

STEP BY STEP GUIDELINE
FOR
EMISSION CALCULATION, RECORD KEEPING
AND REPORTING
FOR
AIRBORNE CONTAMINANT DISCHARGE

ONTARIO MINISTRY OF THE ENVIRONMENT

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Glossary

“by-product” is a substance listed in Table 2A, 2B or 2C in the Guideline, that is incidentally manufactured, processed or otherwise used at the facility and is released on-site to the environment or transferred off-site for disposal.

“CAS number” stands for Chemical Abstracts Service Registry number assigned to the contaminant, referenced in the Guideline. The CAS information is the property of the American Chemical Society and any use or redistribution, except as required in supporting regulatory requirements and/or for reports to the government when the information and the reports are required by law or administrative policy, is not permitted without the prior, written permission of the American Chemical Society.

“criteria air contaminants” (CACs) are: oxides of nitrogen (NO_x), sulphur dioxide (SO₂), volatile organic compounds (VOCs), carbon monoxide (CO), and particulate matter (PM) including PM₁₀ (particulate matter with a diameter less than or equal to 10 micrometers) and PM_{2.5} (particulate matter with a diameter less than or equal to 2.5 micrometers).

“coating material” includes paints, lacquers, enamels, varnishes, urethanes, polishes, sealers, vinyls and other materials that are used in surface coating operations for decorative or protective purposes, but does not include printing ink.

“Director” is the Director of the Environmental Monitoring and Reporting Branch, Ontario Ministry of the Environment, 125 Resources Road, Toronto, Ontario, M9P 3V6.

“discharge” when used as a verb, means add, deposit, leak or emit to the atmosphere, and when used as a noun, means addition, deposition, emission or leak to the atmosphere.

“discharge unit” means a device, or a group of devices that operate together in such a manner that one device cannot function independently of the other devices in the unit, and that discharges or has the potential to discharge a contaminant into the air.

“emissions” include stack or point emissions to air, fugitive emissions to air, storage or handling emissions to air, emissions to air from spills, and other non-point emissions to air.

“emissions monitoring system” includes a suite of options: continuous emission monitoring system or other methods including, but not limited to, the methods described in the Guideline. Other methods include, but are not limited to, predictive emission monitoring system, mass balance, emission factors, emission estimation model and engineering calculations which provide accuracy typically obtained through source testing conducted in accordance with the Ontario Source Testing Code, or better.

“facility” includes all buildings, equipment, structures and stationary items, such as surfaces and storage piles, that,

- (a) are located on a single site, or
- (b) are located on two or more contiguous or adjacent sites that are owned or operated by the same person and function as a single integrated site.

“fugitive emissions” are the total of all emissions to air that are not emitted through confined process streams. These emissions include: fugitive equipment leaks from valves, pump seals, flanges, compressors, sampling connections, open-ended lines, etc.; evaporative losses from surface impoundments and spills; emissions from building ventilation systems; and any other fugitive or non-point air emissions from land treatment, mine tailings, storage piles, road dust, etc.

“generation facility” means a facility that is a generation facility as defined in subsection 2 (1) of the Electricity Act, 1998 but does not include a generation facility that has a generating capacity of 1 megawatt or less or that sells 10 per cent or less of its total electricity generated to the IMO-administered markets as defined in that subsection.

“generation unit” means a unit that is used to generate electricity.

“Guideline” means the Ministry of the Environment publication entitled “Step by Step Guideline for Emission Calculation, Record Keeping and Reporting for Airborne Contaminant Discharge” and dated April 2001, as amended from time to time.

“hours of labour” is the total number of hours worked, including paid vacation and sick leave. Owners, students, part-time and contract employees are included in this calculation. This calculation depends specifically on the number of hours worked by all employees at the facility during the calendar year and not on the number of persons working. 10 “full-time employees” is equivalent to 20,000 hours worked.

“Independent Market Operator (IMO) - administered markets” means the markets established by the market rules made under Section 32 of the *Electricity Act, 1998*.

“manufacture” means to produce, prepare or compound a substance (in Table 2B or 2C). It also includes the incidental production of a substance as a *by-product* resulting from the manufacture, processing or other use of other substances. The production of chlorine dioxide by a chemical plant is an example of manufacturing. The production of hydrochloric acid during the manufacture of chlorofluorocarbons is an example of incidental production.

“MPO” means manufacture, process or otherwise use.

“name plate capacity” means,

- (a) with respect to a discharge unit, the total designed energy input capacity of the discharge unit, including but not limited to the energy input from fuel, steam, electricity, heat of chemical reactions and process materials, and
- (b) with respect to a facility, the total of the name plate capacities of all the discharge units in the facility.

“other non-point emissions” are any other non-point air emissions not estimated in one of the emission types listed under the term “emissions”.

“other use” and “otherwise used” encompass any use of a substance at a facility that does not fall under the definitions of “manufacture” or “process”. This includes the use of the substance as a chemical processing aid, manufacturing aid or some other ancillary use. The use of trichloroethylene in the maintenance of equipment used for manufacturing and processing is considered an “other use”. “Other use” does not include routine janitorial or facility grounds maintenance.

“oxides of nitrogen ” includes nitric oxide and nitrogen dioxide, but does not include nitrous oxide.

“portable facility” means a facility that can be entirely relocated for operation, including portable polychlorinated biphenyls (PCB) destruction equipment, or an asphalt or concrete plant.

“process” means the preparation of a substance (in Tables 2B or 2C), after its manufacture, for distribution in commerce. Processing includes preparation of a substance with or without changes in physical state or chemical form. The term also applies to the processing of a mixture or formulation that contains a substance as one component, as well as the processing of “articles”. The use of chlorine to manufacture hypochloric acid is an example of the processing of chlorine. The use of toluene and xylenes to blend paint solvent mixtures is an example of processing without changes in chemical form.

“printing ink” is ink that is used in the printing processes (web offset lithography, web letterpress, rotogravure, flexography and screen printing, etc.). Printing is a coating operation which results in an image or design on the substrate. Printing inks generally consist of 3 major components: pigments, binders and solvents. The binder and solvent make up the "vehicle" part of the ink and the solvent will evaporate from the ink into the atmosphere during the drying process.

“quarter” means a period of three consecutive months that begins on January 1, April 1, July 1 or October 1 of any year.

“smog period” means the period from May 1 to September 30.

“solvent” means any volatile organic compound that is used as a diluent, thinner, dissolver, viscosity reducer, cleaning agent or for a similar purpose.

“spills” are any accidental emissions to air that do not qualify as point or non-point air emissions.

“stack or point emissions” are total air emissions from stack or point sources including stacks, vents, ducts, pipes or other confined process streams. Emissions to air from pollution-control equipment generally fall into this category.

“storage or handling emissions” are the quantity of emissions to air from storage or the handling of a contaminant listed in Table 2A, 2B or 2C.

Step by Step Guideline

1 INTRODUCTION

This document is intended to assist members of the regulated community in determining how to satisfy the requirements of Ontario Regulation (O.Reg. 127/01) entitled “Airborne Contaminant Discharge - Monitoring and Reporting”, which became law on May 1, 2001 pursuant to the Environmental Protection Act (EPA). Step by step procedures for calculating emissions, record keeping and reporting of annual, smog season, and quarterly emissions are also presented in this document.

In this Guideline, the terms “emission” and “discharge to air” will be used interchangeably with “airborne contaminant discharge”.

Also, all references to “the regulation” mean O.Reg. 127/01.

O.Reg. 127/01 covers air contaminants. The list of contaminants was developed by a group of technical experts, comprised of ministry staff from the Environmental Sciences and Standards Division, the Operations Division and the Integrated Environmental Planning Division. Contaminants were included based on various domestic, transboundary and international environmental programs, including the MOE Air Standards/Guidelines, the Air Standards Plan, the Great Lakes Commission (GLC) Regional Air Toxic Emissions Program, the Canada-Ontario Agreement (COA) Tier I and II, Electricity Sector Reporting, the Anti-Smog Action Plan, the Acid Rain Program, the Inhalable Particulate/Respirable Particulate (IP/RP) Program, the Climate Change Program and the Air Toxics Program, as well as Environment Canada’s National Pollutant Release Inventory (NPRI).

The contaminants have been divided into three lists, which appear as Tables 2A, 2B and 2C to this Guideline.

Table 2A lists 11 contaminants comprised of criteria air contaminants and greenhouse gases, which have release based reporting thresholds (see Section 2.2).

Table 2B lists **76** contaminants with graded MOE manufactured, processed or otherwise used (MPO) reporting thresholds (see Section 2.3).

Table 2C lists contaminants which are common to the NPRI list and have the same reporting criteria as NPRI (see Section 2.4).

The list of contaminants includes both individual contaminants (e.g., toluene) as well as contaminant groups/compounds (e.g., VOC). The public should exercise caution in

aggregating contaminant emissions. For example, toluene should not be summed with total VOC since the total VOC value should already include toluene. Similar caution should apply to other contaminant groups/compounds such as xylene, mineral spirits, glycol ethers, dioxins and furans.

The regulation requires the calculation and reporting of air emissions if specific criteria are met by the various facilities set out in Table 1 of this Guideline. Those criteria are set out in the regulation, and discussed in Section 2 of this Guideline.

Facility owners and operators are required to ensure that certain reports are submitted under the regulation, and that those reports are accessible, without charge, to the public. That obligation can be met by making the report available at the facility's business premises, or electronically through the internet, and requires that reports be retained and accessible for at least seven years after the day the report is required to be submitted.

Owners and operators need to communicate with each other to ensure the requirements are met.

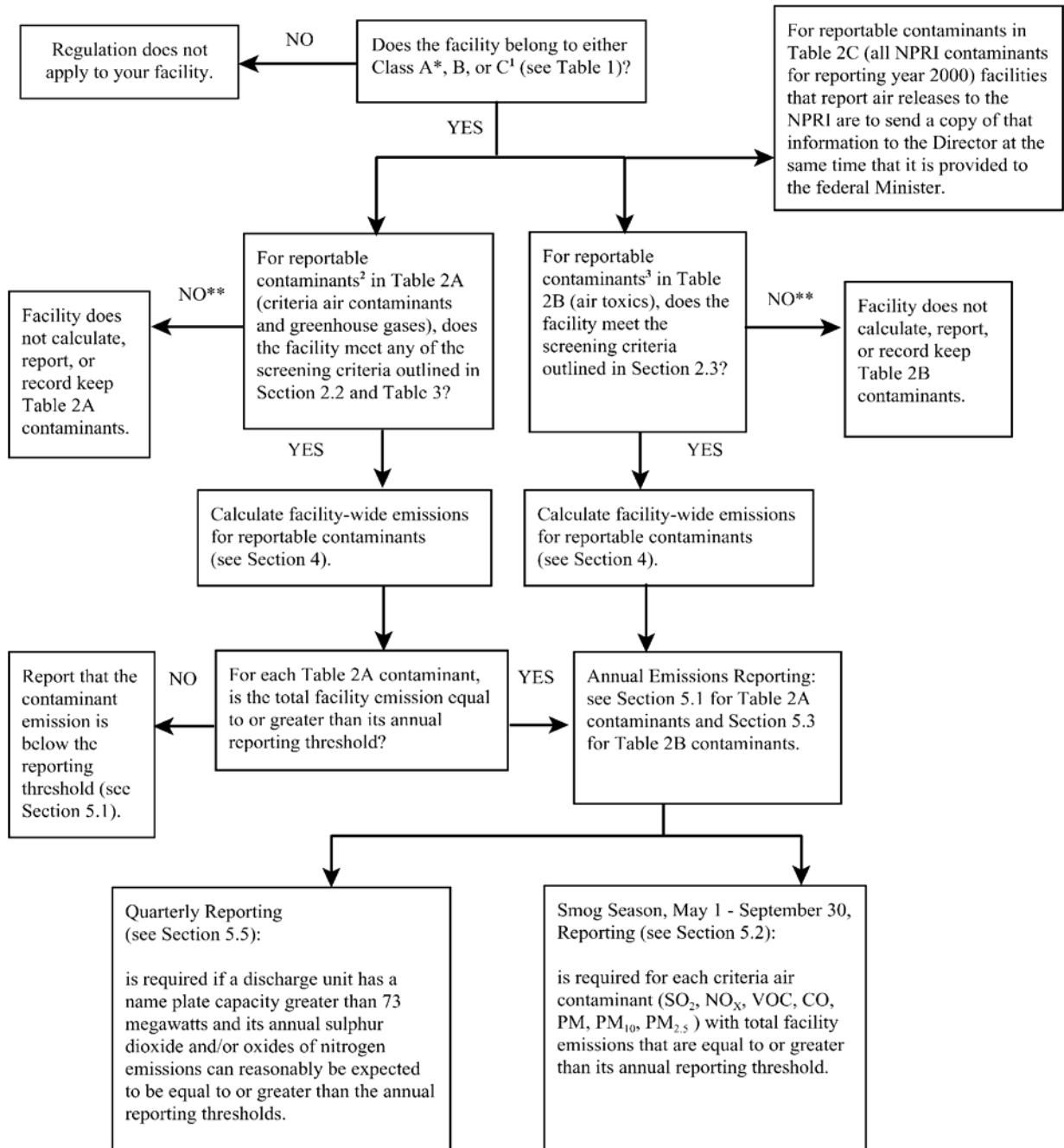
Annual reporting is required for contaminants in Tables 2A, 2B, and 2C if the respective reporting criteria are met (see Sections 5.1, 5.3 and 5.4 for assistance on determining what contaminants are reportable). For criteria air contaminants, smog season reporting is required in addition to annual reporting (see Section 5.2). NO_x and SO₂ are contaminants of particular significance to domestic and transboundary problems such as smog and acid rain. There are additional reporting criteria outlined in Section 5.5 of the Guideline for NO_x and SO₂ which call for facilities that meet the reporting criteria to report quarterly NO_x and/or SO₂ emissions using an emission monitoring system.

Persons reporting under this regulation are expected to use due diligence to comply with the requirements of the regulation. For the purpose of reporting under this regulation, it is intended that for any given contaminant with emissions that are equal to or greater than the reporting threshold, at least 95 percent of the total facility emissions are accounted for.

The contents of this Guideline and the associated tables may change from time to time due to MOE review. When this happens, notice of amendment will be published in *The Ontario Gazette*, or in the registry under the *Environmental Bill of Rights*.

Figure 1 of this document provides a quick reference of the reporting requirements under the regulation.

FIGURE 1: QUICK REFERENCE FOR REPORTING



¹ If the facility belongs to Class C, the gathering of emission data will begin on January 1st 2002.
² Consult process and sector specific substance lists (Appendices B, C, and D) to determine reportable contaminants common to Table 2A.
³ Consult process and sector specific substance lists (Appendices B, C, and D) to determine reportable contaminants common to Table 2B.
 * For Class A, this regulation does not apply to a generation facility that has a generating capacity of 1 megawatt or less or that sells 10 percent or less of its total electricity generated to the IMO-administered markets.
 ** For Class A, generation facilities that do not meet the criteria outlined here must still report the parameters listed in Section 1 and 1.1 of Table 5.

2 REPORTING CRITERIA

The “Airborne Contaminant Discharge - Monitoring and Reporting” regulation **came** into effect on May 1, 2001. Its application to the various facilities covered is phased-in.

2.1 Phasing of Application

Phase I **began** on May 1, 2001 and **required** that facilities described in Classes A and B (Table 1) monitor and report in accordance with the regulation.

Phase II **began** on January 1, 2002 and requires that facilities described in Classes A, B and C (Table 1) monitor and report in accordance with the regulation.

This regulation does not apply to evaporative emissions from a vehicle as defined in the *Highway Traffic Act* or contaminants emitted from the exhaust system of a vehicle as defined in the *Highway Traffic Act*.

2.2 Reporting Criteria for Criteria Air Contaminants and Greenhouse Gases Listed in Table 2A

The regulation requires that the owner and operator of a facility to which this section applies is required to calculate the air emissions of contaminants listed in Table 2A of the Guideline during a calendar year if any one or more of the following criteria are satisfied:

1. The facility can reasonably be expected to use coal, refuse, wood or waste oil as fuel at any time during the year.
2. The facility can reasonably be expected to have, at any time during the year, a name plate capacity of greater than 3 million British Thermal Units per hour.
3. The facility can reasonably be expected to use 3,000 kilograms or more of solvents during the year.
4. The facility can reasonably be expected to use 3,000 kilograms or more of coating materials during the year.
5. The facility can reasonably be expected to use 3,000 kilograms or more of printing ink during the year.
6. The facility can reasonably be expected to use 5,000 kilograms or more of welding rods or welding wires during the year.

Table 3 to this Guideline outlines the criteria and applicability of this provision for various facilities by sector.

Facilities that meet any one or more of the above requirements should proceed to consult Sections 3 and 4 of the Guideline for assistance in identifying reportable contaminants and general procedures for calculating emissions. Section 5 should be consulted for direction on reporting annual (see Section 5.1), smog season (see Section 5.2), and quarterly emissions (see Section 5.5), as required. Section 6 provides direction on record keeping provisions.

2.3 Reporting Criteria for Contaminants with MOE Graded MPO Thresholds Listed in Table 2B

Owners and operators of facilities must ensure that air emissions of contaminants in Table 2B are monitored and reported for the calendar year if the contaminant is manufactured or processed or otherwise used at a facility during the year and both of the following criteria are satisfied:

1. The facility can reasonably be expected to employ or engage persons who will together work a total of 20,000 hours or more during the year.
2. The contaminant can reasonably be expected to be manufactured or to be processed or otherwise used at the facility during the year in an amount equal to or greater than the threshold amount for the contaminant set out in Table 2B to the Guideline.

The amount of a contaminant that "can reasonably be expected to be manufactured or to be processed or otherwise used" at a facility during the calendar year shall be determined by including the amount of the contaminant that was manufactured at the facility at a concentration greater than or equal to 1% by weight (with the exception of contaminants considered to be by-products) and the amount of the contaminant that was processed or otherwise used at the facility at a concentration greater than or equal to 1% by weight (with the exception of contaminants considered to be by-products). If the contaminant is a by-product, its total weight at any concentration must be included. Care must be taken to avoid double counting in situations where a contaminant is both an input to a process and a manufactured product at the facility.

For assistance in calculating and reporting the total quantities of Table 2B contaminants that are manufactured or processed or otherwise used, including by-products, please refer to the NPRI¹⁶ guideline document and see Section 5.3 of the Guideline for further details.

2.4 Reporting Criteria for Contaminants with NPRI Thresholds Listed in Table 2C

If, pursuant to a notice published under Section 46 of the *Canadian Environmental Protection Act, 1999* (Canada) in connection with the National Pollutant Release Inventory (NPRI), a person is required to provide the federal Minister of the Environment with information on the release from a facility into the air of a contaminant listed in Table 2C to the Guideline, the person shall send a copy of that information to the Director at the same time that it is provided to the federal Minister.

The intention of the regulation is to ensure that Ontario compiles a complete inventory of contaminant emissions. To avoid duplication with the federal NPRI program requirements, contaminants common to both the provincial and federal contaminant lists were separated out into Table 2C. Facilities reporting to NPRI are required by O.Reg. 127/01 to copy the Director with information on air releases compiled and submitted to the federal Minister pursuant to the NPRI program.

3 CONTAMINANT EMISSIONS

The owner and operator of a facility that meets the screening criteria for Table 2A or 2B has a duty under the regulation to calculate and report total facility air emissions of the contaminants listed in these tables. The MOE recognizes that different facilities will generate different emissions, and does not expect every owner and operator of a facility to calculate and report on every contaminant listed in Tables 2A, 2B and 2C. Only those contaminants discharged by the individual facility are required to be calculated and reported.

The MOE considers that a person who owns or operates a facility is in the best position to know what contaminants are used and generated by the facility, however, to assist in determining what contaminants might be emitted, the owner and operator of a facility can use Appendices B, C, and D as a guide. These Appendices provide lists of contaminants commonly associated with fuel combustion processes (Appendix B), solvent evaporation processes (Appendix C), and process emissions specific to relevant sectors (Appendix D). This information is extracted from USEPA FIRE⁴ emission factors and SPECIATE⁷ speciation databases.

