	0.1 ppb	--	--	--	--
Disodecyl phthalate	26761-40-0	--	--	--	--	--	--	--	--	--	--
Diisopropylamine	108-18-9	5	20	20	--	--	400	--	--	2000	--
Dimethisterone	79-64-1	--	--	--	--	D	--	--	--	--	--
3,3'-Dimethoxybenzidine	119-90-4	--	--	--	--	K	--	--	--	0.2	--
Dimethoxymethane	109-87-5	1000	3100	3100	--	L	31000	--	--	310000	--
Dimethyl acetamide	127-19-5	10	35	35	--	--	700	--	--	3500	--
Dimethylamine	124-40-3	10	18	18	--	--	360	--	--	1800	--
4-Dimethylaminobenzene	60-11-7	--	--	--	--	K,L	--	--	--	--	--
4-Dimethylaminobenzene	1300-73-8	2	10	--	--	--	50	--	--	1000	--
Dimethylaniline	121-69-7	5	25	25	--	--	500	--	--	2500	--
3,3'-Dimethylbenzidine	119-93-7	--	--	--	--	K,L	--	--	--	--	--
Dimethylamino ethanol	108-01-0	--	--	--	--	--	--	--	19000	--	--
Dimethylcarbamyl chloride	79-44-7	--	--	--	--	C,G,L	--	--	--	--	0.24 ppb
Dimethyl formamide	68-12-2	10	30	30	--	--	600	--	--	3000	--
1,1-Dimethyl hydrazine	57-14-7	0.5	1	1	0.15(2-hr)	G	10	--	--	100	2.4
3,3'-Dimethyloxybenzidine	119-90-4	--	--	--	--	C	--	--	--	--	--
2,4-Dimethylphenol (m-xyleneol)	105-67-9	--	--	--	--	--	--	--	--	--	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	NV (8 hr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Dimethyl phthalate	131-11-3	--	5	5	--	--	100	--	--	500	--
Dimethyl sulfate	77-78-1	0.1	0.5	5	--	B, G, K	2.5	--	--	50	1.7
Dinitolmide	148-01-6	--	5	--	--	--	100	--	--	500	--
Dinitrobenzene (all isomers)	99-65-0 100-25-4 528-29-0	0.15	1	1	--	--	20	--	--	100	3.3
Dinitro-o-cresol	534-52-1	--	0.2	0.2	0.2	--	4	--	--	20	--
2,4-Dinitrophenol	51-28-5	--	--	--	--	--	--	--	--	--	--
3,5-Dinitro-o-toluamide	148-01-6	--	5	--	--	--	100	--	--	500	--
Dinitrotoluene	121-14-2	--	1.5	1.5	--	I	15	--	--	150	--
Diethyl phthalate (DOP)	117-81-7	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	117-84-0	--	--	--	--	--	--	--	--	--	--
Dioctyl sebacate	122-62-3	--	--	--	--	--	--	--	--	--	--
Dioxane	123-91-1	25	90	360	3.6(30-min)	C, H	450	--	--	9000	300
Dioxathion (Deltav)	78-34-2	--	0.2	--	--	--	4	--	--	20	--
Dioxins	--	--	--	--	--	--	--	--	--	9.2x10 ⁻⁸	3.5x10 ⁻⁴
Diphenyl	92-52-4	0.2	1.5	1	--	--	20	--	--	150	--
Diphenylamine	122-39-4	--	10	--	--	--	200	--	--	1000	--
Diphenyl hydrazine	122-66-7	--	--	--	--	--	--	--	--	--	--
Diphenylmethane diisocyanate	101-68-8	0.02 ^e	0.2 ^e	0.2	0.5	--	1	--	--	20	0.67
Dipropylene glycol methyl ether	34590-94-8	100	600	600	--	--	12000	--	--	60000	--
Dipropyl ketone	128-19-3	50	235	--	--	--	4700	--	--	23500	--
Diquot	85-00-7	--	0.5	--	--	--	10	--	--	50	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-STEL ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	NI (8 hr)d (1 yr)d	NY (8 hr)d (1 yr)d	Phil (8 hr)d (1 yr)d
Direct Black 38	1937-37-7	--	--	--	--	C,L	--	--	--	--	--
Direct Blue 6	2602-46-2	--	--	--	--	C,L	--	--	--	--	--
Direct Brown 95	16071-86-6	--	--	--	--	C	--	--	--	--	--
Di-sec-octyl phthalate	117-81-7	--	5	5	--	--	100	--	500	--	--
Disulfiram	97-77-8	--	2	--	--	--	40	--	200	--	--
Disulfoton (Diazotol)	298-04-4	--	0.1	--	--	--	2	--	10	--	--
2,6-Di-tert-butyl-p-cresol	128-37-0	--	10	--	--	--	200	--	1000	--	--
Diuron	330-54-1	--	10	--	--	--	200	--	1000	--	--
Divinyl benzene	108-57-6	10	50	--	--	--	1000	--	5000	--	--
Dodecane thiol	112-55-0	--	--	--	4.1(15-min)	--	--	--	--	--	--
Dyfonate	944-22-9	--	0.1	--	--	--	2	--	10	--	--
Endosulfan	115-29-7	--	0.1	--	--	--	2	--	10	--	2.4
Endrin	72-20-8	--	0.1	--	--	--	2	--	10	--	0.07
Enflurane	13838-16-9	--	--	--	--	--	--	--	--	--	--
		(75) ¹	(575) ¹								
Epichlorohydrin	106-89-8	2	10	19	2	C,I	20	0.026	1000	33	10000
EPN	2104-64-5	--	0.5	0.5	--	--	10	--	50	--	--
Epoxypropane (Propylene oxide)	75-56-9	20	50	240	--	--	2500	--	5000	170	--
Estrogens	--	--	--	--	--	A	--	--	--	--	--
Ethanthiol (Ethyl mercaptan)	75-08-1	0.5	1	25	--	--	20	--	100	3.3	--
Ethanol	64-17-5	1000	1900	1900	--	--	38000	--	190000	--	--
Ethanolamine	141-43-5	3	8	--	--	--	160	--	800	27	--
Ether (ethyl ether, diethyl ether)	60-29-7	400	1200	--	--	--	24000	--	120000	24000	--
Ethinylestradiol	57-63-6	--	--	--	--	C	--	--	--	--	--

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)			
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d	IL (1 yr)d	MT (1 yr)d	Phil SCAQMD (8 hr)d
Ethion	563-12-2	--	0.4	--	--	--	8	--	40	--
2-Ethoxyethanol	110-80-5	5	19	740	--	--	180	--	1900	380
2-Ethoxyethyl acetate	111-15-9	5	27	540	--	--	540	--	2700	--
Ethyl acetate	141-78-6	400	1400	1400	--	--	28000	--	140000	28000
Ethyl acrylate	140-88-5	5	20	100	--	--	400	--	2000	--
Ethylamine	75-04-7	10	18	18	--	--	360	--	1800	--
Ethyl amyl ketone	41-85-5	25	130	130	--	--	2600	--	13000	--
Ethyl benzene	100-41-4	100	435	435	--	--	8700	--	43500	1500
Ethyl bromide	74-96-4	200	890	890	--	--	17800	--	89000	--
Ethyl butyl ketone	106-35-4	50	230	230	--	--	4600	--	23000	--
Ethyl chloride	75-00-3	1000	2600	2600	--	--	52000	--	260000	52000
Ethylene chlorohydrin	107-07-3	1 ^e	3 ^e	16	--	--	500	--	300	--
Ethylenediamine	107-15-3	10	25	25	--	--	500	--	2500	--
Ethylene dibromide	106-93-4	--	--	154	1(15-min)	C, G, K, L	755	--	--	2.4 ppb
Ethylene dichloride (1,2-dichloroethane)	107-06-2	10	40	200	4	--	80	0.083	4000	40000
Ethylene bis dithiocarbamic acid salts	--	--	--	--	--	--	--	--	--	18
Ethylene glycol Vapor	107-21-1	50 ^e	125 ^e	--	--	--	2500	--	12500	--
Particulate		--	--	--	--	--	200	--	--	--
Ethylene glycol dinitrate	628-96-6	0.05	0.3	1	--	--	6	--	30	--
Ethylene glycol methyl ether acetate	110-49-6	5	24	120	--	--	2400	--	2400	--
Ethylene glycol monopropyl ether	2807-30-9	--	--	--	--	--	--	--	--	22

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (ug/m ³)					
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d	MI (1 yr)d	NV (8 hr)d (1 yr)d	NY (8 hr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Ethyleneimine (Aziridine)	151-56-4	0.5	1	--	--	--	20	3.33(24-hr)	--	100	3.4	--
Ethylene oxide	75-21-8	1	2	90	90	C,G,L	20	0.0071	--	200	6.7	4.8
Ethylene thiourea	96-45-7	--	--	--	--	C,K,L	--	--	--	--	--	0.7
Ethyl formate	109-94-4	100	300	300	--	--	6000	--	--	30000	--	--
Ethyl ether	--	See Ether	--	--	--	--	--	--	--	--	--	--
Ethylidene norbornene	16219-75-3	5 ^e	25 ^e	--	--	--	500	--	--	2500	--	--
n-Ethylmorpholine	100-74-3	5	23	94	--	--	460	--	--	2300	--	--
Ethynediol acetate	297-76-7	--	--	--	--	D	--	--	--	--	--	--
Fast Green 0	569-64-2	--	--	--	--	--	--	--	--	--	--	--
Fenulfothion (Dasanit)	115-90-2	--	0.1	--	--	--	2	--	--	10	--	--
Fenthion	55-38-9	--	0.2	--	--	--	4	--	--	20	--	--
Forbam	14484-64-1	--	10	15	--	--	200	--	--	1000	--	--
Ferrovanadium dust	12604-58-9	--	1	1	--	--	20	--	--	100	--	--
Fluorides (as F)	--	--	2.5	2.5	--	--	50	--	--	250	--	--
Fluorine	7782-41-4	1	2	0.2	--	--	4	--	--	200	6.7	--
Fluorotrichloromethane	75-69-4	1000	5600	5600	--	--	112000	--	--	560000	--	--
5-Fluorouracil	51-21-8	--	--	--	--	D,L	--	--	--	--	--	--
Fonofos	944-22-9	--	0.1	--	--	--	2	--	--	10	--	--
Formaldehyde	50-00-0	2 (1) ¹	3 (1.5) ¹	3.6	1.2(30-min)	C,G,K,L	12	0.015	--	300	2	3000 7.2
Formamide	75-12-7	20	30	--	--	--	600	--	--	3000	100	--
Formic acid	64-18-6	5	9	9	--	--	180	--	--	900	30	--
Furfural	98-01-1	2	8	20	--	--	160	--	--	800	27	--

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NV (8 hr) ^d	Phil (1 yr) ^d
Furfuryl alcohol	98-00-0	10	40	200	200	--	800	--	--	4000	130
Gasoline	8006-61-9	300	900	--	--	--	18000	--	--	90000	--
Germanium tetrahydride	7782-65-2	0.2	0.6	--	--	--	12	--	--	60	--
Glutaraldehyde, activated or unactivated	111-30-8	0.2 ^e	0.7 ^e	--	--	--	14	--	--	70	--
Glycerin mist	56-81-5	--	10	--	--	--	--	--	--	1000	--
Glycidialdehyde	765-34-4	--	--	--	--	--	--	--	--	--	--
Glycidol	556-52-5	25	75	150	--	--	1500	--	--	7500	--
Glyconitrile	107-16-4	--	--	--	5(15-min)	--	--	--	--	--	--
Grain dust	--	--	(4) ¹	--	--	--	--	--	--	--	--
Guthion (Azinphos-methyl)	86-50-0	--	0.2	0.2	--	--	4	--	--	20	--
Guinea Green B	4680-78-8	--	--	--	--	--	--	--	--	--	--
Hafnium	7440-58-6	--	0.5	0.5	--	--	10	--	--	50	--
Halothane	151-67-7	--	--	--	--	--	--	--	--	--	--
Heptachlor	76-44-8	--	0.5	0.5	--	H	2.5	--	--	50	1.7
Heptane (n-Heptane)	142-82-5	400	1600	2000	350	--	7000	--	--	160000	32000
Heptanethiol	1639-09-4	--	--	--	2.7(15-min)	--	--	--	--	--	--
Hexachlorobenzene	118-74-1	--	--	--	--	K,L	--	--	2	--	0.48 ppb
Hexachlorobutadiene	87-68-3	0.02	0.24	--	--	G	2.4	--	--	24	0.8
Hexachlorocyclohexane (Lindane)	--	See Lindane	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	77-47-4	0.01	0.1	--	--	--	2	--	--	10	0.33
Hexachloroethane	67-72-1	10	100	10	--	H	50	--	--	10000	--
Hexachloronaphthalene	1335-87-1	--	0.2	0.2	--	--	4	--	--	20	0.67
Hexadecanethiol	--	--	--	--	5.1(15-min)	--	--	--	--	--	--
Hexafluoroacetone	684-16-2	0.1	0.7	--	--	--	14	--	--	70	--

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)			
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Hexamethylene diisocyanate	822-06-0	--	--	--	0.035	--	0.7	--	5800	--
Hexamethylphosphoramide	680-31-9	--	--	--	--	G	--	--	--	0.0024 ppb
Hexane (n-Hexane)	110-54-3	50	180	1800	350	--	3600	--	18000	--
Hexane (other isomers)	110-54-3	500	1800	--	--	--	36000	--	180000	--
Hexanethiol	111-31-9	--	--	--	2.4(15-min)	--	--	--	--	--
2-Hexanone	25683-00-5	5	20	410	--	--	400	--	2000	--
Hexone	108-10-1	50	205	410	--	--	4100	--	20500	--
sec-Heptyl acetate	142-92-7	50	300	--	--	--	6000	--	30000	--
Heptylene glycol	107-41-5	25 ^e	125 ^e	--	--	--	2500	--	12500	--
Hydralazine	86-54-4	--	--	--	--	D, L	--	--	--	--
Hydrazine	302-01-2	0.1	0.1	1.3	0.4(2-hr)	C, G, K, L	1	--	10	0.33
Hydrazine sulfide	--	--	--	--	--	K, L	--	--	--	--
Hydrazobenzene	122-66-7	--	--	--	--	K	--	--	--	--
Hydrogenated terphenyls	95-94-4	0.5	5	--	--	--	100	--	500	--
Hydrogen bromide	10035-10-6	3 (3 ^e) ¹	10 (10 ^e) ¹	10	--	--	200	--	1000	200
Hydrogen chloride	7647-01-0	5 ^e	7 ^e	7	--	--	140	--	700	140
Hydrogen cyanide	74-90-8	10 ^e	10 ^e	11	--	--	200	--	1000	33
Hydrogen fluoride	7664-39-3	3 (3 ^e) ¹	2.5 (2.5 ^e) ¹	--	2.5	--	50	--	250	--
Hydrogen peroxide	7722-84-1	1	1.5	1.4	--	--	28	--	150	--
Hydrogen selenide	7783-07-5	0.05	0.2	0.2	--	--	4	--	20	--
Hydrogen sulfide	7783-06-4	10	14	--	15(10-min)	--	280	--	1400	--
Hydroquinone	123-31-9	--	2	2	2(15-min)	--	40	--	200	6.7

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d	MI (1 yr)d	NY (1 yr)d	Phil (1 yr)d
17α-Hydroxyprogesterone caproate	630-56-8	--	--	--	--	D	--	--	--	--	--
2-Hydroxypropyl acrylate	999-61-1	0.5	3	--	--	--	60	--	--	0	--
Indene	95-13-6	10	45	--	--	--	900	--	--	4500	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	K,L	--	--	--	--	--
Indium and compounds (as In)	7440-74-6	--	0.1	--	--	--	2	--	--	10	--
Iodine	7553-56-2	0.1 ^e	1 ^e	1	--	--	20	--	--	100	20
Iodoform	75-47-8	0.6	10	--	--	--	200	--	--	1000	--
Iron dextran complex	9004-66-4	--	--	--	--	D,K	--	--	--	--	--
Iron oxide fume	1309-37-1	--	5	10	--	--	100	--	--	500	--
Iron pentacarbonyl	13463-40-6	0.01	0.08	--	--	--	1.6	--	--	8	--
Iron salts, soluble (as Fe)	--	--	1	--	--	--	20	--	--	100	--
Isoamyl acetate	123-92-2	100	525	525	--	--	10500	--	--	52500	10500
Isoamyl alcohol	123-51-3	100	360	360	--	--	7200	--	--	36000	7200
Isobutyl acetate	110-19-0	150	700	360	--	--	7200	--	--	36000	14000
Isobutyl alcohol	78-83-1	50	150	700	--	--	14000	--	--	70000	--
Isobutyl isobutyrate	97-85-8	--	--	--	--	--	--	--	60	--	--
Isobutyronitrile	78-82-0	--	--	--	22	--	440	--	--	--	--
Isooctyl alcohol	26952-21-6	50	270	--	--	--	54000	--	--	27000	--
Isonicotinic acid hydrazine	55-22-1	--	--	--	--	D,L	--	--	--	--	--
Isophorone	78-59-1	5 ^e	25 ^e	140	23	--	460	--	--	2500	83
Isophorone diisocyanate	4098-71-9	0.1	0.09	--	0.045	--	0.9	--	--	9	--
Isopropoxyethanol	109-59-1	25	105	--	--	--	2100	--	--	10500	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^{a,b} mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					Phil NY SCAQMD Pbl (1 yr) ^d
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NY (8 hr) ^d	NY (1 yr) ^d	
Isopropyl acetate	108-21-4	250	950	950	--	--	19000	--	--	95000	3300	--
Isopropyl alcohol	67-63-0	400	980	980	984	J	19600	--	--	98000	--	--
n-Isopropyl aniline	643-28-7	2	10	--	--	--	200	--	--	1000	--	--
Isopropylamine	75-31-0	5	12	12	--	--	240	--	--	1200	40	--
Isopropyl ether	108-20-3	250	1050	2100	--	--	21000	--	--	105000	--	--
Isopropyl glycidyl ether	4016-14-2	50	240	240	240(15-min)	--	4800	--	--	24000	--	--
Isopropyl oils	--	--	--	--	--	D	--	--	--	--	--	--
Kelthane (Dicofol)	115-32-2	--	--	--	--	--	--	--	--	--	--	8.8
Kepone	143-50-0	--	--	--	0.001(15-min)	H,K	--	--	--	--	--	0.88
Kerosene	8008-20-6	--	--	--	100	--	2000	--	--	--	--	--
Ketene	463-51-4	0.5	0.9	0.9	--	--	18	--	--	90	3	--
Lead, inorganic, fumes and dust (as Pb)	7439-92-1	--	0.15	--	--	D,L	1.5	0.5(24-hr)	--	15	--	1.5 ¹
Lead acetate	1335-32-6	--	--	--	--	K,L	--	--	--	--	--	--
Lead arsenate [as Pb ₃ (AsO ₄) ₂]	10102-48-4	--	0.15	--	--	D	3	--	--	15	0.5	--
Lead chromate (as Cr)	7758-97-6	--	0.05	--	--	D,G	0.5	--	--	5	--	--
Lead phosphate	7446-27-7	--	--	--	--	K	--	--	--	--	--	--
Light Green SF	5141-20-8	--	--	--	--	--	--	--	--	--	--	--
Lindane	58-89-9	--	0.5	0.5	--	K ² ,L	5	--	--	50	1.7	1.2
Liquefied petroleum gas	--	1000	1800	1800	--	--	36000	--	--	180000	--	--
Lithium hydride	7580-67-8	--	0.025	0.025	--	--	0.5	--	--	2.5	--	--
Lynceotrenol	52-76-6	--	--	--	--	D	--	--	--	--	--	--
Magenta	632-99-5	--	--	--	--	L	--	--	--	--	--	--

¹And compounds.²And other hexachlorocyclohexane isomers.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standards mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (μg/m ³)					
		TLV-TWA ^a ppm	mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	NY (1 yr)d (1 yr)d	SCAQMD (8 hr)d (1 yr)d	Phil (1 yr)d
Magnesium oxide fume	1309-48-8	--	10	15	--	--	200	--	--	1000	--	--
Malathion	121-75-5	--	10	15	15	--	200	--	--	1000	33	--
Maleic anhydride	108-31-6	0.25	1	1	--	--	20	--	--	100	3.3	--
Malononitrile	109-77-3	--	--	--	8	--	160	--	--	--	--	--
Manganese Dust & compounds (as Mn) Fume (as Mn)	7439-96-5	--	5 ^o 1	5	--	--	100 20	--	--	500 100	-- 24	24
Manganese cyclopentadienyl tricarbonyl (as Mn)	12079-65-1	--	0.1	--	--	--	2	--	--	10	--	--
Manganese tetroxide	1317-35-7	--	1	--	--	--	20	--	--	100	--	--
Medroxyprogesterone acetate	71-58-9	--	--	--	--	D,L	--	--	--	--	--	--
Megestrol acetate	595-33-5	--	--	--	--	D	--	--	--	--	--	--
Melphalan	148-82-3	--	--	--	--	A,J	--	--	--	--	--	--
6-Mercaptopurine	50-44-2	--	--	--	--	D,L	--	--	--	--	--	--
Mercury Alkyl compounds (as Hg) All forms except alkyl Vapor Aryl and inorganic compounds	7439-97-6	--	-- 0.01 0.05 0.1	-- 0.1 0.1	-- 0.03 ¹ 0.5 ¹	--	-- 2 1 2	0.166(24-hr)	--	-- 1 5 10	-- 0.24 0.24 0.24	0.24
Mesityl oxide	141-79-7	15	60	100	40	--	800	--	--	6000	--	--
Mestranol	72-33-3	--	--	--	--	C	--	--	--	--	--	--
Methacrylic acid	79-41-4	20	70	--	--	--	1400	--	--	7000	--	--
Methanethiol	74-93-1	0.5	1	20	1(15-min)	--	20	--	--	100	--	--
Methanol	67-56-1	200	260	260	262	--	5200	--	--	26000	--	--
Methomyl	16752-77-5	--	2.5	--	--	--	50	--	--	250	--	--
Methotrexate	59-05-2	--	--	--	--	D,L	--	--	--	--	--	--

