

Chapter 137: EMISSION STATEMENTS

SUMMARY: This regulation establishes requirements for the reporting of pollutant emissions from stationary sources of air pollution.

1. Applicability

- A.** This regulation applies statewide.
- B.** This regulation applies to all stationary sources which emit or are licensed to emit into the ambient air, any of the following air pollutants at or above the minimum required reporting level:

<u>Criteria Pollutants</u>	<u>Minimum Reporting Threshold</u>
(1) Carbon monoxide (CO)	75 tpy
(2) Sulfur dioxide (SO ₂)	40 tpy
(3) Volatile organic compounds (VOC)	25 tpy
(4) Nitrogen oxides (NO _x) (in NO ₂ equivalents)	25 tpy
(5) Fine Particulate Matter (PM ₁₀)	15 tpy
(6) Fine Particulate Matter (PM _{2.5})	15 tpy
(7) Lead (Pb)	0.1 tpy
(8) Ammonia (NH ₃)	50 tpy

- C.** This regulation applies to those stationary sources that emit any of the following greenhouse gases and are required to report their emissions pursuant to Section 1(B) of this Chapter:

- (1) Carbon dioxide (CO₂)
- (2) Methane (CH₄)
- (3) Nitrous oxide (N₂O)
- (4) Hydrofluorocarbons (HFCs)
- (5) Perfluorocarbons (PFCs)
- (6) Sulfur hexafluoride (SF₆)

- D.** If any one pollutant as specified in Section 1(B) is emitted at or above the minimum required reporting level, the data for all pollutants listed in Section 1(B) and 1(C) must be collected and reported.

- E.** This regulation applies to the following stationary sources of greenhouse gases:

- (1) all electrical power transmission and distribution plants that emit any amount of sulfur hexafluoride (SF₆).
- (2) all greenhouse gas manufacturing facilities that emit any amount of greenhouse gases.

F. This regulation applies to all stationary sources which:

(1)

(a) emit to the air any chemical or compound at or above the threshold listed in Appendix A; or

(b) where actual emissions are not known, either use, process, or manufacture any chemical or compound at or above the threshold listed in Appendix A. For the purposes of this subsection manufacture includes compounds coincidentally manufactured such as byproducts of a process or compounds resulting from combustion;

(2) release to Publicly Owned Treatment Works (POTWs) any chemical or compound at or above the threshold listed in Appendix A which has a vapor pressure greater than 0.1 mm Hg (standard conditions of temperature and pressure); or

(3) in the aggregate, emit to the air and release to POTWs any chemical or compound at or above the threshold listed in Appendix A.

2. Definitions. The following terms are defined for use in this Chapter:

A. Greenhouse gas. “Greenhouse gas” means one of the following gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), or sulfur hexafluoride (SF₆).

B. Greenhouse gas manufacturing facility. “Greenhouse gas manufacturing facility” means a facility that intentionally produces a greenhouse gas for use as a raw material in the manufacturing process or for sale. This term does not include compounds that are coincidentally manufactured, such as byproducts of a process or combustion.

C. Hydrofluorocarbons (HFCs). “Hydrofluorocarbons (HFCs)” means those pollutants listed in Appendix B of this Chapter.

D. Maine Hazardous air pollutants (HAPs). “Maine Hazardous air pollutants (HAPs)” means those pollutants listed in Appendix A of this Chapter.

E. Perfluorocarbons (PFCs). “Perfluorocarbons (PFCs)” means those pollutants listed in Appendix B of this Chapter.

F. Publicly Owned Treatment Works (POTWs). “Publicly Owned Treatment Works (POTWs)” means facilities commonly known as sewage treatment plants which treat domestic sewage and industrial and commercial wastes received primarily through underground sewers.

G. Tons per year (tpy). “Tons per year (tpy)” means tons per year of actual emissions.

H. Transmission and Distribution Plant. “Transmission and Distribution Plant” means all real estate, fixtures and personal property owned, controlled, operated or

managed in connection with or to facilitate the transmission, distribution or delivery of electricity for light, heat or power for public use and includes all conduits, ducts and other devices, material, apparatus and property for containing, holding or carrying conductors used, or to be used, for the transmission or distribution of light, heat or power for public use.

3. Requirements.

- A. The owner or operator of any facility meeting the applicability requirements in Section 1(B) must file an emission statement with the Department on an annual basis for those pollutants listed in Section 1(B) and 1(C) of this Chapter. The emission statement must be filed with the Department no later than July 1 of the year following the inventory year.
- B. The owner or operator of any facility meeting the applicability requirements in Section 1(E) must file an emission statement with the Department on an annual basis for those pollutants described in Section 1(E) of this Chapter. The first year that data must be reported is for emissions in calendar year 2003. Emission statements must be filed annually for each calendar year thereafter. The emission statement must be filed with the Department no later than July 1 of the year following the inventory year.
- C. The owner or operator of any facility meeting the applicability requirements in Section 1(F) must file an emission statement with the Department every three years, starting with data of emissions from calendar year 2005 for those compounds subject to reporting in Section 1(F). Emission statements must be filed with the Department no later than July 1 of the year following the inventory year.