Additional contaminants are reportable if the owner and operator of a facility reported the contaminants to the NPRI as a release to air, even though they are not listed in Appendices B, C, or D.

4 CALCULATING EMISSIONS

Facilities required to calculate emissions will need to follow these steps:

- Identify emission sources within the facility;
- Select emission estimation methodology;
- Gather supporting information for calculating emissions; and
- Calculate emissions.

4.1 Identify Emission Sources Within the Facility

The first step is very important because it will identify any process within the facility that may generate emissions of contaminants. Information on emission sources may be available from plant operation personnel or from published emission inventory handbooks^{1, 3, 4, 18}. An example is AP-42¹ which is published by the United States Environmental Protection Agency (USEPA). AP-42 provides process flow diagrams^a and details regarding the general operation, emission sources, applicable emission control techniques and emission factors associated with various industries. To facilitate electronic data manipulation, a coding system (Source Classification Code, SCC²⁵) is used to identify these emission related processes.

In general, these processes can be grouped into 5 categories:

- i) Combustion (e.g., boiler, furnace, heater, etc.);
- ii) Manufacturing (e.g., blast furnace, chrome-plating, etc.);
- iii) Solvent evaporation (e.g., degreasing, cleaning, printing, painting, etc.);
- iv) Storage (e.g., silos, tanks, etc.); and
- v) Fugitive (e.g., exposed storage piles, road dust, equipment leakage, etc.).

4.1.1 **Combustion**

Combustion can be external (e.g., boilers, furnaces, space heaters, etc.) or internal (e.g., diesel generators, internal combustion engines, etc.). The primary activity in combustion is the burning of fuel (e.g., coal, oil, gas, etc.) to generate thermal or mechanical energy. The input material to the combustion equipment is the type and quantity of fuel consumed. It should be noted that there are some processes that also involve the input of fuel but are not considered to be combustion processes in this context. For example, coke ovens and blast furnaces involve fuel input, but are considered to be manufacturing processes.

^aA process flow diagram is a schematic diagram which shows the possible equipment/devices and steps that may exist in a manufacturing process and how they are related. It also shows the flow of both the input raw materials and processed materials to and from various equipment/devices. The possible emission points and the contaminants may be indicated.

Where a reporting facility includes numerous individual space heaters, only one emission source is to be defined for each fuel type.

4.1.2 Manufacturing

The list of manufacturing processes is extensive and depends on the nature of the facility and its various components. Emissions can exist at every stage of the manufacturing process or at the final stage of the manufacturing process. For example, in a foundry operation, emissions occur at each stage of the operation (i.e., casting cooling, casting shakeout, casting knock out, casting cleaning, casting finishing, sand handling, core making, core baking, heat treatments, grinding, etc.). Conversely, in an electroplating process, the emissions primarily occur at the electroplating baths.

4.1.3 Solvent Evaporation

Solvents evaporate in activities such as cleaning, degreasing, thinning, coating (painting), printing, dry cleaning, etc. The solvent vapour is either allowed to evaporate to the atmosphere or is captured for emission control (e.g., incineration) or vapour recovery.

In cases where the solvent is used for general purposes that cannot be associated with a definite process (e.g., cleaning, thinning, etc.) one emission source is to be identified for each type of solvent usage.

4.1.4 Storage

Volatile compounds may be emitted to the atmosphere during storage (standing/breathing loss) and during loading and unloading of the stored material (working/withdrawal loss). Particulates may also be emitted during the loading and unloading operation of storage silos. There are various emission control techniques available to reduce the emission of volatile compounds or particulates.

4.1.5 Fugitive

Generally, fugitive emissions occur at different stages in the manufacturing process(es) (e.g., equipment leakage at pumps, valves, flanges, coke oven doors, etc.). Fugitive emissions can also come from unpaved roads due to traffic movement, wind erosion of exposed storage piles, etc.

For any of the above categories, there are various emission control devices available to reduce emissions of certain contaminants.

It should be noted that a discharge unit may have more than one process associated with it. Examples are:

- i) A combustion boiler which burns both oil and natural gas. In this situation, there will be two processes (two SCCs) to differentiate emissions from oil burning and gas burning.
- ii) A gasoline or volatile organic solvent storage tank which incurs both standing loss and working loss requires the identification of two processes.

A complete list of the potential emission sources must be compiled together with the assigned SCC and information on the control efficiency of the emission control devices. This list will help to determine the appropriate emission estimation methodology to be used for each process.

4.2 Select Emission Estimation Methodology

There are several methodologies available for calculating air emissions from the processes at the facility. The choice of emission estimation method used is dependent upon the available data. In general, site-specific data that are representative of normal operations at a facility's site are preferred over industry-average data (such as emission factors). The following paragraphs give a general description of the common emission estimation methodologies available to facilities. Refer to the corresponding referenced documents for detailed information on the implementation and application of the emission estimation methodologies. Examples of emission calculations using the following estimation methods are presented in Appendix A.

Besides the following listed methodologies, emission estimation methods and information compiled for compliance with EPA Regulation 346 may also be used to estimate annual and smog season emissions for this regulation¹⁷. Methods other than those listed may be used if approved by the Director. To obtain approval for the use of an alternate method, it is the responsibility of the owner and operator of a facility to provide documentation and justification for the proposed method and to obtain written approval from the Director before the beginning of the reporting year.

The facility must select methodologies that are applicable to the facility's emission processes. In most cases, a combination of methodologies will be required by the facility. For example, an installed continuous emission monitoring system (CEMS) can be used for calculating SO₂ and NO_x emissions from a boiler; source testing results may be used for calculating VOC emissions, controlled with an incinerator, from a surface coating operation; mass balance may be used for calculating cleaning solvent loss; and emission factors may be used for material handling.

Any of the methodologies listed below will be acceptable for the calculation of emissions in most cases, however, please note that if a facility is one of those required

by Section 3(4) of the regulation to use an emissions monitoring system, the methodology used must be one referred to in section 5.5 of this Guideline.

Once the methodology has been selected, the owner and operator of a facility shall follow the directions as set out below for the selected methodology.

4.2.1 Continuous Emission Monitoring System (CEMS)

A CEMS^{7,8} provides a continuous record of emissions over an extended and uninterrupted period of time. Various principles are employed to measure the concentration of contaminants in the gas stream; they are usually based on photometric measurements. Once the contaminant concentration and the flow rate is known, emission rates can be obtained by multiplying the contaminant concentration by the volumetric stack gas flow rate. The emissions can then be calculated from this data.

Appendix A.1 presents an example of how to use CEMS results to calculate emissions.

4.2.2 Predictive Emission Monitoring (PEM)

PEM^{7,8} is based on developing a correlation between contaminant emission rates and process parameters (e.g., fuel usage, steam production or furnace temperature) and could be considered a hybrid of continuous monitoring, emission factors and stack tests. A correlation test must first be performed to develop the relationship between contaminant emission rates and process parameters. Emissions can then be calculated or predicted using process parameters to predict emission rates based on the results of the initial source test. For example, emissions of particulates from a boiler could be predicted based on the correlation of the particulate emissions to the fuel flow rate.

Appendix A.2 presents an example of how to use PEM results to calculate emissions.

4.2.3 Source Testing

Source testing^{9,10,19,20} provides a "snapshot" of emissions during the period of the test. Samples are collected using probes inserted into the exhaust stack, and contaminants are collected in or on various media and sent to a laboratory for analysis or are analysed on-site. Contaminant concentrations are obtained by dividing the amount of contaminant collected during the test by the volume of the sample. Emission rates are then determined by multiplying the contaminant concentration by the volumetric stack gas flow rate. Emission loadings are then determined from these emission rates and the total period of operation.

Appendix A.3 presents an example of how to use source testing results to calculate emissions.

4.2.4 Mass Balance

Mass balance (material balance) is based on the application of the law of conservation of mass to the process. Essentially, if there is no accumulation within the system, then all the materials that go into the system must come out. Fuel analysis^{11,12,13} data is a good example of the mass balance approach in predicting emissions. For example, if the concentration of a contaminant or contaminant precursor in a fuel is known, emissions of that contaminant can be calculated by assuming that all of the contaminant is emitted prior to the application of an emission control. This approach is appropriate for contaminants such as metals, SO₂, VOCs and CO₂. Mass balance should not be used to estimate NO_x emissions because of the high variability of emissions in most combustion processes. It should be noted, however, that some of the contaminants will require further analysis to determine the portion emitted to the atmosphere since some of these contaminants may end up in various physical or chemical states^{14,15} (ash, etc.) and not emitted to the atmosphere.

The general equation for the mass balance approach is:

$$M_e = M_i - M_p - M_a - M_c$$

Where

- M_e = Mass of compound A emitted
- M_i = Mass of compound A in the raw material feed
- M_p = Mass of compound A in the finishing product
- M_a = Mass of compound A accumulated in the system
- M_c = Mass of compound A captured for recovery or disposal

Appendices A.4 and A.5 present examples of how to use the mass balance approach to calculate emissions.

4.2.5 Emission Factors

Emission factors are available for many emission source categories and are based on the results of source tests performed at one or more facilities within an industry. Basically, an emission factor is the contaminant emission rate relative to the level of source activity. Emission factors have been compiled by the USEPA for criteria and toxic contaminants [AP-42 document³, the Locating and Estimating Air Emissions (L&E) series of documents¹, the Factor Information Retrieval (FIRE) System², EIP documents⁴, the VOC/Particulate Matter (PM) Speciation Database Management System (SPECIATE)⁵ and PM Calculator⁶]. Emission factors compiled by specific industrial associations or by other agencies¹⁸ may also be available.

The facility may be able to develop its own emission factors based on direct monitoring (CEMS/PEM) or measurement (source testing) results. Facility-specific established emission factors (mass of emission per unit time, mass of

emission per input material flow, or mass of emission per unit output production) will be applicable to the measured processes or similar equipment/processes of other facilities when the operating conditions are comparable. Generic emission factors are commonly used when site-specific source monitoring data are unavailable.

The basic equation used in an emission factor emissions calculation is:

$$E_x = BQ * EF_x * \frac{100 - CE_x}{100}$$

Where: E_x = Emission of contaminant x, kg
 BQ = Activity rate or base quantity (BQ), BQ unit
 EF_x = Uncontrolled emission factors of contaminant x, kg/BQ unit
 CE_x = Overall emission control efficiency of contaminant x, %

or

$$E_x = BQ * CEF_x$$

Where: E_x = Emission of contaminant x, kg
 BQ = Activity rate or base quantity (BQ), BQ unit
 CEF_x = Controlled emission factors of contaminant x, kg/BQ unit

Appendix A.6 presents an example of how to use generic emission factors to calculate emissions.

4.2.6 Emission Estimation Model

There are some emission estimation models and/or algorithms that estimate emissions from various emission sources. For example, USEPA TANKS⁶ software is commonly used to estimate VOC emissions from storage tanks. The Landfill Gas Emissions Model⁶ software may be used to calculate the air contaminant emissions from municipal solid waste landfills.

Appendix A.7 presents an example of how to use the road dust algorithm to calculate emissions from road dust.

4.2.7 Engineering Calculation

A significant volume of data pertaining to emission estimating factors and methodologies has been assembled by Environment Canada and the U.S. Environmental Protection Agency. Nevertheless, a large data gap in certain processes still remains where emission test data or published emission factors for VOC discharges are either not available, or not appropriate. In such cases, sound engineering assessment is the best approach to determine process

factors and base quantity values. To apply an engineering assessment method, there are four basic principles which should be followed:

- (i) Review all data pertaining to the specific emission source and to the industrial sector in general;
- (ii) Use this data to provide gross approximations and refine these using sound engineering principles as data becomes available to provide more accurate estimations;
- (iii) Whenever possible, alternate methods of calculation should be conducted to cross-check each level of approximation; and
- (iv) Employ good record keeping which involves documenting all related information for further emission refinement when more accurate data becomes available.

There are additional examples presented in Appendix A which will provide reference for calculating emissions.

4.3 Gather Supporting Information for Calculating Emissions

Once the emission estimation methodologies have been chosen for the emission sources, the next step is to gather the necessary information required by the specific methodology. Since facility processes and related emission estimation methodologies are diverse, it is not possible to provide a comprehensive list of exactly what information is required in each situation. The following paragraphs provide generalized requirements for the supporting information.

4.3.1 *Combustion*

For large combustion boilers, CEMS may be installed, which provide a continuous record of emissions of monitored contaminants. CEMS can then be programmed to monitor the total emissions in a selected interval (e.g., hourly, daily, etc.) when there is no downtime of the CEMS. Reference 8 provides more details on how to report emissions using CEMS.

Other methodologies may be used to calculate emissions. The following information is required for combustion processes:

- (a) Process Identifier - reference ID
- (b) Process Description - description of process and assigned SCC
- (c) Combustion Equipment Type - reference for selecting emission factors
- (d) Combustion Equipment Parameters - reference for selecting emission factors
- (e) Process Activity - the quantity of fuel burned
- (f) Fuel Analysis - for mass balance
- (g) Installed Control Device
- (h) Controlling Contaminant(s) and Control Efficiency(ies)
- (i) Exhaust Stack/Vent ID & Description

Items (b), (c) and (d) are useful for obtaining the SCC that best describes the combustion process and the emission factors for a certain set of contaminants. Item (e) provides the quantity of input material to the combustion equipment and will be used by mass balance and emission factor methodologies. Fuel consumption can be obtained from utility bills or from acquisition records. When the fuel consumption of an individual combustion equipment is not measured, it may be necessary to apportion the total facility consumption based on the capacity and operating time of each equipment. Item (f), fuel analysis (physical characteristics and fuel composition), can be obtained from the fuel supplier or performed by analytical laboratories. Fuel analysis provides information on the contaminant contained in the fuel and the potential emissions. Mass balance can then be used to calculate the emissions of certain metal contaminants. Item (h) is the control efficiency of the installed emission control device/technique (g) and is available from the device manufacturer or from on-site test results.

4.3.2 Manufacturing

Stack testing results and emission factors are the most common methods used for calculating emissions from manufacturing processes. Supporting information required for manufacturing processes is similar to that needed for combustion processes.

The following information is required for manufacturing processes:

- (a) Process Identifier - reference ID
- (b) Process Description - description of process and assigned SCC
- (c) Process Activity - the quantity of material fed or produced
- (d) Installed Control Device
- (e) Controlling Contaminant(s) and Control Efficiency(ies)
- (f) Exhaust Stack/Vent ID & Description

Item (b) is required to obtain the SCC that describes the manufacturing process and the emission factors of certain contaminants. Item (c) provides the quantity of input raw material to the process equipment or final product produced. This information will be used by emission factor methodologies. Item (e) is the control efficiency of the installed emission control device/technique (d) and is available from the device manufacturer or from on-site test results.

4.3.3 Solvent Evaporation

Mass balance, emission factors and stack testing results are the most common methods used for calculating emissions from solvent evaporation processes. Supporting information required for solvent evaporation processes is similar to that for combustion processes.

The following information is required for solvent evaporation processes:

- (a) Process Identifier - reference ID

- (b) Process Description - description of process and assigned SCC
- (c) Process Activity - the quantity of solvent used
- (d) Solvent Physical Properties/Composition - for mass balance
- (e) Installed Control Device/Techniques
- (f) Controlling Contaminant(s) and Control Efficiency(ies)
- (g) Exhaust Stack/Vent ID & Description

Item (b) is required to obtain the SCC that describes the solvent evaporation process and the associated emission factors. Item (c) provides the quantity of solvent used for the process; this information will be used by emission factor methodologies. Solvent consumption can be obtained from an acquisition record. When the solvent consumption for an individual process is not measured, it may be necessary to apportion the total facility consumption based on the capacity and operating time of each process. Item (d), solvent physical properties/composition information, can be obtained from the Material Safety Data Sheet (MSDS) that comes with the solvent. The MSDS lists the concentration of hazardous contaminants in various solutions and can be used to calculate the emissions of the contaminant. Item (f) is the control efficiency of the installed emission control device/technique (e) and is available from the device manufacturer or from on-site test results.

4.3.4 Storage

The USEPA has developed the emission estimation model TANKS. This model requires information on materials stored and physical parameters/design of storage tanks in order to generate the emission factors for a particular tank and material combination. This model will be useful in facilities that have huge storage tanks that store volatile liquids. Examples are petroleum refineries and bulk terminal/plants. Owing to the complexity of this model, there are emission factors generated for common tank configurations and material stored.

The following information is required when the emission factor method is used:

- (a) Storage Tank Identifier - reference ID
- (b) Tank Description - description of tank/material stored and assigned SCC
- (c) Process Activity - capacity of the storage tank
- (d) Process Activity - throughput of storage tank
- (e) Installed Control Device/Techniques
- (f) Controlling Contaminant(s) and Control Efficiency(ies)
- (g) Exhaust Stack/Vent ID & Description

Item (b) is required to obtain the SCC that describes the storage tank configuration, material stored and the associated emission factors. There are two process identifiers required for storage tank emissions. Items (c) and (d) provide activity information related to the operation of the tank for the application of emission factor methodologies. Item (f) is the control efficiency of the

installed emission control device/technique (e) and is available from the device manufacturer or from on-site test results.

4.3.5 Fugitive

The quantitative analysis of fugitive emissions may require field measurements or the use of computer models. There have been some emission factors developed for selected fugitive emissions such as equipment leakage at pumps and valves, flanges in petroleum refineries, leaks at coke oven doors/seals, or wind erosion of exposed storage piles. The information required for calculating fugitive emissions varies depending on the nature of the emission sources and the methodologies used. Consult Table 7 for information required for typical fugitive emission sources.

4.4 Calculate Emissions

When all emission processes are identified, emission methodologies are selected, and related information is assembled, the next step is to calculate the emissions.

If CEMS is used, it can be programmed to monitor the total emissions in a selected interval (e.g., hourly, daily, etc.). The direct output of the CEMS emissions can be used when there is no downtime of the CEMS. Reference 8 provides more detail on how to report emissions using CEMS.

When other methods are used, the equation below [also shown in Section 4.2.5 (emission factors)] can be used to generalize the emission calculation procedure:

$$E_x = BQ * EF_x * \frac{100 - CE_x}{100}$$

Where: E_x = Emission of contaminant x, kg
BQ = Activity rate or base quantity (BQ), BQ unit
 EF_x = Uncontrolled emission factors of contaminant x, kg/BQ unit
 CE_x = Overall emission control efficiency of contaminant x, %
or

$$E_x = BQ * CEF_x$$

Where: E_x = Emission of contaminant x, kg
BQ = Activity rate or base quantity (BQ), BQ unit
 CEF_x = Controlled emission factors of contaminant x, kg/BQ unit

To use PEM, a correlation must be developed between the emission rate and monitored activity levels (e.g., coal feed in a boiler, lime production in a lime kiln). These established emission factors will be used to calculate the emissions when the total activity rate (e.g., total coal consumption, total lime production) within the period is known. Care should be taken to determine whether the emission rates are derived

before or after any control devices. If the emission measurement is conducted before any control devices, the emission rate is uncontrolled and control efficiencies of the devices must be considered in the first equation. When the emission measurement is conducted after all control devices, the emission rate is controlled. Therefore, the second equation should be used since control efficiencies of the devices have already been included.

Use the first equation if the emission factors are uncontrolled. For controlled emission factors, select the proper emission factors associated with a similar control device and use the second equation. When no controlled emission factors are available for the control device, use the uncontrolled emission factors together with the control efficiency in the first equation.

The USEPA has established SCC coding to facilitate emissions calculation using generic emission factors. The USEPA AP-42 or FIRE emission factors are identified with the SCC and the contaminant name. Computer algorithms may be developed to perform the emission calculation automatically with the SCC as a reference code.

When the mass balance method is used, emissions can be calculated with an analysis of the fate of the contaminants.

Emission estimation models or formulas are different depending on their application; users should consult the relevant user guides or manuals for the application of these models. Some of the model outputs will generate emission factors for a particular system at certain conditions. The general emission factor equation needs to be used to calculate the final emissions.