¹Proposed for revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	NY (8 hr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Methoxychlor	72-43-5	--	10	15	--	--	100	--	--	1000	--
2-Methoxyethanol (methyl cellulosolve)	109-86-4	5	16	80	--	--	320	--	--	1600	53
2-Methoxyethyl acetate	110-49-6	5	24	--	--	--	480	--	--	2400	--
4-Methoxyphenol	150-76-5	--	5	--	--	--	100	--	--	500	--
Methyl acetate	79-20-9	200	610	610	--	--	12200	--	--	61000	--
Methyl acetylene	74-99-7	1000	1650	1650	--	--	33000	--	--	165000	--
Methyl acetylene - propadiene mixture	--	1000	1800	1800	--	--	36000	--	--	180000	--
Methyl acrylate	96-33-3	10	35	35	--	--	700	--	--	3500	--
Methylacrylonitrile	126-98-7	1	3	--	--	--	60	--	--	300	--
Methylal	109-27-5	1000	3100	3100	--	--	62000	--	--	310000	--
Methylamine	74-89-5	10	12	12	--	--	240	--	--	1200	40
Methyl n-amyyl ketone	110-43-0	50	235	465	465	--	4700	--	--	23500	--
n-Methyl aniline	100-61-8	0.5	2	--	--	--	40	--	--	200	--
Methyl bromide	74-83-9	5	20	80	--	--	400	--	--	2000	480
Methyl butyl ketone	591-78-6	5	20	410	4	--	400	--	--	2000	--
Methyl cellulosolve acetate	110-49-6	--	--	120	--	--	2400	--	--	--	--
Methyl chloride (chloromethane)	74-87-3	50	105	--	--	--	2100	--	--	10500	2520
Methyl chloroform	71-55-6	350	1900	1900	1900 (15-min)	--	38000	--	--	190000	38000
Methyl chloromethyl ether	107-30-2	--	--	--	--	--	--	--	--	--	--
Methyl 2-cyanoacrylate	137-05-3	2	8	--	--	--	160	--	--	800	--
Methylcyclohexane	108-87-2	400	1600	2000	--	--	32000	--	--	160000	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standards mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (ug/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	NY (1 yr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Methylcyclohexanol	25639-42-3	50	235	470	--	--	4700	--	--	23500	--
o-Methylcyclohexanone	583-60-8	50	230	460	--	--	4600	--	--	23000	--
Methylcyclopentadienyl manganese tricarbonyl (as Mn)	12108-13-3	0.08	0.2	--	--	--	4	--	--	20	--
Methyl demeton	8022-00-2	--	0.5	--	--	--	10	--	--	50	--
Methylene bisphenyl isocyanate (MDI)	101-68-8	0.02 ^e	0.2 ^e	0.2	--	--	4	--	--	20	--
4,4'-Methylene bis (2-chloroaniline)(MOCA)	101-14-4	0.02	0.22	--	0.003	G,K	0.015	--	--	22	0.55
Methylene bis (4-cyclohexylisocyanate)	5124-30-1	0.01 ^e	0.11 ^e	--	--	--	2.2	--	--	11	--
4,4'-Methylene bis (N,N'-dimethyl) benzeneimide	101-61-1	--	--	--	--	K,L	--	--	--	--	--
Methylene chloride	75-09-2	100	350	1740	--	--	7000	--	--	35000	350000 8400
4,4'-Methylene dianiline	101-77-9	0.1	0.8	--	--	(G) ¹	16	--	--	80 2.7	--
Methyl ethyl ketone (MEK)	78-93-3	200	590	590	590	--	11800	--	5900 (8-hr)	59000 2000	--
Methyl ethyl ketone peroxide	1338-23-4	0.2 ^e	1.5 ^e	--	--	--	30	--	--	150	--
Methyl formate	107-31-3	100	250	250	--	--	5000	--	--	25000	--
Methyl hydrazine	60-34-4	0.2 ^e	0.35 ^e	0.35	0.08(2-hr)	G	3.5	--	--	35 1.2	0.88
Methyl iodide	74-88-4	2	10	28	--	G	280	--	--	1000	25
Methyl isomyl ketone	110-12-3	50	240	--	230	--	4600	--	--	24000	--
Methyl isobutyl carbinol	105-30-6	25	100	100	--	--	2000	--	--	1000	--
Methyl isobutyl ketone	108-10-1	50	205	410	200	--	4000	--	--	20500 680	--
Methyl isocyanate	624-83-9	0.02	0.05	0.05	--	--	1	--	--	5 0.17	--
Methyl isopropyl ketone	563-80-4	200	705	--	--	--	14100	--	--	70500	--

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					Phil SCAQM (1 yr) ^d
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NY (8 hr) ^d	NY (1 yr) ^d	
Methyl mercaptan	74-93-1	0.5	1	20	--	--	20	--	--	100	3.3	--
Methyl methacrylate	80-62-6	100	410	410	--	--	8200	--	--	41000	1400	--
Methyl parathion	298-00-0	--	0.2	--	0.2	--	2	--	--	20	--	--
Methyl n-propyl ketone	107-87-9	200	700	700	530	--	10600	--	--	70000	--	--
Methyl silicate	681-84-5	1	6	--	--	--	120	--	--	600	--	--
Methyl styrene	98-83-9	50	240	480	--	--	4800	--	--	24000	--	--
Metribuzin	21087-64-9	--	5	--	--	--	500	--	--	500	--	--
Metronidazole	443-48-1	--	--	--	--	C,L	--	--	--	--	--	--
Mevinphos	7786-34-7	0.1	0.1	--	--	--	2	--	--	10	--	--
Michler's ketone	90-94-8	--	--	--	--	K	--	--	--	--	--	--
Mirex	2385-85-5	--	--	--	--	K,L	--	--	--	--	--	0.88
MOCA	101-14-4	--	--	--	--	L	--	--	--	--	--	--
Molybdenum soluble compounds (as Mo) insoluble compounds (as Mo)	7439-98-7	--	5 10	5 15	--	--	100 200	--	--	500 1000	--	--
Monocrotophos	6923-22-4	--	0.25	--	--	--	5	--	--	25	--	--
Monomethyl aniline	100-61-8	0.5	2	9	--	--	40	--	--	200	--	--
Monomethyl hydrazine	60-34-4	0.2 ^a	0.35 ^a	0.35	0.08(2-hr)	G	3.5	--	--	35	1.2	0.88
Morpholine	110-91-8	20	70	--	--	B	350	--	--	7000	--	--
Mustard gas	505-60-2	--	--	--	--	A,J	--	--	--	--	--	--
Myleran	55-98-1	--	--	--	--	A	--	--	--	--	--	--
Naled	300-76-5	--	3	--	--	--	60	--	--	300	--	--
Naphtha	8030-30-6	400	1600	400 ¹ 2000 ²	--	--	8000	--	--	160000	--	--

¹Coal tar naphtha.²Petroleum distillates.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					Phil SCAQM (1 yr)d
		TLV-TWA ^a ppm	mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d	MT (1 yr)d	NV (8 hr)d (1 yr)d	NY (8 hr)d (1 yr)d	
Naphthalene	91-20-3	10	50	50	--	--	1000	--	--	5000	170	--
Naphthalene diisocyanate	39394-45-1	--	--	--	0.04	--	0.8	--	--	--	--	--
1-Naphthylamine	134-32-7	--	--	--	--	D,L	--	--	--	--	--	--
2-Naphthylamine	91-59-8	No exposure	--	--	--	A,P,J	--	--	--	--	--	19
Nickel Metal Soluble compounds (as Ni)	7440-02-0	--	--	--	--	--	--	0.00056	--	--	--	--
		--	1	--	--	B,K	5	--	--	100	3.4	0.24
		--	0.1	1	0.015 ^d	B	0.075 ^d	--	--	10	--	0.24
							0.3 ^d					
Nickel carbonyl	13463-39-3	0.05	0.35	0.007	0.007	B,K	0.035	--	--	35	1.2	--
Nickel oxide	1313-99-1	--	--	--	--	--	--	--	--	--	--	--
Nickel sulfide	12035-72-2	--	--	--	--	B	--	--	--	--	0.1	--
Nickel sulfide roasting, fume and dust (as Ni)	--	--	1	--	--	B,F	5	--	--	100	--	--
Nicotine	54-11-5	0.5	0.5	--	--	--	10	--	--	50	--	--
Nitrapyrin	1929-82-4	--	10	--	--	--	200	--	--	1000	--	--
Nitric acid	7697-37-2	2	5	5	5	--	100	--	--	500	100	--
Nitric oxide	10102-43-9	25	30	30	30	--	600	--	--	3000	--	--
Nitrotetraacetic acid	139-13-9	--	--	--	--	K	--	--	--	--	--	--
p-Nitroaniline	100-01-6	--	3	6	--	--	60	--	--	300	6	--
5-Nitro-o-anisidine	99-59-2	--	--	--	--	K	--	--	--	--	--	--
Nitrobenzene	98-95-3	1	5	5	--	--	100	--	--	500	17	--
p-Nitrochlorobenzene	100-00-5	--	1 (0.5) ^d	1 (3) ^d	--	--	20	--	--	100	10	--
4-Nitrodiphenyl	92-93-3	No exposure	--	--	--	F	--	--	--	--	--	2.7
Nitroethane	79-24-3	100	310	310	--	--	6200	--	--	31000	--	--

^aInorganic.^bCarcinogens.^cNon carcinogens.^dProposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criterion ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	NI (8 hr)d (1 yr)d	NY (8 hr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Nitrofen	1836-75-5	--	--	--	--	K,L	--	--	--	--	0.75 (24-hr)
Nitrogen dioxide	10102-44-0	3	6	9	1.8(15-min)	--	120 ¹	--	600	--	--
Nitrogen mustard	51-75-2	--	--	--	--	B	--	--	--	--	--
Nitrogen trifluoride	7783-54-2	10	30	29	--	--	580	--	3000	--	--
Nitroglycerine	55-63-0	0.05	0.5	2	0.1(20-min)	--	10	--	50	17	--
Nitromethane	75-52-5	100	250	250	--	--	5000	--	25000	--	--
2-Nitrophenol	88-75-5	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	100-02-7	--	--	--	--	--	--	--	--	--	--
1-Nitropropane	108-03-2	25	90	90	--	--	1800	--	9000	300	--
2-Nitropropane	79-46-9	25 ^a (10) ²	90 ^a (35) ²	90	--	G	900	--	9000	--	21.6
Nitrosamines	--	--	--	--	--	--	--	--	--	--	--
n-Nitrosodi-n-butylamine	924-16-3	--	--	--	--	K,L	--	--	--	--	--
n-Nitrosodietanolamine	1116-54-7	--	--	--	--	K	--	--	--	--	--
n-Nitrosodiethylamine	55-18-5	--	--	--	--	K,I	--	--	--	--	--
n-Nitrosodimethylamine	62-75-9	--	--	--	--	G	--	--	--	--	0.0004 ppb
p-Nitrosodimethylaniline	138-89-6	--	--	--	--	--	--	--	--	--	--
n-Nitrosodiphenylamine	86-30-6	--	--	--	--	K	--	--	--	--	--
p-Nitrosodiphenylamine	156-10-5	--	--	--	--	--	--	--	--	--	--
n-Nitroso-n-ethylurea	759-73-9	--	--	--	--	K,I	--	--	--	--	--
n-Nitroso-n-methylurea	684-93-5	--	--	--	--	K,I	--	--	--	--	--
n-Nitrosomethylvinylamine	4549-40-0	--	--	--	--	K	--	--	--	--	--
n-Nitrosomorpholine	59-89-2	--	--	--	--	K,L	--	--	--	--	--

^aNIOSH takes precedence.^bProposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (ug/m ³)				
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d	IL (1 yr)d	MT (1 yr)d	NY (8 hr)d	Phil (1 yr)d
n-Nitrosomorpholine	--	--	--	--	--	K,L	--	--	--	--	--
p-Nitrosophenol	104-91-6	--	--	--	--	--	--	--	--	--	--
n-Nitrosopiperidine	100-75-4	--	--	--	--	K,L	--	--	--	--	--
n-Nitroso-n-propylamine	--	--	--	--	--	K,L	--	--	--	--	--
n-Nitrosopyrrolidine	930-55-2	--	--	--	--	K,L	--	--	--	--	--
n-Nitrososarcosine	13256-22-9	--	--	--	--	K	--	--	--	--	--
Nitrotoluene	99-08-1	2	11	30	--	--	220	--	--	1100	37
Nitrous oxide	10024-97-2	--	--	--	67	--	1330	--	--	--	--
Nonane	111-84-2	200	1050	--	--	--	21000	--	--	105000	--
Nonanethiol	1455-21-6	--	--	--	3.3(15-min)	--	--	--	--	--	--
Norethisterone	68-22-4	--	--	--	--	C,L	--	--	--	--	--
Norethynodrel	68-23-4	--	--	--	--	D,L	--	--	--	--	--
Norgestrel	6533-00-2	--	--	--	--	D	--	--	--	--	--
Octachloronaphthalene	2234-13-1	--	0.1	0.1	--	--	2	--	--	10	0.34
Octane	111-65-9	300	1450	2350	350	--	7000	--	--	145000	--
Octanethiol	111-86-6	--	--	--	3(15-min)	--	--	--	--	--	--
Octadecanethiol	--	--	--	--	5.9(15-min)	--	--	--	--	--	--
Oestradiol-17-beta	2529-64-8	--	--	--	--	C	--	--	--	--	--
Oestrone	53-16-7	--	--	--	--	C	--	--	--	--	--
Oil mist (mineral)	8012-95-1	--	5	5	--	--	100	--	--	500	17
Oil Orange SS	2646-17-5	--	--	--	--	--	--	--	--	--	--
Osmium tetroxide	20816-12-0	0.0002	0.002	0.002	--	--	0.04	--	--	0.2	--
Oxalic acid	144-62-7	--	1	1	--	--	20	--	--	100	3.3

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)			
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	NI (8 hr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Oxygen difluoride	7783-41-7	0.05 (0.05e) ¹	0.1 (0.1e) ¹	0.1	--	--	2	--	10	--
Oxymetholone	434-07-1	--	--	--	--	B, K	--	--	--	--
Ozone	10028-15-6	0.1	0.2	0.2	--	--	4 ¹	--	20	--
Paraffin wax fume	8002-74-2	--	2	--	--	--	40	--	200	--
Paraquat, respirable	1910-42-5	--	0.1	0.5	--	--	2	--	10	0.33
Parathion	56-38-2	--	0.1	0.1	0.05	--	1	--	10	0.33
Particulate Polycyclic Aromatic Hydrocarbons	8007-45-2	--	0.2	--	--	--	--	--	20	0.48
Pentaborane	19624-22-7	0.005	0.01	0.01	--	--	0.2	--	1	--
Pentachloronaphthalene	1321-64-8	--	0.5	0.5	--	--	10	--	50	--
Pentachlorophenol (PCP)	87-86-5	--	0.5	0.5	--	D, L	5	--	50	1.7
Pentaerythritol	115-77-5	--	--	--	--	--	300	--	--	--
Pentane	109-66-0	600	1800	2950	350	--	7000	--	180000	--
Pentanethiol	110-66-7	--	--	--	2.1(15-min)	--	--	--	--	--
2-Pentanone	107-87-9	200	700	700	--	--	14000	--	70000	--
Perchloroethylene	127-18-4	50	335	678	339	H	1700	--	3350	8040
Perchloromethyl mercaptan	594-42-3	0.1	0.8	0.8	--	--	16	--	80	--
Perchloryl fluoride	7616-94-6	3	14	13.5	--	--	270	--	1400	--
Persulfates, alkali metal, as S ₂ O ₈	--	--	-- (5) ¹	--	--	--	--	--	--	--
Petroleum distillates	8002-05-9	--	--	--	--	--	--	--	--	--
Phenacetin	62-44-2	--	--	--	--	B, K	--	--	--	--
Phenazopyridine	94-78-0	--	--	--	--	C, K	--	--	--	--
Phenazopyridine chloride	--	--	--	--	--	K	--	--	--	--
Phenelzine	51-71-8	--	--	--	--	D	--	--	--	--

¹Proposed revision.²NAIOS takes precedence.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (ug/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d	IL (1 yr)d	MI (1 yr)d	NV (8 hr)d	Phil (1 yr)d
Phenanthroin (and sodium salt)	50-12-4	--	--	--	--	K	--	--	--	--	--
Phenobarbital	50-06-6	--	--	--	--	L	--	--	--	--	--
Phenol	108-95-2	5	19	19	20	--	380	--	--	1900	10
Phenothiazine	92-84-2	--	5	--	--	--	100	--	--	500	--
Phenoxyacetic acid herbicides	--	--	--	--	--	C	--	--	--	--	--
Phenylbutazone	50-33-9	--	--	--	--	D,L	--	--	--	--	--
p-Phenylene diamine	106-50-3	--	0.1	0.1	--	--	2	--	--	10	0.33
Phenyl ether (vapor)	101-84-8	1	7	7	--	--	140	--	--	700	--
Phenyl ether-diphenyl mixture	--	1	7	--	--	--	140	--	--	700	--
Phenyl glycidyl ether	122-60-1	1	6	60	5 (15-min)	--	120	--	--	600	--
Phenyldiazine	100-63-0	5	20	22	0.6 (2-hr)	(G) ¹	400	--	--	2000	67
Phenyl mercaptan	108-98-5	0.5	2	--	--	--	40	--	--	200	--
n-Phenyl-2-naphthylamine	135-88-6	--	--	--	--	D,G	--	--	--	--	45
Phenylphosphine	638-21-1	0.03 ^c	0.23 ^c	--	--	--	5	--	--	25	--
Phenytol	57-41-0	--	--	--	--	C,L	--	--	--	--	--
Phorate (Thimet)	298-02-2	--	0.05	--	--	--	1	--	--	5	--
Phosdrin (Mevinphos)	7786-34-7	0.01	0.1	0.1	--	--	2	--	--	10	--
Phosgene (Carbonyl chloride)	75-44-5	0.1	0.4	0.4	0.4	--	8	--	--	40	1.3
Phosphine	7803-51-2	0.3	0.4	0.4	--	--	8	--	--	40	1.3
Phosphoric acid	7664-38-2	--	1	1	--	--	20	--	--	100	--
Phosphorous (yellow)	7723-14-0	--	0.1	0.1	--	--	2	--	--	10	0.33
Phosphorous oxychloride	10026-13-8	0.1	0.6	--	--	--	12	--	--	60	--
Phosphorous pentachloride	10026-13-8	0.1	1	1	--	--	20	--	--	100	--

^aProposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NV (8 hr) ^d	NY (1 yr) ^d	Phil SCAQMD (1 yr) ^d
Phosphorus pentasulfide	1314-80-3	--	1	1	--	--	20	--	--	100	--	--
Phosphorus trichloride	7719-12-2	0.2	1.5	3	--	--	30	--	--	150	--	--
Phthalic anhydride	85-44-9	1	6	12	--	--	120	--	--	600	--	--
m-Phthalodinitrile	626-17-5	--	5	--	--	--	100	--	--	500	--	--
Picloram	1918-02-1	--	10	--	--	--	100	--	--	1000	--	--
Picric acid	88-89-1	--	0.1	0.1	--	--	2	--	--	10	0.33	--
Pindone	83-26-1	--	0.1	--	--	--	2	--	--	10	--	--
Piperazine dihydrochloride	142-64-3	--	0.5	--	--	--	100	--	--	50	--	--
Pival (2-Pivalyl-1,3-indandione)	83-26-1	--	0.1	0.1	--	--	2	--	--	10	--	--
Platinum metal soluble salts (as Pt)	7440-06-4	--	1 0.002	-- 0.002	--	--	20 0.04	--	--	100 0.2	--	--
Polybrominated biphenyls	13654-09-6	--	--	--	--	K	--	--	--	--	--	--
Polychlorinated biphenyls 42% Chlorine 54% Chlorine	53469-21-9 11097-69-1	-- --	1 0.5	1 0.5	0.001 0.001	C, K C, K	0.01 0.01	--	--	100 50	--	0.18 0.18
Polychlorinated triphenyls	1264-23-8	--	--	--	--	--	--	--	--	--	--	--
Polycyclic aromatic hydro- carbons	8007-45-2	--	0.2 ¹	0.2 ¹	0.1 ¹	B, F	0.1 ¹	--	--	20 ¹	--	--
Ponceau MX	3761-53-3	--	--	--	--	--	--	--	--	--	--	--
Ponceau 3R	3564-09-8	--	--	--	--	--	--	--	--	--	--	--
Potassium hydroxide	1310-58-3	--	2 ⁶	--	--	--	40	--	--	200	--	--
Potassium persulfate, as SiO ₂	7727-21-1	--	--	--	--	--	--	--	--	--	--	--
Prednisone	58-03-2	--	(5) ⁴	--	--	D	--	--	--	--	--	--
Procabazine	671-16-9	--	--	--	--	B, A	--	--	--	--	--	--
Procabazine hydrochloride	366-70-1	--	--	--	--	K	--	--	--	--	--	--