NOTE: HAPS reports will be due for emissions in inventory year 2005, 2008, 2011, and every three years thereafter. The 2005 emissions data must be reported no later than July 1, 2006, etc.

- D. Notwithstanding the other provisions of subsections 3A-3C above, all required reports of emissions that occurred in 2003 shall be reported no later than September 1, 2004.

4. Emission Statement. Sources subject to reporting shall file, at a minimum, the following information in a format prescribed by the Department:

- A. **Certification** – A certification that the information contained in the statement is accurate and complete to the best knowledge of the facility’s responsible official or his/her designee. The certification shall include the full name, title, signature, date of signature, and telephone number of the responsible official or designee.
- B. Inventory year – Calendar year for which emissions estimates are calculated.
- C. Source Identification Information:

- (1) State FIPS code – The Federal Information Placement System (FIPS) is the system of unique numeric codes the government developed to identify States, counties and parishes for the entire United States, Puerto Rico and Guam.
- (2) County FIPS code – The Federal Information Placement System (FIPS) is the system of unique numeric codes the government developed to identify States, counties and parishes for the entire United States, Puerto Rico and Guam.
- (3) Facility ID code – The unique code for a facility that is generated by the Department.
- (4) Point ID code – The unique code for the point of generation of emissions that is generated by the Department.
- (5) Site Name – The name of the facility as it appears on its air emission license or if unlicensed, the name of the facility as identified by the Bureau of Taxation.
- (6) Physical Address – The street address for the facility where emissions occur. This must be the E911 address, when available.
- (7) Mailing Address of the facility.
- (8) SIC/NAICS – The Standard Industrial Classification Code/North American Industry Classification System (to replace SIC).
- (9) Latitude and Longitude or Universal Transverse Mercator (UTM) coordinates of stack or release point.

D. Emissions Information:

- (1) Pollutant Code – The unique code for each reported pollutant assigned in the Emission Inventory Improvement Program (EIIP) Data Model.
- (2) Primary Control Device Description – The name of the type of control device (primary).
- (3) Total Annual Activity/throughput data – The total annual amount of a measurable factor or parameter that relates directly or indirectly to the emissions of an air pollution source. Depending on the type of source category, activity information may refer to the amount of fuel combusted, raw material processed, product manufactured, or material handled or processed.
- (4) Annual Emissions – The actual emissions for a facility, point or process – measured or calculated that represent a calendar year. Greenhouse gases, as listed in Section 1(C) and Appendix B, must be reported in tons per year or pounds per year, as appropriate. *De minimis* emissions need not be reported. *De minimis* levels means those emissions, calculated on a per facility basis, below 1 ton CO₂ equivalent or 1% of the minimum reporting threshold for criteria pollutants.

- (5) Estimation calculations with documentation supporting all input variables.

NOTE: In 1999, EPA developed the “SF₆ Emissions Reduction Partnership for Electric Power Systems” to reduce greenhouse gas emissions from power transmission and distribution plants. The intent of this rule is to allow facilities to use this and similar generally recognized inventory protocols as the basis for generating facility emission numbers for HAPS and greenhouse gases.

E. Additional Hazardous Air Pollutant Information. For sources subject to reporting the chemicals and compounds listed in Appendix A.

- (1) For each chemical or compound used, processed, or manufactured, estimated actual emissions to the air of that chemical or compound, at the facility level, in pounds per year.
- (2) For each chemical or compound used, processed, or manufactured, estimated actual discharges to POTWs of that chemical or compound at the facility level, in pounds per year.
- (3) The statement must include a report of all Maine HAPs emissions, except *de minimis* levels need not be reported. For purposes of this subsection, *de minimis* means meeting the exemptions allowed by EPA for reporting to the Toxics Release Inventory per 40 CFR Part 372, Community Right-to-Know Reporting and Recordkeeping Requirements for Toxic Chemicals.

NOTE: Currently the TRI *de minimis* levels are 1.0 percent for non-carcinogens, or 0.1 percent if the toxic chemical meets the OSHA carcinogen standard, and no *de minimis* level for Persistent Bioaccumulative Toxics.

- (4) For the purposes of reporting dioxin and dioxin like compounds, if the total toxicity equivalents of dioxin and dioxin like compounds is over the 0.0002 pound threshold, the facility must report the quantities of the individual dioxin isomers and dioxin like compounds.

F. Additional Criteria Pollutant Information. For sources subject to reporting under Section 1(B), the following additional information must also be filed with the Department as part of a complete emissions statement.

- (1) Additional Processing Information:
 - (a) Process ID code – The unique code for the process generating emissions that is generated by the Department.
 - (b) Stack ID code – The unique code for a stack or release point of emissions into the atmosphere that is generated by the Department.