5 REPORTING EMISSIONS

The regulation requires the facility to report annual and smog season emissions data, and quarterly data using an emissions monitoring system should the respective monitoring and reporting requirements be met. Annual and smog season reports for a given year are due on June 1st of the following year, and quarterly reports are due 60 days after the end of each quarter. The parameters to be reported for annual and smog season data are listed in Table 5, and are listed in Table 6 for quarterly emissions monitoring system data.

The regulation provides that reports are to be submitted in a form approved by the Director. The Director intends to advise on what format is approved prior to the first reporting deadline. It is intended that the approved form will be an electronic one. The regulated community will be advised when the approved form is available.

It is also intended that reported data be compiled and be accessible electronically.

5.1 Table 2A Criteria Air Contaminants and Greenhouse Gases - Annual Reporting

For release based threshold contaminants in Table 2A, the facility has to compare the calculated total facility emissions of the contaminants one by one against their respective reporting thresholds. The facility total annual emissions for each contaminant are generated by summing the emissions of individual processes. If the contaminant emissions are equal to or greater than the reporting threshold, the annual emission value must be reported. If not, the contaminant name has to be reported and identified with assigned codes indicating that the emission is below the reporting threshold or that there is no emission reportable.

A facility that is a university or college of applied arts and technology or an office building, hotel, shopping centre or similar commercial building is required to report only SO₂, NO_x, and HFC-134A emissions, from heating or cooling systems, that are equal to or greater than reporting thresholds.

5.2 Table 2A Criteria Air Contaminant (CAC) - Smog Season Reporting

The reporting facility is also required to report CAC emissions for the smog period (May 1st to September 30th) for each CAC in Table 2A that is equal to or greater than its respective annual reporting threshold.

5.3 Table 2B Contaminants with MOE Graded MPO Thresholds - Annual Reporting

This section of the Guideline shall be used for calculating the total quantities of Table 2B contaminants that are manufactured or processed or otherwise used, including by-products. The terms “manufacture”, “process”, and “otherwise use” are used by the federal NPRI¹⁶ program, and have been reproduced in the Glossary at the beginning of this Guideline.

A facility is required to calculate and report the emissions of a contaminant listed in Table 2B only if it meets all of the screening criteria outlined in Section 2.3 of the Guideline. For example, the facility does not have to calculate and report the emissions of a contaminant in Table 2B if that contaminant was never manufactured, processed, or otherwise used at the facility during the reporting year.

The reporting threshold is based on the quantity of the contaminant (in Table 2B) manufactured or processed or otherwise used at the facility at concentrations equal to or greater than 1% plus the quantity of the same contaminant, at any concentration, that is considered to be a by-product which is released on-site to the environment or transferred off-site for disposal.

According to the NPRI¹⁶ guideline document, when calculating the reporting threshold, include the quantity of the contaminant that is:

- manufactured at a concentration equal to or greater than 1%;
- processed at a concentration equal to or greater than 1%;
- otherwise used at a concentration equal to or greater than 1%;
- a by-product, at any concentration, released on-site to the environment;
- a by-product, at any concentration, transferred off-site for disposal.

For contaminants (in Table 2B) equal to or greater than 1% concentration, the total quantity manufactured or processed or otherwise used at any time or in any part of the facility must be included in the calculation for comparison to the corresponding threshold. For example, the quantity of a contaminant received by a facility at 30% concentration and then diluted to less than 1% for use must be included in the calculation for comparison to the corresponding threshold. The same will apply for a contaminant received at the facility at less than 1% and subsequently concentrated to 5%.

Following the NPRI¹⁶ approach to reporting, any contaminants that are recycled off-site and returned to the facility should be treated as the equivalent of newly purchased material for the purpose of threshold determination. Since a contaminant may undergo many processes in a facility, care should be taken not to double-count process streams when calculating the reporting threshold.

For examples on how to calculate the total quantity manufactured, processed or otherwise used, the percent by weight, and by-products for contaminants, please refer to the NPRI¹⁶ guideline document. Appendix A.4 of this Guideline provides an example of how to calculate the total quantity of contaminants manufactured, processed or otherwise used.

Only upon determining that all of the screening criteria in Section 2.3 of the Guideline have been met shall the facility proceed to calculate (using estimation methods outlined in Section 4 of the Guideline) and report the emissions of a contaminant listed in Table 2B.

5.4 Table 2C Contaminants with NPRI Thresholds - Annual Reporting

To comply with O.Reg. 127/01, any facility described in Table 1 of this Guideline that is required to report to the federal Minister pursuant to the NPRI program and the Notice published in the *Canada Gazette* for that purpose, is required to copy the Director with the air releases portion of the report provided to the federal government.

5.5 Emissions Monitoring System and Quarterly Reporting of NO_x and SO₂

If a reporting facility has a discharge unit with a name plate capacity of more than 73 megawatts total energy input and the annual amount of sulphur dioxide and/or oxides of nitrogen discharged by the unit can reasonably be expected to be equal to or greater than the respective reporting thresholds [i.e., 20 tonnes for sulphur dioxide and 14 tonnes for oxides of nitrogen (expressed as NO)], NO_x and/or SO₂ reporting is required on a quarterly basis using an emission monitoring system.

“Emissions monitoring system” means a system designed to monitor emissions of specific contaminants based on any of the following suite of options which provide at least the accuracy typically obtained through source testing conducted in accordance with the Ontario Source Testing Code²⁰, or better (see Table 4).

These methods are namely:

- CEMS
- PEM
- Source testing
- Mass balance (the mass balance method cannot be used to estimate NO_x emissions)
- Site specific emission factors [that are verified for accuracy from three separate source tests done in accordance with the Ontario Source Testing Code or other relevant Canadian or U.S. methods (see Table 4)]
- Published emission factors (with USEPA ratings A, B and C for known industrial processes)
- Emission estimation models and engineering calculations
- Any other methods approved by the Director (allowing for future development of methods)

6 RECORD KEEPING

The regulation requires the owner and operator of a facility to ensure that a copy of the report and of any record prepared for the purpose of the report is kept for at least seven years after the day the report is required to be submitted. The report and/or the related records are to be made available to the MOE upon request. The regulation also specifies that records be prepared and maintained in accordance with the Guideline. The following sections outline the requirements for record keeping.

6.1 Record Keeping For Annual And Smog Season Emissions

If a facility is required to perform annual and smog season monitoring and reporting, it must keep records, in electronic format, of the applicable parameters listed in Table 7, for a period of 7 years (see Table 7 for the list of parameters).

6.2 Record Keeping For Quarterly Emissions - Emission Monitoring System NO_x and SO₂ Emissions

If a facility is required to perform quarterly monitoring and reporting, it must keep records, in electronic format, of the applicable parameters listed in Table 8 for a period of 7 years (see Table 8 for the list of parameters).

Table 1

Source Sectors for Airborne Contaminant Discharge Reporting

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES |
|--|
| CLASS A - ELECTRICITY GENERATION |
| <i>ELECTRIC POWER GENERATION</i> |
| 221111 Hydro-Electric Power Generation |
| 221112 Fossil-Fuel Electric Power Generation |
| 221113 Nuclear Electric Power Generation |
| 221119 Other Electric Power Generation |
| CLASS B - LARGE SOURCES |
| <i>METAL ORE MINING</i> |
| 212210 Iron Ore Mining |
| 212220 Gold and Silver Ore Mining |
| 212231 Lead-Zinc Ore Mining |
| 212232 Nickel-Copper Ore Mining |
| 212233 Copper-Zinc Ore Mining |
| 212291 Uranium Ore Mining |
| 212299 All Other Metal Ore Mining |
| <i>NON-METALLIC MINERALS MINING AND QUARRYING</i> |
| 212314 Granite Mining and Quarrying |
| 212315 Limestone Mining and Quarrying |
| 212316 Marble Mining and Quarrying |
| 212317 Sandstone Mining and Quarrying |
| 212323 Sand and Gravel Mining and Quarrying |
| 212326 Shale, Clay and Refractory Mineral Mining and Quarrying |
| 212394 Asbestos Mining |
| 212395 Gypsum Mining |
| 212396 Potash Mining |
| <i>NATURAL GAS DISTRIBUTION</i> |
| 221210 Natural Gas Distribution |
| <i>WATER, SEWAGE AND OTHER SYSTEMS</i> |
| 221330 Steam and Air-Conditioning Supply |
| <i>TEXTILE MILLS AND TEXTILE MILL PRODUCTS</i> |
| 313110 Fibre, Yarn and Thread Mills |
| 313210 Broad-Woven Fabric Mills |
| 313310 Textile and Fabric Finishing |
| 313320 Fabric Coating |
| 314110 Carpet and Rug Mills |
| <i>WOOD PRODUCT MANUFACTURING</i> |
| 321111 Sawmills (except Shingle and Shake Mills) |
| 321112 Shingle and Shake Mills |

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES | |
|--|---|
| 321114 | Wood Preservation |
| 321211 | Hardwood Veneer and Plywood Mills |
| 321212 | Softwood Veneer and Plywood Mills |
| 321215 | Structural Wood Product Manufacturing |
| 321216 | Particle Board and Fibreboard Mills |
| 321217 | Waferboard Mills |
| 321911 | Wood Window and Door Manufacturing |
| <i>PULP, PAPER AND PAPERBOARD MILLS</i> | |
| 322111 | Mechanical Pulp Mills |
| 322112 | Chemical Pulp Mills |
| 322121 | Paper (except Newsprint) Mills |
| 322122 | Newsprint Mills |
| 322130 | Paperboard Mills |
| <i>CONVERTED PAPER PRODUCT MANUFACTURING</i> | |
| 322211 | Corrugated and Solid Fibre Box Manufacturing |
| 322212 | Folding Paperboard Box Manufacturing |
| 322219 | Other Paperboard Container Manufacturing |
| 322220 | Paper Bag and Coated and Treated Paper Manufacturing |
| 322230 | Stationery Product Manufacturing |
| 322291 | Sanitary Paper Product Manufacturing |
| <i>PRINTING AND RELATED SUPPORT ACTIVITIES</i> | |
| 323113 | Commercial Screen Printing |
| 323116 | Manifold Business Forms Printing |
| 323119 | Other Printing (Includes Commercial Lithographic, Gravure and Flexographic Printing) |
| <i>PETROLEUM REFINING AND DISTRIBUTION</i> | |
| 324110 | Petroleum Refineries |
| 412110 | Petroleum Product Wholesaler-Distributors <i>(For gasoline bulk plants and terminals only)</i> |
| <i>ASPHALT, OTHER PETROLEUM AND COAL PRODUCTS</i> | |
| 324121 | Asphalt Paving Mixture and Block Manufacturing |
| 324122 | Asphalt Shingle and Coating Material Manufacturing |
| 324190 | Other Petroleum and Coal Products Manufacturing |
| <i>CHEMICAL MANUFACTURING</i> | |
| 325110 | Petrochemical Manufacturing |
| 325120 | Industrial Gas Manufacturing |
| 325130 | Synthetic Dye and Pigment Manufacturing |
| 325181 | Alkali and Chlorine Manufacturing |
| 325189 | All Other Basic Inorganic Chemical Manufacturing |
| 325190 | Other Basic Organic Chemical Manufacturing |
| 325210 | Resin and Synthetic Rubber Manufacturing |
| 325220 | Artificial and Synthetic Fibres and Filaments Manufacturing |
| 325313 | Chemical Fertilizer (except Potash) Manufacturing |
| 325314 | Mixed Fertilizer Manufacturing |

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES | |
|--|--|
| 325320 | Pesticide and Other Agricultural Chemical Manufacturing |
| 325410 | Pharmaceutical and Medicine Manufacturing |
| 325510 | Paint and Coating Manufacturing |
| 325520 | Adhesive Manufacturing |
| 325610 | Soap and Cleaning Compound Manufacturing |
| 325620 | Toilet Preparation Manufacturing |
| 325910 | Printing Ink Manufacturing |
| 325920 | Explosives Manufacturing |
| 325991 | Custom Compounding of Purchased Resins |
| 325999 | All Other Miscellaneous Chemical Product Manufacturing |
| <i>PLASTICS AND RUBBER PRODUCTS MANUFACTURING</i> | |
| 326111 | Unsupported Plastic Bag Manufacturing |
| 326114 | Unsupported Plastic Film and Sheet Manufacturing |
| 326121 | Unsupported Plastic Profile Shape Manufacturing |
| 326122 | Plastic Pipe and Pipe Fitting Manufacturing |
| 326130 | Laminated Plastic Plate, Sheet and Shape Manufacturing |
| 326140 | Polystyrene Foam Product Manufacturing |
| 326150 | Urethane and Other Foam Product (except Polystyrene) Manufacturing |
| 326160 | Plastic Bottle Manufacturing |
| 326191 | Plastic Plumbing Fixture Manufacturing |
| 326193 | Motor Vehicle Plastic Parts Manufacturing |
| 326210 | Tire Manufacturing |
| 326220 | Rubber and Plastic Hose and Belting Manufacturing |
| <i>NON-METALLIC MINERAL PRODUCT MANUFACTURING</i> | |
| 327110 | Pottery, Ceramics and Plumbing Fixture Manufacturing |
| 327120 | Clay Building Material and Refractory Manufacturing |
| 327214 | Glass Manufacturing |
| 327215 | Glass Product Manufacturing from Purchased Glass |
| 327310 | Cement Manufacturing |
| 327320 | Ready-Mix Concrete Manufacturing |
| 327330 | Concrete Pipe, Brick and Block Manufacturing |
| 327410 | Lime Manufacturing |
| 327420 | Gypsum Product Manufacturing |
| 327910 | Abrasive Product Manufacturing |
| <i>IRON AND STEEL MILLS AND FERRO-ALLOY MANUFACTURING</i> | |
| 331110 | Iron and Steel Mills and Ferro-Alloy Manufacturing |
| <i>STEEL PRODUCT MANUFACTURING FROM PURCHASED STEEL</i> | |
| 331210 | Iron and Steel Pipes and Tubes Manufacturing from Purchased Steel |
| 331221 | Cold-Rolled Steel Shape Manufacturing |
| 331222 | Steel Wire Drawing |
| <i>ALUMINA AND ALUMINUM PRODUCTION AND PROCESSING</i> | |
| 331313 | Primary Production of Alumina and Aluminum |
| 331317 | Aluminum Rolling, Drawing, Extruding and Alloying |

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES | |
|---|---|
| <i>NON-FERROUS METAL (EXCEPT ALUMINUM) PRODUCTION AND PROCESSING</i> | |
| 331410 | Non-Ferrous Metal (except Aluminum) Smelting and Refining |
| 331420 | Copper Rolling, Drawing, Extruding and Alloying |
| 331490 | Non-Ferrous Metal (except Copper and Aluminum) Rolling, Drawing, Extruding and Alloying |
| <i>FOUNDRIES</i> | |
| 331511 | Iron Foundries |
| 331514 | Steel Foundries |
| 331523 | Non-Ferrous Die-Casting Foundries |
| 331529 | Non-Ferrous Foundries (except Die-Casting) |
| <i>FABRICATED METAL PRODUCT MANUFACTURING</i> | |
| 332113 | Forging |
| 332118 | Stamping |
| 332210 | Cutlery and Hand Tool Manufacturing |
| 332311 | Prefabricated Metal Building and Component Manufacturing |
| 332314 | Concrete Reinforcing Bar Manufacturing |
| 332319 | Other Plate Work and Fabricated Structural Product Manufacturing |
| 332321 | Metal Window and Door Manufacturing |
| 332410 | Power Boiler and Heat Exchanger Manufacturing |
| 332420 | Metal Tank (Heavy Gauge) Manufacturing |
| 332431 | Metal Can Manufacturing |
| 332510 | Hardware Manufacturing |
| 332611 | Spring (Heavy Gauge) Manufacturing |
| 332619 | Other Fabricated Wire Product Manufacturing |
| 332720 | Turned Product and Screw, Nut and Bolt Manufacturing |
| 332810 | Coating, Engraving, Heat Treating and Allied Activities |
| 332910 | Metal Valve Manufacturing |
| 332991 | Ball and Roller Bearing Manufacturing |
| <i>COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING</i> | |
| 334110 | Computer and Peripheral Equipment Manufacturing |
| 334210 | Telephone Apparatus Manufacturing |
| 334220 | Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing |
| 334290 | Other Communications Equipment Manufacturing |
| 334410 | Semiconductor and Other Electronic Component Manufacturing |
| 334511 | Navigational and Guidance Instruments Manufacturing |
| 334512 | Measuring, Medical and Controlling Devices Manufacturing |
| 335110 | Electric Lamp Bulb and Parts Manufacturing |
| 335120 | Lighting Fixture Manufacturing |
| 335210 | Small Electrical Appliance Manufacturing |
| 335223 | Major Kitchen Appliance Manufacturing |
| 335311 | Power, Distribution and Specialty Transformers Manufacturing |
| 335312 | Motor and Generator Manufacturing |

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES | |
|--|--|
| 335315 | Switchgear and Switchboard, and Relay and Industrial Control Apparatus Manufacturing |
| 335910 | Battery Manufacturing |
| 335920 | Communication and Energy Wire and Cable Manufacturing |
| 335930 | Wiring Device Manufacturing |
| TRANSPORTATION EQUIPMENT MANUFACTURING | |
| 336110 | Automobile and Light-Duty Motor Vehicle Manufacturing |
| 336120 | Heavy-Duty Truck Manufacturing |
| 336211 | Motor Vehicle Body Manufacturing |
| 336212 | Truck Trailer Manufacturing |
| 336215 | Motor Home, Travel Trailer and Camper Manufacturing |
| 336310 | Motor Vehicle Gasoline Engine and Engine Parts Manufacturing |
| 336320 | Motor Vehicle Electrical and Electronic Equipment Manufacturing |
| 336330 | Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing |
| 336340 | Motor Vehicle Brake System Manufacturing |
| 336350 | Motor Vehicle Transmission and Power Train Parts Manufacturing |
| 336360 | Motor Vehicle Seating and Interior Trim Manufacturing |
| 336370 | Motor Vehicle Metal Stamping |
| 336390 | Other Motor Vehicle Parts Manufacturing |
| 336410 | Aerospace Product and Parts Manufacturing |
| 336510 | Railroad Rolling Stock Manufacturing |
| 336611 | Ship Building and Repairing |
| 336612 | Boat Building |
| 336990 | Other Transportation Equipment Manufacturing |
| CLASS C - SMALL SOURCES | |
| WATER, SEWAGE AND OTHER SYSTEMS | |
| 221320 | Sewage Treatment Facilities |
| FOOD MANUFACTURING (FOR ANIMAL CONSUMPTION) | |
| 311111 | Dog and Cat Food Manufacturing |
| 311119 | Other Animal Food Manufacturing |
| FOOD MANUFACTURING (FOR HUMAN CONSUMPTION) | |
| <i>This sector applies to facilities using food ingredients which are subject to the Canadian Food and Drug Act in the manufacturing of products for human consumption, who:</i> | |
| <i>a) derive <50% revenues from annual retail sales on premises; OR</i> | |
| <i>b) utilize combustion with the maximum rated heat input capacity > 10 MMBTU/hour burning fuel other than coal, wood or waste oil.</i> | |
| 311211 | Flour Milling |
| 311214 | Rice Milling and Malt Manufacturing |
| 311221 | Wet Corn Milling |
| 311224 | Oilseed Processing |
| 311225 | Fat and Oil Refining and Blending |
| 311230 | Breakfast Cereal Manufacturing |
| 311310 | Sugar Manufacturing |
| 311320 | Chocolate and Confectionery Manufacturing from Cacao Beans |

SECTOR DESCRIPTION WITH NAICS²⁴ CODES

311330 Confectionery Manufacturing from Purchased Chocolate
311340 Non-Chocolate Confectionery Manufacturing
311410 Frozen Food Manufacturing
311420 Fruit and Vegetable Canning, Pickling and Drying
311511 Fluid Milk Manufacturing
311515 Butter, Cheese, and Dry and Condensed Dairy Products Manufacturing
311520 Ice Cream and Frozen Dessert Manufacturing
311614 Rendering and Meat Processing from Carcasses
311615 Poultry Processing
311710 Seafood Product Preparation and Packaging
311814 Commercial Bakeries and Frozen Bakery Product Manufacturing
311821 Cookie and Cracker Manufacturing
311822 Flour Mixes and Dough Manufacturing from Purchased Flour
311823 Dry Pasta Manufacturing
311830 Tortilla Manufacturing
311911 Roasted Nut and Peanut Butter Manufacturing
311919 Other Snack Food Manufacturing
311920 Coffee and Tea Manufacturing
311930 Flavouring Syrup and Concentrate Manufacturing
311940 Seasoning and Dressing Manufacturing
312110 Soft Drink and Ice Manufacturing
312120 Breweries
312130 Wineries
312140 Distilleries