¹Benzene-soluble fraction.²Includes anthracene, BaP, phenanthrene, acridene, chrysene, and pyrene.³Cyclohexane-extractable fraction.⁴Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (ug/m ³)						
		TLV-TWA ^a ppm	mg/m ³				CT (8 hr)d	IL (1 yr)d	MI (1 yr)d	NV (8 hr)d	NY (1 yr)d	Phil (1 yr)d	
Progesterone	57-83-0	--	--	--	--	C,L	--	--	--	--	--	--	--
Propane sulfone	1120-71-4	--	--	--	--	G	--	--	--	--	--	--	--
Propanethiol	75-33-2	--	--	1800	1.6(15-min)	--	36000	--	--	--	--	--	--
Propargyl alcohol	107-19-7	1	2	--	--	--	40	--	--	200	--	--	--
β-Propiolactone	57-57-8	0.5	1.5	--	--	G,K	7.5	--	--	150	5	--	--
Propionic acid	79-09-4	10	30	--	--	--	600	--	--	3000	--	--	--
Propionitrile	107-12-0	--	--	--	14	--	280	--	--	--	--	--	--
Propoxur	114-26-1	--	0.5	--	--	--	1	--	--	50	--	--	--
n-Propyl acetate	109-60-4	200	840	840	--	--	16800	--	--	84000	--	--	--
Propyl alcohol	71-23-8	200	500	500	--	--	10000	--	--	50000	--	--	--
Propylene dichloride (1,2-Dichloropropane)	78-87-5	75	350	350	--	--	7000	--	--	35000	--	--	--
Propylene glycol dinitrate	6423-43-4	0.05	0.3	--	--	--	6	--	--	30	--	--	--
Propylene glycol monomethyl ether	107-98-2	100	360	--	--	--	7200	--	--	36000	--	--	--
Propyleneimine	75-55-8	2	5	5	--	G	100	--	--	500	--	12	--
Propylene oxide (Epoxypropane)	75-56-9	20	50	240	--	--	2500	--	--	5000	--	625	--
n-Propyl nitrate	627-13-4	25	105	110	--	--	2100	--	--	10500	--	--	--
Propylthiouracil	51-52-5	--	--	--	--	C,L	--	--	--	--	--	--	--
Pyrethrin	121-29-9	--	--	--	--	--	--	--	--	--	--	--	--
Pyrethrum	8003-34-7	--	5	5	--	--	50	--	--	500	17	--	--
Pyridine	110-86-1	5	15	15	--	--	300	--	--	1500	2	--	--
Quinoline	91-22-5	--	--	--	--	--	--	--	--	--	--	--	--
Quinone	106-51-4	0.1	0.4	0.4	--	--	8	--	--	40	1.3	--	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^e ppm	TLV-TWA ^e mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	NY (1 yr)d (8 hr)d	Phil (1 yr)d (1 yr)d
Quintozene (PCNB)	82-68-8	--	--	--	--	--	--	--	--	--	2.4
RDX	121-82-4	--	1.5	--	--	--	30	--	--	150	--
Risperine	50-55-5	--	--	--	--	D,K,L	--	--	--	--	--
Resorcinol	108-46-3	10	45	--	--	--	900	--	--	4500 900	--
Rhodamine B	81-88-9	--	--	--	--	--	--	--	--	--	--
Rhodamine 6G	989-38-8	--	--	--	--	--	--	--	--	--	--
Rhodium metal, fume and dusts (as Rh)	7440-16-6	--	--	--	--	--	--	--	--	--	--
insoluble compounds		--	0.01	0.001	--	--	0.02	--	--	1	--
soluble compounds		--	10	15	--	--	100	--	--	1000	--
Ronnel	299-84-3	--	10	15	--	--	100	--	--	1000	--
Rotenone	83-79-4	--	5	5	--	--	100	--	--	500 17	--
Saccharine	81-07-2	--	--	--	--	D,K	--	--	--	--	--
Safrole	94-59-7	--	--	--	--	K,L	--	--	--	--	--
Selenium compounds (as Se)	7782-49-2	--	0.2	0.2	--	--	4	--	--	20 0.67	--
Selenium hexafluoride (as Se)	7783-79-1	0.05	0.2	0.4	--	--	8	--	--	20	--
Selenium sulfide	7488-56-4	--	0.2	--	--	K	--	--	--	20 0.67	--
Sesone	136-78-7	--	10	--	--	--	200	--	--	1000	--
Silane	7803-62-5	5	7	--	--	--	140	--	--	700	--
Silver	7440-22-4	--	0.1	0.01	--	--	0.2	--	--	10	--
Metal		--	0.01	--	--	--	0.2	--	--	1	--
Soluble compounds		--	0.3 ^e	--	--	--	6	--	--	30	--
Sodium azide	26628-22-8	0.1 ^e	5	--	--	--	100	--	--	500	--
Sodium bisulfite	7631-90-5	--	--	--	--	--	--	--	--	--	--
(Sodium) Blue VRS	129-17-9	--	--	--	--	--	--	--	--	--	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr) ^d	II (1 yr) ^d	MI (1 yr) ^d	NV (8 hr) ^d	Phil (1 yr) ^d
Sodium fluoroacetate	62-74-8	--	0.05	0.05	--	--	1	--	--	5	--
Sodium hydroxide	1310-73-2	--	2	2	2(15-min)	--	40	--	--	200	--
Sodium metabisulfite	7681-57-4	--	5	--	--	--	100	--	--	500	--
Sodium persulfate	7775-27-1	--	(5) ¹	--	--	--	--	--	--	--	--
Sprionolactone	52-01-6	--	--	--	--	D	--	--	--	--	--
Stoddard solvent	8052-41-43	100	575	2900	350 ²	--	7000 ²	--	--	57500	--
Streptozotocin	18883-66-4	--	--	--	--	K,L	--	--	--	--	--
Stribine	7803-52-3	0.1	0.5	0.5	--	--	10	--	--	50	--
Strobane	61789-48-2	--	--	--	--	--	--	--	--	--	7.7
Strychnine	57-24-9	--	0.15	0.15	--	--	3	--	--	15	--
Styrene (monomer)	100-42-5	50	215	--	--	D,L	--	--	2150 (8-hr)	21500	720
Styrene oxide	96-09-3	--	--	--	--	D,L	--	--	--	--	--
Subtilisins (proteolytic enzymes as 100% pure crystalline enzyme)	1395-21-7	--	0.00006	--	--	--	0.0012	--	--	0.006	--
Succinonitrile	110-61-2	--	--	--	20	--	400	--	--	--	--
Sudan I	842-07-9	--	--	--	--	--	--	--	--	--	--
Sudan II	3118-97-6	--	--	--	--	--	--	--	--	--	--
Sulfafurazole	127-69-5	--	--	--	--	D	--	--	--	--	--
Sulfaliate	95-06-7	--	--	--	--	K,L	--	--	--	--	--
Sulfamethoxazole	723-46-6	--	--	--	--	D	--	--	--	--	--
Sulfotep (TEDP)	3689-24-5	--	0.2	0.2	--	--	4	--	--	20	--
Sulfur dioxide	7446-09-5	2	5	13	0.5	--	20 ³	--	--	500	--
Sulfur hexafluoride	2551-62-4	1000	6000	6000	--	--	120000	--	--	600000	--

¹Proposed revision.²Petroleum solvents generally, except kerosene.³NAAQS takes precedence.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)				
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	NY (8 hr)d (1 yr)d	Phil SCAQMD (8 hr)d (1 yr)d
Sulfuric acid	7664-93-9	--	1	1	1	--	20	--	--	100	--
Sulfur monochloride	10025-67-9	1(1 ^e) ¹	6(6 ^e) ¹	--	--	--	120	--	--	600	--
Sulfur pentafluoride	5714-22-7	0.025 (0.1 ^e) ¹	0.25 (0.01 ^e) ¹	0.25	--	--	5	--	--	25	--
Sulfur tetrafluoride	7783-60-0	0.1 (0.1 ^e) ¹	0.4 (0.4 ^e) ¹	--	--	--	8	--	--	40	--
Sulfuryl fluoride	2699-79-8	5	20	20	--	--	400	--	--	2000	--
Sulprofos	35400-43-2	--	1	--	--	--	20	--	--	100	--
2,4,5-T	93-76-5	--	10	10	--	D,L	100	--	--	1000	--
Tantalum	7440-25-7	--	5	5	--	--	100	--	--	500	--
Tellurium & compounds (as Te)	13494-80-9	--	0.1	0.1	--	--	2	--	--	10	--
Tellurium hexafluoride (as Te)	7783-80-4	0.02	0.2	0.2	--	--	4	--	--	20	--
Temephos	3383-96-8	--	10	--	--	--	200	--	--	1000	--
TEPP	107-49-3	0.004	0.05	0.05	--	--	1	--	--	5	--
Terphenyls	92-94-4	0.5 ^e	5 ^e	9	--	--	100	--	--	50	--
2,3,7,8-Tetrachlorodibenzo- furan	51207-31-0	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo- p-dioxin	1746-01-6	--	--	--	--	C,K,L	--	--	--	--	--
1,1,1,2-Tetrachloro-2,2- difluoroethane	76-11-9	500	4170	--	--	--	83400	--	--	417000	--
1,1,2,2-Tetrachloro-1,2- difluoroethane	76-12-0	500	4170	--	--	--	83400	--	--	417000	--
1,1,2,2-Tetrachloroethane	79-34-5	1	7	35	6.87	H	34.4	--	--	700	23
Tetrachloroethylene (Perchloroethylene)	127-18-4	50	335	678	339	H	1700	--	3350 (8 hr)	33500	1100

^aProposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteriab mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (μg/m ³)				
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr) ^d	IL (1 yr) ^d	MY (1 yr) ^d	NV (8 hr) ^d	Phil SCAQMD (8 hr) ^d
Tetrachloronaphthalene	1335-88-2	--	2	2	--	--	40	--	--	200	--
Tetrachlorovinylphos	--	--	--	--	--	--	--	--	--	--	3360
Tetraethyl lead (as Pb)	78-00-2	--	0.1	0.075	--	--	1.5	--	--	10	--
Tetrahydrofuran	109-99-9	200	590	590	--	--	11800	--	--	59000	11800
Tetramethyl lead (as Pb)	75-74-1	--	0.15	0.075	--	--	1.5	--	--	15	--
Tetramethyl succinonitrile	3333-52-6	0.5	3	3	6(15-min)	--	60	--	--	300	--
Tetranitromethane	509-14-8	1	8	--	--	--	160	--	--	800	--
Tetrasodium pyrophosphate	7722-88-5	--	5	--	--	--	100	--	--	500	--
Tetryl (2,4,6-trinitro- phenyl methylnitramine)	479-45-8	--	1.5	1.5	--	--	30	--	--	1500	--
Thallium, soluble compounds (as Tl)	7440-28-0	--	0.1	0.1	--	--	2	--	--	10	0.33
Thioacetamide	62-55-5	--	--	--	--	K,L	--	--	--	--	--
4,4'-Thiobis (6-tert butyl- m-cresol)	96-69-5	--	10	--	--	--	200	--	--	1000	--
Thioglycolic acid	68-11-1	1	5	--	--	--	100	--	--	500	--
Thionyl chloride	7719-09-7	-- (16) ¹	-- (56) ¹	--	--	--	--	--	--	--	--
Thiolepa	52-24-4	--	--	--	--	C,L	--	--	--	--	--
Thiourea	62-56-6	--	--	--	--	K,L	--	--	--	--	--
Thiram	137-26-8	--	5	5	--	--	100	--	--	500	--
Thorium dioxide	1314-20-1	--	--	--	--	J	--	--	--	--	--
Tin	7440-31-5	--	2	--	--	--	40	--	--	200	--
Metal	--	--	2	--	--	--	40	--	--	200	--
Inorganic compounds, except SnH ₄ (as Sn)	--	--	0.1	0.1	0.1	--	2	--	--	10	--
Organic compounds (as Sn)	--	--	2	--	--	--	40	--	--	200	--
Tin oxide (as Sn)	--	--	2	--	--	--	40	--	--	200	--

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					Phil SCAQMD (1 yr) ^d
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NV (8 hr) ^d	NV (1 yr) ^d	
Titanium dioxide (as Ti)	13463-67-7	--	--	15	--	--	300	--	--	--	--	--
o-Tolidine	119-93-7	--	--	--	--	G	220	--	--	--	--	--
Toluene	108-88-3	100	375	750	375	--	7500	--	3750 (8 hr)	37500	7500	--
Toluene-2,4-diamino	95-80-7	--	--	--	--	--	--	--	--	--	--	--
Toluene-2,4-diisocyanate	584-84-9	0.005	0.04	0.14	0.036	--	0.8	--	--	4	0.13	--
m-Toluidine	108-44-1	--	(2) ¹	--	--	--	--	--	--	--	--	--
o-Toluidine	95-53-4	2	9	22	0.02(1-hr)	C, G, M	220	--	--	900	30	--
p-Toluidine	106-49-0	--	(2) ¹	--	--	(G) ¹	--	--	--	--	--	--
o-Toluidine hydrochloride	636-21-5	--	--	--	--	K	--	--	--	--	--	--
Toxaphene	8001-35-2	--	0.5	--	--	H, K	2.5	--	--	50	1.7	1.2
Treosulfan	299-75-2	--	--	--	--	A	--	--	--	--	--	--
Triaziquone	68-76-8	--	--	--	--	C, L	--	--	--	--	--	--
Tributyl phosphate	126-73-8	0.2	2.5	5	--	--	50	--	--	250	--	--
Trichloroacetic acid	76-03-9	1	5	--	--	--	100	--	--	500	--	--
1,2,4-Trichlorobenzene	120-82-1	5 ^e	40 ^e	--	--	--	800	--	--	4000	130	--
1,1,1-Trichloroethane (methyl chloroform)	71-55-6	350	1900	1900	--	--	38000	--	--	190000	38000	--
1,1,2-Trichloroethane	79-00-5	10	45	45	--	H	225	--	--	4500	150	--
Trichloroethylene	79-01-6	50	270	535	535	H	1350	--	--	27000	900	6480
Trichlorofluoromethane	75-69-4	1000 ^e	5600 ^e	--	--	--	112000	--	--	560000	--	--
Trichloronaphthalene	1321-65-9	--	5	5	--	--	100	--	--	500	--	--
2,4,5-Trichlorophenol	95-95-4	--	--	--	--	D	--	--	--	--	--	3500
2,4,6-Trichlorophenol	88-06-2	--	--	--	--	C, H, A, I	--	--	--	--	--	3500

¹Proposed revision.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteriab mg/m ³	Carcinogen Listc	Acceptable Ambient Concentrations (ug/m ³)					Phil (1 yr)d
		TLV-TWA ^a ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d	IL (1 yr)d	MI (1 yr)d	NY (8 hr)d	SCAOMD (8 hr)d	
2,4,5-Trichlorophenoxy acetic acid	93-76-5	--	--	--	--	--	--	--	--	--	--	1
1,2,3-Trichloropropane	96-18-4	50	300	300	--	--	6000	--	--	30000	--	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1000	7600	7600	--	--	152000	--	--	760000	--	--
Tricyclohexyltin hydroxide (Plictran)	13121-70-5	--	5	--	--	--	100	--	--	500	--	--
Triethylamine	121-44-8	10	40	100	--	--	800	--	--	4000	--	--
Trifluoromethanobromomethane	75-63-8	1000	6100	6100	--	--	122000	--	--	610000	--	--
Trifluralin	1582-09-8	--	--	--	--	--	--	--	--	--	--	1150
Trimetallic anhydride	552-30-7	0.005	0.04	--	--	--	0.8	--	--	4	--	--
Trimethyl amine	75-50-3	10	24	--	--	--	480	--	--	2400	--	--
Trimethyl benzene	25551-13-7	25	125	--	--	--	2500	--	--	12500	--	--
Trimethyl phosphite	121-45-9	2	10	--	--	--	200	--	--	1000	--	--
2,4,6-Trinitrotoluene	118-96-7	--	0.5	1.5	--	--	10	--	--	50	--	--
Triorthocresyl phosphate	73-30-8	--	0.1	0.1	--	--	2	--	--	10	--	--
Triphenyl phosphate	115-86-6	--	5	3	--	--	60	--	--	500	--	--
Tris (1-aziridinyl) phosphine sulfide	52-24-4	--	--	--	--	K.L.	--	--	--	--	--	--
Tris (2,3-dibromopropyl) phosphate	126-72-7	--	--	--	--	K.L.	--	--	--	--	--	--
Tungsten & compounds (as W)	7440-33-7	--	1	--	1 ¹	--	20 ¹	--	--	100	--	--
Soluble		--	5	--	5 ¹	--	100 ¹	--	--	500	--	--
Insoluble		--	--	--	--	--	--	--	--	--	--	--
Turpentine	8006-64-2	100	560	100	560	--	11200	--	--	56000	11200	--
Undecanethiol	--	--	--	--	3.9 (15-min)	--	--	--	--	--	--	--

^aLess when combined with Co and Ni.

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standard ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)						
		ppm	TLV-TWA ^a mg/m ³				CT (8 hr)d (1 yr)d	IL (1 yr)d (1 yr)d	MI (1 yr)d (1 yr)d	NY (8 hr)d (1 yr)d	SCAQMD (8 hr)d (1 yr)d	Phil (1 yr)d	
Uracil mustard	66-75-1	--	--	--	--	C,L	--	--	--	--	--	--	--
Uranium (natural)	7440-61-1	--	0.2	0.05	--	--	1	--	--	--	20	--	--
Soluble (as U)	--	--	0.2	0.25	--	--	4	--	--	--	20	--	--
Insoluble (as U)	--	--	--	--	--	--	--	--	--	--	--	--	--
Urethane	51-79-6	--	--	--	--	K	--	--	--	--	--	--	--
Valeraldehyde	110-62-3	50	175	--	--	--	3500	--	--	17500	--	--	--
Vanadium (as pentoxide)	1314-02-1	--	0.05	0.5	0.05(15-min)	--	1	--	--	5	--	--	--
dust	--	--	0.05	0.1	--	--	1	--	--	5	--	--	--
fumes	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinblastine	865-21-4	--	--	--	--	D,L	--	--	--	--	--	--	--
Vincristine	57-22-7	--	--	--	--	D,L	--	--	--	--	--	--	--
Vinyl acetate	108-05-4	10	30	--	15(15-min)	--	600	--	--	3000	--	--	--
Vinyl bromide	593-60-2	5	20	4.4	--	G	44	--	--	2000	67	--	48
Vinyl chloride	75-01-4	5	10	--	--	A,F,J	50	0.0069	0.00054	1000	0.4	20	4.8
Vinyl cyclohexene dioxide	106-87-6	10	60	--	--	G	600	--	--	6000	--	--	144
Vinyl fluoride	75-02-5	--	--	--	--	--	--	--	--	--	--	--	--
Vinylidene chloride	75-35-4	5	20	--	--	D,L	200	0.017	--	2000	67	--	24
(1,1-Dichloroethylene)	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl toluene	25013-15-4	50	240	480	--	--	4800	--	--	24000	--	--	--
Vinyl trichloride	79-00-5	--	--	--	--	--	--	--	--	--	--	--	6 ppb
VN&P Naphtha	8030-30-6	300	1350	--	--	--	27000	--	--	135000	--	--	--
Warfarin	81-81-2	--	0.1	0.1	--	--	2	--	--	10	--	--	--
Welding fumes (not otherwise classified)	--	--	5	--	--	--	100	--	--	500	--	--	--
Xylene (o-, m-, p-isomers)	1330-20-7	100	435	435	434	--	8680	--	4350 (8-hr)	43500	1450	--	--

(Continued)

TABLE 6. Continued

Pollutant	CAS No.	ACGIH		OSHA Standards ^a mg/m ³	NIOSH Criteria ^b mg/m ³	Carcinogen List ^c	Acceptable Ambient Concentrations (µg/m ³)					Phil SCAQMD (1 yr) ^d
		TLV-TWA ^a ppm	TLV-STEL ^a ppm				CT (8 hr) ^d	IL (1 yr) ^d	MI (1 yr) ^d	NV (8 hr) ^d	NY (1 yr) ^d	
m-Xylene-s,s'-diamine	1477-55-0	--	0.1 ^e	--	--	--	2	--	--	10	33	--
Xylidine	1300-73-8	2	10	25	--	--	200	--	--	1000	--	--
Yttrium	7440-65-5	--	1	1	--	--	20	--	--	100	--	--
Zinc	7440-66-6	--	--	--	--	--	--	--	--	--	--	--
Zinc bromide	7699-45-8	--	--	--	--	--	--	--	--	--	3	--
Zinc chloride, fume	7646-85-7	--	1	1	--	--	20	--	--	100	3.3	--
Zinc chromate (as Cr)	13530-65-9	--	0.05	--	--	G	0.5	--	--	5	--	--
Zinc oxide, fume	1314-13-2	--	5	5	5(15-min)	--	100	--	--	500	17	--
Zirconium compounds (as Zr)	7440-67-2	--	5	5	--	--	100	--	--	500	--	--

^a8-hour averaging time, unless otherwise shown

^b10-hour averaging time, unless otherwise shown

^cA = IARC List 1; B = IARC List 2A; C = IARC List 2B; D = IARC List 3; F = ACGIH List A1; G = ACGIH List A2, H = NCI

"sufficient evidence" list, I = NCI "limited evidence" list; J = NTP List A; K = NTP List B, L = substances identified as a

teratogen or a mutagen in animal studies.

^dAveraging time, as specified, unless otherwise shown.

^eCeiling; instantaneous value.

TABLE 7. ADDITIONAL MISCELLANEOUS ACCEPTABLE AMBIENT
CONCENTRATIONS OR STANDARDS ESTABLISHED BY
STATES OR LOCALITIES

Pollutant	CAS #	State or Locality	Acceptable Ambient Concentration or Standard/Averaging Time
Acetic acid	64-19-7	Evanston, IL	50 ppm/8 hr
Carbon dioxide	124-38-9	Evanston, IL	5000 ppm/8 hr
Fluoride (total)	16984-48-8	IO	2.85 $\mu\text{g}/\text{m}^3$ /24 hr
-gaseous as HF	7664-39-3	KY	400 $\mu\text{g}/\text{m}^3$ /1 yr ¹ 800 $\mu\text{g}/\text{m}^3$ /24 hr ¹ 0.82 $\mu\text{g}/\text{m}^3$ /1 mo ² 1.64 $\mu\text{g}/\text{m}^3$ /1 wk ² 2.86 $\mu\text{g}/\text{m}^3$ /24 hr ² 3.68 $\mu\text{g}/\text{m}^3$ /12 hr ²
		TN	1.2 $\mu\text{g}/\text{m}^3$ /30 days 1.6 $\mu\text{g}/\text{m}^3$ /7 days 2.9 $\mu\text{g}/\text{m}^3$ /24 hr 3.7 $\mu\text{g}/\text{m}^3$ /12 hr
-in forage grazed by livestock (as fluoride ion, dry weight basis)	16984-48-8	KY	40 ppm (w/w)/growing season 60 ppm (w/w)/2 mo 80 ppm (w/w)/1 mo
		MT	35 ppm/growing season 50 ppm/1 mo
Hydrogen cyanide	74-90-8	TN	0.3 ppm(vol)/8 hr
Hydrogen sulfide	7783-06-4	MT	0.050 ppm/1 hr
Mercury	7439-97-6	NC	1 $\mu\text{g}/\text{m}^3$ /24 hr
Trichloroethylene	79-01-6	AR	0.05 ppb/70 yr

¹Primary standards.