- (2) Additional Operating Information:

- (a) SCC (Source classification code) – The process level code that describes the equipment or operation which is emitting pollutants.
 - (b) PCC (Process classification code) – A process-level code that describes the equipment or operation which is emitting pollutants. EPA is considering this code as a replacement for SCC.
 - (c) Start time (hour) – The start time (if available) that was used to calculate the emissions estimates.
 - (d) Operating Schedule (Hours/Day) – The hours per day that the emitting process operates, averaged over the inventory period.
 - (e) Operating Schedule (Days/Week) – The days per week that the emitting process operates, averaged over the inventory period.
 - (f) Operating Schedule (Weeks/Year) – The weeks per year that the emitting process operates, averaged over the inventory period.
- (3) Additional Activity/throughput data – A measurable factor or parameter that relates directly or indirectly to the emissions of an air pollution source. Depending on the type of source category, activity information may refer to the amount of fuel combusted, raw material processed, product manufactured, or material handled or processed.
- (a) Activity/throughput (annual) – The total annual throughput.
 - (b) Activity/throughput (monthly) – The throughput on a monthly basis.
 - (c) Activity/throughput (daily) – An estimate of the daily average throughput, including the beginning and ending dates and times that define the emissions period used to estimate the daily activity rate/throughput.
 - (d) Spring Throughput % - March, April, and May of inventory period.
 - (e) Summer Throughput % - June, July and August of inventory period.
 - (f) Fall Throughput % - September, October, and November of inventory period.
 - (g) Winter Throughput % - December, January, and February of inventory period.
- (4) Additional Release Point Data:
- (a) Latitude and Longitude or Universal Transverse Mercator (UTM) coordinates of stack or release point.
 - (b) Stack or release point height – The height above the surrounding terrain.

- (c) Stack or release point diameter – The inner physical diameter.
 - (d) Exit gas temperature (maximum license allowed) – The numeric value of an exit gas stream’s temperature.
 - (e) Exit gas flow rate (maximum license allowed) – The numeric value of an exit gas’s flow rate.
 - (f) Exit gas velocity (maximum license allowed) – The numeric value of an exit gas stream’s velocity.
- (5) Fuel and Process Parameters:
- (a) Heat Content (annual average of fuel) – The amount of thermal heat energy in the fuel.
 - (b) Sulfur Content (annual average of fuel) – The sulfur content of the fuel, expressed in %.
 - (c) Ash Content (annual average of fuel) – The inert residual portion of the fuel.
- (6) Activity Throughput – A measurable factor or parameter that relates directly or indirectly to the emissions of an air pollution source. The units are dependent on source category or report on a monthly basis:
- (a) Fuel parameters:
 - (1) Fuel type.
 - (2) Type of combustion units used.
 - (3) Fuel consumption (thousands of gallons of fuel oil, tons of coal or wood, etc.) monthly and annually.
 - (b) Process parameters:
 - (1) Design Capacity – The measure of the size of a unit, based on the reported maximum continuous capacity of the unit.
 - (2) Maximum nameplate capacity – The measure of a unit’s size that the manufacturer put on the unit’s nameplate.
- (7) Additional Emissions Information:
- (a) Pollutant Code – The unique code for each reported pollutant assigned in the Emission Inventory Improvement Program (EIIP) Data Model.
 - (b) Primary Control Device Description – The name of the type of control device (primary).

- (c) Primary Control Device Efficiency (%) – The percent efficiency of removing pollutant, expressed as a percentage for primary control.
- (d) Secondary Control Device Description – The name of the type of control device (secondary).
- (e) Secondary Control Device Efficiency (%) – The percent efficiency of removing pollutant, expressed as a percentage for secondary control.
- (f) Emission Factor – The ratio relating emissions of a specific pollutant to an activity or material throughput level.
- (g) Annual Emissions – The actual emissions for a facility, point or process, measured or calculated, that represent a calendar year.
- (h) Emission Calculation Method Code – A 2-digit field which further describes the types of emissions being reported and/or on what the emission factors were based. For example, whether or not CEMS, stack tests, material balances or emission factors were used in the calculations or estimates.

G. Emissions Estimation Approaches

- (1) Air emissions reported to the Department pursuant to this Chapter shall be quantified/estimated in the manner which most accurately reflects actual emissions, as follows below. The Department retains the right to review reports, question the emission procedure used, and require use of an estimation procedure that the Department determines is more accurate:
 - (a) For sources with specification CEMs/PEMs monitoring systems that are required by statute, regulation, or license condition, emission data generated by these systems shall serve as the basis for emissions reported pursuant to this Chapter;
 - (b) For sources not subject to subsection 4G(1)(a) and for which reference method emission testing that has been deemed by the Department to be representative of current and normal operating conditions, emission data from such testing shall serve as the basis for estimating emissions reported to the Department pursuant to this Chapter;

NOTE: Emission tests should have been conducted within the 3 years prior to the emission year to be considered representative of emission conditions.

- (c) For sources not subject to subsection 4G(1)(a) or (b), emissions reported pursuant to this Chapter shall be estimated and reported on the basis of a facility-specific emission factor approved by the Department;
- (d) For sources not subject to subsection 4G(1)(a)(b) or (c), emissions reported pursuant to this Chapter shall be estimated and reported on the basis of EPA-published emission factors, where available;

- (e) For sources not subject to subsection 4G(1)(a)(b)(c) or (d), emissions reported pursuant to this Chapter shall be estimated and reported based on emissions factors from other industry and trade groups based on sound science, where available; or
- (f) For sources not subject to subsection 4G(1)(a)(b)(c)(d) or (e), emissions reported pursuant to this Chapter shall be estimated and reported based on best engineering judgement.