TOBACCO MANUFACTURING

312210 Tobacco Stemming and Redrying
312220 Tobacco Product Manufacturing

LEATHER AND ALLIED PRODUCT MANUFACTURING

316110 Leather and Hide Tanning and Finishing
316210 Footwear Manufacturing
316990 Other Leather and Allied Product Manufacturing

MACHINERY MANUFACTURING

333110 Agricultural Implement Manufacturing
333120 Construction Machinery Manufacturing
333130 Mining and Oil and Gas Field Machinery Manufacturing
333210 Sawmill and Woodworking Machinery Manufacturing
333220 Rubber and Plastics Industry Machinery Manufacturing
333291 Paper Industry Machinery Manufacturing
333310 Commercial and Service Industry Machinery Manufacturing
333413 Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing
333416 Heating Equipment and Commercial Refrigeration Equipment Manufacturing

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES | |
|--|---|
| 333511 | Industrial Mould Manufacturing |
| 333519 | Other Metalworking Machinery Manufacturing |
| 333611 | Turbine and Turbine Generator Set Unit Manufacturing |
| 333619 | Other Engine and Power Transmission Equipment Manufacturing |
| 333910 | Pump and Compressor Manufacturing |
| 333920 | Material Handling Equipment Manufacturing |
| FURNITURE AND RELATED PRODUCT MANUFACTURING | |
| 337110 | Wood Kitchen Cabinet and Counter Top Manufacturing |
| 337121 | Upholstered Household Furniture Manufacturing |
| 337123 | Other Wood Household Furniture Manufacturing |
| 337126 | Household Furniture (except Wood and Upholstered) Manufacturing |
| 337127 | Institutional Furniture Manufacturing |
| 337213 | Wood Office Furniture, including Custom Architectural Woodwork, Manufacturing |
| 337214 | Office Furniture (except Wood) Manufacturing |
| 337215 | Showcase, Partition, Shelving and Locker Manufacturing |
| 337910 | Mattress Manufacturing |
| 337920 | Blind and Shade Manufacturing |
| TRANSPORTATION OPERATION <i>(For maintenance and repair yard only)</i> | |
| 485110 | Urban Transit Systems |
| 485210 | Interurban and Rural Bus Transportation |
| COMMERCIAL BUILDINGS <i>(Commercial buildings include office buildings, hotels, shopping centres. Report SO₂, NO_x, and HFC-134A emissions from heating or cooling systems if the emissions are equal to or greater than their respective reporting thresholds)</i> | |
| 531120 | Lessors (or Owners) of Non-Residential Buildings (except Mini-Warehouses) |
| TESTING LABORATORIES <i>(For product development and testing only)</i> | |
| 541380 | Testing Laboratories |
| WASTE MANAGEMENT AND REMEDIATION SERVICES | |
| 562110 | Waste Collection |
| 562210 | Waste Treatment and Disposal |
| 562910 | Remediation Services |
| 562920 | Material Recovery Facilities |
| 562990 | All Other Waste Management Services |
| EDUCATIONAL SERVICES <i>(For universities, report SO₂, NO_x, and HFC-134A emissions from heating or cooling systems if the emissions are equal to or greater than their respective reporting thresholds)</i> | |
| 611310 | Universities |

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES |
|--|
| HEALTH CARE <i>(For hospitals with incinerators only)</i> 622111 General (except Paediatric) Hospitals 622112 Paediatric Hospitals 622210 Psychiatric and Substance Abuse Hospitals 622310 Specialty (except Psychiatric and Substance Abuse) Hospitals |
| AUTO REPAIR SERVICES 81121 Automotive Body, Paint and Interior Repair and Maintenance |
| DRY CLEANING AND LAUNDRY SERVICES <i>(For bulk dry cleaning depots/plants only)</i> 812320 Dry Cleaning and Laundry Services (except Coin-Operated) |
| CLASS C - SMALL SOURCES MISCELLANEOUS |
| OIL AND GAS EXTRACTION 211113 Conventional Oil and Gas Extraction 211114 Non-Conventional Oil Extraction |
| COAL MINING 212114 Bituminous Coal Mining 212115 Subbituminous Coal Mining 212116 Lignite Coal Mining |
| NON-METALLIC MINERALS MINING AND QUARRYING 212392 Diamond Mining 212393 Salt Mining 212397 Peat Extraction 212398 All Other Non-Metallic Mineral Mining and Quarrying |
| SUPPORT ACTIVITIES FOR MINING AND OIL AND GAS EXTRACTION 213111 Oil and Gas Contract Drilling 213117 Contract Drilling (except Oil and Gas) 213118 Services to Oil and Gas Extraction 213119 Other Support Activities for Mining |
| ELECTRIC POWER TRANSMISSION AND DISTRIBUTION 221121 Electric Bulk Power Transmission and Control 221122 Electric Power Distribution |
| FOOD MANUFACTURING (FOR HUMAN CONSUMPTION) <i>This sector applies to facilities using food ingredients which are subject to the Canadian Food and Drug Act in the manufacturing of products for human consumption, who:</i> <i>a) derive <50% revenues from annual retail sales on premises; OR</i> <i>b) utilize combustion with the maximum rated heat input capacity > 10 MMBTU/hour burning fuel other than coal, wood or waste oil.</i> 311611 Animal (except Poultry) Slaughtering 311990 All Other Food Manufacturing |

SECTOR DESCRIPTION WITH NAICS²⁴ CODES***TEXTILE MILLS AND TEXTILE MILL PRODUCTS***

- 313220 Narrow Fabric Mills and Schiffli Machine Embroidery
- 313230 Nonwoven Fabric Mills
- 313240 Knit Fabric Mills
- 314120 Curtain and Linen Mills
- 314910 Textile Bag and Canvas Mills
- 314990 All Other Textile Product Mills

CLOTHING MANUFACTURING

- 315110 Hosiery and Sock Mills
- 315190 Other Clothing Knitting Mills
- 315210 Cut and Sew Clothing Contracting
- 315221 Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing
- 315222 Men's and Boys' Cut and Sew Suit, Coat and Overcoat Manufacturing
- 315226 Men's and Boys' Cut and Sew Shirt Manufacturing
- 315227 Men's and Boys' Cut and Sew Trouser, Slack and Jean Manufacturing
- 315229 Other Men's and Boys' Cut and Sew Clothing Manufacturing
- 315231 Women's and Girls' Cut and Sew Lingerie, Loungewear and Nightwear Manufacturing
- 315232 Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing
- 315233 Women's and Girls' Cut and Sew Dress Manufacturing
- 315234 Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket and Skirt Manufacturing
- 315239 Other Women's and Girls' Cut and Sew Clothing Manufacturing
- 315291 Infants' Cut and Sew Clothing Manufacturing
- 315292 Fur and Leather Clothing Manufacturing
- 315299 All Other Cut and Sew Clothing Manufacturing
- 315990 Clothing Accessories and Other Clothing Manufacturing

WOOD PRODUCT MANUFACTURING

- 321919 Other Millwork
- 321920 Wood Container and Pallet Manufacturing
- 321991 Manufactured (Mobile) Home Manufacturing
- 321992 Prefabricated Wood Building Manufacturing
- 321999 All Other Miscellaneous Wood Product Manufacturing

CONVERTED PAPER PRODUCT MANUFACTURING

- 322299 All Other Converted Paper Product Manufacturing

PRINTING AND RELATED SUPPORT ACTIVITIES

- 323114 Quick Printing
- 323115 Digital Printing
- 323120 Support Activities for Printing

PLASTICS AND RUBBER PRODUCTS MANUFACTURING

- 326198 All Other Plastic Product Manufacturing
- 326290 Other Rubber Product Manufacturing

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES | |
|---|--|
| NON-METALLIC MINERAL PRODUCT MANUFACTURING | |
| 327390 | Other Concrete Product Manufacturing |
| 327990 | All Other Non-Metallic Mineral Product Manufacturing |
| FABRICATED METAL PRODUCT MANUFACTURING | |
| 332329 | Other Ornamental and Architectural Metal Products Manufacturing |
| 332439 | Other Metal Container Manufacturing |
| 332710 | Machine Shops |
| 332999 | All Other Miscellaneous Fabricated Metal Product Manufacturing |
| MACHINERY MANUFACTURING | |
| 333299 | All Other Industrial Machinery Manufacturing |
| 333990 | All Other General-Purpose Machinery Manufacturing |
| COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING | |
| 334310 | Audio and Video Equipment Manufacturing |
| 334610 | Manufacturing and Reproducing Magnetic and Optical Media |
| 335229 | Other Major Appliance Manufacturing |
| 335990 | All Other Electrical Equipment and Component Manufacturing |
| OTHER MISCELLANEOUS MANUFACTURING | |
| 339110 | Medical Equipment and Supplies Manufacturing |
| 339910 | Jewellery and Silverware Manufacturing |
| 339920 | Sporting and Athletic Goods Manufacturing |
| 339930 | Doll, Toy and Game Manufacturing |
| 339940 | Office Supplies (except Paper) Manufacturing |
| 339950 | Sign Manufacturing |
| 339990 | All Other Miscellaneous Manufacturing |
| MISCELLANEOUS WHOLESALE-DISTRIBUTORS | |
| 418190 | Other Recyclable Material Wholesaler-Distributors |
| 418410 | Chemical (except Agricultural) and Allied Product Wholesaler-Distributors |
| TRANSPORTATION OPERATION | |
| <i>(For maintenance and repair yard only)</i> | |
| 481110 | Scheduled Air Transportation |
| 481214 | Non-Scheduled Chartered Air Transportation |
| 481215 | Non-Scheduled Specialty Flying Services |
| 482112 | Short-Haul Freight Rail Transportation |
| 482113 | Mainline Freight Rail Transportation |
| 482114 | Passenger Rail Transportation |
| 483115 | Deep Sea, Coastal and Great Lakes Water Transportation (except by Ferries) |
| 483116 | Deep Sea, Coastal and Great Lakes Water Transportation by Ferries |
| 486110 | Pipeline Transportation of Crude Oil |
| 486210 | Pipeline Transportation of Natural Gas |
| 486910 | Pipeline Transportation of Refined Petroleum Products |
| 486990 | All Other Pipeline Transportation |

| SECTOR DESCRIPTION WITH NAICS²⁴ CODES |
|--|
| SUPPORT ACTIVITIES FOR TRANSPORTATION |
| 488111 Air Traffic Control |
| 488119 Other Airport Operations |
| 488190 Other Support Activities for Air Transportation |
| 488210 Support Activities for Rail Transportation |
| 488390 Other Support Activities for Water Transportation |
| 488490 Other Support Activities for Road Transportation |
| 488519 Other Freight Transportation Arrangement |
| PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES |
| 541990 All Other Professional, Scientific and Technical Services |
| ADMINISTRATIVE AND SUPPORT SERVICES |
| 561990 All Other Support Services |
| EDUCATIONAL SERVICES |
| <i>(For colleges of applied arts and technology, report SO₂, NO_x, and HFC-134A emissions from heating or cooling systems if they are equal to or greater than their respective reporting thresholds)</i> |
| 611210 Community Colleges and C.E.G.E.P.s (collège d'enseignement générales et professionnelles) |
| PHOTO FINISHING SERVICES |
| <i>(For commercial and professional photo finishing laboratories on a large scale basis)</i> |
| 812921 Photo Finishing Laboratories (except One-Hour) |

Table 2A

Airborne Contaminants with MOE Release Based Thresholds

| The following contaminants have MOE release based thresholds. | | |
|--|---------------------------|----------------------------------|
| Contaminant | CAS ^[1] | Release Threshold (kg/yr) |
| CARBON DIOXIDE | 124-38-9 | 100,000,000 |
| CARBON MONOXIDE | 630-08-0 | 20,000 |
| HFC-134A | 811-97-2 | 10 |
| METHANE | 74-82-8 | 5,000,000 |
| NITROUS OXIDE | 10024-97-2 | 2,700 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 | 14,000 |
| PM - PARTICULATE MATTER | N/A - M08 | 20,000 |
| PM ₁₀ - PARTICULATE MATTER <=10 MICROMETERS | N/A - M09 | 500 |
| PM _{2.5} - PARTICULATE MATTER <=2.5 MICROMETERS | N/A - M10 | 300 |
| SULPHUR DIOXIDE | 7446-09-5 | 20,000 |
| VOLATILE ORGANIC COMPOUNDS (VOC) ^[20] | N/A - M16 | 10,000 |
| Total Contaminants: | | 11 |

Table 2B

Airborne Contaminants with MOE Graded MPO^[22] Thresholds

| The following contaminants have MOE graded MPO thresholds. | | |
|--|--------------------|--|
| Contaminant | CAS ^[1] | MPO ^[22] Threshold (kg/yr) |
| ACETIC ACID | 64-19-7 | 3,000 |
| ACETONE | 67-64-1 | 3,000 |
| ACETYLENE | 74-86-2 | 3,000 |
| BORON | 7440-42-8 | 3,000 |
| BORON TRIBROMIDE | 10294-33-4 | 3,000 |
| BORON TRICHLORIDE | 10294-34-5 | 3,000 |
| CALCIUM HYDROXIDE | 1305-62-0 | 3,000 |
| CALCIUM OXIDE | 1305-78-8 | 3,000 |
| DECABORANE | 17702-41-9 | 3,000 |
| DICAPRYL PHTHALATE | 131-15-7 | 3,000 |
| 1,1-DICHLOROETHANE | 75-34-3 | 3,000 |
| DIMETHYL DISULPHIDE | 624-92-0 | 3,000 |
| DIMETHYL SULPHIDE | 75-18-3 | 3,000 |
| ETHYL ACETATE | 141-78-6 | 3,000 |
| ETHYL ETHER | 60-29-7 | 3,000 |
| FERRIC OXIDE | 1309-37-1 | 3,000 |
| FURFURAL | 98-01-1 | 3,000 |
| FURFURYL ALCOHOL | 98-00-0 | 3,000 |
| GLYCOL ETHERS (MISC.) ^[18] | N/A - M04 | 3,000 |
| N-HEPTANE | 142-82-5 | 3,000 |
| IRON (AND ITS COMPOUNDS) ^[17] | 7439-89-6 | 3,000 |
| LITHIUM - OTHER THAN HYDRIDES | 7439-93-2 | 3,000 |
| MAGNESIUM OXIDE | 1309-48-4 | 3,000 |
| MINERAL SPIRITS GROUP #1 ^[19] | N/A - M06 | 3,000 |
| MINERAL SPIRITS GROUP #2 ^[19] | N/A - M17 | 3,000 |
| PENTACHLORONITROBENZENE | 82-68-8 | 3,000 |
| TETRAHYDROFURAN | 109-99-9 | 3,000 |
| TIN (AND ITS COMPOUNDS) ^[17] | 7440-31-5 | 3,000 |
| TITANIUM (AND ITS COMPOUNDS) ^[17] | 7440-32-6 | 3,000 |
| TOTAL REDUCED SULPHUR (TRS) ^[24] | N/A - M14 | 3,000 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 | 3,000 |
| 2,4,5-TRICHLOROPHENOL | 95-95-4 | 3,000 |
| 1,2,3-TRICHLOROPROPANE | 96-18-4 | 3,000 |
| VINYL BROMIDE | 593-60-2 | 3,000 |
| VINYL FLUORIDE | 75-02-5 | 3,000 |
| ARSINE | 7784-42-1 | 500 |
| BENZIDINE | 92-87-5 | 500 |
| BERYLLIUM (AND ITS COMPOUNDS) | 7440-41-7 | 500 |
| BIS (2-CHLOROETHYL) ETHER | 111-44-4 | 500 |
| BIS (CHLOROMETHYL) ETHER | 542-88-1 | 500 |
| CARBON BLACK | 1333-86-4 | 500 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 | 500 |
| COAL TAR PITCH VOLATILES - SOLUBLE FRACTION | 8007-45-2 | 500 |

| The following contaminants have MOE graded MPO thresholds. | | |
|---|---------------------------|---|
| Contaminant | CAS ^[1] | MPO^[22] Threshold (kg/yr) |
| COKE OVEN EMISSIONS ^[21] | N/A - M02 | 500 |
| DIBORANE | 19287-45-7 | 500 |
| 1,2-DIBROMOETHANE | 106-93-4 | 500 |
| 3,3-DICHLOROBENZIDINE | 91-94-1 | 500 |
| 1,2-DIMETHYLHYDRAZINE | 57-14-7 | 500 |
| 1,6-DINITROPYRENE | 42397-64-8 | 500 |
| 1,8-DINITROPYRENE | 42397-65-9 | 500 |
| HEPTACHLOR | 76-44-8 | 500 |
| HEXACHLORO-1,3-BUTADIENE | 87-68-3 | 500 |
| HEXACHLOROCYCLOHEXANE | 319-84-6 | 500 |
| HEXAMETHYLENE DIISOCYANATE MONOMER | 822-06-0 | 500 |
| LITHIUM HYDRIDES | 7580-67-8 | 500 |
| MERCAPTANS (AS METHYL MERCAPTAN) -TOTAL | 74-93-1 | 500 |
| METHYLCYCLOPENTADIENYL MANGANESE TRICARBONYL (MMT) | 12108-13-3 | 500 |
| MINERAL SPIRITS GROUP #3 ^[19] | N/A - M18 | 500 |
| MONOMETHYL AMINE | 74-89-5 | 500 |
| NICKEL CARBONYL | 13463-39-3 | 500 |
| N-NITROSODIETHYLAMINE | 55-18-5 | 500 |
| N-NITROSODIMETHYLAMINE | 62-75-9 | 500 |
| OCTACHLOROSTYRENE | 29082-74-4 | 500 |
| PARATHION | 56-38-2 | 500 |
| PENTABORANE | 19624-22-7 | 500 |
| PENTACHLOROPHENOL (PCP) | 87-86-5 | 500 |
| POLYCHLORINATED BIPHENYLS (PCBS) | 1336-36-3 | 500 |
| TELLURIUM - EXCLUDING HYDROGEN TELLURIDE | 13494-80-9 | 500 |
| TRIBUTYLTIN | 688-73-3 | 500 |
| 2,4,6-TRICHLOROPHENOL | 88-06-2 | 500 |
| METHYL MERCURY | 22967-92-6 | 5 |
| PAH - ACENAPHTHENE | 83-32-9 | 5 |
| PAH - ACENAPHTHYLENE | 208-96-8 | 5 |
| PAH - FLUORENE | 86-73-7 | 5 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 | 0.0001 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 | 0.0001 |
| Total Contaminants: | | 76 |

Table 2C

Airborne Contaminants with NPRI^[23] Thresholds

Table 2C consists of all contaminants listed in the most current National Pollutant Release Inventory (NPRI) *Canada Gazette* notice.