²Secondary standards.

PART 5. RESEARCH AND METHODS DEVELOPMENT ACTIVITIES

A number of states and localities actively sponsor or participate in pollutant research and methods development activities. Table 8 summarizes pollutant research reported to the Clearinghouse by state and local agencies by pollutant, type of research (health assessment, source assessment, exposure assessment, risk assessment, toxicity testing, epidemiological study, monitoring study, and emission factor development), and the availability of supporting documentation. Table 9 describes methods development activities in seven areas: 1) emissions testing; 2) ambient monitoring; 3) dispersion modeling application, evaluation, and development; 4) emergency response procedures;; 5) ambient exposure assessment; 6) emissions modeling from non-traditional sources (e.g., impoundments and landfills); and 7) other (e.g., indoor/outdoor exposure relationships). Methods development activities include research and operations to improve existing or develop new methods to evaluate or control toxic air pollutants. Table 9 presents methods development activities as reported by state and local agencies with minimal editing. The reader should address any questions or requests for additional information about the research or methods development activities identified in Tables 8 or 9 to the regulatory program contacts identified in Tables 1 and 2 in Part 2.

TABLE 8. POLLUTANT RESEARCH

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Acetaldehyde	75-07-0	ME MA	Risk assessment Health assessment	Future Yes
Acetamide	60-35-5	ME	Risk assessment	Future
Acetic anhydride	108-24-7	ME	Risk assessment	Future
Acetone	67-64-1	ME MA MI	Risk assessment Health assessment Health assessment	Future Yes Yes
Acetone cyanohydrin	75-86-5	MI	Health assessment	Yes
2-Acetylaminofluorene	53-96-3	ME	Risk assessment	Future
Acrolein	107-02-8	ME	Risk assessment	Future
Acrylamide	79-06-1	ME	Risk assessment	Future
Acrylic acid	79-10-7	ME	Risk assessment	Future
Acrylic acid, Ethyl ester	140-88-5	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Acrylonitrile	107-13-1	ME	Risk assessment	Future
		MA	Health assessment	Yes
		MI	Health assessment	Yes
		NJ	Source assessment	No
			Exposure assessment	
Aflatoxins (gen.)	1402-68-2		Monitoring study	
			Emission factor devel.	
		TX	Risk assessment	
			Health assessment	Yes
			Source assessment	
Aflatoxin B ₁	1162-65-8		Exposure assessment	
		MI	Health assessment	Yes
		NJ	Source assessment	No
			Exposure assessment	
			Monitoring study	
Aldicarb	116-06-3		Emission factor devel.	
			Risk assessment	
		ME	Risk assessment	Future
			Source assessment	
		NJ	Exposure assessment	No
Aldrin	309-00-2		Monitoring study	
			Emission factor devel.	
			Risk assessment	

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Allyl chloride	107-05-1	ME NJ	Risk assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future No
Alpha benzene hexachloride	319-84-6	ME	Risk assessment	Future
o-Aminozotoluene	97-56-3	MI	Health assessment	Yes
2-Amino anthraquinone	117-79-3	MI	Health assessment	Yes
p-Aminodiphenyl	92-67-1	ME	Risk assessment	Future
3-Amino-9-ethyl carbazole	132-32-1	MI	Health assessment	Yes
3-Amino-9-ethyl carbazole hydrochloride	57360-17-5	MI	Health assessment	Yes
Ammonia	7664-41-7	MA Clark Co., NV	Health assessment Source assessment Monitoring study	Yes Yes
Aniline and salts	62-53-3	ME MA MI	Risk assessment Health assessment Health assessment	Future Yes Yes
Aniline hydrochloride	142-04-1	MI	Health assessment	Yes
p-Anisidine	104-94-9	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
o-Anisidine hydrochloride	134-29-2	MI	Health assessment	Yes
Anthracene	120-12-7	MI	Health assessment	Yes
Antimony	7440-36-0	ME	Risk assessment	Future
Aroclor (various isomers)	--	MI	Health assessment	Yes
Arsine	7784-42-1	ME	Risk assessment	Future
Arsenic	7440-38-2	ME NJ	Risk assessment Source assessment Exposure assessment Monitoring study Emission factor devel.	Future No
		TX	Risk assessment Health assessment Exposure assessment Monitoring study Risk assessment	Yes
		Clark Co., NV	Risk assessment	Yes
		Puget Sound, WA	Health assessment Source assessment Exposure assessment Epidemiological study Monitoring study Emission factor devel.	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Asbestos	1332-21-4	ME	Risk assessment	Future
		MA	Health assessment	Yes
		MN	Monitoring study	Yes
		Clark Co., NV	Exposure assessment	No
Anramine (technical grade)	2465-27-2	ME	Risk assessment	Future
Azobenzene	103-33-3	MI	Health assessment	Yes
Barium	7440-39-3	ME	Risk assessment	Future
Benzene	71-43-2	CA	Health assessment	Yes
			Source assessment	
			Exposure assessment	
			Monitoring study	
			Emission factor devel.	
			Risk assessment	
			Risk assessment	
			Health assessment	
		ME MA NJ	Source assessment	Future Yes No
			Exposure assessment	
			Monitoring study	
			Emission factor devel.	
		TX	Risk assessment	Yes
			Health assessment	
			Source assessment	
			Exposure assessment	
		Clark Co., NV	Monitoring study	Yes
			Monitoring study	
			Risk assessment	

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Benzidine	92-87-5	ME NJ	Risk assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future No
Benzo(a)pyrene	50-32-8	ME MN NJ	Risk assessment Source assessment Monitoring study Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Risk assessment	Future No No Yes
Benzo(e) pyrene	192-97-2	TX Clark Co., NV	Health assessment Source assessment Exposure assessment Monitoring study	Yes
Benzo(ghi)pyrene	---	TX	Health assessment Source assessment Exposure assessment Monitoring study	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Benzotrichloride	98-07-07	ME	Risk assessment	Future
Benzyl alcohol	100-51-6	MI	Health assessment	Yes
Benzyl chloride	100-44-7	ME MA	Risk assessment Health assessment	Future Yes
Beryllium	7440-41-7	ME MA NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes No
Beta-Propiolactone	57-57-8	ME	Risk assessment	Future
Biphenyl	92-52-4	ME	Risk assessment	Future
Bis(chloromethyl) ether	542-88-1	ME	Risk assessment	Future
Bis(2-ethylhexyl) phthalate	117-81-7	ME	Risk assessment	Future
Bromine	7726-95-6	ME	Risk assessment	Future
Bromochloroethane	25620-54-6	MI	Health assessment	Yes
1-Bromo-2-chloroethane	107-04-0	MI	Health assessment	Yes
1,3,-Butadiene	106-99-0	ME MA	Risk assessment Risk assessment	Future Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Butanethiol	109-79-5	ME	Risk assessment	Future
Butanol (n-Butyl Alcohol)	71-36-3	ME	Risk assessment	Future
n-Butyl acetate	123-86-4	ME	Risk assessment	Future
n-Butyl alcohol	71-36-3	MA	Health assessment	Yes
n-Butylamine	109-73-9	ME	Risk assessment	Future
Cadmium	7440-43-9	ME	Risk assessment	Future
		MA	Health assessment	Yes
		MI	Health assessment	Yes
		NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
		Clark Co., NV	Risk assessment	Yes
Cadmium acetate	543-90-8	MI	Health assessment	Yes
Cadmium bromate	14518-94-6	MI	Health assessment	Yes
Cadmium bromide	7789-42-6	MI	Health assessment	Yes
Cadmium fluoride	7790-79-6	MI	Health assessment	Yes
Cadmium hydroxide	21041-95-2	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Cadmium nitrate	10325-94-7	MI	Health assessment	Yes
Cadmium oxide	1306-19-0	MI	Health assessment	Yes
Cadmium succinate	141-00-4	MI	Health assessment	Yes
Cadmium sulfate	10124-36-4	MI	Health assessment	Yes
Calcium chromate	13765-19-0	MA	Health assessment	Yes
Captan	133-06-2	IO	Source assessment (corn roaster)	Yes
Carbon tetrachloride	56-23-5	ME MA MI NJ	Risk assessment Health assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes Yes No
Carbon disulfide	75-15-0	Clark Co., NV ME MI	Source assessment Risk assessment Risk assessment Health assessment	Yes Yes Future Yes
Chlordane	57-74-9	MA NJ	Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes No

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Chlordecone	143-50-0	MI	Health assessment	Yes
Chlorides (total)	---	Clark Co., NV	Source assessment Monitoring study	Yes
Chlorine	7782-50-5	ME MA Clark Co., NV	Risk assessment Health assessment Source assessment Monitoring study	Future Yes Yes
Chlorine dioxide	10049-04-4	ME	Risk assessment	Future
Chloroacetophenone (2-) (Phenacylchloride)	532-27-4	ME	Risk assessment	Future
2-Chloroaniline	95-51-2	MI	Health assessment	Yes
p-Chloroaniline	106-47-8	ME	Risk assessment	Future
Chlorobenzene (Monochloro- benzene)	108-90-7	ME MA	Risk assessment Health assessment	Future Yes
Chloroethane	75-00-3	MA	Health assessment	Yes
2-Chloroethoxyethene	110-75-8	MI	Health assessment	Yes
bis(2-Chloroethoxy)methane	111-91-1	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
bis (2-Chloroethyl) ether	111-44-4	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
bis(2-Chloromethyl) ether	542-88-1	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
Chloroform	67-66-3	ME	Risk assessment	Future
		MA	Health assessment	Yes
		MI	Health assessment	Yes
		NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
Chloromethyl methyl ether	107-30-2	ME	Risk assessment	Future
4-Chloro-3-methyl phenol	59-50-7	MI	Health assessment	Yes
1-Chloronaphthalene	90-13-1	MI	Health assessment	Yes
2-Chloronaphthalene	91-58-7	MI	Health assessment	Yes
p-Chloronitrobenzene	100-00-5	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
m-Chlorophenol	108-43-0	MA	Health assessment	Yes
p-Chlorophenol	106-48-9	MA	Health assessment	Yes
4-Chloro-n-phenylene diamine	5131-60-2	MI	Health assessment	Yes
Chloroprene	126-99-8	ME	Risk assessment	Future
		MA	Health assessment	Yes
		MI	Health assessment	Yes
Chloropropene	590-21-6	MI	Health assessment	Yes
4-Chloro-p-terphenyl	1762-83-0	MI	Health assessment	Yes
2-Chloro-o-terphenyl	17296-31-0	MI	Health assessment	Yes
4-Chloro-o-terphenyl	21711-54-6	MI	Health assessment	Yes
Chromium	7440-47-3	ME	Risk assessment	Future
		MA	Health assessment	Yes
		NJ	Source assessment	No
			Exposure assessment	
			Monitoring study	
			Emission factor devel.	
		Clark Co.,	Risk assessment	Yes
		NV	Risk assessment	

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Chrysene	218-01-9	ME MI TX	Risk assessment Health assessment Health assessment Source assessment Exposure assessment Monitoring study	Future Yes Yes
Cobalt	7440-48-4	ME	Risk assessment	Future
Combustion particles	--	Clark Co., NV	Monitoring study Risk assessment	Yes
Copper	7440-50-8	ME	Risk assessment	Future
Copper pentachlorophenol	15773-35-0	MI	Health assessment	Yes
Coronene	191-07-1	TX	Health assessment Source assessment Exposure assessment Monitoring study	Yes
Cresol (all isomers)	1319-77-3	ME MA	Risk assessment Health assessment (p-isomer)	Future Yes
Cyanimide	420-04-2	ME	Risk assessment	Future
Cyanoic acid (K salt)	590-28-3	ME	Risk assessment	Future
Cyanoic acid (Na salt)	917-61-3	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Cyanides (as Cn)	57-12-5	ME	Risk assessment	Future
Cyanoacetamide	107-91-5	ME	Risk assessment	Future
Cyanogen	460-19-5	ME	Risk assessment	Future
Cyclohexane	110-82-7	ME MA	Risk assessment Health assessment	Future Yes
DDT	50-29-3	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
Decachloroeterphenyls	---	MI	Health assessment	Yes
2,5-Diaminotoluene	95-70-5	ME	Risk assessment	Future
Diazomethane	334-88-3	ME	Risk assessment	Future
Dibenz(a,h)anthracene	53-70-3	MI	Health assessment	Yes
Dibutyl nitrosamine	---	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
1,2-Dichlorethane	107-06-2	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Dichlorobenzene	25321-22-6	MI	Health assessment	Yes
1,2-Dichlorobenzene	95-50-1	ME MA MI	Risk assessment Health assessment Health assessment	Future Yes Yes
1,3-Dichlorobenzene	541-73-1	MI	Health assessment	Yes
1,4-Dichlorobenzene	106-46-7	MA MI	Health assessment Health assessment	Yes Yes
2,2'-Dichlorobenzidine	84-68-4	MI	Health assessment	Yes
3,3'-Dichlorobenzidine	91-94-1	ME MI NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes No
4,4'-Dichlorobenzidine	1331-47-1	MI	Health assessment	Yes
3,3'-Dichlorobenzidine dihydrochloride	612-83-9	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
1,2-Dichloroethane	107-06-2	ME MA MI NJ	Risk assessment Health assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes Yes No
1,2-Dichloroethylene	540-59-0	MA	Health assessment	Yes
Dichloromethane	75-09-2	MA	Health assessment	Yes
1,5-Dichloronaphthalene	1825-30-5	MI	Health assessment	Yes
1,4-Dichloronaphthalene	1825-31-6	MI	Health assessment	Yes
1,2-Dichloronaphthalene	2050-69-3	MI	Health assessment	Yes
1,6-Dichloronaphthalene	2050-72-8	MI	Health assessment	Yes
1,7-Dichloronaphthalene	2050-73-9	MI	Health assessment	Yes
1,8-Dichloronaphthalene	2050-74-0	MI	Health assessment	Yes
2,3-Dichloronaphthalene	2050-75-1	MI	Health assessment	Yes
2,6-Dichloronaphthalene	2065-70-5	MI	Health assessment	Yes
1,3-Dichloronaphthalene	2198-75-6	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
2,7-Dichloronaphthalene	2198-77-8	MI	Health assessment	Yes
2,6-Dichlorophenol	87-65-0	MI	Health assessment	Yes
3,4-Dichlorophenol	95-77-2	MI	Health assessment	Yes
2,4-Dichlorophenol	120-83-2	MI	Health assessment	Yes
2,5-Dichlorophenol	583-78-8	MI	Health assessment	Yes
3,5-Dichlorophenol	591-35-5	MI	Health assessment	Yes
2,4-Dichlorophenoxy-acetic acid	94-75-7	MI	Health assessment	Yes
1,2-Dichloropropane	78-87-5	MA	Health assessment	Yes
Dichloropropene	26952-23-8	MI	Health assessment	Yes
1,1-Dichloropropene	563-58-6	MI	Health assessment	Yes
1,2-Dichloropropene	563-54-2	MI	Health assessment	Yes
cis-1,2-Dichloropropene	6923-20-2	MI	Health assessment	Yes
trans-1,2-Dichloropropene	7069-38-7	MI	Health assessment	Yes
cis-1,3-Dichloropropene	10061-01-5	MI	Health assessment	Yes
trans-1,3-Dichloropropene	10061-02-6	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
2,3-Dichloropropene	78-88-6	MI	Health assessment	Yes
3,3-Dichloropropene	563-57-5	MI	Health assessment	Yes
Dichloroterphenyls	--	MI	Health assessment	Yes
Dieldrin	60-57-1	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
Diethylamine	109-89-7	MA	Health assessment	Yes
Di(2-ethylhexyl) phthalate	117-81-7	MA	Health assessment	Yes
Diethyl nitrosamine	55-18-5	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
Diethyl phthalate	84-66-2	ME	Risk assessment	Future
Diethyl sulfate	64-67-5	ME	Risk assessment	Future
Diisooctyl phthalate	27554-26-3	ME	Risk assessment	Future
Diisodecyl phthalate	26761-40-0	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
3,3-Dimethoxybenzidine (o-dianisidine)	119-90-4	ME	Risk assessment	Future
Dimethylaminoazobenzene	60-11-7	ME	Risk assessment	Future
n,n-Dimethyl aniline	121-69-7	MI	Health assessment	Yes
Dimethylcarbaryl chloride	79-44-7	ME	Risk assesment	Future
Dimethyl formamide	68-12-2	MA	Health assessment	Yes
1,1-Dimethyl hydrazine	57-14-7	ME	Risk assessment	Future
Dimethyl sulfate	77-78-1	ME	Risk assessment	Future
Dimethyl sulfoxide	67-68-5	MA	Health assessment	Yes
m-Dinitrobenzene	99-65-0	ME	Risk assessment	Future
Dinitrotoluene	121-14-2	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
1,4-Dioxane	123-91-1	ME MA	Risk assessment Health assessment	Future Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Total Dioxins (includes 2,3,7,8 tetrachlorodibenzo- p-isomer)	1746-01-6	ME MI NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment Risk assessment (muni- cipal incinerator)	Future Yes No
Diphenyl	92-54-4	MA	Health assessment	Yes
Diphenylamine	122-39-4	MA	Health assessment	Yes
Diphenylhydrazine	122-66-7	ME NJ	Risk assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future No
Diphenylmethane 4,4-di-isocyanate (MDI)	101-68-8	ME	Risk assessment	Future
Dodecachlorotriphenyl	49690-66-6	MI	Health assessment	Yes
Endrin	72-20-8	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Epichlorohydrin	106-89-8	ME	Risk assessment	Future
		MA	Health assessment	Yes
		MI	Health assessment	Yes
		NJ	Source assessment	No
			Exposure assessment	
			Monitoring study	
			Emission factor devel.	
			Risk assessment	
		TX	Health assessment	Yes
			Source assessment	
Epoxypropane (propylene oxide)	75-56-9		Exposure assessment	
		ME	Risk assessment	Future
		ME	Risk assessment	Future
		ME	Risk assessment	Future
Ethanolamine	563-12-2	MI	Health assessment	Yes
Ethyl acetate	141-78-6	ME	Risk assessment	Future
		MA	Health assessment	Yes
Ethyl acrylate	140-88-5	MA	Health assessment	Yes
Ethyl benzene	100-41-4	ME	Risk assessment	Future
		MA	Health assessment	Yes
		MI	Health assessment	Yes
Ethyl chloride	75-00-3	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Ethyl ether	60-29-7	ME MA	Risk assessment Health assessment	Future Yes
Ethylene	74-85-1	ME MA Clark Co., NV	Risk assessment Health assessment Risk assessment	Future Yes Yes
Ethylene dibromide	106-93-4	CA	Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes
		MI NJ	Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes No
Ethylene dichloride	107-06-2	CA	Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes
Ethylene glycol	107-21-1	MA	Health assessment	Yes
Ethylene glycol ethyl ether	110-80-5	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Ethylene oxide	75-21-8	ME	Risk assessment	Future
		NJ	Source assessment	No
			Exposure assessment	
			Monitoring study	
			Emission factor devel.	
		TX	Risk assessment	
			Health assessment	Yes
			Source assessment	
			Exposure assessment	
			Health assessment	Yes
		SCAQMD, CA	Source assessment	
			Exposure assessment	
			Toxicity testing	
			Epidemiological study	
			Monitoring study	
Ethyleneimine (Aziridine)	151-56-4	ME	Risk assessment	Future
		MA	Health assessment	Yes
		ME	Risk assessment	Future
Fluoride ion	16984-48-8			
Fluorine	7782-41-4			
Formaldehyde	50-00-0	ME	Risk assessment	Future
		MA	Risk assessment	Yes
		TX	Health assessment	Yes
			Source assessment	
			Exposure assessment	
		Clark Co., NV	Monitoring study	
			Risk assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Formamide	75-12-7	ME	Risk assessment	Future
Formic acid	64-18-6	ME	Risk assessment	Future
Furfural	98-01-1	ME	Risk assessment	Future
Furfuryl alcohol	98-00-0	ME	Risk assessment	Future
Glycidaldehyde	765-34-4	ME	Risk assessment	Future
Heptachlor	76-44-8	MA MI NJ	Health assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes Yes No
Heptachloroepoxide	1024-57-3	MI	Health assessment	Yes
Heptachloronaphthalene	32241-06-0	MI	Health assessment	Yes
Hexachlorobenzene	118-74-1	MI NJ	Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes No

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Hexachlorobutadiene	87-68-3	ME MI NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes No
Hexachlorocyclobutadiene	77-47-4	MA	Health assessment	Yes
Hexachlorocyclohexane (gen.)	608-73-1	MI NJ	Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes No
B-hexachlorocyclohexane	319-85-7	MI	Health assessment	Yes
Hexachlorocyclopentadiene	77-47-4	ME MI	Risk assessment Health assessment	Future Yes
Hexachloroethane	67-72-1	MA MI NJ	Health assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes Yes No