AUTHORITY 38 M.R.S.A., Section 585-A, 585-C, and 575

EFFECTIVE DATE: December 12, 1993

Amended: November 2, 1997

Minor Corrections: May 13, 1998– formatting; last two Appendix pages
June 23, 1998 - correcting last two Appendix pages

Amended:

BASIS STATEMENT

In Maine, nine counties are classified as nonattainment for the federal ozone air quality standard. This regulation requires volatile organic compounds (VOC) and nitrogen oxides (NOx) data which is required by the U.S. Environmental Protection Agency for those States that have nonattainment areas for ozone. Reporting of other criteria pollutant data, i.e. carbon monoxide, sulfur dioxide, fine particulate matter, and lead is also required under this rule. In addition, this rule requires the reporting of 189 hazardous air pollutants identified by the Clean Air Act Amendments and other compounds known to be emitted in Maine that are of concern to human health.

In addition to the Basis Statement above, the Department has filed with the Secretary of State responses to comments received during the comment period.

BASIS STATEMENT FOR 1997 AMENDMENT

38 MRSA § 585-C requires the State to gather Hazardous Air Pollutant Emission Statements no more frequently than every 2 years. This amendment implements that requirement in this rule. Report requirements have been reduced and several compounds have been de-listed from the rule.

In addition to the Basis Statement above, the Department has filed with the Secretary of State responses to comments received during the comment period.

BASIS STATEMENT FOR AMENDMENT OF JUNE 17, 2004

This amendment clarifies the rule and requires facilities to report ammonia, fine particulates (PM_{2.5}) and greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons perfluorocarbons and sulfur hexafluoride) emissions in addition to pollutants already being reported. This amendment changes the reporting thresholds in Appendix A for some hazardous air pollutants based on toxicity of each pollutant. Appendix B has been added to list greenhouse gases that require reporting.

In addition to the Basis Statement above, the Department has filed with the Secretary of State responses to comments received during the comment period.

APPENDIX A: MAINE HAZARDOUS AIR POLLUTANTS

CHAPTER 137 EMISSION STATEMENTS

CASNUM	POLLUTANT	lbs
0075070	ACETALDEHYDE	1000
0060355	ACETAMIDE	1000
0108247	ACETIC ANHYDRIDE	2000
0067641	ACETONE	20,000
0075058	ACETONITRILE	2000
0098862	ACETOPHENONE	2000
0053963	2-ACETYLAMINOFLUORENE	2000
0107028	ACROLEIN	10
0079061	ACRYLAMIDE	200
0079107	ACRYLIC ACID	200
0107131	ACRYLONITRILE	1000
0107051	ALLYL CHLORIDE	200
ALUMCOMP	ALUMINUM FUME OR DUST	1000
0092671	4-AMINOBIHENYL	2000
7664417	AMMONIA	2000
0062533	ANILINE	200
0090040	O-ANISIDINE	200
ANTICOMP	ANTIMONY & ANTIMONY COMPOUNDS	200
ARSECOMP	ARSENIC & ARSENIC COMPOUNDS (ALSO INORGANIC ARSINE)	20
1332214	ASBESTOS	10
BARICOMP	BARIUM & BARIUM COMPOUNDS	2000
0071432	BENZENE	1000
0092875	BENZIDINE	10
0098077	BENZOTRICHLORIDE	20
0262384	BENZO[a]PYRENE	1000
0191242	BENZO(g,h,i)PERYLENE	10
0100447	BENZYL CHLORIDE	1000
BERYCOMP	BERYLLIUM & BERYLLIUM COMPOUNDS	20
0092524	BIPHENYL	2000
0117817	BIS(2-ETHYLHEXYL) PHTHALATE	2000
0542881	BIS(CHLOROMETHYL) ETHER	10
0075252	BROMOFORM	2000
0106990	1,3-BUTADIENE	200
0071363	N-BUTANOL	2000
0123864	N-BUTYL ACETATE	20,000
0075650	TERT-BUTYL ALCOHOL	2000
CADMCOMP	CADMIUM & CADMIUM COMPOUNDS	10
0156627	CALCIUM CYANAMIDE	1000
0133062	CAPTAN	2000
0063252	CARBARYL	2000