Further information and the list of contaminants may be obtained through Environment Canada's NPRI website at <http://www.ec.gc.ca/pdb/npri/>

Notes to Tables 2A, 2B and 2C

- * No single CAS number applies to this NPRI listing.
- [1] CAS No. denotes the Chemical Abstracts Service Registry Number, as appropriate. MOE assigned codes denoted with "N/A - Mxx" to contaminants when no single CAS number applies to a specific contaminant.
- [2] "and its salts" — The CAS number corresponds to the weak acid or base. However, the NPRI listing includes the salts of these weak acids and bases. When calculating the weight of these substances and their salts, use the molecular weight of the acid or base, not the total weight of the salt.
- [3] "fume or dust"
- [4] "fibrous forms"
- [5] "Ammonia (total)" means the total of both of ammonia (NH₃ — CAS number 7664-41-7) and the ammonium ion (NH₄⁺) in solution.
- [6] "and its compounds"
- [7] "friable form"
- [8] "mixed isomers"
- [9] "ionic"
- [10] The isomers include, but are not necessarily limited to, HCFC-122 (CAS Number 354-21-2).
- [11] The isomers include, but are not necessarily limited to, HCFC-123 (CAS Number 306-83-2) and HCFC 123a (CAS Number 90454-18-5).
- [12] The isomers include, but are not necessarily limited to, HCFC 124 (CAS Number 2837-89-0) and HCFC 124a (CAS Number 354-25-6).
- [13] "in solution at a pH of 6.0 or greater"
- [14] "yellow or white"
- [15] The reporting requirements for mercury have changed for the 2000 reporting year.
- [16] This class of substances is restricted to the following congeners:
2,3,7,8-Tetrachlorodibenzo-p-dioxin (1746-01-6); 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (40321-76-4); 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (39227-28-6); 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (19408-74-3); 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (57653-85-7); 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (35822-46-9); Octachlorodibenzo-p-dioxin (326-87-9); 2,3,7,8-Tetrachlorodibenzofuran (51207-31-9); 2,3,4,7,8-Pentachlorodibenzofuran (57117-31-4); 1,2,3,7,8-Pentachlorodibenzofuran (57117-41-6); 1,2,3,4,7,8-Hexachlorodibenzofuran (70648-26-9); 1,2,3,7,8,9-Hexachlorodibenzofuran (72918-21-9); 1,2,3,6,7,8-Hexachlorodibenzofuran (57117-44-9); 2,3,4,6,7,8-Hexachlorodibenzofuran (60851-34-5); 1,2,3,4,6,7,8-Heptachlorodibenzofuran (67562-39-4); 1,2,3,4,7,8,9-Heptachlorodibenzofuran (55673-89-7); and Octachlorodibenzofuran (39001-02-0).
- [17] Refers to the metal portion of the compounds emitted to the atmosphere. Reporting facilities are only required to report PM, PM₁₀, and PM_{2.5} components of fugitive dust emissions from storage piles, road dust, landfill sites, quarries and mine tailings.
- [18] Refer to Annex 1 to Tables 2A, B and C for contaminants listed under glycol ethers (misc.). If one contaminant is equal to or greater than the threshold, then all contaminants in the group which are manufactured, processed, or otherwise used, must be reported. No emission value should be reported for contaminants that facilities do not manufacture, process or otherwise use.
- [19] Refer to Annex 2 to Tables 2A, B and C for definitions of three mineral spirits groups and the associated contaminants. If one contaminant in the group is equal to or greater than the threshold, then all contaminants in that group which are manufactured, processed, or otherwise used, must be reported. No emission value should be reported for contaminants that facilities do not manufacture, process or otherwise use.
- [20] Refer to Annex 3 to Tables 2A, B and C for the definition of VOC.
- [21] "Coke oven emissions" means the emissions discharged to the atmosphere in the operation of coke oven batteries. Emissions will occur at charging, pushing or quenching operation, bypass, bleeder, and from coke oven doors. Organic compounds soluble in benzene are the major

Notes to Tables 2A, 2B and 2C

constituents of PM emissions and are also included as VOC. Among the toxic air pollutants included in the organic emissions are benzene, toluene, xylenes, cyanide compounds, naphthalene, phenol, and Polycyclic Organic Matters (POM), all of which are contained in coke oven emissions³.

FIRE² has emission factors for coke oven emissions for pushing operation, oven door leaks and topside leaks.

- [22] MPO means manufactured, processed or otherwise used. By-products must be included in the calculation of the MPO reporting threshold (tonnes or kilograms), even if they are at a concentration of less than one percent by weight. A facility must report its air emissions if contaminants are equal to or greater than the MPO thresholds and the facility has employees that worked a total of 20,000 hours or more (which is equivalent to 10 full-time employees) during the reporting year.
- [23] National Pollutant Release Inventory, Environment Canada. Reporting requirements and thresholds as gazetted for the reporting year (also refer to NPRI¹⁶ reporting guidelines for details). Record keeping requirements will be the same as in Table 7.
- [24] Total reduced sulphur (TRS) consists of hydrogen sulphide (H_2S), dimethyl sulphide [$(CH_3)_2S$], dimethyl disulphide [$(CH_3)_2S_2$] and methyl mercaptan (CH_3SH).

Annex 1 to Tables 2A, 2B and 2C

Contaminants Listed under Glycol Ethers

| Contaminant | Abbreviation | CAS |
|---------------------------------|---------------------|------------|
| ETHYLENE GLYCOL BUTYL ETHER | EGBE | 111-76-2 |
| ETHYLENE GLYCOL BUTYL ETHER | EGBEA | 112-07-2 |
| DIETHYLENE GLYCOL BUTYL ETHER | DEGBE | 112-34-5 |
| DIETHYLENE GLYCOL BUTYL ETHER | DEBBEA | 124-17-4 |
| DIETHYLENE GLYCOL METHYL ETHER | DEGME | 111-77-3 |
| DIETHYLENE GLYCOL METHYL ETHER | DEGMEA | 629-38-9 |
| DIETHYLENE GLYCOL ETHYL ETHER | DEGEE | 111-90-0 |
| DIETHYLENE GLYCOL ETHYL ETHER | DEGEEA | 112-15-2 |
| ETHYLENE GLYCOL PROPYL ETHER | EGPE | 2807-30-9 |
| ETHYLENE GLYCOL HEXYL ETHER | EGHE | 112-25-4 |
| 1-METHOXY-2-PROPANOL | PGME | 107-98-2 |
| PROPYLENE GLYCOL METHYL ETHER | PGMEA | 108-65-6 |
| PROPYLENE GLYCOL PROPYL ETHER | PGPE | 1569-01-3 |
| PROPYLENE GLYCOL BUTYL ETHER | PGBE | 5131-66-8 |
| PROPYLENE GLYCOL ETHYL ETHER | PGEE | 1569-02-4 |
| DIPROPYLENE GLYCOL METHYL ETHER | DPGME | 34590-34-8 |
| 2-METHOXY-1-PROPANOL | PGME | 1589-47-5 |
| ETHYLENE GLYCOL PHENYL ETHER | EGPhE | 122-99-6 |

Annex 2 to Tables 2A, 2B and 2C

Definition of Three Mineral Spirits Groups and the Associated Contaminants

MINERAL SPIRITS GROUP #1

| Contaminant | CAS |
|----------------------------------|------------|
| HEAVY ALKYLATE NAPHTHA | 64741-65-7 |
| HEAVY NAPHTHA | 68551-17-7 |
| HYDROTREATED HEAVY NAPHTHA | 64742-48-9 |
| MINERAL SPIRITS | 64475-85-0 |
| NAPHTHA | 8030-30-6 |
| NAPHTHA HEAVY STRAIGHT RUN | 64741-41-9 |
| NAPHTHA, FULL RANGE ALKYLATE | 64741-64-6 |
| SOLVENT NAPHTHA LIGHT ALIPHATIC | 64742-89-8 |
| SOLVENT NAPHTHA MEDIUM ALIPHATIC | 64742-88-7 |
| VM & P NAPHTHA | 8032-32-4 |
| STODDARD SOLVENT | 8052-41-3 |

MINERAL SPIRITS GROUP #2

| Contaminant | CAS |
|--|------------|
| HEAVY AROMATIC SOLVENT NAPHTHA | 64742-94-5 |
| HYDRODESULPHURIZED MIDDLE Distillate | 64742-80-9 |
| HYDROTREATED HEAVY NAPHTHENIC Distillate | 64742-52-5 |
| HYDROTREATED LIGHT DISTILLATE | 64742-47-8 |
| HYDROTREATED MIDDLE DISTILLATE | 64742-46-7 |
| LIGHT AROMATIC SOLVENT NAPHTHA | 64742-95-6 |
| PETROLEUM DISTILLATES, ACID TREATED | 64742-14-9 |
| SWEETENED MIDDLE DISTILLATE | 64741-86-2 |

MINERAL SPIRITS GROUP #3

| Contaminant | CAS |
|---|------------|
| HYDROTREATED HEAVY PARAFFINIC MINERAL SPIRITS | 64742-54-7 |
| HYDROTREATED LIGHT NAPHTHENIC DISTILLATE | 64742-53-6 |
| HYDROTREATED LIGHT PARAFFINIC DISTILLATE | 64742-55-8 |
| MINERAL OIL | 8012-95-1 |
| SOLVENT REFINED HEAVY PARAFFINIC DISTILLATE | 64741-88-4 |
| WHITE MINERAL OIL | 8042-47-5 |

Annex 3 to Tables 2A, 2B and 2C

Definition of Volatile Organic Compounds

For the purposes of this Guideline, volatile organic compounds (VOCs) are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions and has a vapour pressure of 0.01 kPa or greater at 25°C^{21, 22}.

The following compounds are not included as VOC because of their negligible photochemical reactivity²²:

- methane;
- ethane;
- methylene chloride (dichloromethane);
- 1,1,1-trichloroethane (methyl chloroform);
- 1,1,2-trichloro-1,2,2- trifluoroethane (CFC-113);
- trichlorofluoromethane (CFC-11);
- dichlorodifluoromethane (CFC-12);
- chlorodifluoromethane (HCFC-22);
- trifluoromethane (HFC-23);
- 1,2- dichloro 1,1,2,2-tetrafluoroethane (CFC-114);
- chloropentafluoroethane (CFC-115);
- 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123);
- 1,1,1,2- tetrafluoroethane (HFC-134a);
- 1,1-dichloro 1-fluoroethane (HCFC-141b);
- 1-chloro 1,1-difluoroethane (HCFC-142b);
- 2-chloro-1,1,1,2- tetrafluoroethane (HCFC-124);
- pentafluoroethane (HFC-125);
- 1,1,2,2- tetrafluoroethane (HFC-134);
- 1,1,1-trifluoroethane (HFC-143a);
- 1,1- difluoroethane (HFC-152a);
- parachlorobenzotrifluoride (PCBTF);
- cyclic, branched, or linear completely methylated siloxanes;
- acetone;
- perchloroethylene (tetrachloroethylene);
- 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca);
- 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb);
- 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee);
- difluoromethane (HFC-32);
- ethylfluoride (HFC-161);
- 1,1,1,3,3,3-hexafluoropropane (HFC-236fa);
- 1,1,2,2,3-pentafluoropropane (HFC-245ca);
- 1,1,2,3,3-pentafluoropropane (HFC-245ea);

1,1,1,2,3-pentafluoropropane (HFC-245eb);
1,1,1,3,3-pentafluoropropane (HFC-245fa);
1,1,1,2,3,3-hexafluoropropane (HFC-236ea);
1,1,1,3,3-pentafluorobutane (HFC-365mfc);
chlorofluoromethane (HCFC-31);
1-chloro-1-fluoroethane (HCFC-151a);
1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a);
1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C₄F₉OCH₃);
2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane
(CF₃)₂CF₂OCH₃);
1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C₄F₉OC₂H₅);
2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF₃)₂CF₂OC₂H₅);
methyl acetate and perfluorocarbon compounds which falls into these classes:

- (i) Cyclic, branched, or linear, completely fluorinated alkanes;
- (ii) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
- (iii) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
- (iv) Sulphur containing perfluorocarbons with no unsaturations and with sulphur bonds only to carbon and fluorine.

Owing to the numerous VOC species, it is not possible to give an all inclusive list of atmospherically important VOCs. A list of VOC compounds based on Carter's ²³ list of ozone forming potential contaminants, not including those in the aforementioned USEPA exclusion list, is available from the Ministry of the Environment's Public Information Centre upon request.