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Hexachloronaphthalene	1335-87-1	MI	Health assessment	Yes
Hexachlorophene	70-30-4	MA	Health assessment	Yes
Hexachloronaphthalene	1335-87-1	ME	Risk assessment	Future
Hexamethylphosphoramide	680-31-9	ME	Risk assessment	Future
2-Hexanone	59-17-86	MA	Health assessment	Yes
Hydrazine (and acid salts)	302-01-2	ME MA MI	Risk assessment Health assessment Health assessment	Future Yes Yes
Hydrazobenzene	122-66-7	MI	Health assessment	Yes
Hydrogen bromide	10035-10-6	ME	Risk assessment	Future
Hydrogen chloride	7647-01-0	IO	Source assessment (corn roaster)	Yes
		ME	Risk assessment	Future
Hydrogen cyanide	74-90-8	ME	Risk assessment	Future
Hydrogen fluoride	7664-39-3	MA	Health assessment	Yes
Hydrogen sulfide	7783-06-4	IO	Source assessment (corn roaster)	Yes
		ME MA	Risk assessment Health assessment	Future Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Hydroquinone (dihydroxy benzene)	123-31-9	ME	Risk assessment	Future
2,2-Iminodiethanol	111-42-2	ME	Risk assessment	Future
Iodine	7553-56-2	ME	Risk assessment	Future
Isoamyl acetate	123-92-2	ME	Risk assessment	Future
		MA	Health assessment	Yes
Isoamyl alcohol	123-51-3	ME	Risk assessment	Future
Isobutyl acetate	110-19-0	MA	Health assessment	Yes
Isobutyl alcohol	78-83-1	MA	Health assessment	Yes
Isophorone	78-59-1	ME	Risk assessment	Future
Isopropyl acetate	108-21-4	MA	Health assessment	Yes
Isopropylamine	75-31-0	ME	Risk assessment	Future
Kanechlor C	59299-51-3	MI	Health assessment	Yes
Ketene (unsaturated ketone)	463-51-4	ME	Risk assessment	Future
Lead	7439-92-1	ME	Risk assessment	Future
		MA	Health assessment	Yes
		TX	Health assessment	Yes
			Source assessment	
			Exposure assessment	
			Monitoring study	

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Lead pentachlorophenol	22429-81-8	MI	Health assessment	Yes
Lead subacetate	1335-32-6	MA	Health assessment	Yes
Lindane	58-89-9	MA MI	Health assessment Health assessment	Yes Yes
Maleic anhydride	108-31-6	ME MA	Risk assessment Health assessment	Future Yes
Manganese	7439-96-5	ME	Risk assessment	Future
Melamine	108-78-1	ME	Risk assessment	Future
Mercury	7439-97-6	ME	Risk assessment	Future
Metals (selected)	--	Jacksonville, FL Chat.-Ham.Co., TN	Source assessment Exposure assessment Monitoring study Monitoring study	Yes Yes
Methacrylonitrile	126-98-7	MI	Health assessment	Yes
2-Methoxyphenol	90-05-1	MI	Health assessment	Yes
Methyl acrylate	96-33-3	MA	Health assessment	Yes
Methyl bromide	74-83-9	MA	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Methyl cellosolve	109-86-4	ME MA	Risk assessment Health assessment	Future Yes
Methyl chloride	74-87-3	ME	Risk assessment	Future
Methyl chloroform	71-55-6	MA	Health assessment	Yes
Methylene chloride	75-09-2	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
Methyl ethyl ketone (MEK)	78-93-3	ME	Risk assessment	Future
Methyl iodine	74-88-4	ME	Risk assessment	Future
Methyl isocyanate	624-83-9	ME	Risk assessment	Future
Methyl mercaptan	74-93-1	ME	Risk assessment	Future
Methyl methacrylate	80-62-6	ME MA	Risk assessment Health assessment	Future Yes
Methyl-iso-butylketone	108-10-1	ME	Risk assessment	Future
Methyl(chloromethyl)ether	107-30-2	ME MI	Risk assessment Health assessment	Future Yes
Methylene Chloride	75-09-2	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
4,4-Methylene-dianiline	101-77-9	ME	Risk assessment	Future
Methylhydrazine	60-34-4	ME	Risk assessment	Future
Methylthiouracil	56-04-2	MI	Health assessment	Yes
Mirex	2385-85-5	MA MI	Health assessment Health assessment	Yes Yes
Monochlorobenzene (chloro-benzene)	108-90-7	ME MA	Risk assessment Health assessment	Future Yes
o-Monochlorophenol	95-57-8	MI	Health assessment	Yes
p-Monochlorophenol	106-48-9	MI	Health assessment	Yes
m-Monochlorophenol	108-43-0	MI	Health assessment	Yes
n-phenyl-beta-naphthylamine	135-88-6	ME	Risk assessment	Future
Napthalene	91-20-3	ME MA	Risk assessment Health assessment	Future Yes
Napthylamine (alpha)	134-32-7	ME	Risk assessment	Future
Napthylamine (beta)	91-59-8	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Nickel	7440-02-0	ME MA NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment Risk assessment	Future Yes No
		Clark Co., NV		Yes
Nickel oxide	1313-99-1	MA	Health assessment	Yes
Nitrates (particulate)	--	Jacksonville, FL	Source assessment Exposure assessment Monitoring study	Yes
Nitric acid	7697-37-2	ME	Risk assessment	Future
p-Nitroaniline	100-01-6	ME	Risk assessment	Future
Nitrobenzene	98-95-3	ME	Risk assessment	Future
		MA	Health assessment	Yes
4-Nitrobiphenyl	92-93-3	ME	Risk assessment	Future
Nitrogen mustard	51-75-2	ME	Risk assessment	Future
Nitroglycerine	55-63-0	ME	Risk assessment	Future
p-Nitrophenol	100-02-7	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
1-Nitropropane	108-03-2	ME	Risk assessment	Future
n-Nitrosodimethylamine	62-75-9	ME	Risk assessment	Future
n-Nitroso-n-ethylurea	759-73-9	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
n-Nitrosodiphenylamine	86-30-6	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No
Nitroso-n-methylurea	684-93-5	ME NJ	Risk assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future No
n-Nitrosomorpholine	59-89-2	ME	Risk assessment	Future
p-Nitrosophenol	104-91-6	ME	Risk assessment	Future
n-Nitrosopyrrolidine	930-55-2	NJ	Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	No

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
m-Nitrotoluene	99-08-1	ME	Risk assessment	Future
p-Nitrotoluene	99-99-0	ME	Risk assessment	Future
Nonachloro-p-terphenyl	52005-83-1	MI	Health assessment	Yes
Octachloronaphthalene	2234-13-1	ME MI	Risk assessment Health assessment	Future Yes
Organics (selected)	--	Chat.-Ham.Co., TN	Monitoring study	No
Oxalic acid	144-62-7	ME	Risk assessment	Future
Pentachloronaphthalene	1321-64-8	MI	Health assessment	Yes
Pentachlorophenol (PCP)	87-86-5	ME MA MI	Risk assessment Health assessment Health assessment	Future Yes Yes
Pentachlorophenol acetate	55868-72-9	MI	Health assessment	Yes
Pentachloroterphenyls	--	MI	Health assessment	Yes
Peroxyacetylnitrate	2278-22-0	Clark Co., NV	Monitoring study Risk assessment	Yes
Peroxybenzoylnitrate	--	Clark Co., NV	Monitoring study Risk assessment	Yes
Phenanthrene	85-01-8	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Phenobarbital	50-06-6	MI	Health assessment	Yes
Phenol	108-95-2	ME MA	Risk assessment Health assessment	Future Yes
p-Phenylenediamine	106-50-3	ME	Risk assessment	Future
Phenylhydrazine	100-63-0	ME	Risk assessment	Future
Phosgene	75-44-5	ME	Risk assessment	Future
Phosphorus	7723-14-0	ME	Risk assessment	Future
Phthalic anhydride	85-44-9	MA	Health assessment	Yes
Picric acid	88-89-1	ME	Risk assessment	Future
Polychlorinated biphenyls (PCBs)	11097-69-1	ME MA TX	Risk assessment Health assessment Health assessment Source assessment Exposure assessment Monitoring study Health assessment Source assessment Exposure assessment Toxicity testing Monitoring study	Future Yes Yes Yes
Polychlorinated terphenyls	61788-33-8	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Polynuclear aromatics	--	TX	Health assessment	Yes
			Source assessment	
			Exposure assessment	
			Monitoring study	
		Jacksonville, FL	Source assessment	Yes
			Exposure assessment	
			Monitoring study	
Potassium pentachlorophenolate	7778-73-6	MI	Health assessment	Yes
1,3-Propane sultone	1120-71-4	ME	Risk assessment	Future
Propyl alcohol	71-23-8	MA	Health assessment	Yes
Propyleneimine	75-55-8	ME	Risk assessment	Future
Propylene oxide	75-56-9	MA	Health assessment	Yes
Propylthiouracil	51-52-5	MI	Health assessment	Yes
Pyrene	129-00-0	TX	Health assessment	Yes
			Source assessment	
			Exposure assessment	
			Monitoring study	
Pyridine	110-86-1	ME	Risk assessment	Future
Quinoline	91-22-5	ME	Risk assessment	Future
Quinone	106-51-4	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Resorcinol	108-46-3	ME MA	Risk assessment Health assessment	Future Yes
Rotenone	83-79-4	ME	Risk assessment	Future
Selenium	7782-49-2	ME MA	Risk assessment Health assessment	Future Yes
Selenium sulfide	7446-34-6	MA	Health assessment	Yes
Semicarbazide	57-56-7	MI	Health assessment	Yes
Semicarbazide hydrochloride	563-41-7	MI	Health assessment	Yes
Sodium pentachlorophenate	131-52-2	MI	Health assessment	Yes
Styrene	100-42-5	ME MA MI	Risk assessment Health assessment Health assessment	Future Yes Yes
Styrene oxide	96-09-3	ME	Risk assessment	Future
Sulfates (particulate)	--	Jacksonville, FL	Source assessment Exposure assessment	Yes
Terephthalic acid	100-21-0	ME	Risk assessment	Future
Terphenyl chloride	51133-72-3	MI	Health assessment	Yes
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	ME	Risk assessment	Future

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
1,1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	MA	Health assessment	Yes
Tetrachloroethane	25322-20-7	MA MI	Health assessment Health assessment	Yes Yes
1,1,1,2,2-Tetrachloroethane	79-34-5	ME MA MI NJ	Risk assessment Health assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes Yes No
1,1,1,2-Tetrachloroethane	630-20-6	MI	Health assessment	Yes
Tetrachloroethylene (perchloroethylene)	127-18-4	ME MA NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment Source assessment Risk assessment	Future Yes No
		Clark Co., NV		Yes
Tetrachloronaphthalene	1335-88-2	MI	Health assessment	Yes
Tetrachloroterphenyls	--	MI	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Tetradecachloroterphenyls	---	MI	Health assessment	Yes
Tetrahydrofuran	109-99-9	ME MA	Risk assessment Health assessment	Future Yes
Tetrahydrophthalimide	27813-21-4	IO	Source assessment (corn roaster)	Yes
Thallium	7440-28-0	ME	Risk assessment	Future
Thiophosgene	463-71-8	IO	Source assessment (corn roaster)	Yes
Titanium oxide	13463-67-7	ME	Risk assessment	Future
Toluene	108-88-3	ME MA Clark Co., NV	Risk assessment Health assessment Monitoring study Risk assessment	Future Yes Yes
2,4-Toluene-diamine	95-80-7	ME	Risk assessment	Future
2,4-Toluene-di-isocyanate	584-84-9	ME	Risk assessment	Future
o-Toluidine	95-53-4	ME	Risk assessment	Future
Toxaphene	8001-35-2	MI NJ	Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes No

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
1,2,4-Trichlorobenzene	120-82-1	ME	Risk assessment	Future
1,1,1-Trichloroethane (methyl chloroform)	71-55-6	ME NJ	Risk assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future No
1,1,2-Trichloroethane	79-00-5	ME MA NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes No
Trichloroethylene	79-01-6	ME MA NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes No
Trichloronaphthalene	1321-65-9	MI	Health assessment	Yes
2,4,5-Trichlorophenol	95-95-4	MA MI	Health assessment Health assessment	Yes Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
2,4,6-Trichlorophenol	87-86-5	MI NJ	Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Yes No
Trichloroterphenyls	--	MI	Health assessment	Yes
Trichlorotrifluoroethane	26523-64-8	MI	Health assessment	Yes
1,1,2-Trichloro-1,1,2-trifluoroethane	76-13-1	MI	Health assessment	Yes
1,1,1-Trichloro-2,2,2-trifluoroethane	354-58-5	MI	Health assessment	Yes
Triethylamine	121-44-8	MA	Health assessment	Yes
Triphenyl phosphate	115-86-6	MI	Health assessment	Yes
Turpentine	8006-64-2	ME	Risk assessment	Future
Undecachlorotriphenyl	42715-57-1	MI	Health assessment	Yes
Urethane	51-79-6	ME	Risk assessment	Future
Vanadium pentoxide	1314-62-1	MA	Health assessment	Yes
Vinyl acetate	108-05-4	MA	Health assessment	Yes

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
Vinyl bromide	593-60-2	ME MI	Risk assessment Health assessment	Future Yes
Vinyl chloride	75-01-4	ME MA MI NJ	Risk assessment Health assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes Yes No
		SCAQMD, CA		Yes
Vinyl cyclohexene dioxide	106-87-6	ME	Risk assessment	Future
Vinyl fluoride	75-02-5	ME	Risk assessment	Future
Vinylidene chloride (1,1-Dichloroethene)	75-35-4	ME MA NJ	Risk assessment Health assessment Source assessment Exposure assessment Monitoring study Emission factor devel. Risk assessment	Future Yes No

(Continued)

TABLE 8. Continued

Pollutant	CAS #	State or Locality	Type of Research or Assessment Activity	Availability of Supporting Documentation
VOC species	--	Clark Co., NV	Risk assessment	Yes
Wood smoke	--	MN	Source assessment	Yes
Xylene (all isomers)	1330-20-7	ME	Risk assessment	Future
		MA	Health assessment	Yes
		MI	Health assessment	Yes
Xylidine	1300-73-8	ME	Risk assessment	Future
Zinc	7440-66-6	ME	Risk assessment	Future
Zinc pentachlorophenol	2917-32-0	MI	Health assessment	Yes

TABLE 9. METHODS DEVELOPMENT ACTIVITIES

State or Locality	Source Testing	Ambient Monitoring	Dispersion Modeling	Emergency Response	Ambient Exposure Assessment	Emissions Modeling from Non-Traditional Sources	Other
CA	ARB develops sampling methods & analytical methods as well as conducts source tests to determine emissions of toxic air contaminants from stationary sources.	The ARB has two laboratories, the Sacramento Laboratory & Hager-Shatt Laboratory, involved in ambient monitoring & analysis. The Sacramento Laboratory is currently refining field sampling & laboratory analysis procedures preparatory to initiating a state-wide ambient toxics sampling network for benzene & selected halogenated hydrocarbons.	ARB applies dispersion models to a wide range of toxic emissions. Development of methods for certain chemicals is probable in the future.	--	Ambient air data is collected & analyzed along with modeling analyses to estimate hourly, 24 hour & annual concentrations.	ARB has developed a model for estimating hourly emissions from application of wood-oil.	--
CO	--	--	Procedures to determine maximum allowable concentrations in the stack.	--	--	--	--
IL	--	DAPC has requested ambient monitoring at hazardous waste incineration facilities, pesticide manufacturing facilities, and other facilities which emit toxics which cannot be evaluated by dispersion modeling methods.	Use of traditional dispersion models, especially the Industrial Source Complex (ISC) model. Also using receptor modeling techniques.	Evaluation guide for releases of hazardous gases or vapors (calculation of evacuation distance) has been written and methods are utilized.	--	Slag pile at Granite City (industrial fugitive lead).	1) Indoor/outdoor relationship between lead levels in Granite City; 2) Air quality study of South Chicago for non-criteria pollutants. (Draft report available.)
IN	--	Methods are being developed for measuring various VOCs using an HP5800C in conjunction with a halocarbon series E10 concentrator.	Have capability but have done little to date.	Handled by a separate emergency response team.	--	--	--
IA	Captain. adapting standard methods to corn reaster testing.	--	Captain and corn reaster using EPA approved methods.	--	--	--	--
MI	--	--	Michigan's development of methods have been primarily in screening models methods (dilution factor matrix). The state has developed time scaling factors for different averaging times.	--	--	Michigan has developed models and applications for emissions from landfills and landfill excavation projects (e.g., Berlin & Farro site).	--

(Continued)

TABLE 9. Continued

State or Locality	Source Testing	Ambient Monitoring	Dispersion Modeling	Emergency Response	Ambient Exposure Assessment	Emissions Modeling from Non-Traditional Sources	Other
MN	--	Minnesota is currently conducting limited sampling with a portable photoionization chromatograph and adsorption tubes. A source apportionment study is in progress related to wood combustion. A wood-related residential site will be instituted this fall.	--	--	--	--	MPCA is strongly involved in the measurement of acidic deposition in wet & dry forms. The trace element content of deposition is also measured. Minnesota's dry sampler is unique. Money has been appropriated for future trace organic sampling primarily in remote areas.
MI	Case specific research of literature is done during permit review process.	Review will be conducted if needed but the State has not yet done any ambient monitoring.	--	--	--	--	--
NI	--	Solid absorbent collection of various VOC's. Also method development to monitor ambient TSS.	--	--	--	--	--
NJ	Source test methods development is primarily related to toxics emitted from incineration units.	Office of Science & Research has conducted monitoring "campaigns" for VOC, metal, & organic particulate fractions. Particulate portion has been assumed by Air program.	Developed dispersion modeling protocol in conjunction with NESQAM.	Bureau of Emergency Response has been established and is functional.	Conducted as follow-up to ambient monitoring and modeling projects.	--	Monitoring of emissions from non-traditional sources (e.g., emissions from landfill vents, etc.).
NM	--	Carbon monoxide source apportionment study for Albuquerque, NM. This is a short term study using dicoraneous samples and a carbon monoxide monitor. Model development and revisions occur when needed for in-house use.	--	--	--	Informal emissions modeling from non-traditional sources, like molybdenum tailings disposal sites, has been done.	--

(Continued)

TABLE 9. Continued

State or Locality	Source Testing	Ambient Monitoring	Dispersion Modeling	Emergency Response	Ambient Exposure Assessment	Emissions Modeling from Non-Traditional Sources	Other
NC	NC has conducted RUM emission tests on small to medium sizes of industrial wood-fired boilers.	--	--	--	--	--	--
RI	--	Improvement of sensitivity of analytical methods for ambient monitoring.	--	--	--	--	--
TN	Very limited as necessary to conduct testing for non-criteria pollutants where specified methods are not available.	Very limited: as necessary to monitor for non-criteria pollutants where specified methods are not available or equipment is not available.	--	--	--	--	Participated in development of the Pinney Woods Air Toxics Indoor/Outdoor pollutant assessment.
TX	Developed sampling train for use in monitoring chlorinated organics from stacks. Using it to determine combustion efficiencies and combustion products at hot mix plants. Developing methods for measuring chlorinated organic (not source specific) and for measuring VOCs from gasoline bulk storage terminals.	Developed methods for collecting arsenic, benzene, formaldehyde, PCBs, lead, vinyl chloride, PAH's, ethylene oxide, epichlorohydrin, and acrylonitrile on pesticide head hi-vols. Developing methods for collecting samples near hazardous waste sites using pesticide head hi-vols.	All toxic compounds to be emitted are modeled as a part of permit review. Non-traditional sources are included in the model evaluation. Odorous compounds are also included in the review.	Presently involved in project to enhance emergency response planning and coordination. Will involve integration of SIP Section VIII, State Emergency Management Plan, and TACB Manual for Emergency Episodes.	Monitoring sites have been chosen in Harris County to monitor ambient exposure levels for arsenic, benzene, formaldehyde, PB's lead, vinyl chloride, PAHs, ethylene oxide, epichlorohydrin, and acrylonitrile. Planning is underway for locating additional sites in Galveston, Jefferson, and Orange counties.	All sources, including non-traditional ones, are modeled using procedures developed at this Agency. Odorous compounds are also included in this modeling.	TACB has completed a project to assess the feasibility of in-situ monitoring using biological test systems to assess possible human health consequences of exposure to complex mixtures of contaminants in ambient air. Final report is available now. The Agency is currently managing a contract to assess the sensitivity of certain biological test systems. If these biological test systems respond to contaminants at ambient levels, TACB plans to develop a mobile biological monitoring unit. A final report will be available by August 31, 1985.

(Continued)

TABLE 9. Continued

State or Locality	Source Testing	Ambient Monitoring	Dispersion Modeling	Emergency Response	Ambient Exposure Assessment	Emissions Modeling from Non-Traditional Sources	Other
WA	Just beginning to perform source & ambient tests on some selected sources and specific air toxics (i.e., PCBs). This program will expand as the program progresses.	--	--	Emergency responses are handled on local level. Expansion in this area for air toxic emergencies on a state-wide level (Dept. of Ecology) is expected in future.	Some degree of ambient exposure assessment will be performed in some cases when needed as the program progresses.	--	--
SOMMCO, CA	SOMMCO develops source test methods primarily to determine compliance with rules and regulations, and permitting requirements. Specific methods applicable to landfill have been developed.	Refined ambient air monitoring has been developed for vinyl chloride.	SOMMCO conducts atmospheric modeling of a source to determine risk in conjunction with the risk assessment by the California Department of Health Services.	An emergency technical assistance program for toxic spills is currently in place.	Ambient air data for vinyl chloride is collected along with modeling analysis to estimate hourly, 24 hour and annual concentrations.	Emissions of vinyl chloride from landfills are modeled to determine risk.	--
Evansston, IL	Development of Dräger pump and Decibel meter.	High volume flow meter.	--	Pagers.	--	--	--
Clark County, NV	Development of monitoring methods for chlorides, ammonia, nitrates, chlorides.	--	--	--	--	Monitoring study on landfills & dumpsites.	Monitoring indoor concentrations of benzene, carbon monoxide, formaldehyde.
Cleveland, OH	EPA-designed tests for source monitoring are studied and used for abatement & compliance purposes.	--	--	Done on a case-by-case basis and researched depending on time limitations and the hazard involved.	--	--	Indoor formaldehyde studies were conducted over a 2 year span and outdoor ambient concentrations also studied for comparison. Sources of formaldehyde also investigated.
Lane Region, OR	A quality assurance program for TDS emissions monitoring is under development by the state agency.	--	--	--	--	This may be incorporated as part of emissions inventory.	--
Philadelphia, PA	--	Cooperative agreement with EPA (EPC) for TBNM-Q/MS and other methods development.	--	--	--	--	Participation with EPA (EPC) in multi-media toxics study.