CASNUM	POLLUTANT	lbs
0075150	CARBON DISULFIDE	2000
0056235	CARBON TETRACHLORIDE	1000
0463581	CARBONYL SULFIDE	1000
0120809	CATECHOL	2000
0133904	CHLORAMBEN	2000
0057749	CHLORDANE	10
7782505	CHLORINE	200
10049044	CHLORINE DIOXIDE	200
0079118	CHLOROACETIC ACID	1000
0532274	2-CHLOROACETOPHENONE	10
0108907	CHLOROBENZENE	2000
0510156	CHLOROBENZILATE	1000
0067663	CHLOROFORM	1000
0107302	CHLOROMETHYL METHYL ETHER	200
0126998	CHLOROPRENE	200
CHROCOMP	HEXAVALENT CHROMIUM & CHROMIUM COMPOUNDS	10
COBACOMP	COBALT & COBALT COMPOUNDS	10
COKOVEEM	COKE OVEN EMISSIONS	200
COPPCOMP	COPPER & COPPER COMPOUNDS	1000
0095487	O-CRESOL	2000
0108394	M-CRESOL	2000
0106445	P-CRESOL	1000
1319773	CRESOLS/CRESYLIC ACID	2000
0098828	CUMENE	2000
CYANCOMP	CYANIDE COMPOUNDS	1000
0110827	CYCLOHEXANE	20,000
0094757	2,4-D, SALTS AND ESTERS	2000
3547044	DDE	2000
0334883	DIAZOMETHANE	2000
0132649	DIBENZOFURAN	2000
0096128	1,2-DIBROMO-3-CHLOROPROPANE	20
0084742	DIBUTYLPHthalate	2000
0106467	1,4-DICHLOROBENZENE	2000
0095501	1,2-DICHLOROBENZENE	2000
0091941	3,3-DICHLOROBENZIDINE	200
0111444	DICHLOROETHYL ETHER	2000
0542756	1,3-DICHLOROPROPENE	1000
0062737	DICHLOROVOS	200
0111422	DIETHANOLAMINE	20
0121697	N, N-DIETHYL ANILINE	1000
0064675	DIETHYL SULFATE	200
DIISCOMP	DIISOCYNATES	2000
0119904	3,3-DIMETHOXYBENZIDINE	2000
0060117	DIMETHYL AMINOAZOBENZENE	200
0119937	3,3'-DIMETHYL BENZIDINE	20
0079447	DIMETHYL CARBOMOYL CHLORIDE	2000

CASNUM	POLLUTANT	lbs
0068122	DIMETHYL FORMAMIDE	2000
0057147	1,1-DIMETHYL HYDRAZINE	200
0131113	DIMETHYL PHTHALATE	1000
0077781	DIMETHYL SULFATE	1000
0534521	4,6-DINITRO-O-CRESOL	200
0051285	2,4-DINITROPHENOL	1000
0121142	2,4-DINITROTOLUENE	1000
0123911	1,4-DIOXANE	2000
DIOXCOMP	DIOXIN & DIOXIN LIKE COMPOUNDS*	0.0002
0122667	1,2-DIPHENYLHYDRAZINE	200
0106898	EPICHLOROHYDRIN	200
0106887	1,2-EPOXYBUTANE	2000
0141435	ETHANOLAMINE	2000
0110805	2-ETHOXYETHANOL	2000
0141786	ETHYL ACETATE	20,000
0140885	ETHYL ACRYLATE	2000
0100414	ETHYL BENZENE	2000
0051796	ETHYL CARBAMATE (URETHANE)	200
0075003	ETHYL CHLORIDE (CHLOROETHANE)	20,000
0106934	ETHYLENE DIBROMIDE (DIBROMOMETHANE)	10
0107062	ETHYLENE DICHLORIDE (1,2-DICHLOROETHANE)	1000
0107211	ETHYLENE GLYCOL	2000
0151564	ETHYLENE IMINE (AZIRIDINE)	2000
0075218	ETHYLENE OXIDE	200
0096457	ETHYLENE THIOUREA	200
0075343	ETHYLIDINE DICHLORIDE	2000
FINMINFI	FINE MINERAL FIBERS	2000
0050000	FORMALDEHYDE	1000
0064186	FORMIC ACID	20,000
0076131	FREON 113 (TRICHLOROTRIFLUOROETHANE)	2000
0098011	FURFURAL	2000
GLYCETHE	GLYCOL ETHERS	2000
0076448	HEPTACHLOR	10
0118741	HEXACHLOROBENZENE	10
0087683	HEXACHLOROBUTADIENE	200
0077474	HEXACHLOROCYCLOPENTADIENE	200
0067721	HEXACHLOROETHANE	1000
0822060	HEXAMETHYLENE-1,6-DIISOCYANATE	20
0680319	HEXAMETHYLPHOSPHORAMIDE	2000
0110543	HEXANE	2000
0302012	HYDRAZINE	20
7647010	HYDROCHLORIC ACID (acid aerosol only)	2000
7664393	HYDROGEN FLUORIDE (HYDROFLUORIC ACID)	1000
7783064	HYDROGEN SULFIDE	200
0123319	HYDROQUINONE	1000
0078591	ISOPHORONE	20,000