Table 3

**Criteria for Applicability to the Facility by Sector for
Reporting of Criteria Air Contaminants and Greenhouse Gases**

If your facility belongs to one of the following NAICS and if one or more of the following criteria are met, calculating and reporting of emissions of contaminants listed in Table 2A of the Guideline is required.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|--|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| CLASS A - ELECTRICITY GENERATION | | | | | |
| <i>ELECTRIC POWER GENERATION</i> | | | | | |
| 221111 Hydro-Electric Power Generation | NA | | | | |
| 221112 Fossil-Fuel Electric Power Generation | NA | | | | |
| 221113 Nuclear Electric Power Generation | NA | | | | |
| 221119 Other Electric Power Generation | NA | | | | |
| CLASS B - LARGE SOURCES | | | | | |
| <i>METAL ORE MINING</i> | | | | | |
| 212210 Iron Ore Mining | ✓ | ✓ | | | |
| 212220 Gold and Silver Ore Mining | ✓ | ✓ | | | |
| 212231 Lead-Zinc Ore Mining | ✓ | ✓ | | | |
| 212232 Nickel-Copper Ore Mining | ✓ | ✓ | | | |
| 212233 Copper-Zinc Ore Mining | ✓ | ✓ | | | |
| 212291 Uranium Ore Mining | ✓ | ✓ | | | |
| 212299 All Other Metal Ore Mining | ✓ | ✓ | | | |
| <i>NON-METALLIC MINERALS MINING AND QUARRYING</i> | | | | | |
| 212314 Granite Mining and Quarrying | ✓ | ✓ | | | |
| 212315 Limestone Mining and Quarrying | ✓ | ✓ | | | |
| 212316 Marble Mining and Quarrying | ✓ | ✓ | | | |
| 212317 Sandstone Mining and Quarrying | ✓ | ✓ | | | |
| 212323 Sand and Gravel Mining and Quarrying | ✓ | ✓ | | | |
| 212326 Shale, Clay and Refractory Mining and Quarrying | ✓ | ✓ | | | |
| 212394 Asbestos Mining | ✓ | ✓ | | | |
| 212395 Gypsum Mining | ✓ | ✓ | | | |
| 212396 Potash Mining | ✓ | ✓ | | | |
| <i>NATURAL GAS DISTRIBUTION</i> | | | | | |
| 221210 Natural Gas Distribution | ✓ | | | | |
| <i>WATER, SEWAGE AND OTHER SYSTEMS</i> | | | | | |
| 221330 Steam and Air-Conditioning Supply | ✓ | | | | |
| <i>TEXTILE MILLS AND TEXTILE MILL PRODUCTS</i> | | | | | |
| 313110 Fibre, Yarn and Thread Mills | ✓ | ✓ | | | |
| 313210 Broad-Woven Fabric Mills | ✓ | ✓ | | | |
| 313310 Textile and Fabric Finishing | ✓ | ✓ | | | |
| 313320 Fabric Coating | ✓ | ✓ | | | |
| 314110 Carpet and Rug Mills | ✓ | ✓ | | | |
| <i>WOOD PRODUCT MANUFACTURING</i> | | | | | |
| 321111 Sawmills (except Shingle and Shake Mills) | ✓ | ✓ | | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|--|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| 321112 Shingle and Shake Mills | ✓ | ✓ | | | |
| 321114 Wood Preservation | ✓ | ✓ | | | |
| 321211 Hardwood Veneer and Plywood Mills | ✓ | ✓ | ✓ | | |
| 321212 Softwood Veneer and Plywood Mills | ✓ | ✓ | ✓ | | |
| 321215 Structural Wood Product Manufacturing | ✓ | ✓ | ✓ | | |
| 321216 Particle Board and Fibreboard Mills | ✓ | ✓ | ✓ | | |
| 321217 Waferboard Mills | ✓ | ✓ | ✓ | | |
| 321911 Wood Window and Door Manufacturing | ✓ | ✓ | ✓ | | |
| PULP, PAPER AND PAPERBOARD MILLS | | | | | |
| 322111 Mechanical Pulp Mills | ✓ | ✓ | | | |
| 322112 Chemical Pulp Mills | ✓ | ✓ | | | |
| 322121 Paper (except Newsprint) Mills | ✓ | ✓ | | | |
| 322122 Newsprint Mills | ✓ | ✓ | | | |
| 322130 Paperboard Mills | ✓ | ✓ | | | |
| CONVERTED PAPER PRODUCT MANUFACTURING | | | | | |
| 322211 Corrugated and Solid Fibre Box Manufacturing | ✓ | ✓ | | ✓ | |
| 322212 Folding Paperboard Box Manufacturing | ✓ | ✓ | | ✓ | |
| 322219 Other Paperboard Container Manufacturing | ✓ | ✓ | | ✓ | |
| 322220 Paper Bag and Coated and Treated Paper Manufacturing | ✓ | ✓ | | ✓ | |
| 322230 Stationery Product Manufacturing | ✓ | ✓ | | ✓ | |
| 322291 Sanitary Paper Product Manufacturing | ✓ | ✓ | | ✓ | |
| PRINTING AND RELATED SUPPORT ACTIVITIES | | | | | |
| 323113 Commercial Screen Printing | ✓ | ✓ | | ✓ | |
| 323116 Manifold Business Forms Printing | ✓ | ✓ | | ✓ | |
| 323119 Other Printing (Includes Commercial Lithographic, Gravure and Flexographic Printing) | ✓ | ✓ | | ✓ | |
| PETROLEUM REFINING AND DISTRIBUTION | | | | | |
| 324110 Petroleum Refineries | ✓ | ✓ | | | |
| 412110 Petroleum Product Wholesaler-Distributors (For gasoline bulk plants and terminals only) | NA | | | | |
| ASPHALT, OTHER PETROLEUM AND COAL PRODUCTS | | | | | |
| 324121 Asphalt Paving Mixture and Block Manufacturing | ✓ | ✓ | | | |
| 324122 Asphalt Shingle and Coating Material Manufacturing | ✓ | ✓ | | | |
| 324190 Other Petroleum and Coal Products Manufacturing | ✓ | ✓ | | | |
| CHEMICAL MANUFACTURING | | | | | |
| 325110 Petrochemical Manufacturing | ✓ | ✓ | | | |
| 325120 Industrial Gas Manufacturing | ✓ | ✓ | | | |
| 325130 Synthetic Dye and Pigment Manufacturing | ✓ | ✓ | | | |
| 325181 Alkali and Chlorine Manufacturing | ✓ | ✓ | | | |
| 325189 All Other Basic Inorganic Chemical Manufacturing | ✓ | ✓ | | | |
| 325190 Other Basic Organic Chemical Manufacturing | ✓ | ✓ | | | |
| 325210 Resin and Synthetic Rubber Manufacturing | ✓ | ✓ | | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|---|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| 325220 Artificial and Synthetic Fibres and Filaments Manufacturing | ✓ | ✓ | | | |
| 325313 Chemical Fertilizer (except Potash) Manufacturing | ✓ | ✓ | | | |
| 325314 Mixed Fertilizer Manufacturing | ✓ | ✓ | | | |
| 325320 Pesticide and Other Agricultural Chemical Manufacturing | ✓ | ✓ | | | |
| 325410 Pharmaceutical and Medicine Manufacturing | ✓ | ✓ | | | |
| 325510 Paint and Coating Manufacturing | ✓ | ✓ | ✓ | | |
| 325520 Adhesive Manufacturing | ✓ | ✓ | | | |
| 325610 Soap and Cleaning Compound Manufacturing | ✓ | ✓ | | | |
| 325620 Toilet Preparation Manufacturing | ✓ | ✓ | | | |
| 325910 Printing Ink Manufacturing | ✓ | ✓ | | ✓ | |
| 325920 Explosives Manufacturing | ✓ | ✓ | | | |
| 325991 Custom Compounding of Purchased Resins | ✓ | ✓ | | | |
| 325999 All Other Miscellaneous Chemical Product Manufacturing | ✓ | ✓ | | | |
| PLASTICS AND RUBBER PRODUCTS MANUFACTURING | | | | | |
| 326111 Unsupported Plastic Bag Manufacturing | ✓ | ✓ | | ✓ | |
| 326114 Unsupported Plastic Film and Sheet Manufacturing | ✓ | ✓ | | | |
| 326121 Unsupported Plastic Profile Shape Manufacturing | ✓ | ✓ | | | |
| 326122 Plastic Pipe and Pipe Fitting Manufacturing | ✓ | ✓ | | | |
| 326130 Laminated Plastic Plate, Sheet and Shape Manufacturing | ✓ | ✓ | | | |
| 326140 Polystyrene Foam Product Manufacturing | ✓ | ✓ | | | |
| 326150 Urethane and Other Foam Product (except Polystyrene) Manufacturing | ✓ | ✓ | | | |
| 326160 Plastic Bottle Manufacturing | ✓ | ✓ | | | |
| 326191 Plastic Plumbing Fixture Manufacturing | ✓ | ✓ | | | |
| 326193 Motor Vehicle Plastic Parts Manufacturing | ✓ | ✓ | | | |
| 326210 Tire Manufacturing | ✓ | ✓ | | | |
| 326220 Rubber and Plastic Hose and Belting Manufacturing | ✓ | ✓ | | | |
| NON-METALLIC MINERAL PRODUCT MANUFACTURING | | | | | |
| 327110 Pottery, Ceramics and Plumbing Fixture Manufacturing | ✓ | ✓ | | | |
| 327120 Clay Building Material and Refractory Manufacturing | ✓ | ✓ | | | |
| 327214 Glass Manufacturing | ✓ | ✓ | | | |
| 327215 Glass Product Manufacturing from Purchased Glass | ✓ | ✓ | | | |
| 327310 Cement Manufacturing | ✓ | ✓ | | | |
| 327320 Ready-Mix Concrete Manufacturing | ✓ | ✓ | | | |
| 327330 Concrete Pipe, Brick and Block Manufacturing | ✓ | ✓ | | | ✓ |
| 327410 Lime Manufacturing | ✓ | ✓ | | | |
| 327420 Gypsum Product Manufacturing | ✓ | ✓ | | | |
| 327910 Abrasive Product Manufacturing | ✓ | ✓ | | | |
| IRON AND STEEL MILLS AND FERRO-ALLOY MANUFACTURING | | | | | |
| 331110 Iron and Steel Mills and Ferro-Alloy Manufacturing | ✓ | ✓ | ✓ | | |
| STEEL PRODUCT MANUFACTURING FROM PURCHASED STEEL | | | | | |
| 331210 Iron and Steel Pipes and Tubes Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 331221 Cold-Rolled Steel Shape Manufacturing | ✓ | ✓ | ✓ | | |
| 331222 Steel Wire Drawing | ✓ | ✓ | ✓ | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|--|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| ALUMINA AND ALUMINUM PRODUCTION AND PROCESSING | | | | | |
| 331313 Primary Production of Alumina and Aluminum | ✓ | ✓ | ✓ | | |
| 331317 Aluminum Rolling, Drawing, Extruding and Alloying | ✓ | ✓ | ✓ | | |
| NON-FERROUS METAL (EXCEPT ALUMINUM) PRODUCTION AND PROCESSING | | | | | |
| 331410 Non-Ferrous (except Aluminum) Smelting and Refining | ✓ | ✓ | ✓ | | |
| 331420 Copper Rolling, Drawing, Extruding and Alloying | ✓ | ✓ | ✓ | | |
| 331490 Non-Ferrous (except Copper and Aluminum) Rolling, Drawing, Extruding and Alloying | ✓ | ✓ | ✓ | | |
| FOUNDRIES | | | | | |
| 331511 Iron Foundries | ✓ | ✓ | ✓ | | |
| 331514 Steel Foundries | ✓ | ✓ | ✓ | | |
| 331523 Non-Ferrous Die-Casting Foundries | ✓ | ✓ | ✓ | | |
| 331529 Non-Ferrous Foundries (except Die-Casting) | ✓ | ✓ | ✓ | | |
| FABRICATED METAL PRODUCT MANUFACTURING | | | | | |
| 332113 Forging | ✓ | ✓ | | | |
| 332118 Stamping | ✓ | ✓ | | | |
| 332210 Cutlery and Hand Tool Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 332311 Prefabricated Metal Building and Component Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 332314 Concrete Reinforcing Bar Manufacturing | ✓ | ✓ | | | ✓ |
| 332319 Other Plate Work and Structural Product Manufacturing | ✓ | ✓ | | | ✓ |
| 332321 Metal Window and Door Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 332410 Power Boiler and Heat Exchanger Manufacturing | ✓ | ✓ | | | ✓ |
| 332420 Metal Tank (Heavy Gauge) Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 332431 Metal Can Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 332510 Hardware Manufacturing | ✓ | ✓ | ✓ | | |
| 332611 Spring (Heavy Gauge) Manufacturing | ✓ | ✓ | | | |
| 332619 Other Fabricated Wire Product Manufacturing | ✓ | ✓ | | | |
| 332720 Turned Product and Screw, Nut and Bolt Manufacturing | ✓ | ✓ | | | |
| 332810 Coating, Engraving, Heat Treating and Allied Activities | ✓ | ✓ | ✓ | | |
| 332910 Metal Valve Manufacturing | ✓ | ✓ | | | |
| 332991 Ball and Roller Bearing Manufacturing | ✓ | ✓ | | | |
| COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING | | | | | |
| 334110 Computer and Peripheral Equipment Manufacturing | ✓ | ✓ | ✓ | | |
| 334210 Telephone Apparatus Manufacturing | ✓ | ✓ | ✓ | | |
| 334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing | ✓ | ✓ | ✓ | | |
| 334290 Other Communications Equipment Manufacturing | ✓ | ✓ | ✓ | | |
| 334410 Semiconductor and Other Electronic Component Manufacturing | ✓ | ✓ | ✓ | | |
| 334511 Navigational and Guidance Instruments Manufacturing | ✓ | ✓ | ✓ | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|---|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| 334512 Measuring, Medical and Controlling Devices Manufacturing | ✓ | ✓ | ✓ | | |
| 335110 Electric Lamp Bulb and Parts Manufacturing | ✓ | ✓ | ✓ | | |
| 335120 Lighting Fixture Manufacturing | ✓ | ✓ | ✓ | | |
| 335210 Small Electrical Appliance Manufacturing | ✓ | ✓ | ✓ | | |
| 335223 Major Kitchen Appliance Manufacturing | ✓ | ✓ | ✓ | | |
| 335311 Power, Distribution and Specialty Transformers Manufacturing | ✓ | ✓ | ✓ | | |
| 335312 Motor and Generator Manufacturing | ✓ | ✓ | ✓ | | |
| 335315 Switchgear and Switchboard, and Relay and Industrial Control Apparatus Manufacturing | ✓ | ✓ | ✓ | | |
| 335910 Battery Manufacturing | ✓ | ✓ | ✓ | | |
| 335920 Communication and Energy Wire and Cable Manufacturing | ✓ | ✓ | ✓ | | |
| 335930 Wiring Device Manufacturing | ✓ | ✓ | ✓ | | |
| TRANSPORTATION EQUIPMENT MANUFACTURING | | | | | |
| 336110 Automobile and Light-Duty Motor Vehicle Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336120 Heavy-Duty Truck Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336211 Motor Vehicle Body Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336212 Truck Trailer Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336215 Motor Home, Travel Trailer and Camper Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336310 Motor Vehicle Gasoline Engine and Engine Parts Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336320 Motor Vehicle Electrical and Electronic Equipment Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336330 Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336340 Motor Vehicle Brake System Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336350 Motor Vehicle Transmission and Power Train Parts Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336360 Motor Vehicle Seating and Interior Trim Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336370 Motor Vehicle Metal Stamping | ✓ | ✓ | ✓ | | ✓ |
| 336390 Other Motor Vehicle Parts Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336410 Aerospace Product and Parts Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336510 Railroad Rolling Stock Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 336611 Ship Building and Repairing | ✓ | ✓ | ✓ | | ✓ |
| 336612 Boat Building | ✓ | ✓ | ✓ | | ✓ |
| 336990 Other Transportation Equipment Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| CLASS C - SMALL SOURCES | | | | | |
| WATER, SEWAGE AND OTHER SYSTEMS | | | | | |
| 221320 Sewage Treatment Facilities | ✓ | | | | |
| FOOD AND KINDRED PRODUCTS (FOR ANIMAL CONSUMPTION) | | | | | |
| 311111 Dog and Cat Food Manufacturing | ✓ | ✓ | | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|---|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| 311119 Other Animal Food Manufacturing | ✓ | ✓ | | | |
| FOOD AND KINDRED PRODUCTS (FOR HUMAN CONSUMPTION) | | | | | |
| 311211 Flour Milling | ✓ | ✓ | | | |
| 311214 Rice Milling and Malt Manufacturing | ✓ | ✓ | | | |
| 311221 Wet Corn Milling | ✓ | ✓ | | | |
| 311224 Oilseed Processing | ✓ | ✓ | | | |
| 311225 Fat and Oil Refining and Blending | ✓ | ✓ | | | |
| 311230 Breakfast Cereal Manufacturing | ✓ | ✓ | | | |
| 311310 Sugar Manufacturing | ✓ | ✓ | | | |
| 311320 Chocolate and Confectionery Manufacturing from Cacao Beans | ✓ | ✓ | | | |
| 311330 Confectionery Manufacturing from Purchased Chocolate | ✓ | ✓ | | | |
| 311340 Non-Chocolate Confectionery Manufacturing | ✓ | ✓ | | | |
| 311410 Frozen Food Manufacturing | ✓ | ✓ | | | |
| 311420 Fruit and Vegetable Canning, Pickling and Drying | ✓ | ✓ | | | |
| 311511 Fluid Milk Manufacturing | ✓ | ✓ | | | |
| 311515 Butter, Cheese, and Dry and Condensed Dairy Products Manufacturing | ✓ | ✓ | | | |
| 311520 Ice Cream and Frozen Dessert Manufacturing | ✓ | ✓ | | | |
| 311614 Rendering and Meat Processing from Carcasses | ✓ | ✓ | | | |
| 311615 Poultry Processing | ✓ | ✓ | | | |
| 311710 Seafood Product Preparation and Packaging | ✓ | ✓ | | | |
| 311814 Commercial Bakeries and Frozen Product Manufacturing | ✓ | ✓ | | | |
| 311821 Cookie and Cracker Manufacturing | ✓ | ✓ | | | |
| 311822 Flour Mixes and Dough Manufacturing from Purchased Flour | ✓ | ✓ | | | |
| 311823 Dry Pasta Manufacturing | ✓ | ✓ | | | |
| 311830 Tortilla Manufacturing | ✓ | ✓ | | | |
| 311911 Roasted Nut and Peanut Butter Manufacturing | ✓ | ✓ | | | |
| 311919 Other Snack Food Manufacturing | ✓ | ✓ | | | |
| 311920 Coffee and Tea Manufacturing | ✓ | ✓ | | | |
| 311930 Flavouring Syrup and Concentrate Manufacturing | ✓ | ✓ | | | |
| 311940 Seasoning and Dressing Manufacturing | ✓ | ✓ | | | |
| 312110 Soft Drink and Ice Manufacturing | ✓ | ✓ | | | |
| 312120 Breweries | ✓ | ✓ | | | |
| 312130 Wineries | ✓ | ✓ | | | |
| 312140 Distilleries | ✓ | ✓ | | | |
| TOBACCO MANUFACTURING | | | | | |
| 312210 Tobacco Stemming and Redrying | ✓ | ✓ | | | |
| 312220 Tobacco Product Manufacturing | ✓ | ✓ | | | |
| LEATHER AND ALLIED PRODUCT MANUFACTURING | | | | | |
| 316110 Leather and Hide Tanning and Finishing | ✓ | ✓ | ✓ | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|--|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| 316210 Footwear Manufacturing | ✓ | ✓ | | | |
| 316990 Other Leather and Allied Product Manufacturing | ✓ | ✓ | ✓ | | |
| MACHINERY MANUFACTURING | | | | | |
| 333110 Agricultural Implement Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333120 Construction Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333130 Mining and Oil and Gas Field Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333210 Sawmill and Woodworking Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333220 Rubber and Plastics Industry Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333291 Paper Industry Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333310 Commercial and Service Industry Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333413 Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333416 Heating Equipment and Commercial Refrigeration Equipment Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333511 Industrial Mould Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333519 Other Metalworking Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333611 Turbine and Turbine Generator Set Unit Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333619 Other Engine and Power Transmission Equipment Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333910 Pump and Compressor Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333920 Material Handling Equipment Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| FURNITURE AND RELATED PRODUCT MANUFACTURING | | | | | |
| 337110 Wood Kitchen Cabinet and Counter Top Manufacturing | ✓ | ✓ | ✓ | | |
| 337121 Upholstered Household Furniture Manufacturing | ✓ | ✓ | ✓ | | |
| 337123 Other Wood Household Furniture Manufacturing | ✓ | ✓ | ✓ | | |
| 337126 Household Furniture (except Wood and Upholstered) Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 337127 Institutional Furniture Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 337213 Wood Office Furniture, including Custom Architectural Woodwork, Manufacturing | ✓ | ✓ | ✓ | | |
| 337214 Office Furniture (except Wood) Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 337215 Showcase, Partition, Shelving and Locker Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 337910 Mattress Manufacturing | ✓ | ✓ | ✓ | | |
| 337920 Blind and Shade Manufacturing | ✓ | ✓ | ✓ | | |
| TRANSPORTATION OPERATION (For maintenance and repair yard only) | | | | | |
| 485110 Urban Transit Systems | ✓ | ✓ | | | |
| 485210 Interurban and Rural Bus Transportation | ✓ | ✓ | | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|---|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| COMMERCIAL BUILDINGS (Commercial buildings include office buildings, hotels, shopping centres. Report SO ₂ , NO _x , and HFC-134A emissions from heating or cooling systems if the emissions are equal to or greater than their respective reporting thresholds) 531120 Lessors (or Owners) of Non-Residential Buildings (except Mini-Warehouses) | ✓ | ✓ | | | |
| TESTING LABORATORIES (For product development and testing only) 541380 Testing Laboratories | ✓ | ✓ | | | |
| WASTE MANAGEMENT AND REMEDIATION SERVICES 562110 Waste Collection 562210 Waste Treatment and Disposal 562910 Remediation Services 562920 Material Recovery Facilities 562990 All Other Waste Management Services | ✓ NA ✓ ✓ ✓ | ✓ ✓ ✓ ✓ ✓ | | | |
| EDUCATIONAL SERVICES (For universities, report SO ₂ , NO _x , and HFC-134A emissions from heating or cooling systems if the emissions are equal to or greater than their respective reporting thresholds) 611310 Universities | ✓ | ✓ | | ✓ | |
| HEALTH CARE (For hospitals with incinerators only) 622111 General (except Paediatric) Hospitals 622112 Paediatric Hospitals 622210 Psychiatric and Substance Abuse Hospitals 622310 Specialty (except Psychiatric and Substance Abuse) Hospitals | NA NA NA NA | | | | |
| AUTO REPAIR SERVICES 811121 Automotive Body, Paint and Interior Repair and Maintenance | ✓ | ✓ | ✓ | | ✓ |
| DRY CLEANING AND LAUNDRY SERVICES (For bulk dry cleaning depots/plants only) 812320 Dry Cleaning and Laundry Services (except Coin-Operated) | ✓ | ✓ | | | |
| CLASS C - SMALL SOURCES MISCELLANEOUS | | | | | |
| OIL AND GAS EXTRACTION 211113 Conventional Oil and Gas Extraction 211114 Non-Conventional Oil Extraction | ✓ ✓ | ✓ ✓ | | | |
| COAL MINING 212114 Bituminous Coal Mining 212115 Subbituminous Coal Mining 212116 Lignite Coal Mining | ✓ ✓ ✓ | ✓ ✓ ✓ | | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|---|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| NON-METALLIC MINERALS MINING AND QUARRYING | | | | | |
| 212392 Diamond Mining | ✓ | ✓ | | | |
| 212393 Salt Mining | ✓ | ✓ | | | |
| 212397 Peat Extraction | ✓ | ✓ | | | |
| 212398 All Other Non-Metallic Mineral Mining and Quarrying | ✓ | ✓ | | | |
| SUPPORT ACTIVITIES FOR MINING AND OIL AND GAS EXTRACTION | | | | | |
| 213111 Oil and Gas Contract Drilling | ✓ | ✓ | | | |
| 213117 Contract Drilling (except Oil and Gas) | ✓ | ✓ | | | |
| 213118 Services to Oil and Gas Extraction | ✓ | ✓ | | | |
| 213119 Other Support Activities for Mining | ✓ | ✓ | | | |
| ELECTRIC POWER TRANSMISSION AND DISTRIBUTION | | | | | |
| 221121 Electric Bulk Power Transmission and Control | NA | | | | |
| 221122 Electric Power Distribution | NA | | | | |
| FOOD AND KINDRED PRODUCTS (FOR HUMAN CONSUMPTION) | | | | | |
| 311611 Animal (except Poultry) Slaughtering | ✓ | ✓ | | | |
| 311990 All Other Food Manufacturing | ✓ | ✓ | | | |
| TEXTILE MILLS AND TEXTILE MILL PRODUCTS | | | | | |
| 313220 Narrow Fabric Mills and Schiffli Machine Embroidery | ✓ | ✓ | | | |
| 313230 Nonwoven Fabric Mills | ✓ | ✓ | | | |
| 313240 Knit Fabric Mills | ✓ | ✓ | | | |
| 314120 Curtain and Linen Mills | ✓ | ✓ | | | |
| 314910 Textile Bag and Canvas Mills | ✓ | ✓ | | | |
| 314990 All Other Textile Product Mills | ✓ | ✓ | | | |
| CLOTHING MANUFACTURING | | | | | |
| 315110 Hosiery and Sock Mills | ✓ | ✓ | | | |
| 315190 Other Clothing Knitting Mills | ✓ | ✓ | | | |
| 315210 Cut and Sew Clothing Contracting | ✓ | ✓ | | | |
| 315221 Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing | ✓ | ✓ | | | |
| 315222 Men's and Boys' Cut and Sew Suit, Coat and Overcoat Manufacturing | ✓ | ✓ | | | |
| 315226 Men's and Boys' Cut and Sew Shirt Manufacturing | ✓ | ✓ | | | |
| 315227 Men's and Boys' Cut and Sew Trouser, Slack and Jean Manufacturing | ✓ | ✓ | | | |
| 315229 Other Men's and Boys' Cut and Sew Clothing Manufacturing | ✓ | ✓ | | | |
| 315231 Women's and Girls' Cut and Sew Lingerie, Loungewear and Nightwear Manufacturing | ✓ | ✓ | | | |
| 315232 Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing | ✓ | ✓ | | | |
| 315233 Women's and Girls' Cut and Sew Dress Manufacturing | ✓ | ✓ | | | |
| 315234 Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket and Skirt Manufacturing | ✓ | ✓ | | | |
| 315239 Other Women's and Girls' Cut and Sew Clothing Manufacturing | ✓ | ✓ | | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|--|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| 315291 Infants' Cut and Sew Clothing Manufacturing | ✓ | ✓ | | | |
| 315292 Fur and Leather Clothing Manufacturing | ✓ | ✓ | | | |
| 315299 All Other Cut and Sew Clothing Manufacturing | ✓ | ✓ | | | |
| 315990 Clothing Accessories and Other Clothing Manufacturing | ✓ | ✓ | | | |
| WOOD PRODUCT MANUFACTURING | | | | | |
| 321919 Other Millwork | ✓ | ✓ | ✓ | | |
| 321920 Wood Container and Pallet Manufacturing | ✓ | ✓ | ✓ | | |
| 321991 Manufactured (Mobile) Home Manufacturing | ✓ | ✓ | ✓ | | |
| 321992 Prefabricated Wood Building Manufacturing | ✓ | ✓ | ✓ | | |
| 321999 All Other Miscellaneous Wood Product Manufacturing | ✓ | ✓ | ✓ | | |
| CONVERTED PAPER PRODUCT MANUFACTURING | | | | | |
| 322299 All Other Converted Paper Product Manufacturing | ✓ | ✓ | | ✓ | |
| PRINTING AND RELATED SUPPORT ACTIVITIES | | | | | |
| 323114 Quick Printing | ✓ | ✓ | | ✓ | |
| 323115 Digital Printing | ✓ | ✓ | | ✓ | |
| 323120 Support Activities for Printing | ✓ | ✓ | | ✓ | |
| PLASTICS AND RUBBER PRODUCTS MANUFACTURING | | | | | |
| 326198 All Other Plastic Product Manufacturing | ✓ | ✓ | | | |
| 326290 Other Rubber Product Manufacturing | ✓ | ✓ | | | |
| NON-METALLIC MINERAL PRODUCT MANUFACTURING | | | | | |
| 327390 Other Concrete Product Manufacturing | ✓ | ✓ | | | |
| 327990 All Other Non-Metallic Mineral Product Manufacturing | ✓ | ✓ | | | |
| FABRICATED METAL PRODUCT MANUFACTURING | | | | | |
| 332329 Other Ornamental and Architectural Metal Products Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 332439 Other Metal Container Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 332710 Machine Shops | ✓ | ✓ | | | |
| 332999 All Other Miscellaneous Fabricated Metal Product Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| MACHINERY MANUFACTURING | | | | | |
| 333299 All Other Industrial Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| 333990 All Other General-Purpose Machinery Manufacturing | ✓ | ✓ | ✓ | | ✓ |
| COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING | | | | | |
| 334310 Audio and Video Equipment Manufacturing | ✓ | ✓ | ✓ | | |
| 334610 Manufacturing and Reproducing Magnetic and Optical Media | ✓ | ✓ | ✓ | | |
| 335229 Other Major Appliance Manufacturing | ✓ | ✓ | ✓ | | |
| 335990 All Other Electrical Equipment and Component Manufacturing | ✓ | ✓ | ✓ | | |
| OTHER MISCELLANEOUS MANUFACTURING | | | | | |
| 339110 Medical Equipment and Supplies Manufacturing | ✓ | ✓ | ✓ | | |
| 339910 Jewellery and Silverware Manufacturing | ✓ | ✓ | ✓ | | |
| 339920 Sporting and Athletic Goods Manufacturing | ✓ | ✓ | ✓ | | |
| 339930 Doll, Toy and Game Manufacturing | ✓ | ✓ | ✓ | | |
| 339940 Office Supplies (except Paper) Manufacturing | ✓ | ✓ | ✓ | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