(Continued)

TABLE 9. Continued

State or Locality	Source Testing	Ambient Monitoring	Dispersion Modeling	Emergency Response	Ambient Exposure Assessment	Emissions Modeling from Non-Traditional Sources	Other
Chattanooga, Hamilton Co., TN	--	In conjunction with TVA, developing a 24 hour method for monitoring toxic air pollutants.	--	--	Conducting extensive monitoring study in Chattanooga neighborhood (criteria pollutants, inhalable particulates, and broad range of organics). Planning to use results in conjunction with epidemiological study of same neighborhood to assess exposure and health risk.	--	--
Puget Sound, WA	Applicability of chemical mass balance to arsenic control program development.	Techniques for ambient air arsenic monitoring.	--	--	--	--	--

PART 6. PERMITTING INFORMATION

The most frequent mechanism for controlling non-criteria emissions is through source permitting. The Clearinghouse plans to establish a registry of permitted sources of air toxics which includes data on pollutant emissions, emission limits, and control equipment. This information can be used for purposes such as determining what non-criteria pollutants might be emitted by a specific facility, identifying potentially applicable control equipment/requirements for a particular facility, or prioritizing facilities for permitting or other air toxics control decisions.

Table 10 presents information collected to date on 43 facilities permitted by twelve states or localities. Data include facility category, SIC Code, State or locality, year(s) permit issued/amended, permit identification number, control equipment, pollutants, emission limit, and source of emissions. The information is organized by the SIC Code of the permitted facilities in the following order (including only those categories in which permitting information is currently available):

- Agriculture Services (SIC 07)
- Lumber and Wood Products (SIC 24)
- Furniture and Fixtures (SIC 25)
- Paper and Allied Products (SIC 26)
- Chemicals and Allied Products (SIC 28)
- Rubber and Miscellaneous Plastics (SIC 30)
- Primary Metal Industries (SIC 33)
- Instruments and Related Products (SIC 38)
- Electric, Gas, and Sanitary Services (SIC 49)
- Automobile Repair, Services, and Garages (SIC 75).

These SIC categories will be expanded as the Clearinghouse collects more permitting data. The reader should address any questions or requests for additional information about the permits identified in Table 10 to the permitting contacts identified in Tables 1 and 2 in Part 2.

TABLE 10. PERMITTING INFORMATION

Facility Category	SIC Code	State or Locality	Year(s) Permit Issued/Amended	Permit ID No.	Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
AGRICULTURAL SERVICES	07							
-Seed corn company (corn roaster)	0723	Iowa	1984	84-A-106	None	Captan H ₂ S Triphosphgene HCl Tetrahydrophthalimide	Under development based on ambient guidelines	Process
LUMBER AND WOOD PRODUCTS	24							
-Wood treatment with creosote	2491	Chattanooga-Hamilton Co., Tennessee	1972	3240-30700501-01	None	Creosote	-	Process
FURNITURE AND FIXTURES	25							
-Plastics manufacture	2599	Oregon	1980/1981	02-2203	Condensor, carbon bed recovery units	Trichloroethylene	15 lb/hr (effic. $\geq$ 95%)	Process
PAPER AND ALLIED PRODUCTS	26							
-Kraft paper mill	2611	Lane Region, Oregon	-	-	Electrostatic precipitator, process control, baghouse, incinerator	Total reduced sulfur	5 ppm (10 ppm old limit) 20 ppm; 1 lb/ton 0.2 lbs/ton	Process (rec. furn.) Process (lime kiln) Total (other)
-Kraft pulp and paper mill	2631	Oregon	1977	22-0471	Thermal oxidation, wet scrubbing	Total reduced sulfur	0.22 lb/ton of air-dried pulp produced	Process
CHEMICALS AND ALLIED PRODUCTS	28							
Industrial Inorganic Chemicals	281							

(Continued)

TABLE 10. Continued

Facility Category	SIC Code	State or Locality	Year(s)		Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
			Permit Issued/Amended	Permit ID No.				
-chemical manufacturing (hazardous waste management)	2812	Clark Co., Nevada	-	-	Contaminated water organic stripping system	Chlorine Benzene Chlorobenzene Dichlorobenzene Trichlorobenzene Chloroform p-Chloroanisole	0.01 lb/hr 20.9 lb/day 23 lb/day 5 lb/day 0.2 lb/day 35 lb/day 0.01 lb/day	Process Process Process Process Process Process Process
-Incinerator	2812	Texas	1978	6157	Absorption tower	Chlorine Hydrogen chloride	4.2 ton/yr 4.2 ton/yr	- -
-Chemical manufacturing	2818	Texas	1974	2035	Scrubbers	Chlorobenzene Methyl chloride	21.84 ton/yr 2.18 ton/yr	- -
-HCl acid plant	2819	Chattanooga-Hamilton Co., Tennessee	1972	3500-30101102-38	Wet scrubber and carbon adsorber	HCl Toluene Chlorotoluene Benzyl Chloride Benzotrichloride	- - - -	Process Process Process Process Process
-Semi-works gas, HCl, and HBr, scrubber system	2819	Chattanooga-Hamilton Co., Tennessee	1972	3500-30199999-55	Wet scrubber	HCl HBr	- -	Process Process
-Ammonium perchlorate manufacturing	2819	Clark Co., Nevada	-	-	-	Chlorine Ammonia	10-40 lb/hr 5 lb/hr	Process Process
-Ammonium perchlorate manufacturing	2819	Clark Co., Nevada	-	-	-	Chlorine Ammonia	3 lb/hr <0.5 lb/hr	Process Process
-Titanium refining	2819	Clark Co., Nevada	-	-	-	Chlorine Hydrogen chloride	<0.1 lb/hr 1 lb/hr	Process Process
-Inorganic chemical manufacturing	2819	Oregon	1984	05-2042	Scrubbers, combustor, mist eliminator	Ammonia Nitrate	234 ton/yr 15.1 ton/yr	Process/total (78,289 tpy NH ₃ production; 92,064 tpy urea production, 26,378 tpy ammonium nitrate production)

(Continued)

TABLE 10. Continued

Facility Category	SIC Code	State or Locality	Year(s) Permit Issued/Amended	Permit ID No.	Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
-Chemical manufacturing	2819	Texas	1973	978	Absorption tower	Methanol Xylene-U	1.17 ton/yr 0.67 ton/yr	-
-Polymerization facility	2819	Texas	1981	13030	Scrubbers	1,2-Dichlorobutanol	0.11 ton/yr	-
Plastics Materials and Synthetics	282							
-Plastic manufacturing	2821	Mississippi	1985	1000-00007	Incinerator for process emissions, technology requirement for storage tanks	Acrylonitrile Styrene Total hydrocarbons Acrylonitrile Styrene Butadiene Total hydrocarbons (including combustion products)	0.092 lb/hr 0.055 lb/hr 0.020 lb/hr 0.11 lb/hr 0.02 lb/hr 0.0006 lb/hr 0.17 lb/hr	Process (Reactors) Process (Reactors) Process (Reactors) Waste incinerator Waste incinerator Waste incinerator Waste incinerator
-Hydrocarbon resin manufacturing	2821	Mississippi	1983	1020-00093	No air control; the stripper removes NH ₃ from a waste stream for purposes of water pollution control	Ammonia	14.6 lb/hr 350 lb/day 57.5 tons/yr	Wastewater stripper
-Synthetic rubber polymerization	2822	Chattanooga-Hamilton Co., Tennessee	1972	1170-30102601-01	None	Methacrylic acid Mercaptan Styrene	- - -	Process Process Process
			1972	1170-30102601-14	None	Butadiene	-	Process
			1972	1170-30102601-26	None	Acrylamide	-	Storage
-Synthetic rubber polymerization	2822	Chattanooga-Hamilton Co., Tennessee	1972	3100-30100202-02	None	Ammonia	11.74 lb/hr particulate	Process
			3100-30102199-03	None	None	Butadiene	4.70 lb/hr particulate	Process

(Continued)

TABLE 10. Continued

Facility Category	SIC Code	State or Locality	Year(s) Permit Issued/Amended	Permit ID No.	Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
Industrial Organic Chemicals	286							
--Wood treating chemicals	2865	Mississippi	No permit-- under compliance order	2380-00037	-	Pentachlorophenol	Removal of 90% of penta entering absorber 0.0043 lb/hr (approximate maximum emission allowed)	Process (blending of penta solutions)
--Benzoic acid and related chemicals	2865	Chattanooga-- Hamilton Co., Tennessee						
--production of benzoic acid			1972	3500-30199999-02	Wet scrubber	Benzoic acid Toluene	8.22 lb/hr particulate	Storage Storage
			1972	3500-30199999-31	Wet scrubber	Benzoic acid Benzaldehyde Phenyl toluene Benzyl benzoate	- - - -	Process Process Process Process
--production of crude benzoic acid			1972	3500-30199999-40	Condenser (refrigerated) and water cooled condenser	Benzoic acid Toluene	- -	Process Process
--purification of benzoic acid to USP grade			1974	3500-30199999-63	None	Benzoic acid	0.39 lb/hr	Process
--benzoic acid air treatment			1972	3500-30199999-32	Wet scrubber	Benzaldehyde Benzoic acid Phenyl toluene Benzyl benzoate	- - - -	Process Process Process Process

(Continued)

TABLE 10. Continued

Facility Category	SIC Code	State or Locality	Year(s)		Permit ID No.	Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
			Permit Issued/Amended						
---production of benzyl chloride and benzo-trichloride			1972		3500-40300161-03c	None	Toluene	-	Storage
			1972		3500-40300161-04	None	Toluene	-	Process
			1972		3500-30103399-06	None	Toluene Chlorine Benzotrichloride HCl (gas)	- - - -	Process Process Process Process
---production of crude benzoyl chloride			1972		3500-30199999-07	Wet scrubber and carbon adsorption	Benzoyl chloride Benzoic acid Benzotrichloride HCl (gas)	- - - -	Process Process Process Process
			1972		3500-30199999-13	Wet scrubber and carbon adsorption	Benzoyl chloride Benzotrichloride Chlorine HCl (gas)	- - - -	Process Process Process Process
			1982		3500-30199999-61	Wet scrubber and carbon adsorption	Benzal chloride HCl Toluene Chlorine Benzotrichloride Benzyl chloride	- - - - - -	Process Process Process Process Process Process
---purification of benzyl chloride, benzotri-chloride, and benzoyl chloride			1972		3500-30199999-62	Wet scrubber and carbon adsorption	Benzoyl chloride Benzotrichloride Benzyl chloride HCl Benzal chloride Toluene	- - - - - -	Process Process Process Process Process Process
			1982		3500-30199999-10	None	Dipropylene glycol dibenzoate	-	Handling

(Continued)

TABLE 10. Continued

Facility Category	SIC Code	State or Locality	Year(s) Permit Issued/Amended	Permit ID No.	Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
--Benzoflex ³ tank car and truck loading			1972	3500-30199999-25	None	Ester of benzoic acid Glycols	-	Handling Handling
			1972	3500-30199999-27	None	Benzoyl chloride	-	Handling
--Benzoflex ³ esterification process			1982	3500-30199999-53	Uncontrolled	Benzoic acid Dipropylene glycol Diethylene glycol Propylene glycol	- - - -	Process Process Process Process
--production of OM6571 (confidential)			1982	3500-30199999-64T	None	Dicyclopentadiene	-	Process
-Chemical manufacturing	2869	Texas	1973	1501	Wet scrubber	Chlorobenzene Phosgene Ammonia Hydrogen chloride Methanol Formaldehyde Aniline-D	0.16 ton/yr 0.01 ton/yr 9.9 ton/yr 0.02 ton/yr 6.0 ton/yr 0.01 ton/yr 0.13 ton/yr	- - - - - -
-Chemical manufacturing	2869	Texas	1980	8070	Wet scrubber	Dichlorobutene Hydrogen chloride	2.36 ton/yr 0.31 ton/yr	- -
-Chemical manufacturing (aerospace and military products)	2869	Sacramento Co., California	-	-	Condensers, scrubbers, carbon adsorbers, temperature control	Chloroform Ethylene dichloride Toluene	- - -	Process Process Process
Agricultural Chemicals	287							
-Pesticide formulator	2879	Minnesota	1984	787S-84-0T-1	Baghouse and charcoal adsorption in series	Thimet (phorate) Counter (terbufos)	50 µg/m ³ 50 µg/m ³	Process Process

(Continued)

TABLE 10. Continued

Facility Category	SIC Code	State or Locality	Year(s) Permit Issued/Amended	Permit ID No.	Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
-Agricultural chemical manufacturing	2879	Texas	1982	8761	Scrubbers	Ansenic trioxide Methanol Dimethyl ether Methyl chloride	0.02 ton/yr 0.78 ton/yr 3.85 ton/yr 6.46 ton/yr	- - - -
RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS	30							
-Urethane foam manufacturing	3069	Chattanooga-Hamilton Co., Tennessee	1972	1140-30102699-01	None	Polypropylene glycol Methylene chloride Toluene diisocyanate Toluene diamine Trichlorofluoromethane Trichloroethane	- - - - -	Process Process Process Process Process Process
-Urethane foam manufacturing	3069	Texas	1981	8380	---	Methylene chloride	118 ton/yr	-
-Plastic bottle blow molding	3079	Iowa	1982	82-A-103	Packed bed scrubber, NaOH	Fluorides	Satisfaction of ambient concentration guidelines	Process
-Fiberglass parts manufacturing	3079	Puget Sound, Washington	1984	NC 2523	Low emission spraying equipment	Styrene	50 ppm	Process
PRIMARY METAL INDUSTRIES	33							
-Coke plant	3312	Chattanooga-Hamilton Co., Tennessee	1972	0495-30300301-01	Recovery of coke by-products	Benzene Toluene Xylene Polynuclear aromatics Cyanides	- - - -	Process Process Process Process Process

(Continued)

TABLE 10. Continued

Facility Category	SIC Code	State or Locality	Year(s) Permit Issued/Amended	Permit ID No.	Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
--By-products plant			1972	0495-30300301-14	Scrubbers and condensers	Ammonium sulfate Benzene Toluene Xylene Polynuclear aromatics Ammonia Cyanides Phenol	- - - - - - -	Process Process Process Process Process Process Process
-Aluminum reduction	3334	Oregon	1983	26-1851	Baghouses, wet electrostatic precipitator	Fluoride	2.5 lb F1 ⁻ /ton aluminum produced	Process/total
-Primary smelting (nonferrous)	3339	Oregon	1979	22-0347	Venturi and packed bed scrubbers	Chlorine (Cl ₂ + Cl ⁻) Ammonia (NH ₃ + NH ₄ ⁺)	100 ppm; 30 ton/yr 50 ppm; 2 ton/yr	Process Process
INSTRUMENTS AND RELATED PRODUCTS	38							
-Medical adhesive tape manufacturing	3842	South Dakota	1985	28-9805-06	None	Ethylene oxide Heptane Isopropyl alcohol Hexane Ethanol Butanol Methyl ethyl ketone(MEK)	NA NA NA NA NA NA NA	- - - - - -
ELECTRIC, GAS, AND SANITARY SERVICES	49							
-Air stripping towers (2) to remove hazardous wastes from municipal water wells	4941	Puget Sound Washington	1984	NC 2353	None	1,2-trans-Dichloroethylene Trichloroethylene Tetrachloroethylene	Contaminated H ₂ O input limited to 2,000 GPM	Process Process Process

(Continued)

TABLE 10. Continued

Facility Category	SIC Code	State or Locality	Year(s) Permit Issued/ Amended	Permit ID No.	Control Equipment	Non-Criteria Pollutants	Emission Limit or Equivalent, if Applicable	Source of Emissions Subject to Limit
-Air strip- ping towers (5) to re- move haz- ardous wastes from municipi- pal water wells	4941	Puget Sound, Washington	1983	NC 2425	None	1,1,2,2-Tetrachloro- ethane 1,2-trans- Dichloroethylene Trichloroethylene Tetrachloroethylene	Capacity limited to 1,750 GPM per unit	Process Process Process Process
-Air strip- ping opera- tion on contaminated groundwater	4941	Minnesota	None Issued	-	None	Trichloroethylene 1,2-Dichloroethylene 1,1,1-Trichloroethane Trichloromethane	2.7 mg/m ³ (1% TLV) ¹ 7.9 mg/m ³ (1% TLV) ¹ 19 mg/m ³ (1% TLV) ¹ 0.5 mg/m ³ (1% TLV) ¹	Process Process Process Process
-Municipal waste in- cinerator	4953	Minnesota	1984	2011-84- I/O-1	Mechanical collec- tor and electro- static precipita- tor	Lead Mercury Beryllium Hydrogen chloride Fluorine Arsenic	0.0015 mg/m ³ (1% TLV) ¹ Dependent on form(1% TLV) ¹ 0.0002 mg/m ³ (1% TLV) ¹ 0.07 mg/m ³ (1% TLV) ¹ 0.02 mg/m ³ (1% TLV) ¹ 0.002 mg/m ³ (1% TLV) ¹	Comb.(muni. waste) Comb.(muni. waste) Comb.(muni. waste) Comb.(muni. waste) Comb.(muni. waste) Comb.(muni. waste)
-Municipal waste in- cineration	4953	Oregon	1983	24-3398	Dry scrubber, bag- house; residence time, temperature specifications	Hydrogen chloride Fluorides Mercury Beryllium	69 ton/yr 4.8 ton/yr 0.51 ton/yr 8.8x10 ⁻⁶ ton/yr	Combustion (160,000 ton/yr municipal solid waste capacity)
AUTOMOBILE REPAIR, SER- VICES, AND GARAGES	75							
-Vehicle paint shop	7535	Minnesota	1984	249-84-1-2	Scrubber, filter, incinerator	Toluene Xylene 2-Butoxyethanol Cellulose Ethyl alcohol Methyl amyl ketone Isopropyl acetate	3.75 mg/m ³ (1% TLV) ¹ 4.35 mg/m ³ (1% TLV) ¹ 1.2 mg/m ³ (1% TLV) ¹ - 19 mg/m ³ (1% TLV) ¹ 2.35 mg/m ³ (1% TLV) ¹ 9.5 mg/m ³ (1% TLV) ¹	Process Process Process Process Process Process Process

¹Acceptable ambient concentration

PART 7. SOURCE TESTING INFORMATION

Many states and localities conduct emissions testing for non-criteria air pollutants as part of their air toxics control program. Table 11 presents information collected to date on 36 facilities tested by eleven states or localities. Data include the facility category, SIC Code, state or locality, test date, test or facility identification number, sampling technique, analytical method, pollutants, measured emission rates, and location of measurement. The information is organized by the SIC Code of the tested facilities in the following order (including only those categories in which source testing information is currently available):

- Agricultural Services (SIC 07)
- Furniture and Fixtures (SIC 25)
- Paper and Allied Products (SIC 26)
- Chemicals and Allied Products (SIC 28)
- Petroleum and Coal Products (SIC 29)
- Rubber and Miscellaneous Plastics Products (SIC 30)
- Primary Metals Industries (SIC 33)
- Fabricated Metals Products (SIC 34)
- Transportation Equipment (SIC 37)
- Instruments and Related Products (SIC 38)
- Electric, Gas, and Sanitary Services (SIC 49)
- Personal Services (SIC 72).

These SIC categories will be expanded as the Clearinghouse collects more source testing data. The reader should address any questions or requests for additional information about the source tests identified in Table 11 to the source testing contacts identified in Tables 1 and 2 in Part 2.