CASNUM	POLLUTANT	lbs
0067630	ISOPROPYL ALCOHOL (used in strong acid manufacturing. processes)	20,000
LEADCOMP	LEAD & LEAD COMPOUNDS	100
0058899	LINDANE	200
0108316	MALEIC ANHYDRIDE	1000
MANGCOMP	MANGANESE & MANGANESE COMPOUNDS	20
MERCCOMP	MERCURY & MERCURY COMPOUNDS	10
0067561	METHANOL	2000
0072435	METHOXYCHLOR	100
0109864	2-METHOXYETHANOL	2000
0096333	METHYL ACRYLATE	2000
0074839	METHYL BROMIDE (BROMOMETHANE)	1000
0074873	METHYL CHLORIDE	2000
0071556	METHYL CHLOROFORM (1,1,1-TRICHLOROETHANE)	2000
0078933	METHYL ETHYL KETONE (2-BUTANONE)	2000
0060344	METHYL HYDRAZINE	200
0074884	METHYL IODIDE (Iodomethane)	1000
0108101	METHYL ISOBUTYL KETONE	2000
0624839	METHYL ISOCYANATE	200
0074931	METHYL MERCAPTAN	1000
0080626	METHYL METHACRYLATE	2000
0872504	N-METHYL-2-PYRROLIDONE	2000
1634044	METHYL TERT BUTYL ETHER	20,000
0101144	4,4-METHYLENE BIS(2-CHLOROANILINE)	200
0075092	METHYLENE CHLORIDE (DICHLOROMETHANE)	2000
0101688	METHYLENE DIPHENYL DIISOCYANATE	200
1313275	MOLYBDENUM TRIOXIDE	200
0101779	4,4'-METHYLENEDIANILINE	200
0091203	NAPHTHALENE	1000
NICKCOMP	NICKEL & NICKEL COMPOUNDS	20
7697372	NITRIC ACID	1000
0098953	NITROBENZENE	1000
0092933	4-NITROBIPHENYL	200
0100027	4-NITROPHENOL	1000
0079469	2-NITROPROPANE	20
0684935	N-NITROSO-N-METHYLUREA	2000
0062759	N-NITROSODIMETHYLAMINE	10
0059892	N-NITROSOMORPHOLINE	20
0144627	OXALIC ACID	2000
0056382	PARATHION	1000
0082688	PENTACHLORONITROBENZENE (QUINTOBENZENE)	1000
0087865	PENTACHLOROPHENOL	1000
0108952	PHENOL	2000
0106503	P-PHENYLENDIAMINE	2000
0075445	PHOSGENE	200

CASNUM	POLLUTANT	lbs
7803512	PHOSPHINE	200
7723140	PHOSPHORUS	20
0085449	PHTHALIC ANHYDRIDE	2000
1336363	POLYCHLORINATED BIPHENYLS	10
POLOGMA	POLYCYCLIC ORGANIC MATTER	100
1120714	1,3-PROPANE SULTONE	200
0057578	BETA-PROPIOLACETONE	2000
0123386	PROPIIONALDEHYDE	2000
0114261	PROPOXUR (BAYGON)	1000
0078875	PROPYLENE DICHLORIDE (1,2-DICHLOROPROPANE)	1000
0075569	PROPYLENE OXIDE	1000
0075558	1,2-PROPYLENIMINE (2-METHYL AZIRIDINE)	10
0091225	QUINOLINE	200
0106514	QUINONE	200
RADIONUC	RADIONUCLIDES (INCLUDING RADON)	2000
SELECOMP	SELENIUM & SELENIUM COMPOUNDS	200
0100425	STYRENE	2000
0096093	STYRENE OXIDE	2000
7664939	SULFURIC ACID (acid aerosol only)	1000
0079345	1,1,2,2-TETRACHLOROETHANE	2000
0127184	TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	2000
0109999	TETRAHYDROFURAN	2000
13463677	TITANIUM DIOXIDE (TITANIUM OXIDE)	2000
7550450	TITANIUM TETRACHLORIDE	20
0108883	TOLUENE	2000
0095807	2,4-TOLUENE DIAMINE	200
0584849	2,4-TOLUENE DIISOCYANATE	20
0095534	O-TOLUIDINE	1000
8001352	TOXAPHENE (CHLORINATED CAMPHENE)	10
0120821	1,2,4-TRICHLOROENZENE	2000
0079005	1,1,2-TRICHLOROETHANE	1000
0079016	TRICHLOROETHYLENE	2000
0088062	2,4,6-TRICHLOROPHENOL	2000
0095954	2,4,5-TRICHLOROPHENOL	2000
0121448	TRIETHYLAMINE	1000
1582098	TRIFLURALIN	100
0095636	1,2,4 TRIMETHYL BENZENE	1000
0540841	2,2,4-TRIMETHYLPENTANE	2000
8006642	TURPENTINE	2000
VANCOMP	VANADIUM COMPOUNDS	2000
0108054	VINYL ACETATE	2000
0593602	VINYL BROMIDE	1000
0075014	VINYL CHLORIDE	200
0075354	VINYLDENE CHLORIDE (1,1-DICHLOROETHYLENE)	1000

CASNUM	POLLUTANT	lbs
0106423	P-XYLENES	2000
0095476	O-XYLENES	2000
0108383	M-XYLENES	2000
1330207	XYLENES (ISOMERS & MIXTURE)	2000
ZINCCOMP	ZINC & ZINC COMPOUNDS	2000