| SECTOR DESCRIPTION WITH NAICS* CODES | CRITERIA FOR APPLICABILITY OF THE REGULATION | | | | |
|---|--|-----------------------------|---------------------------------------|-------------------------------|---------------------------------------|
| | >3 MM BTU/hr** | ≥ 3,000 kg/year solvents*** | ≥ 3,000 kg/year coating materials**** | ≥ 3,000 kg/year printing inks | ≥ 5,000 kg/year welding rods or wires |
| 339950 Sign Manufacturing | ✓ | ✓ | ✓ | ✓ | |
| 339990 All Other Miscellaneous Manufacturing | ✓ | ✓ | ✓ | | |
| MISCELLANEOUS WHOLESALER-DISTRIBUTORS | | | | | |
| 418190 Other Recyclable Material Wholesaler-Distributors | ✓ | ✓ | | | |
| 418410 Chemical (except Agricultural) and Allied Product Wholesaler-Distributors | ✓ | ✓ | | | |
| TRANSPORTATION OPERATION (For maintenance and repair yard only) | | | | | |
| 481110 Scheduled Air Transportation | ✓ | ✓ | | | |
| 481214 Non-Scheduled Chartered Air Transportation | ✓ | ✓ | | | |
| 481215 Non-Scheduled Specialty Flying Services | ✓ | ✓ | | | |
| 482112 Short-Haul Freight Rail Transportation | ✓ | ✓ | | | |
| 482113 Mainline Freight Rail Transportation | ✓ | ✓ | | | |
| 482114 Passenger Rail Transportation | ✓ | ✓ | | | |
| 483115 Deep Sea, Coastal and Great Lakes Water Transportation (except by Ferries) | ✓ | ✓ | | | |
| 483116 Deep Sea, Coastal and Great Lakes Water Transportation by Ferries | ✓ | ✓ | | | |
| 486110 Pipeline Transportation of Crude Oil | ✓ | ✓ | | | |
| 486210 Pipeline Transportation of Natural Gas | ✓ | ✓ | | | |
| 486910 Pipeline Transportation of Refined Petroleum Products | ✓ | ✓ | | | |
| 486990 All Other Pipeline Transportation | ✓ | ✓ | | | |
| SUPPORT ACTIVITIES FOR TRANSPORTATION | | | | | |
| 488111 Air Traffic Control | ✓ | ✓ | | | |
| 488119 Other Airport Operations | ✓ | ✓ | | | |
| 488190 Other Support Activities for Air Transportation | ✓ | ✓ | | | |
| 488210 Support Activities for Rail Transportation | ✓ | ✓ | | | |
| 488390 Other Support Activities for Water Transportation | ✓ | ✓ | | | |
| 488490 Other Support Activities for Road Transportation | ✓ | ✓ | | | |
| 488519 Other Freight Transportation Arrangement | ✓ | ✓ | | | |
| PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES | | | | | |
| 541990 All Other Professional, Scientific and Technical Services | ✓ | ✓ | | | |
| ADMINISTRATIVE AND SUPPORT SERVICES | | | | | |
| 561990 All Other Support Services | ✓ | ✓ | | | |
| EDUCATIONAL SERVICES (For colleges of applied arts and technology, report SO ₂ , NO _x , and HFC-134A emissions from heating or cooling systems if the emissions are equal to or greater than their respective reporting thresholds) | | | | | |
| 611210 Community Colleges and C.E.G.E.P.s (collège d'enseignement générales et professionnelles) | ✓ | ✓ | | ✓ | |
| PHOTO FINISHING SERVICES (For commercial and professional photo finishing laboratories on a large scale basis) | | | | | |
| 812921 Photo Finishing Laboratories (except One-Hour) | ✓ | ✓ | | | |

NA Not applicable. The facility must proceed to calculate and report emissions of contaminants against thresholds.

* NAICS - North American Industry Classification System, Canada, Statistics Canada 1997.

** See Section 2.2(2) of the Guideline.

*** The term "solvent" is described in the Glossary section of the Guideline.

**** The term "coating material" is described in the Glossary section of the Guideline.

✓ Criteria applicable to the respective sectors.

Table 4

References of Source Testing Methodologies for Emission Monitoring Systems

| |
|--|
| Environment Canada, Reference Method for the Monitoring of Gaseous Emissions from Fossil Fuel-fired Boilers EPS 1/RM/15 September 1990. |
| MOE Source Testing Code (Version #2) Report#ARB-66-80, November 1980. |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 6 - Determination of sulfur dioxide emissions from stationary sources.* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 6A - Determination of sulfur dioxide, moisture, and carbon dioxide emissions from fossil fuel combustion sources.* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 6B - Determination of sulfur dioxide and carbon dioxide daily average emissions from fossil fuel combustion sources.* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 6C - Determination of Sulfur Dioxide Emissions From Stationary Sources (Instrumental Analyzer Procedure).* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 7 - Determination of nitrogen oxide emissions from stationary sources.* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 7A - Determination of nitrogen oxide emissions from stationary sources—Ion chromatographic method.* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 7B - Determination of nitrogen oxide emissions from stationary sources (Ultraviolet spectrophotometry).* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 7C - Determination of nitrogen oxide emissions from stationary sources—Alkaline-permanganate/colorimetric method.* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 7D - Determination of nitrogen oxide emissions from stationary sources—Alkaline-permanganate/ion chromatographic method.* |
| U.S. EPA 40CFR60 Appendix A - Test Methods: Method 7E - Determination of nitrogen oxide emissions from stationary sources (Instrumental Analyzer Procedure).* |
| Other source testing methods as approved by the Ministry. |

* <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-C/40P0060/40P060XA.pdf>

Table 5

Annual and Smog Season Emissions Reporting Parameters

The following elements shall be included in a report submitted to the Director pursuant to Section 5 of the Guideline and made available to the public by the owner and operator of a facility upon request:

- Notes: [1] The information within the square brackets represents the data storage format of the parameter.
The first letter in Aw, Nw or Nw.d means type of information, alphanumeric (A) or numeric (N).
The second part in Aw, Nw or Nw.d means the maximum width (w) and decimal places (d) of the field.
[2] '*' in front of a parameter means there may be multiple records/information.

1. Facility

Provincial Identifier (MOE) of the Discharge Facility [A10]
NPRI ID [A10]
Primary Industrial Classification (North America Industrial Classification System, NAICS) [NAICS reference table:A6]
Other NAICS (3 Additional NAICS, separated by comma) [NAICS reference table:A20]
Data Reporting Year [N4]
Reporting Period [REPT reference table:A4]
Specific Reporting Period, if applicable [Begin date:A8, end date:A8]
Company Name [A30]
Company Location - Address [2 lines: A30, A30]
Company Location - City, Province, Country, Postal Code [A20, A20, A10, A10]
Facility Name/Division [A30]
Facility Location - Address [2 lines: A30, A30]
Facility Location - City, Postal Code [A20, A6]
Facility Location - Geographical Reference [Latitude:N7.4, longitude:N8.4]
*Contact Person (who prepared the report) and Information [Name:A50, position:A20, tel.no.:A10, fax.no.:A10, email:A50]

1.1 Electricity Generation Sector Only

Design Capacity of the Facility (MW) [N10]
*Type of Energy Source [ENERGY reference table:A4]
*Fuel Type [FUEL reference table:A4]
Amount of Electricity Generated by the facility annually [N20.9, UNIT reference table:A20]
Amount of Electricity Generated by the facility during the smog season
(May 1 - September 30) [N20.9, UNIT reference table:A20]

2. Facility-wide Air Emission Data

For annual reporting

- *CAS number of Contaminant [CONTAM reference table:A11]
- *Emissions [N20.9, UNIT reference table and Code:A20]
- *Mode of Releases of Emissions [RMODE reference table:A4]
- *Estimation Method [METHOD reference table:A10]

For smog season reporting (May 1 - September 30)

Report ONLY SO₂, NO_x, VOC, PM, PM₁₀, PM_{2.5} and CO emissions.

*CAS number of Contaminant [CONTAM reference table:A11]

*Emissions [N20.9, UNIT reference table:A20]

*Mode of Releases of Emissions [RMODE reference table:A4]

*Estimation Method [METHOD reference table:A10]

Reference Tables for Reporting and Recording Keeping

The following reference tables are available to assist in reporting and record keeping.
(See Appendix E for details)

1. CDEV: Control Devices
2. CONTAM: Contaminant List
3. DUEQT: Discharge Unit Type
4. ENERGY: Energy Type
5. FUEL: Fuel Type
6. FUGTYPE: Fugitive Emission Type
7. METHOD: Emission Estimation Method Code
8. NAICS: North America Industrial Classification System Code
9. REPT: Reporting Period
10. RMODE: Release Mode
11. ROADTYPE: Road Type
12. SCC: Source Classification Code
13. TANK: Storage Tank Type
14. UNIT: Engineering Units

Table 6

Quarterly Emissions Reporting Parameters

The following elements shall be included in a report submitted to the Director pursuant to Section 5 of the Guideline and made available to the public by the owner and operator of a facility upon request:

Notes: [1] The information within the square brackets represents the data storage format of the parameter.
The first letter in Aw, Nw or Nw.d means type of information, alphanumeric (A) or numeric (N).
The second part in Aw, Nw or Nw.d means the maximum width (w) and decimal places (d) of the field.
[2] '**' in front of a parameter means there may be multiple records/information.

1. Facility

Provincial Identifier (MOE) of the Discharge Facility [A10]
NPRI ID [A10]
Primary Industrial Classification (North America Industrial Classification System, NAICS) [NAICS reference table:A6]
Other NAICS (3 Additional NAICS, separated by comma) [NAICS reference table:A20]
Data Reporting Year [N4]
Reporting Period [REPT reference table:A4]
Specific Reporting Period, if applicable [Begin date:A8, end date:A8]
Company Name [A30]
Company Location - Address [2 lines: A30, A30]
Company Location - City, Province, Country, Postal Code [A20, A20, A10, A10]
Facility Name/Division [A30]
Facility Location - Address [2 lines: A30, A30]
Facility Location - City, Postal Code [A20, A6]
Facility Location - Geographical Reference [Latitude:N7.4, longitude:N8.4]
*Contact Person (who prepared the report) and Information [Name:A50, position:A20, tel.no.:A10, fax.No.:A10, email:A50]

2. Discharge Unit(s) to Which Reporting of Emission Monitoring System Applies

***Discharge Unit to which reporting of emission monitoring system applies**

Discharge Unit Identifier (ID) [A10]
Discharge Unit Name [A30]
Discharge Unit Description [A30]
Discharge Unit Type [DUEQT reference table:A3]
Discharge Unit Name Plate Capacity [N10, (MW) for electricity generation sector; (MMBTU) for non-electricity generation sectors]
Discharge Unit Activity [N20.9, electricity generated (MWH) for electricity generation sector; heat input (MMBTU) for non-electricity generation sectors]
Type of Energy Source [ENERGY reference table:A4]
Fuel Type [FUEL reference table:A4]

3. Discharge Unit(s) Air Emission Data

The following SO₂ and NO_x emission information would be required for quarterly, cumulative year-to-date, and cumulative smog-season-to-date reporting.

SO₂ Estimation Method [METHOD reference table:A10]
SO₂ Emission Control Device [CDEV reference table:A3]
SO₂ Emission [N20.9, in tonnes]
SO₂ Average Emission Rate [N20.9, for electricity generation sector only (kg/MWH)]

NO_x Estimation Method [METHOD reference table:A10]
NO_x Emission Control Device [CDEV reference table:A3]
NO_x Emission [N20.9, in tonnes]
NO_x Average Emission Rate [N20.9, for electricity generation sector only (kg/MWH)]

Information that does not change from one report to the next (e.g., address, location, etc.) can be omitted from reports subsequent to the first one.

Reference Tables for Reporting and Recording Keeping

The following reference tables are available to assist in reporting and record keeping.
(See Appendix E for details)

1. CDEV: Control Devices
2. CONTAM: Contaminant List
3. DUEQT: Discharge Unit Type
4. ENERGY: Energy Type
5. FUEL: Fuel Type
6. FUGTYPE: Fugitive Emission Type
7. METHOD: Emission Estimation Method Code
8. NAICS: North America Industrial Classification System Code
9. REPT: Reporting Period
10. RMODE: Release Mode
11. ROADTYPE: Road Type
12. SCC: Source Classification Code
13. TANK: Storage Tank Type
14. UNIT: Engineering Units

Table 7

Record Keeping Parameters for Annual and Smog Season Emissions

All facilities to which either Section 5.1, 5.2, 5.3 and/or 5.4 of the Guideline applies shall make a record annually of the following parameters where applicable (the records shall be kept on-site and made available to the MOE on request for a period of 7 years):

- Notes: [1] When a paragraph is indented, it means it is a sub-level table.
[2] The information within the square brackets represents the data storage format of the parameter. The first letter in Aw, Nw or Nw.d means type of information, alphanumeric (A) or numeric (N). The second part in Aw, Nw or Nw.d means the maximum width (w) and decimal places (d) of the field.
[3] '*' in front of a parameter means there may be multiple records/information.

1. Facility

Provincial Identifier (MOE) of the Discharge Facility [A10]

NPRI ID [A10]

Primary Industrial Classification (North America Industrial Classification System, NAICS) [NAICS reference table:A6]

Other NAICS (3 Additional NAICS, separated by comma) [NAICS reference table:A20]

Data Reporting Year [N4]

Reporting Period [REPT reference table:A4]

Specific Reporting Period, if applicable [Begin date:A8, end date:A8]

Company Name [A30]

Company Location - Address [2 lines: A30, A30]

Company Location - City, Province, Country, Postal Code [A20, A20, A10, A10]

Facility Name/Division [A30]

Facility Location - Address [2 lines: A30, A30]

Facility Location - City, Postal Code [A20, A6]

Facility Location - Geographical Reference [Latitude:N7.4, longitude:N8.4]

*Contact Person (who prepared the report) and Information [Name:A50, position:A20, tel.No.:A10, fax.No.:A10, email:A50]

*Process Diagram [hardcopy, computer graphics file, or Acrobat PDF format] showing the location of the discharge units (generation units in the electricity sector), any stack through which the contaminants are discharged from the discharge unit, and every pollution control device that is intended to reduce emissions of the contaminants from the discharge unit

*Provincial Permit Number(s) (e.g., Certificate of Approval) (separated by comma) [A50]

1.1 For Electricity Generation Sector Only

Design Capacity of the Facility (MW) [N10]

Type of Energy Source [ENERGY reference table:A4]

Amount of Electricity Generated by the facility annually [N20.9, UNIT reference table:A20]

Amount of Electricity Generated by the facility during the smog season (May 1 - September 30)
[N20.9, UNIT reference table:A20]

*Electricity Generation Equipment Type and Description [DUEQT reference table:A3, A30]

2. Facility-wide Air Emission Data

For annual reporting

*CAS number of Contaminant [CONTAM reference table:A11]

*Emissions [N20.9, UNIT reference table:A20]

*Mode of Releases of Emissions [RMODE reference table:A4]

*Estimation Method [METHOD reference table:A10]

For smog season reporting (May 1 - September 30)

Report ONLY SO₂, NO_x, VOC, PM, PM₁₀, PM_{2.5} and CO emissions.

*CAS number of Contaminant [CONTAM reference table:A11]

*Emissions [N20.9, UNIT reference table:A20]

*Mode of Releases of Emissions [RMODE reference table:A4]

*Estimation Method [METHOD reference table:A10]

3. *Stack

Stack Identifier (ID) [A10]

Stack Description [A30]

Stack Gas Flow Rate, m3/min [N7.2]

Stack Gas Temperature, °C [N7.2]
Stack Equivalent Diameter, m [N7.2]
Stack Height above Grade, m [N7.2]
Stack Height above Roof, m [N7.2]
Building Dimensions in metres and orientation from North [Length:N7.2, Width:N7.2, Diameter:N7.2, Height:N7.2, Orientation:N7.2]
*Upstream Process ID [{Link}Process ID:A10]
*CAS of Contaminant [CONTAM reference table:A11]
*Emissions [N20.9, UNIT reference table:A20]
*Estimation Method [METHOD reference table:A10]

4. *Fuel Consumption, Facility Level

Fuel Identifier [A10]
Fuel Type [FUEL reference table:A4]
Fuel Quality
[Heating value:N20.9, UNIT reference table:A20, %S:N7.2, %Ash:N7.2, %moisture:N7.2, *(species:CONTAM reference table:A11, %concentration:N7.2)]
Total Fuel Consumption [N20.9, UNIT reference table:A20]
*Apportionment (%) to Combustion Equipment [{Link}Process ID:A10,N7.2]

5. *Solvent Consumption, Facility Level

Solvent Identifier (ID) [A10]
Solvent Description [A30]
MSDS No. [A20]
Solvent Parameters [%volatile:N7.2, SG:N7.2, *(species:CONTAM reference table:A11, %composition:N7.2)]
Total Solvent Consumption [N20.9]
*Apportionment (%) to Process [{Link}Process ID:A10, N7.2]

6. *Process (Combustion)

Process Identifier (ID) [A10]
Process Description [A30]
Fuel Identifier [{Link}Fuel ID,A10]
SCC Code [SCC reference table:A11]
Process Activity [Quantity:N20.9, UNIT reference table:A20]
Combustion Equipment Type [DUEQT reference table:A3]
Equipment Parameters [Designed capacity:N10, UNIT reference table:A20, Combustion Temperature, °C:N10]
*CAS of Contaminant [CONTAM reference table:A11]
*Emissions before Control Device [N20.9, UNIT reference table:A20]
*Emission Control Device [CDEV reference table:A3]
*Control Efficiency [N7.2]
*Emissions after Control Device [N20.9, UNIT reference table:A20]
*Estimation Method [METHOD reference table:A10]
Exhaust Stack ID [{Link}Stack ID:A10]
Operating Schedule, Number of Operating Weeks in Each Month [January:N1, February:N1, March:N1, April:N1, May:N1, June:N1, July:N1, August:N1, September:N1, October:N1, November:N1, December:N1, separated by comma]
Operating Schedule, Percent of Facility Operating Capacity in Each Month [January:N3, February:N3, March:N3, April:N3, May:N3, June:N3, July:N3, August:N3, September:N3, October:N3, November:N3, December:N3, separated by comma]

7. *Process (Non-combustion, non-fugitive)