TABLE 11. SOURCE TESTING INFORMATION

Facility Category	SIC Code	State or Locality	Test Date	Test or Facility ID #	Sampling Technique	Analytical Method	Non-Criteria Pollutants	Measured Emission Rates	Location of Measurement
AGRICULTURAL SERVICES									
-Seed corn company (corn roaster)	0723	Iowa	10/22-10/26/84	-	Particulate sampler (NaOH for capture medium)	Specific ion electrode	HCl	-	Process
					Particulate sampler (Cyclohexane for capture medium)	Gas chromatograph	Capstan Thiophosgene Tetrahydrophthalimide	-	Process
					RMII	RMII	H ₂ S	-	Process
FURNITURE AND FIXTURES									
-Plastics manufacturing	2599	Oregon	Quarterly	-	Modified industrial hygiene - solvent sampling	Gas chromatograph	Trichloroethylene	-	Process
PAPER AND ALLIED PRODUCTS									
-Pulp mill	2611	Lane Region, Oregon	-	-	-	-	Total reduced sulfur - recovery unit - lime kiln - other	ppm	Stack
-Kraft pulp and paper mill (1 of 5)	2631	Oregon	Continuous	-	Barron or other brand of continuous emissions monitor	Barron or other brand of continuous emissions monitor and some M16 or M16A audits	Total reduced sulfur	-	Process/total
CHEMICALS AND ALLIED PRODUCTS									
-Chemical manufacturing	Not specified	Sacramento Co., California	Various	N/A	Charcoal tube; infrared analyzer	GC-ECD; infrared analyzer	Chloroform Ethylene dichloride Toluene	Various Various Various	Control device vent

(Continued)

TABLE 11. Continued

Facility Category	SIC Code	State or Locality	Test Date	Test or Facility ID #	Sampling Technique	Analytical Method	Non-Criteria Pollutants	Measured Emission Rates	Location of Measurement
-Chemical manufacturing	Not specified	Texas	9/10/83	-	Gas chromatograph; solid adsorber	Gas chromatograph and GC/MS	Propanediamine Chlorofluorohexane Naphthalenes (5 compounds) 1,6-Dichloro-1,5-cyclooctadiene Benzene Toluene 1-Chloromethyl-naphthalene Xylene 1-Ethylidene IH-Indane Cyclohexane 4-Methyl-1-pentane Methyl cyclopentane 1-Nitropropane Hexyl hydroperoxide 2-Methyl undecane-thiol Chloropentane	24, 33, 55, 78, 292, 1000 ppb 5000 ppb 35, 40 ppb Trace 580 ppb 10, 260, 480 ppb 2 ppb 35 ppb 3 ppb 567 ppb 83 ppb 83 ppb 15, 16, 40 ppb 100, 120 ppm 100, 150 ppb 257 ppb	-
Industrial Inorganic Chemicals	281								
-chemical manufacturing (hazardous waste management)	2812	Clark Co., Nevada	12/84	-	Bubbler train Direct injection	Iodometry GC/MS	Chlorine Benzene Chlorobenzene Dichlorobenzene Trichlorobenzene Chloroform p-Chloroanisole	0.01 lb/hr 20.9 lb/hr 23 lb/day 5 lb/day 0.2 lb/day 35 lb/day 0.01 lb/day	Process Process Process Process Process Process Process
-HCl acid plant	2819	Chattanooga-Hamilton Co., Tennessee	5/25/82	3500-30101102-38	Bubbler impinger sampling train in ice water bath	H.P.5 880 gas chromatograph with an SE54 fused silica 25 meter column and an electron capture detector	Benzotrichloride	6.7 g/hr	Process equipment
-Ammonium perchlorate manufacturing	2819	Clark Co., Nevada	1984	-	Bubbler train Continuous monitoring	Iodometry Chemiluminescence	Chlorine Ammonia	10-40 lb/hr 5 lb/hr	Process Process

(Continued)

TABLE 11. Continued

Facility Category	SIC Code	State or Locality	Test Date	Test Facility ID #	Sampling Technique	Analytical Method	Non-Criteria Pollutants	Measured Emission Rates	Location of Measurement
-Ammonium perchlorate manufacturing	2819	Clark Co., Nevada	1984	-	Bubbler train Continuous monitoring	Iodometry Chemiluminescence	Chlorine Ammonia	3 lb/hr <0.5 lb/hr	Process Process
-Titanium refining	2819	Clark Co., Nevada	-	-	-	-	Chlorine Hydrogen Chloride	<0.1 lb/hr 1 lb/hr	Process Process (fugitive leaks)
-Inorganic chemical manufacturing	2819	Oregon	Continuous	-	In-house developed methods	In-house developed methods	NH ₃ Nitrate	- -	Process/ total
Plastics Materials and Synthetics	282								
-PVC resin manufacturing	2821	SCAQMD, California	1/31/84	84-70	Gas sample "grab" bag	Flame ionization detector/gas chromatograph	Vinyl chloride	29 ppb	Combustion/ process equipment
-PVC resin manufacturing	2821	SCAQMD, California	12/16/83	83-512	Gas sample "grab" bag	Flame ionization detector/gas chromatograph	Vinyl chloride	53 ppb	Combustion/ process equipment
-Synthetic resin manufacturing	2821	Oregon	Monthly	-	In-house developed methods	In-house developed methods	Formaldehyde	-	Process
Industrial Organic Chemicals	286								
-Wood treating chemicals	2865	Mississippi	6/4/82	2380-00037	Adapted NIOSH Method 5297- absorbed penta in ethylene glycol	Liquid chromatography	Pentachlorophenol	0.043 lb/hr	Process (vent)

(Continued)

TABLE 11. Continued

Facility Category	SIC Code	State or Locality	Test Date	Test or Facility ID #	Sampling Technique	Analytical Method	Non-Criteria Pollutants	Measured Emission Rates	Location of Measurement
-Benzoic acid and related chemicals	2865	Chattanooga-Hamilton Co., Tennessee							
--purification of benzoic acid to USP grade			9/27/83	3500-3019999-63	4-impinger sampling train with silica gel in impinger #4	Filters and liquid from impingers dried and weighed; silica gel weighed	Benzoic acid (USP grade)	0.072 lb/hr	Process equipment
--production of OM6571 (confidential)			10/18-10/20/83	3500-3019999-64	3 and 4 impinger trains with ice water and dry ice/acetone baths	Foxboro organic vapor analyzer gas chromatograph with flame ionization detector	Butane Cyclopentane Cyclopentene Cyclopentadiene trans-2-Pentene Pentane 1-Pentene Dicyclopentadiene 2,2-Dimethylbutane 2,3-Dimethylbutane Pentadiene isomer(1) Dimethylbutane isomer(2) Dimethylbutane isomer(3) Dimethylbutene isomer(4) Hexane isomer (5) Hexane Isoprene Pentane isomer (6) trans-Piperlene 3,3-dimethyl-1-butene Piperylene	0 to 16.1 lb/hr (0.9 lb/hr average)	Process (multi-stop in one reactor)
Agricultural Chemicals	287								
-Herbicide manufacturing	2879	Oregon	Daily/8 hours	-	In-house developed methods	In-house developed methods	Dichlorophenol OH-	-	Process Process
-Chemical manufacturing	2879	SCAQMD, California	5/25/79	79-22	Charcoal tube	G/C	DBCP	0.8 ppb	Total process equipment

(Continued)

TABLE 11. Continued

Facility Category	SIC Code	State or Locality	Test Date	Test or Facility ID #	Sampling Technique	Analytical Method	Non-Criteria Pollutants	Measured Emission Rates	Location of Measurement
PETROLEUM AND COAL PRODUCTS	29								
-Refinery	2911	Texas	12/84	-	Pesticide head hi-vols plus gas chromatograph	GC/MS	Benzene Toluene Xylene Trichloroethane Trichloroethene Tetrachloroethylene	83, 2563 µg/m³ 54, 4631 µg/m³ 15, 64 µg/m³ 10, 38 µg/m³ 7, 27 µg/m³ 14, 34 µg/m³	Downwind
-Hot mix plant	2951	Texas	4/9/84	-	Modified VOST sampling train	GC/MS	Trichloroethane Tetrachloroethylene Hexachlorobenzene	2x10 ⁻⁶ to 6x10 ⁻⁶ lbs/hr (range)	-
RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS	30								
-Floor tile manufacturing	3079	SCAQMD, California	4/2/76	C-2463	Whatman thimble/particulate train, millipore filter	Chemical extraction/A/A, microscopy	Asbestos Asbestos	0.0013 gr/scf <1 fiber/liter	Process equipment Process equipment
-Plastic bottle blow molding	3079	Iowa	9/10-9/11/84	-	EPA RM13A	EPA RM13A	Fluoride	0.193 lb/hr	Process (total plant emissions from two ma-chines)
-Fiberglass parts manufacturing	3079	Puget Sound, Washington	12/6/84	N/A	NIOSH Method P-CAM 127	NIOSH Method P-CAM 127	Styrene	30.1 ppm	Process
PRIMARY METALS INDUSTRIES	33								
-Aluminum reduction	3334	Oregon	3/month	-	Modified methods of EPA 5, 13B, 14	Ion specific electrode	Fluoride	-	Process/total
-Primary smelting	3339	Oregon	Annually	-	Modified EPA Method 5 using back half for analysis	Titrametric	Chlorine (Cl ₂ + Cl ⁻) Ammonia (NH ₃ + NH ₄ ⁺)	-	Process Process

(Continued)

TABLE 11. Continued

Facility Category	SIC Code	State or Locality	Test Date	Test or Facility ID #	Sampling Technique	Analytical Method	Non-Criteria Pollutants	Measured Emission Rates	Location of Measurement
-Primary refining (non-ferrous metals)	3339	Oregon	Initial test	-	Modified EPA Method 5	Titrametric	Chlorine (Cl ₂ + Cl ⁻)	-	Process
-Brass and aluminum extrusion	3351	Michigan	7/27/83	-	Modified EPA Method 5	Atomic absorption spectrophotometry	Cadmium Chromium Copper Nickel Zinc	0.1 mg/m ³ 0.01 mg/m ³ 74 mg/m ³ 0.06 mg/m ³ 230 mg/m ³	Brass chip dryer
FABRICATED METAL PRO-DUCTS	34								
-Recycling and painting of steel drums	3412	Michigan	10/26/82	-	Multistage solid sorbent tubes (silica gel/Tenax/charcoal)	Thermal desorption/gas chromatography - mass spectroscopy	Acetone Dichloromethane 2-Methyl butane 1,1,1-Trichloroethane Pentane Benzene Toluene Octanal Nonanal Decane Nonane Decanal Heptanal Hexanal Octane	1.3 ppb (volume) 0.8 ppb 1.2 ppb 0.5 ppb 0.5 ppb 0.7 ppb 1.8 ppb 1.6 ppb 2.9 ppb 1.0 ppb 0.8 ppb 1.0 ppb 2.0 ppb 1.8 ppb 1.4 ppb	Downwind at the property line
TRANSPORTATION EQUIPMENT	37								
-Engine bearing manufacturing	3714	Michigan	8/31/83	-	Modified EPA Method 12	Atomic absorption spectrophotometry	Copper Zinc	0.03 lb/hr 0.22 lb/hr	Powder foundry
-Engine bearing manufacturing	3714	Michigan	10/18/83	-	Modified EPA Method 12	Atomic absorption spectrophotometry	Copper Zinc	0.05 mg/m ³ 0.10 mg/m ³	Babbit line

(Continued)

TABLE 11. Continued

Facility Category	SIC Code	State or Locality	Test Date	Test or Facility ID #	Sampling Technique	Analytical Method	Non-Criteria Pollutants	Measured Emission Rates	Location of Measurement
INSTRUMENTS AND RELATED PRODUCTS									
	38								
-Metal casting	3822	SCAQMD, California	12/14/84	84-563 84-599	TCA tray	TC/GC	Perchloroethylene Perchloroethylene	215 ppm (6.15 lb/hr) 46 ppm (1.61 lb/hr)	Degreasing equipment Degreasing equipment
ELECTRIC GAS AND SANITARY SERVICES									
	49								
-Air stripping towers (2) to remove hazardous wastes from municipal water wells	4941	Puget Sound, Washington	10-11/84	N/A	Inlet/outlet water sampling	Mass balance using GC with electron capture technique analysis of inlet and outlet water samples	Tetrachloroethylene Trichloroethylene 1,2-trans-Dichloroethylene	0.158 lb/hr 0.011 lb/hr 0.0 lb/hr	Process Process Process
-Air stripping towers (5) to remove hazardous wastes from municipal water wells									
	4941	Puget Sound, Washington	9/16/83	N/A	NIOSH Method 127	NIOSH Method 127	1,1,2,2-Tetrachloroethane 1,2-trans-Dichloroethylene Trichloroethylene Tetrachloroethylene	7.49x10 ⁻³ lb/hr <12.0x10 ⁻³ lb/hr 10.4x10 ⁻³ lb/hr 1.67x10 ⁻³ lb/hr	Process Process Process Process
					EPA Method 23	EPA Method 23	1,1,2,2-Tetrachloroethane 1,2-trans-Dichloroethylene Trichloroethylene Tetrachloroethylene	1.12x10 ⁻³ lb/hr <0.48x10 ⁻³ lb/hr 7.53x10 ⁻³ lb/hr 2.73x10 ⁻³ lb/hr	Process Process Process Process

(Continued)

TABLE 11. Continued

Facility Category	SIC Code	State or Locality	Test Date	Test or Facility ID #	Sampling Technique	Analytical Method	Non-Criteria Pollutants	Measured Emission Rates	Location of Measurement
-Hazardous waste landfill	4953	Texas	10/11/82	-	Gas chromatograph	Gas chromatograph and GC/MS	Benzene Aliphatic 1,3-Dimethylcyclopentane Toluene Hexanone Decanol Methyl naphthalene Ethyl naphthalene Dimethyl naphthalene Trimethyl naphthalene Methanamine N 1,4-Dimethoxy-2,3,5,6-tetramethyl benzene Phosphoric acid tributyl ester Chlorodecane	0.3 ppb ¹ 0.003-0.4 ppb ¹ 0.2 ppb ¹ 0.2 ppb ¹ 0.04 ppb ¹ 0.01 ppb ¹ 0.01 ppb ¹ 0.005 ppb ¹ 0.02 ppb ¹ 0.03-0.04 ppb ¹ 0.01 ppb ¹ 0.02 ppb ¹ 0.03 ppb ¹ 0.003 ppb ¹	-
-Hazardous waste management facility	4953	SCAQMD, California	5/31/84	84-287	Evacuated glass "grab" sample bulb	FID/GC, EC/GC, PID/GC	Vinyl chloride Benzene Toluene Perchloroethylene Trichloroethylene Carbon tetrachloride Chloroform	200-300 ppm 100-200 ppm 300-300 ppm 120-150 ppm 20-80 ppm <0.60 ppm 6-25 ppm	Flare collection line (unburned emissions)
-Hazardous waste management facility	4953	SCAQMD, California	12/21/83	83-510	-	-	Vinyl chloride	533 ppm (23.9 lb/hr)	Flare collection line (unburned emissions)
-Fluid treatment plant	4953	SCAQMD, California	12/2/82	82-305	Gas sample "grab" bag	EC/GC, GC/MS	Polychlorinated biphenyls	<0.002 ppb	Total process equipment
-Municipal solid waste incineration	4953	Oregon	Initial test (future)	-	To be determined	To be determined	HCl Fluoride (F ⁻) Mercury Beryllium	- - - -	Combustion Combustion Combustion Combustion
PERSONAL SERVICES	72								
-Dry cleaning	7216	Sacramento Co., California	Various	N/A	Infrared analyzer	Infrared analyzer	Perchloroethylene	Various	Control device vent

¹ppb v/v as benzene.

PART 8. AMBIENT MONITORING INFORMATION

Ambient monitoring information has been collected from 19 states and localities on more than 100 pollutants. Table 12 presents these data, including the pollutant measured, state or locality conducting the measurement, and the sampling technique and analytical method used by the state or locality. The sampling techniques and analytical methods have been coded; an explanation of the code is provided at the end of the table. The reader should address any questions or requests for additional information on a state or local agency's ambient monitoring activities to the ambient monitoring contacts identified in Tables 1 and 2 in Part 2.

TABLE 12. AMBIENT MONITORING INFORMATION

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Acetates	--	MA	M	MS
Acetone	67-64-1	IL	Cr MS	GCMS
		NH	DI Tn C	GCFID PID
Acrylonitrile	107-13-1	SC	C	GCFID
Alcohols	--	MA	M	MS
Aliphatics	--	MA	M	MS
Aluminum	7429-90-5	KS	P	AA
		MT	-	-
		TX	HV	XRF
Amines	--	MA	M	MS
Ammonia	7664-41-7	NV ^d	Cont	Chl
Antimony	7440-36-0	OH	SF	AA
		OH	SF	AA
		TX	HV	XRF
Aromatics	--	MA	M	MS
Arsenic	7440-38-2	AZ	P	GFAA
		IL	P	AA
		IL	HV	AA
		KS	P	AA
		MT	-	-
		OH	HV	AA
		TX	HV	XRF
Asbestos	1332-21-4	MN	MF	M
		PA ^e	E	M
		SC	MF	M
Barium	7440-39-3	KS	P	AA
		MT	-	-
		OH	HV	AA
		TX	HV	XRF

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Benzene	71-43-2	AR	Tn	GCFID
				PID
		CA ^f	TB	GCMS
		CA	TB	GCFID
		IL	Cr	GCMS
				MS
		MA	C	GCPID
				GCMS
			M	MS
			G	GCPID
		NH	DI	GCFID
			Tn	GCECD
			C	PID
		PA ^e	C	GC
Benzo(a)pyrene	50-32-8	MN	HV	
		PA ^e	HV	HPLC
Beryllium	7440-41-7	IL	P	AA
		IL	HV	AA
		KS	P	AA
		MT	-	-
Bismuth	7440-69-9	MT	-	-
Boron	7440-42-8	MT	-	-
Bromine	7726-95-6	TX	HV	XRF
Bromodichloromethane	75-27-4	CA	TB	GCECD
Bromomethane	74-83-9	CA	T	GCECD
Cadmium	7440-43-9	IL	P	AA
		IL	H	AA
		KS	P	AA
		MT	-	-
		OH	H	AA
		PA ^e	H	AA
		SC	H	AA
		TX	H	XRF

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Calcium	7440-70-2	MT PA ^e TX	— HV HV Tn C	— AA XRF PID
Carbon tetrachloride	56-23-5	CA NH	TB DI Tn C	GCECD GCECD PID
Chlorides, total gaseous	--	NV ^d	BT	Ar T
Chlorinated hydrocarbons	--	MA	M	MS
Chlorine	7782-50-5	KS PA ^e TX	P HV HV	IC C XRF
Chlorobenzene	108-90-7	NH	DI Tn C	GCFID PID
Chlorodibromomethane	124-48-1	CA	TB	GCECD
1-Chloroethene	--	CA	TB	GCFID
Chloroform	67-66-3	CA CA ^c CA ^f NH	TB C TB DI Tn C	GCECD GCMS GCMS GCECD PID
		MA	C	GCPID GCMS
Chloromethane	74-87-3	CA	TB	GCECD
Chlorophenols	--	AR	Tn	GCECD

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Chromium	7440-47-3	CA	P	XRF
		IL	HV	AA
		KS	P	AA
		MT	-	-
		MN	HV	AA
		PA ^e	HV	AA
		OH	HV	AA
		TX	HV	XRF
Cobalt	7440-48-4	KS	P	AA
		MT	-	-
		TX	HV	XRF
Copper	7440-50-8	KS	P	AA
		MT	-	-
		OH	HV	AA
		OH	HV	AA
		PA ^e	HV	AA
		SC	HV	AA
		TX	HV	XRF
Curene	101-14-4	MI	HV	GCECD
Cyclohexane	110-82-7	MA	M	MS
1,2-Dibromoethane	106-93-4	CA	TB	GCECD
1,1-Dichloroethane	75-34-3	MA	C	GCPID GCMS
1,2-Dichloroethane	107-06-2	CA	TB	GCECD
		MA	C	GCPID GCMS
1,2-Dichloroethylene	540-59-0	CA	B	GCECD
		NH	Tn	GCFID
			C	GCECD PID

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Dichloromethane	75-09-2	CA NH MA	TB DI Tn C C	GCECD GCFID PID GCPID GCMS
1,2-Dichloropropane	78-87-5	CA MA	TB C	GCECD GCPID GCMS
Dimethyl formamide	68-12-2	MA	G M	MS GCPID MS
Dioxins	--	IL	HV	GCMS
Ethyl Ether	60-29-7	NH	Tn C	GCFID PID
Ethyl benzene	100-41-4	MA NH	G Tn C	GCPID GCFID PID
Ethylene dibromide	106-93-4	AR	C	GCECD
Ethylene dichloride	107-06-2	CA ^f	TB	GCMS
Fluoride	16984-48-8	MT PA ^e OH OH	- HV SF SF	- SIE SIE SIE
Fluorides, gaseous as HF	7664-39-3	SC	DT	SIE
Fluorine	7782-41-4	KS	P	IC
Formaldehyde	50-00-0	NV ^d PA ^e SC	BT A NaHSO ₂	HPLC C CA

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Freon 11, 21, 113	--	NH	DI Tn C	GCFID
Germanium	--	TX	HV	XRF
Halogenated hydrocarbons	--	MA	M	MS
Hexane	110-54-3	MA NH	G DI Tn C	GCPID GCFID PID
Hydrogen sulfide	7783-06-4	MI NH PA ^e	HV DI Tn C Cont	GCECD PID C
Iodine	7553-56-2	TX	HV	XRF
Iron	15438-31-0	IL KS MT PA ^e TX	P P - HV HV	AA AA - AA XRF
Ketones	--	MA	M	MS
Lanthanum	--	TX	HV	XRF
Lead	7439-92-1	CA KS OH TX	P P HV HV	XRF AA AA XRF
Light scattering	--	NV ^d	Cont	N
Magnesium	7439-95-4	MT	-	-

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Manganese	7439-96-5	CA	P	XRF
		IL	P	AA
		KS	P	AA
		MT	-	-
		PA ^e	HV	AA
		TX	HV	XRF
Mercury vapor	7439-97-6	MT	-	-
		SC	H	AA
Methylene chloride	75-09-2	NH	Tn	GCFID
			C	GCECD PID
Methyl ethyl ketone	78-93-3	NH	Tn	GCFID
			C	PID
Methyl isobutyl ketone	108-10-1	NH	Tn	GCFID
			C	PID
Molybdenum	7439-98-7	MT	-	-
		TX	HV	XRF
Nickel	7440-02-2	CA	P	XRF
		IL	HV	AA
		KS	P	AA
		MT	-	-
		PA ^e	HV	AA
		OH	HV	AA
		TX	HV	XRF
Nitrate	--	AZ	P	CdR
		AZ	P	GFAA
		IL	P	IEC
				C
		KS	P	IC
		MT	-	-
		PA ^e	HV	C
Pentane	109-66-0	NH	DI	GCFID
			Tn	
			C	

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Peroxyacetylnitrate	2278-22-0	NV ^d	Cont	GC
Peroxybenzoylnitrate	--	NV ^d	BT	DAUR
Pesticides	--	ID	P	GC MS
Phenols	108-95-2	MA	G M	GCPID MS
Phosphorus	7723-14-0	TX	HV	XRF
Phthalic anhydride	85-44-9	PA ^e	BT	UV
Polychlorinated biphenyls	53469-21-9 11097-69-1	IL SC	HV PUF	GCECD GCECD
Potassium	7440-09-7	KS MT TX	P - HV	AA - XRF
Rubidium	7440-17-7	TX	HV	XRF
Selenium	7782-49-2	MT TX	- HV	- XRF
Silicon	7440-21-3	TX	HV	XRF
Silver	7440-22-4	KS MT	P -	AA -
Strontium	--	TX	HV	XRF
Styrene	100-42-5	AR	Tn	GCFID PID

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Sulfate	--	AZ	P	T
		AZ	P	GFAA
		IL	P	IEC
				C
		KS	P	IC
		MN	HV	
		MT	-	-
		PA ^e	HV	C
Sulfur	7704-34-9	MT	-	-
		TX	HV	XRF
1,1,2,2-Tetrachloroethane	79-34-5	MA	C	GCPID GCMS
Tetrachloroethylene	127-18-4	CA	TB	GCECD
		CA ^c	C	GCMS
		CA ^f	TB	GCMS
		NH	DI	GCFID
			Tn	GCECD
			C	PID
		MA	C	GCPID
				GCMS
		VT	SS	GC
Tetrahydrofuran	109-99-9	NH	Tn	GCFID
			C	
Thallium	7440-28-0	TX	HV	XRF
Tin	7440-31-5	MT	-	-
		TX	HV	XRF
Titanium	7440-32-6	MT	-	-
		TX	HV	XRF

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
Toluene	108-88-3	AR	Tn	GCFID
				PID
		IL	Cr	GCMS
				MS
		MA	C	GCPID
				GCMS
			G	GCPID
			M	MS
		NH	DI	GCFID
			Tn	PID
Tribromomethane	75-25-2		C	
		PA ^e	C	GC
		CA	TB	GCECD
1,1,1-Trichloroethane	71-55-6	CA ^c	C	GCMS
		CA ^f	TB	GCMS
		CA	TB	GCECD
		MA	C	GCPID
				GCMS
		NH	DI	GCECD
			Tn	PID
			C	
1,1,2-Trichloroethane	79-00-5	MA	C	GCPID
				GCMS
Trichloroethylene	79-01-6	CA	TB	GCECD
		CA ^f	TB	GCMS
		CA ^c	C	GCMS
		MA	C	GCPID
				GCMS
		NH	DI	GCECD
			Tn	PID
			C	
Trichlorotrifluoroethane	76-13-1	CA ^c	C	GCMS
		MA	C	GCPID
Trimethylpentane	540-84-1			GCMS
		NH	DI	GCFID
			Tn	PID
			C	

(Continued)

TABLE 12. Continued

Pollutant	CAS No.	State or Locality	Sampling ^a Technique	Analytical ^b Method
VOC species	--	NV ^d	Cyl	GCMS
Vanadium	7440-62-2	MT TX	-- HV	-- XRF
Vinyl chloride	75-01-4	CA ^f	TB	GCMS
Vinylidene chloride	75-35-4	CA CA ^f NH	TB TB Tn C	GCMS GCMS GCECD
Xylene	1330-20-7	IL MA NH PA ^e	Cr M Tn C C	GCMS MS MS GCFID GC
p-Xylene	106-42-3	SC	C	GCFID
Zinc	7440-66-6	KS MT PA ^e TX	P -- HV HV	AA -- AA XRF
Zirconium	7440-67-2	TX	HV	XRF

Footnotes on next page.