*For purposes of this rule, “Dioxin and Dioxin Like Compounds” means specific compounds in the following chemical classes that are “Dioxin like”: polychlorinated dibenzo-p-dioxins (PCDDs or CDDs), polychlorinated dibenzofurans (PCDFs or CDFs), polybrominated dibenzo-p-dioxins (PBDDs or BDDs), polybrominated dibenzofurans (PBDFs or BDFs), and polychlorinated biphenyls (PCBs). “Dioxin like” means those compounds that have a similar chemical structure and similar physical-chemical properties as 2,3,7,8 tetrachlorodibenzo-p-dioxin, and therefore induce a similar toxic response. Because of their hydrophobic nature and resistance towards metabolism, these chemicals persist and bioaccumulate in fatty tissues of animals and humans. The 7 dioxin like CDDs, 7 dioxin like BDDs, 10 dioxin like CDFs and 10 dioxin like BDFs are the congeners that have chlorine/bromine substitutions in, at a minimum, the 2, 3, 7, and 8 positions. Additionally, 13 PCB congeners have dioxin like toxicity; these are PCBs with 4 or more lateral chlorines with 1 or no substitution in the ortho position. These compounds are sometimes referred to as coplanar, meaning that they can assume a flat configuration with rings in the same plane. Mixed chlorinated and brominated congeners of dioxins, furans, and biphenyls may also meet the definition of dioxin like. “Dioxin and Dioxin Like Compounds” includes the following specific dioxin congeners, furan congeners, and dioxin like PCBs:

Chemical notation	Isomer Groups	Reference Number
	Dioxin Congeners	
2,3,7,8-TCDDs	The isomers of tetrachlorodibenzo-p-dioxin with chlorine substitutions in the 2,3,7,8 positions	
1,2,3,7,8-PeCDDs	The isomers of pentachlorodibenzo-p-dioxin with chlorine substitutions in the 1,2,3,7,8 positions	
1,2,3,4,7,8-HxCDDs	The isomers of hexachlorodibenzo-p-dioxin with chlorine substitutions in the 2,3,7,8 positions	
1,2,3,6,7,8-HxCDDs	The isomers of hexachlorodibenzo-p-dioxin with chlorine substitutions in the 1,2,3,6,7,8 positions	
1,2,3,7,8,9-HxCDDs	The isomers of hexachlorodibenzo-p-dioxin with chlorine substitutions in the 1,2,3,7,8,9 positions	
1,2,3,4,6,7,8-HpCDDs	The isomers of heptachlorodibenzo-p-dioxin with chlorine substitutions in the 1,2,3,4,6,7,8 positions	
OCDDs	The isomers of octachlorodibenzo-p-dioxin with chlorine substitutions in any position	
	Furan Congeners	
2,3,7,8-TCDFs	The isomers of tetrachlorodibenzofuran with chlorine substitutions in the 2,3,7,8 positions	

1,2,3,7,8-PeCDFs	The isomers of pentachlorodibenzofuran with chlorine substitutions in the 1,2,3,7,8 positions
2,3,4,7,8-PeCDFs	The isomers of pentachlorodibenzofuran with chlorine substitutions in the 2,3,4,7,8 positions
1,2,3,4,7,8-HxCDFs	The isomers of hexachlorodibenzofuran with chlorine substitutions in the 1,2,3,4,7,8 positions
1,2,3,6,7,8-HxCDFs	The isomers of hexachlorodibenzofuran with chlorine substitutions in the 1,2,3,6,7,8 positions
1,2,3,7,8,9-HxCDFs	The isomers of hexachlorodibenzofuran with chlorine substitutions in the 1,2,3,7,8,9 positions
2,3,4,6,7,8-HxCDFs	The isomers of hexachlorodibenzofuran with chlorine substitutions in the 2,3,4,6,7,8 positions
1,2,3,4,6,7,8-HpCDFs	The isomers of heptachlorodibenzofuran with chlorine substitutions in the 1,2,3,4,6,7,8 positions
1,2,3,4,7,8,9-HpCDFs	The isomers of heptachlorodibenzofuran with chlorine substitutions in the 1,2,3,4,7,8,9 positions
OCDFs	The isomers of octachlorodibenzofuran with chlorine substitutions in any position

	Dioxin Like PCBs	IUPAC** Number
3,3',4,4'-TeCB	tetrachlorinated biphenyls with chlorine substituted in the 3,3',4,4' positions	PCB-77
3,4,4',5-TCB	tetrachlorinated biphenyls with chlorine substituted in the 3,4,4',5 positions	PCB-81
2,3,3',4,4'-PeCB	pentachlorinated biphenyls with chlorine substituted in the 2,3,3',4,4' positions	PCB-105
2,3,4,4',5-PeCB	pentachlorinated biphenyls with chlorine substituted in the 2,3,4,4',5 positions	PCB-114
2,3',4,4',5-PeCB	pentachlorinated biphenyls with chlorine substituted in the 2,3',4,4',5 positions	PCB-118
2',3,4,4',5-PeCB	pentachlorinated biphenyls with chlorine substituted in the 2',3,4,4',5 positions	PCB-123
3,3',4,4',5-PeCB	pentachlorinated biphenyls with chlorine substituted in the 3,3',4,4',5 positions	PCB-126
2,3,3',4,4',5-HxCB	hexachlorinated biphenyls with chlorine substituted in the 2,3,3',4,4',5 positions	PCB-156
2,3,3',4,4',5'-HxCB	hexachlorinated biphenyls with chlorine substituted in the 2,3,3',4,4',5' positions	PCB-157
2,3',4,4',5,5'-HxCB	hexachlorinated biphenyls with chlorine substituted in the 2,3',4,4',5,5' positions	PCB-167
3,3',4,4',5,5'-HxCB	hexachlorinated biphenyls with chlorine substituted in the 3,3',4,4',5,5' positions	PCB-169
2,3,3',4,4',5,5'-HpCB	heptachlorinated biphenyls with chlorine substituted in the 2,3,3',4,4',5,5' positions	PCB-189

** International Union of Pure and Applied Chemistry
<http://iupac.chemsoc.org/general/about.html>

Reference: Draft Final Report: Exposure and Human Health Reassessment of 2,3,7,8-Tetrachlorodibenzo-*p*-Dioxin (TCDD) and Related Compounds, Part I: Estimating Exposure to

Dioxin like Compounds, Volume 2: Sources of Dioxin like Compounds in the United States (Exposure Assessment and Risk Characterization Group, National Center for Environmental Assessment - Washington Office, Office of Research and Development, U.S. Environmental Protection Agency, Washington, DC; EPA/600/P-00/001Bb; www.epa.gov/ncea; [Http://www.epa.gov/ncea/pdfs/dioxin/part1/volume2/volume2.pdf](http://www.epa.gov/ncea/pdfs/dioxin/part1/volume2/volume2.pdf)) September 2000.

APPENDIX B: HYDROFLUOROCARBONS AND PERFLUOROCARBONS

Chlorofluorocarbons		Iodocarbons	
CFC-11	CCl ₃ F	FIC-1311	CF ₃ I
CFC-12	CCl ₂ F ₂		
CFC-13	CClF ₃	Bromocarbons	
CFC-113	CCl ₂ FCClF ₂	CH ₃ Br	
CFC-114	CClF ₂ CClF ₂	CH ₂ Br ₂	
CFC-115	CF ₃ CClF ₂	CHBrF ₂	CBrClF ₂
		Halon-1211	CBrF ₃
Hydrochlorofluorocarbons		Halon-1301	
HCFC-21	CHCl ₂ F		
HCFC-22	CHClF ₂	Fully fluorinated species	
HCFC-123	CF ₃ CHCl ₂	CF ₄	
HCFC-124	CF ₃ CHClF	C ₂ F ₆	
HCFC-141b	CH ₃ CCl ₂ F	C ₃ F ₈	
HCFC-142b	CH ₃ CClF ₂	C ₄ F ₁₀	
HCFC-225ca	CF ₃ CF ₂ CHCl ₂	c-C ₄ F ₈	
HCFC-225cb	CClF ₂ CF ₂ CHClF	C ₅ F ₁₂	
		C ₆ F ₁₄	
Hydrofluorocarbons			
HFC-23	CHF ₃		
HFC-32	CH ₂ F ₂	Ethers and Halogenated Ethers	
HFC-41	CH ₃ F	CH ₃ OCH ₃	
HFC-125	CHF ₂ CF ₃	(CF ₃) ₂ CFOCH ₃	
HFC-134	CHF ₂ CHF ₂	(CF ₃)CH ₂ OH	
HFC-134a	CH ₂ FCF ₃	CF ₃ CF ₂ CH ₂ OH	
HFC-143	CHF ₂ CH ₂ F	(CF ₃) ₂ CHOH	
HFC-143a	CF ₃ CH ₃	HFE-125	CF ₃ OCHF ₂
HFC-152	CH ₂ FCH ₂ F	HFE-134	CHF ₂ OCHF ₂
HFC-152a	CH ₃ CHF ₂	HFE-143a	CH ₃ OCF ₃
HFC-161	CH ₃ CH ₂ F	HCFE-235da2	CF ₃ CHClOCHF ₂
HFC-227ea	CF ₃ CHF ₂ CF ₃	HFE-245cb2	CF ₃ CF ₂ OCH ₃
HFC-236cb	CH ₂ FCF ₂ CF ₃	HFE-245fa2	CH ₃ CH ₂ OCHF ₂
HFC-236ea	CHF ₂ CHF ₂ CF ₃	HFE-254cb2	CHF ₂ CF ₂ OCH ₃
HFC-236fa	CF ₃ CH ₂ CF ₃	HFE-347mcc3	CF ₃ CF ₂ CF ₂ OCH ₃
HFC-245ca	CH ₂ FCF ₂ CHF ₂	HFE-356pcf3	CHF ₂ CF ₂ CH ₂ OCHF ₂
HFC-365mfc	CF ₃ CH ₂ CF ₂ CH ₃	HFE-374pcf2	CHF ₂ CF ₂ OCH ₂ CH ₃
HFC-43-10mee	CF ₃ CHFCH ₂ CF ₂ CF ₃	HFE-7100	C ₄ F ₉ OCH ₃
		HFE-7200	C ₄ F ₉ OC ₂ H ₅
Chlorocarbons		H-Galden 1040x	CHF ₂ OCF ₂ OC ₂ F ₄ OCHF ₂
CH ₃ CCl ₃		HG-10	CHF ₂ OCF ₂ OCHF ₂
CCl ₄		HG-01	CHF ₂ OCF ₂ CF ₂ OCHF ₂
CHCl ₃			
CH ₃ Cl			
CH ₂ Cl ₂			