TABLE 12. Continued

^aSampling Techniques:

A = Aqueous
 BT = Bubbler Train
 C = Charcoal
 Cont = Continuous
 Cr = Cryogenic Trap
 Cyl = Cylinders
 DI = Direct Injection
 DT = Double Tape
 F = Filter
 G = Grab sample

H = Hopcalite Solid Sorbent
 HV = HiVol
 M = Mobile real time
 MB = Membrane Filter
 PUF = PUF Solid Sorbent
 SF = Sodium Formate Filter
 SS = Solid Sorbent
 T = Turbidometric
 TB = Tedlar Bag
 Tn = Tenax

^bAnalytical Methods:

AA = Atomic Absorption
 Ar = Argentometric
 C = Colorimetry
 CA = Chromatropic Acid
 Cdr = Cadmium Reduction
 Chl = Chemiluminescence
 GC = Gas Chromatography
 GCECD = Gas Chromatography Electron
 Capture Detector
 GCFID = Gas Chromatography/Flame
 Ionization Detector
 GCMS = Gas Chromatography Mass
 Spectrometry

GFAA = Graphite Furnace/Atomic
 Absorption
 IEC = Ion Exchange Chroma-
 tography
 M = Microscopic Analysis
 MS = Mass Spectrometry
 N = Nephelometer
 P = Particulate
 PID = Photoionization
 SIE = Selective Ion Electrode
 UV = Ultraviolet Absorption
 XRF = X-Ray Fluorescence

^cLocality: Sacramento, CA

^dLocality: Clark Co., NV

^eLocality: Allegheny Co., PA

^fLocality: South Coast, CA

APPENDIX A
Data Collection Forms

This appendix includes the six data collection forms used to solicit information from state and local agencies for inclusion in the Clearinghouse database. They are:

- Form 1. Agency General Information
- Form 2. Regulatory Program Information
- Form 3. Permitting Information
- Form 4. Ambient Monitoring Information
- Form 5. Toxicity Test Results
- Form 6. Source Testing Information

This report presents the information collected using these forms. No data have been received to date from Form 5 (Toxicity Test Results).

National Air Toxics Information Clearinghouse

Form 1. Agency General Information

I. Agency Information

Agency Name: _____ Telephone _____

Address: _____

City, State, Zip: _____

II: Air Toxics Program Information

Please indicate below the areas in which you have information to share with other Clearinghouse users regarding non-criteria air pollutants. Also, please give the name and telephone number (if different from above) of a contact person in the areas of expertise noted below. This person will receive data collection forms, and may be contacted directly by the Clearinghouse staff or other Clearinghouse users with requests for information. Page 2 presents the kinds of information that will be sought under each of the identified subject areas.

<u>Subject Area</u> ¹	<u>Name</u>	<u>Telephone Number</u>
Regulatory Program:	_____	_____
Permitting:	_____	_____
Source Tests:	_____	_____
Ambient Monitoring:	_____	_____
Emissions Inventory:	_____	_____
Health Effects:	_____	_____

¹ If you have so much information to submit in any of these areas such that it may be a reporting burden, please circle the appropriate subject area and someone from the Clearinghouse staff will contact you to discuss sending representative samples.

Please return this form to:

Ms. Sandra Smith
Radian Corp.
8501 Mo-Pac Blvd.
P.O. Box 9948
Austin, Texas 78766

If you have questions on completing this form,
please call Sandra Smith (512) 454-4797.

INFORMATION FOR POSSIBLE SUBMITTAL TO THE NATIONAL AIR TOXICS
INFORMATION CLEARINGHOUSE

Please indicate by circling the appropriate numbers below the kinds of information on toxic air pollutants that you have and are willing to submit to the National Air Toxics Information Clearinghouse

<u>Subject Area</u>	<u>Information Needs</u>		
Regulatory Program Information	1) Basis for establishment of program 2) Pollutants regulated or for which guidelines exist 3) Sources regulated 4) Acceptable ambient concentrations and basis	5) Research on pollutants toxicity source assessment exposure assessment risk assessment monitoring study emission factor development 6) Pollutant ranking schemes 7) Risk assessment guidelines	8) Pollutant categorization schemes 9) Detailed descriptions of control programs in place 10) Results of state/local sponsored toxicity testing 11) Results of industry sponsored toxicity testing
Permitting Data (from a representative sample of cases)	1) List of permits for toxics by source category 2) Pollutants emitted by source category 3) Emission factors (if used) 4) Estimated emission rates	5) Emission limits 6) Averaging time 7) Control requirements 8) Process description 9) Basis for emission rate estimate	10) Control efficiency of equipment 11) Total estimated emission reduction 12) Basis for emission limit 13) Detailed descriptions of selected case studies
Source Test Data (from a representative sample of source tests)	1) List of source tests by source category 2) Pollutants detected by source category 3) Measured emission rates	4) Process description 5) Emission control equipment 6) Control efficiency of equipment	7) Source test methods 8) Quality assurance procedures 9) Case studies
Ambient Monitoring Data (from a representative sample of studies)	1) List of pollutants monitored 2) Reference to study 3) Site, location 4) Site classification	5) Pollutants measured 6) Period of study 7) Concentrations detected 8) Averaging period	9) Monitoring methods 10) Site selection criteria 11) Quality assurance procedures 12) Case studies

NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE
Form 2. Regulatory Program Information

Please return this form to:
Ms. Sandra Smith
Radian Corporation
P.O. Box 9948
Austin, TX 78766

Please complete this form with respect to the control of non-criteria air pollutants by your agency. If you have already submitted this form to the Clearinghouse at some time in the past, please consider this a request for revised or updated information. If you have questions on completing this form, please call: Sandra Smith, Radian Corporation, (512)454-4797.

I. General Information

Agency Name: _____ Date: _____

This form was completed by: _____ Telephone: () _____

II. Air Toxics Program Information

Please check yes or no for the following statements with respect to the control of non-criteria air pollutants by your agency.

Yes No

Program Status

- _____ 1. We have an air toxics control program currently in place. (This does not include delegation of NESHAPs authority).
- _____ 2. We are developing an air toxics program which is scheduled to be in place by (date) _____.

Program Structure

- _____ 3. Our air toxics control program is based on promulgated regulations.
- _____ 4. Our air toxics control program is based on informal guidelines.

Program Scope

- _____ 5. The scope of our program is limited to a specified list of pollutants.
- _____ 6. The scope of our program is limited to a specified list of sources or source categories.

Application

- _____ 7. We use acceptable ambient concentrations in the permit review process.
- _____ 8. We use formally adopted ambient standards for non-criteria air pollutants.
- _____ 9. Some or all of our acceptable ambient concentrations or standards are based on the application of a safety factor to an established Threshold Limit Value (TLV). We use the following safety factor(s): _____.
- _____ 10. Some or all of our acceptable ambient concentrations or standards are based on the results of original health effects research.
- _____ 11. We use control technology requirements, such as "state of the art" for sources of specified pollutants.
- _____ 12. We use risk assessment on a case-specific bases.
- _____ 13. We maintain an emissions inventory for air toxics.

Comments or Clarification: _____

III. Acceptable Ambient Concentrations/Ambient Standards

If you have established acceptable ambient concentrations or ambient standards, please supply the following information to the extent that it applies to your air toxics control program.

CAS # or Pollutant Name ¹	Ambient Standard or Acceptable Ambient Concentration ² (specify unit)	Averaging Time ³	Basis ⁴ (✓)				If Concentration is Based on Threshold Limit Value Source of TLV (✓) Safety Factor			
			a	b	c	d	ACGIH	OSHA	NIOSH	Used
1. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
9. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
10. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
11. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
12. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
13. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
14. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
15. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
16. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
17. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
18. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
19. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	
20. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	

Comments or Clarification: _____

¹If more than 20 pollutants, please continue on duplicate page.

²See instructions for clarification of terms.

³15-minute, 1-hour, 24-hour, annual, etc.

⁴
a. TLV/safety factor
b. agency-sponsored original research
c. adoption of concentration set by another agency or group
d. other

IV Pollutant Research

If your agency sponsors or participates in a pollutant assessment or research program (not including methods development-see Section V), please supply the following information to the extent that it applies to your air toxics control program. Please supply the same information if you are aware of relevant research conducted by other agencies in your state or locality.

CAS # or Pollutant Name ¹	Type of Research or Assessment Activities ²								Other (specify)	Is supporting documentation available?	
	HA	SA	EA	TT	ES	MS	EF	RA		Yes	No
1. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
16. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
17. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
18. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
19. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
20. _____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

¹If more than 20 pollutants, please continue on duplicate form.

²HA = health assessment, SA = source assessment, EA = exposure assessment, TT = toxicity testing, ES = epidemiological study, MS = monitoring study, EF = emission factor development, RA = risk assessment. For additional clarification of terms, see instructions.

Comments or Clarification: _____

V. Methods Development Activities

If your agency sponsors or participates in methods development or research in any of the following areas, please indicate below:

	<u>Yes</u>	<u>No</u>	<u>Explain, if yes</u>
1. Emissions Testing	_____	_____	_____ _____ _____
2. Ambient Monitoring	_____	_____	_____ _____ _____
3. Dispersion Modeling Application, Evaluation and Development	_____	_____	_____ _____ _____ _____
4. Emergency Response Procedures	_____	_____	_____ _____ _____ _____
5. Ambient Exposure Assessment	_____	_____	_____ _____ _____ _____
6. Emissions Modeling from Non-Traditional Sources (e.g., impoundments and landfills)	_____	_____	_____ _____ _____ _____
7. Other (e.g., indoor/outdoor exposure relationships)	_____	_____	_____ _____ _____ _____

VI. Non-Health Related Impacts

Please submit in the space provided below or attach any information you may have on case studies of non-health related impacts of non-criteria air pollutants (e.g., odor, vegetation damage).

Ms. Sandra Smith
Radian Corporation
P.O. Box 9948
Austin, TX 78766

NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE

Form 3. Permitting Information

Please complete this form for permitted facilities (e.g., individual plants at a specific site) emitting non-criteria air pollutants which you believe will be of interest to other state and local agencies. The purpose of this form is to establish a registry of permitted sources and pollutants emitted so that other state and local agencies can benefit from the information you have. Please make duplicate copies of this form for as many facilities as you are willing to register with the Clearinghouse. If you have such a large volume of information that it would be more easily transferred by computer rather than by completing these forms, please call Sandra Smith, Radian Corporation, (512)454-4797. Questions on completing this form also should be directed to Sandra Smith.

I. General Information

Agency Name: _____

This form was completed by: _____

Telephone: () _____

Date: _____

II. Permitted FacilitiesPermitted Facilities¹

1. Facility Category ² :	Non-Criteria Pollutants ³ (CAS # ² or Pollutant Name)	Emission Limit or Equivalent, if Applicable (specify unit)	Source of Emissions Subject to Limit ² (total, process, handling, storage, fugitive, combustion, other - specify)
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____

4-digit SIC Code²: _____

Year(s) Permit Issued/

Amended: _____

Permit Identification

Number²: _____

Control Equipment: _____

2. Facility Category²:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

4-digit SIC Code²: _____

Year(s) Permit Issued/

Amended: _____

Permit Identification

Number²: _____

Control Equipment: _____

II. Permitted Facilities (continued)

Permitted Facilities ¹	Non-Criteria Pollutants ³ (CAS #2 or Pollutant Name)	Emission Limit or Equivalent, if Applicable (specify unit)	Source of Emissions Subject to Limit ² (total, process, handling, storage, fugitive, combustion, other - specify)
3. Facility Category ² :	1.		
	2.		
	3.		
4-digit SIC Code ² :	4.		
Year(s) Permit Issued/ Amended:	5.		
Permit Identification Number ² :	6.		
Control Equipment:	7.		
	8.		
4. Facility Category ² :	1.		
	2.		
	3.		
4-digit SIC Code ² :	4.		
Year(s) Permit Issued/ Amended:	5.		
Permit Identification Number ² :	6.		
Control Equipment	7.		
	8.		
5. Facility Category ² :	1.		
	2.		
	3.		
4-digit SIC Code ² :	4.		
Year(s) Permit Issued/ Amended:	5.		
Permit Identification Number ² :	6.		
Control Equipment	7.		
	8.		

¹To register more than five facilities, continue on duplicate form.

²See instructions for clarification of terms.

³If more than 8 pollutants per facility, cross out facility category which follows and continue with pollutant list.

NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE
Form 4. Ambient Monitoring Information

Please return this form to:

Ms. Sandra Smith
Radian Corporation
P.O. Box 9948
Austin, TX 78766

If you have questions on completing this
form, call:

Sandra Smith
Radian Corporation
(512) 454-4797

I. General Information

Agency Name: _____

This form was completed by: _____

Telephone: () _____

II. Pollutants Monitored

Please list the non-criteria pollutants (or CAS numbers) for which ambient monitoring data are available, the year(s) the measurement took place, the location of the measurement, and the sample collection technique¹ and analytical method² used.

	CAS # or Pollutant Measured ³	Year Measured	Location of Measurement (city/county)	Sampling Technique ¹	Analytical Method ²
1.	_____	_____	_____	_____	_____
2.	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____
7.	_____	_____	_____	_____	_____
8.	_____	_____	_____	_____	_____
9.	_____	_____	_____	_____	_____
10.	_____	_____	_____	_____	_____
11.	_____	_____	_____	_____	_____
12.	_____	_____	_____	_____	_____
13.	_____	_____	_____	_____	_____
14.	_____	_____	_____	_____	_____
15.	_____	_____	_____	_____	_____

¹Technique used to collect ambient air sample, e.g., single or multi-stage solid sorbent tubes, cryogenic traps, charcoal traps, particulate samplers, etc.

²Methodology used to analyze sample for chemical constituents, e.g., gas chromatography/mass spectrometry (GC/MS), gas chromatography-electron capture detection (GC-ECD), etc.

³If more than 15 pollutants, please continue on duplicate form.

NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE
Form 5. Toxicity Test Results

Please return this form to:

Ms. Sandra Smith
Radian Corporation
P.O. Box 9948
Austin, TX 78766

If you have questions on completing this form,
please call:

Sandra Smith, Radian Corporation
(512) 454-4797

Please complete this form for each pollutant for which you have the results of agency-sponsored or industry-sponsored toxicity testing which you are willing to share with the Clearinghouse. Fill out only those sections for which you have test results. Use a separate form for each pollutant.

I. General Information

Agency Name: _____

This form was completed by: _____

Telephone: () _____

Pollutant Name: _____

II. Mutagenicity, Teratogenicity, Carcinogenicity Test Observations

Give the observations from each of the following tests (dose and effects).

Mutagenicity

Salmonella _____

Drosophila _____

Cell Transformation _____

Sister Chromatid Exchange _____

Other _____

Teratogenicity

Carcinogenicity

III. Acute Toxicity Test Results

Give results of acute toxicity testing (24 hours to one week, LD₅₀ determination).

Route of Administration	Dosage (specify units)		Animal Species
	Single Dose	Multiple Dose	

Observations and Other Toxic Effects: _____

IV. Sub Acute Toxicity Test Results

Results of sub acute toxicity testing (generally 90 days).

Route of Administration	Dosage (specify units)		Animal Species
	Daily Dose	Weekly Dose	

Observations and Other Toxic Effects: _____

V. Chronic Toxicity Test Results

Give results of chronic toxicity testing (generally 1-2 years).

Route of Administration	Dosage (specify units)			Animal Species
	Daily Dose	Weekly Dose	Other	

Observations and Other Toxic Effects: _____

Survival Rate of Animals During Test: _____

Autopsy Findings: _____

VI. Human Effects

Describe effects on humans (acute, chronic, occupational exposure and epidemiological studies): _____

VII. References

Give references to toxicity studies which document data reported on this form (if available): _____

Please return this form to:
Ms. Sandra Smith
Radian Corporation
P.O. Box 9946
Austin, TX 78766

NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE
Form 6. Source Testing Information

Please complete this form for facilities (e.g., individual plants at a specific site) for which you have conducted emissions testing for non-criteria air pollutants. The purpose of this form is to establish a registry of sources which have been tested as well as sampling and analytical techniques in use. This will allow other state and local agencies to benefit from your experience in this area. Please make duplicate copies of this form for as many facilities as you are willing to register with the Clearinghouse. If you have questions on completing this form, call: Sandra Smith, Radian Corporation, (512) 454-4797.

I. General Information

Agency Name: _____

This form was completed by: _____

Telephone: () _____

Date: _____

II. Tested Facilities

Tested Facilities¹ _____

1. Facility Category²: _____

4-digit SIC Code²: _____

Test Date: _____

Test Identification
Number²: _____

Sampling Technique(s)²: _____

Analytical Method(s)²: _____

Location of Measurement²
(total, process, handling,
storage, fugitive, combus-
tion, other - specify)

Measured
Emission Rates²
(specify unit)

Non-Criteria
Pollutants Measured³
(CAS #² or Pollutant Name)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

2. Facility Category²: _____

4-digit SIC Code²: _____

Test Date: _____

Test Identification
Number²: _____

Sampling Technique(s)²: _____

Analytical Method(s)²: _____

(continued)

II. Tested Facilities (Continued)

Tested Facilities ¹	Non-Criteria Pollutants Measured ³ (CAS #2 or Pollutant Name)	Measured Emission Rates ² (specify unit)	Location of Measurement ² (total, process, handling, storage, fugitive, combus- tion, other - specify)
3. Facility Category ² : _____	1. _____	_____	_____
_____	2. _____	_____	_____
_____	3. _____	_____	_____
4-digit SIC Code ² : _____	4. _____	_____	_____
Test Date: _____	5. _____	_____	_____
Test Identification	6. _____	_____	_____
Number ² : _____	7. _____	_____	_____
_____	8. _____	_____	_____
Sampling Technique(s) ² : _____			
Analytical Method(s) ² : _____			
4. Facility Category ² : _____	1. _____	_____	_____
_____	2. _____	_____	_____
_____	3. _____	_____	_____
4-digit SIC Code ² : _____	4. _____	_____	_____
Test Date: _____	5. _____	_____	_____
Test Identification	6. _____	_____	_____
Number ² : _____	7. _____	_____	_____
_____	8. _____	_____	_____
Sampling Technique(s) ² : _____			
Analytical Method(s) ² : _____			
5. Facility Category ² : _____	1. _____	_____	_____
_____	2. _____	_____	_____
_____	3. _____	_____	_____
4-digit SIC Code ² : _____	4. _____	_____	_____
Test Date: _____	5. _____	_____	_____
Test Identification	6. _____	_____	_____
Number ² : _____	7. _____	_____	_____
_____	8. _____	_____	_____
Sampling Technique(s) ² : _____			
Analytical Method(s) ² : _____			

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¹To register more than five facilities, continue on duplicate form.

²See instructions for clarification of terms.

³If more than eight pollutants per facility, cross out facility category which follows and continue with pollutant list.