Process Identifier ID [A10]
Process Description [A30]
Solvent Identifier [{Link}Solvent ID, A10] or Empty
SCC Code [SCC reference table:A11]
Process Activity [Quantity:N20.9, UNIT reference table:A20]
*CAS of Contaminant [CONTAM reference table:A11]
*Emissions before Control Device [N20.9, UNIT reference table:A20]
*Emission Control Device [CDEV reference table:A3]
*Control Efficiency [N7.2]
*Emissions after Control Device [N20.9, UNIT reference table:A20]
*Estimation Method [METHOD reference table:A10]
Exhaust Stack ID [{Link}Stack ID:A10]
Operating Schedule, Number of Operating Weeks in Each Month [January:N1, February:N1, March:N1, April:N1, May:N1, June:N1, July:N1, August:N1, September:N1, October:N1, November:N1, December:N1, separated by comma]
Operating Schedule, Percent of Facility Operating Capacity in Each Month [January:N3, February:N3, March:N3, April:N3, May:N3, June:N3, July:N3, August:N3, September:N3, October:N3, November:N3, December:N3, separated by comma]

8. *Fugitive - Equipment Leakage

Fugitive Source Type [FUGTYPE reference table:A4]
Equipment Identifier ID [A10]
Equipment Description [A30]
SCC Code [SCC reference table:A11]
Equipment Activity [Quantity:N20.9, UNIT reference table:A20]
 *CAS of Contaminant [CONTAM reference table:A11]
 *Emissions before Control Device [N20.9, UNIT reference table:A20]
 *Emission Control Device [CDEV reference table:A3]
 *Control Efficiency [N7.2]
 *Emissions after Control Device [N20.9, UNIT reference table:A20]
 *Estimation Method [METHOD reference table:A10]
Exhaust Stack ID [{Link}Stack:A10]
Operating Schedule, Number of Operating Weeks in Each Month [January:N1, February:N1, March:N1, April:N1, May:N1, June:N1, July:N1, August:N1, September:N1, October:N1, November:N1, December:N1, separated by comma]
Operating Schedule, Percent of Facility Operating Capacity in Each Month [January:N3, February:N3, March:N3, April:N3, May:N3, June:N3, July:N3, August:N3, September:N3, October:N3, November:N3, December:N3, separated by comma]

9. *Fugitive - Road Dust within Facility

Fugitive Source Type [FUGTYPE reference table:A4]
Road Identifier [A10]
Road Description [A30]
Type of Road [ROADTYPE reference table:A3]
SCC Code [SCC reference table:A11]
Length of Service Road [N10, UNIT reference table:A20, speed limit:N10, UNIT reference table:A20]
Surface Material Silt Content, % [N7.2]
Surface Material Silt Loading, g/m2 [N7.2]
Surface Material Moisture Content, % [N7.2]
Traffic Volume/Pattern, trucks/day [N10]
Vehicle Parameters [Mean weight, tonnes:N10, average number of wheel:N10]
 *CAS of Contaminant [CONTAM reference table:A11]
 *Dust Suppression Method/Device [CDEV reference table:A3]
 *Control Efficiency [N7.2]
 *Emissions [N20.9, UNIT reference table:A20]
 *Estimation Method [METHOD reference table:A10]

10. *Storage Tanks (volatile organics/fuel)

Fugitive Source Type [FUGTYPE reference table:A4]
Tank Identifier ID [A10]
Tank Description [A30]
Tank Type [TANK reference table:A4]
 *Material Stored [{Link}Fuel ID or {Link}Solvent ID:A10]
 *SCC Code for Breathing/Standing Loss [SCC reference table:A11]
 *Storage Tank Capacity [Quantity:N20.9, UNIT reference table:A20]
 *CAS of Contaminant [CONTAM reference table:A11]
 *Emission Control Device at Tank [CDEV reference table:A3]
 *Control Efficiency [N7.2]
 *Emission [N20.9, UNIT reference table:A20]
 *Estimation Method [METHOD reference table:A10]

 *SCC Code for Working/Withdrawal Loss [SCC reference table:A11]
 *Annual Throughput [Quantity:N20.9, UNIT reference table:A20]
 *CAS of Contaminant [CONTAM reference table:A11]
 *Emission Control Device at Tank [CDEV reference table:A3]
 *Control Efficiency [N7.2]
 *Emission after Control [N20.9, UNIT reference table:A20]
 *Estimation Method [METHOD reference table:A10]

11. *Exposed Storage Piles

Fugitive Source Type [FUGTYPE reference table:A4]
Storage Pile Identifier ID (A10)
Storage Pile Description (A30)
SCC Code [SCC reference table:A11]
Material Storage Activity [Material:A30, quantity:N20.9, UNIT reference table:A20]
Material Parameters [%silt content:N7.2, duration (days):N10, exposed area, m2:N10, erosion potential, g/m2:N7.2]
 *CAS of Contaminant [CONTAM reference table:A11]
 *Emission Control Device or Method [CDEV reference table:A3]
 *Control Efficiency [N7.2]
 *Emission [N20.9, UNIT reference table:A20]
 *Estimation Method [METHOD reference table:A10]

12. *Other Fugitive Emissions

Fugitive Source Type [FUGTYPE reference table:A4]

Identifier ID [A10]

Description [A30]

SCC Code [SCC reference table:A11]

Activity Level [Quantity:N20.9, UNIT reference table:A20]

*CAS of Contaminant [CONTAM reference table:A11]

*Emission Control Device or Method [CDEV reference table:A3]

*Control Efficiency [N7.2]

*Emission [N20.9, UNIT reference table:A20]

*Estimation Method [METHOD reference table:A10]

Reference Tables for Reporting and Recording Keeping

The following reference tables are available to assist in reporting and record keeping.
(See Appendix E for details)

1. CDEV: Control Devices
2. CONTAM: Contaminant List
3. DUEQT: Discharge Unit Type
4. ENERGY: Energy Type
5. FUEL: Fuel Type
6. FUGTYPE: Fugitive Emission Type
7. METHOD: Emission Estimation Method Code
8. NAICS: North America Industrial Classification System Code
9. REPT: Reporting Period
10. RMODE: Release Mode
11. ROADTYPE: Road Type
12. SCC: Source Classification Code
13. TANK: Storage Tank Type
14. UNIT: Engineering Units

Table 8

Record Keeping Parameters for Quarterly Emissions

All facilities to which Section 5.5 of the Guideline applies shall make a record annually of the following parameters where applicable (the records shall be kept on-site and made available to the MOE on request for a period of 7 years):

- Notes: [1] When a paragraph is indented, it means it is a sub-level table.
[2] The information within the square brackets represents the data storage format of the parameter.
The first letter in Aw, Nw or Nw.d means type of information, alphanumeric (A) or numeric (N).
The second part in Aw, Nw or Nw.d means the maximum width (w) and decimal places (d) of the field.
[3] ** in front of a parameter means there may be multiple records/information.

1. Facility

- Provincial Identifier (MOE) of the Discharge Facility [A10]
- NPRI ID [A10]
- Primary Industrial Classification (North America Industrial Classification System, NAICS) [NAICS reference table:A6]
- Other NAICS (3 Additional NAICS, separated by comma) [NAICS reference table:A20]
- Data Reporting Year [N4]
- Reporting Period [REPT reference table:A4]
- Specific Reporting Period, if applicable [Begin date:A8, end date:A8]
- Company Name [A30]
- Company Location - Address [2 lines: A30, A30]
- Company Location - City, Province, Country, Postal Code [A20, A20, A10, A10]
- Facility Name/Division [A30]
- Facility Location - Address [2 lines: A30, A30]
- Facility Location - City, Postal Code [A20, A6]
- Facility Location - Geographical Reference [Latitude:N7.4, longitude:N8.4]
- *Contact Person (who prepared the report) and Information [Name:A50, position:A20, tel.No.:A10, fax.No.:A10, email:A50]
- *Provincial Permit Number(s) (e.g., Certificate of Approval) (separated by comma) [A50]

2. Discharge Unit(s) to Which Reporting of Emission Monitoring System Applies

***Stack to which reporting of emission monitoring system applies**

- Stack Identifier (ID) [A10]
- Stack Description [A30]

***Discharge Unit to which reporting of emission monitoring system applies**

- Discharge Unit Identifier (ID) [A10]
- Discharge Unit Name [A30]
- Discharge Unit Description [A30]
- Discharge Unit Type [DUEQT reference table:A3]
- Discharge Unit Name Plate Capacity [N10, (MW) for electricity generation sector; (MMBTU) for non-electricity generation sectors]
- Discharge Unit Activity [N20.9, electricity generated (MWH) for electricity generation sector; heat input (MMBTU) for non-electricity generation sectors]
- Type of Energy Source [ENERGY reference table:A4]
- Fuel Type [FUEL reference table:A4]

3. Discharge Unit(s) Air Emission Data

The following SO₂ and NO_x emission information would be required for quarterly, cumulative year-to-date, and cumulative smog-season-to-date reporting.

- SO₂ Estimation Method [METHOD reference table:A10]
- SO₂ Emission Control Device [CDEV reference table:A3]
- SO₂ Emission [N20.9, in tonnes]
- SO₂ Average Emission Rate [N7.2, for electricity generation sector only (kg/MWH)]

- NO_x Estimation Method [METHOD reference table:A10]
- NO_x Emission Control Device [CDEV reference table:A3]
- NO_x Emission [N20.9, in tonnes]
- NO_x Average Emission Rate [N7.2, for electricity generation sector only (kg/MWH)]

For additional record keeping requirements for reporting facilities using CEM or PEM for Emission Monitoring System reporting, please refer to the "Guideline for the Installation and Operation of Continuous Emission Monitoring Systems (CEMS) and their Use for Reporting Under the Provisions of Regulation O. Reg. 127/01", Ontario Ministry of the Environment, April 2001⁷.

Reference Tables for Reporting and Recording Keeping

The following reference tables are available to assist in reporting and record keeping.
(See Appendix E for details)

1. CDEV: Control Devices
2. CONTAM: Contaminant List
3. DUEQT: Discharge Unit Type
4. ENERGY: Energy Type
5. FUEL: Fuel Type
6. FUGTYPE: Fugitive Emission Type
7. METHOD: Emission Estimation Method Code
8. NAICS: North America Industrial Classification System Code
9. REPT: Reporting Period
10. RMODE: Release Mode
11. ROADTYPE: Road Type
12. SCC: Source Classification Code
13. TANK: Storage Tank Type
14. UNIT: Engineering Units

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Appendices

Appendix A

Examples of Air Emission Calculations

(For Information Only)

Appendix A.1 Calculation of Annual Emissions Using Continuous Emission Monitoring System (CEMS) Data

Company A has a Continuous Emission Monitoring System (CEMS) to measure emissions for an oil fired boiler.

| Example of a CEMS Output For a Boiler Burning No.6 Fuel Oil | | | | | | | | | |
|---|---------------------|---|--|---|-----------------|------|---|-------------------------|------------|
| Period | O ₂ (%V) | Fuel Rate, Q _t (10 ³ kg/hr) | Stack Gas Flow Rate, Q (dRm ³ /min) | Measured Concentration C _x , (ppmvd) | | | Calculated Emission Rate, Er _x (see equations below) | | |
| | | | | SO ₂ | NO _x | CO | SO ₂ (kg/hr) | NO _x (kg/hr) | CO (kg/hr) |
| 12:00 | 2.1 | 20.9 | 4,467 | 1,004 | 216.2 | 31.5 | 704 | 109 | 10 |
| 12:15 | 2 | 21.1 | 4,491 | 1,100 | 200.6 | 25.5 | 776 | 102 | 8 |
| 12:30 | 2.1 | 20.9 | 4,467 | 1,050 | 216.7 | 25.1 | 737 | 109 | 8 |
| 12:45 | 1.9 | 21 | 4,438 | 1,070 | 220.5 | 20.8 | 746 | 110 | 6 |
| 13:00 | 1.9 | 21.2 | 4,496 | 1,070 | 213.8 | 19.4 | 756 | 109 | 6 |
| 13:15 | 1.8 | 21 | 4,425 | 1,050 | 214.0 | 19.4 | 730 | 107 | 6 |
| 13:30 | 2 | 21 | 4,472 | 1,100 | 209.1 | 21.5 | 773 | 106 | 7 |
| 13:45 | 2 | 21.1 | 4,491 | 1,078 | 210.8 | 50.3 | 760 | 107 | 16 |

The following equation is used to calculate the emissions from the measured concentrations:

$$Er_x = \frac{(C_x * MW_x * Q * 60)}{(V * 10^6)}$$

| | | | |
|-------|-----------------|---|---|
| Where | Er _x | = | Emission rate of contaminant x, kg/hr |
| | C _x | = | Concentration of contaminant x, ppmvd |
| | MW _x | = | Molecular weight of the contaminant x, g/g-mole MW _{SO₂} = 64, MW _{NO_x} = 46 (as MW _{NO₂}), MW _{CO} = 28 |
| | Q | = | Dry stack gas volumetric flow rate at reference conditions, dRm ³ /min (reference conditions: 101.325 kPa and 25°C) |
| | V | = | Volume occupied by 1 mole of ideal gas at reference conditions (= 24.45 litres/g-mole) |

$$\begin{aligned} \text{Total SO}_2 \text{ emissions for the 1}^{\text{st}} \text{ hour} &= (704+776+737+746) / 4 \text{ kg} \\ &= 741 \text{ kg SO}_2 \end{aligned}$$

$$\begin{aligned} \text{Total SO}_2 \text{ emissions for the 2}^{\text{nd}} \text{ hour} &= (756+730+773+760) / 4 \text{ kg} \\ &= 755 \text{ kg SO}_2 \end{aligned}$$

To calculate the SO₂ emissions for the reporting period, sum all hourly emission values for that reporting period.

To calculate the annual emissions, sum all hourly emission values for the year or sum the four quarterly emission values for the year.

Appendix A.2 Calculation of Annual Emissions Using Predictive Emission Monitoring (PEM)

The following is an example of Predictive Emission Monitoring (PEM) analysis for particulate matter (PM) emissions from a boiler unit burning a specific blend of coal at an average equipment loading condition.

| Example of a PEM Analysis of Input Coal Flow and Contaminant Emission | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|
| Sub-bituminous Coal Flowrate, tonnes/hour | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| Particulate Matter Emission, kg/hr | 15 | 16 | 16 | 16 | 16 | 17 | 17 | 17 | 17 | 18 |

| PEM Monitoring Results | | Predicted Particulate Matter (PM) Emission Rate Er, (kg/hour) |
|--------------------------------|-----------------------------|---|
| Time (hour) | Coal Flowrate (tonnes/hour) | |
| 1 | 64 | 16 |
| 2 | 64 | 16 |
| 3 | 66 | 17 |
| 4 | 65 | 16 |
| 5 | 66 | 17 |
| 6 | 67 | 17 |
| 7 | 68 | 17 |
| 8 | 69 | 17 |
| 9 | 70 | 18 |
| 10 | 70 | 18 |
| Total for a period of 10 hours | | |
| | 669 tonnes | 169 kg |

The average PM emission rate = 169 kg/10 hour = 16.9 kg PM/hr

If the boiler operated under the same conditions for 5,000 hours in a year, then the calculated annual PM emissions (E_x) will be:

$$E_x = D * Er_x$$

- Where
- E_x = Emission of contaminant x, kg/year
 - D = Discharge unit annual operating hours, hours
 - Er_x = Average emission rate of contaminant x, kg/hr
- E_{PM} = 5,000 * 16.9 = 84,500 kg PM /year

Reporting Threshold Consideration

| Contaminant | CAS | Calculated Emission (kg/yr) | Threshold (kg/yr) | Equal to or Greater than Threshold | Reported Value (kg) |
|-------------|-----------|-----------------------------|-------------------|------------------------------------|---------------------|
| PM | N/A - M08 | 84,500 | 20,000 * | ✓ | 84,500 |

* MOE release based threshold (Table 2A)

The owner and operator of a facility must report the emissions of PM since its facility emissions of PM exceed the reporting threshold for that contaminant.

Appendix A.3 Calculation of Annual Emissions Using Source Testing Results

Company C has conducted source tests during normal operating conditions. The summary of the test results are as follows:

| Summary of Source Testing Results | | | | |
|--|-------|-------|-------|---------|
| Source Testing Results | #1 | #2 | #3 | Average |
| Stack gas flow rate, Q (dm ³ /min) | 2,000 | 2,100 | 1,900 | 2,000 |
| SO ₂ , kg/hr | 100 | 120 | 80 | 100 |
| NO _x (expressed as NO ₂), kg/hr | 60 | 65 | 40 | 55 |

The estimated emission at test conditions is:

$$E_x = Er_x * T$$

Where

| | | |
|--------|---|---|
| E_x | = | Emission of contaminant x, kg/year |
| Er_x | = | Average emission rate of contaminant x, kg/hr |
| T | = | Time, total operating hours in a given year |

If the process operated 7,000 hours under normal (i.e., testing) conditions in the reporting year, then the calculated annual emission of SO₂ is:

$$E_{SO_2} = 100 \text{ kg/hr} * 7,000 \text{ hr} = 700,000 \text{ kg/yr}$$

For NO_x emissions, the reporting requirement is that NO_x has to be expressed as NO (not NO₂). Thus, conversion to NO is required:

$$\begin{aligned} \text{NO}_x \text{ (expressed as NO)} &= 0.6522 * \text{NO}_x \text{ (expressed as NO}_2\text{)} \\ &= 0.6522 * 55 = 35.9 \text{ kg/hr} \end{aligned}$$

$$E_{NO_x} = 35.9 \text{ kg/hr} * 7,000 \text{ hr} = 251,300 \text{ kg/year (note: expressed as NO)}$$

Reporting Threshold Consideration

| Contaminant | CAS | Calculated Emission (kg/yr) | Threshold (kg/yr) | Equal to or Greater than Threshold | Reported Value (kg) |
|----------------------------------|------------|-----------------------------|-------------------|------------------------------------|---------------------|
| Sulphur Dioxide, SO ₂ | 7446-09-5 | 700,000 | 20,000 * | ✓ | 700,000 |
| Oxides of Nitrogen (as NO) | 10102-43-9 | 251,300 | 14,000 * | ✓ | 251,300 |

* MOE release based threshold (Table 2A)

Company C must report its emissions of the above contaminants since its facility emissions for each contaminant exceed the respective reporting thresholds.

Appendix A.4 Estimation of Annual Emissions Using Mass Balance Method

Company D applied 15,000 litres of 'ECOAT' (a surface coating compound) in a given year. What should the company report?

In general, coatings consist of resins (binders), pigments, additives, solvents, diluents, and thinners. Resins, pigments, and additives are the solid (non-evaporative or non-volatile) portion of the coating. Conversely, the volatile portion of the coating can consist of water, solvents, diluents, and thinners. These compounds evaporate during the mixing, application, and curing of the coating. Most solvents, diluents, and thinners contain VOCs.

The mass balance method is used here to calculate the VOC emissions and determine MPO quantities of individual contaminants.

Mass Balance Equation

$$M_e = M_i - M_p - M_a - M_c$$

| | | | |
|-------|-------|---|--|
| Where | M_e | = | Mass of compound A emitted, kg |
| | M_i | = | Mass of compound A in the input stream, kg |
| | M_p | = | Mass of compound A in the finishing product, kg |
| | M_a | = | Mass of compound A accumulated in the system, kg |
| | M_c | = | Mass of compound A captured for recovery or disposal, kg |

For this coating process operation, there is no loss of coating compound to the coating equipment and no loss to the system's liquid/solid waste streams. All the volatiles, including VOCs that are in a particular coating, are emitted into the atmosphere.

In order to apply the mass balance approach, the VOC content in the coating compound needs to be established or obtained from Material Data Safety Sheet (MSDS) for that compound. The annual consumption of the compound could be obtained from the facility's operation log or sales slips.

| MATERIAL SAFETY DATA SHEET | | |
|--|-----------|-------------------|
| SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION | | |
| PRODUCT NAME: ECOAT | | |
| SUPPLIER: ABCDE CORP | | |
| SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS | | |
| Chemical Name | CAS # | Percent by weight |
| Methyl Ethyl Ketone | 78-93-3 | 25% |
| Xylene | 1330-20-7 | 25% |
| Ethyl Benzene | 100-41-4 | 15% |
| N-Butyl Alcohol | 123-86-4 | 10% |
| Carbon Black | 133-86-4 | <2% |
| Other | | balance |
| SECTION 3 - PHYSICAL AND CHEMICAL PROPERTIES | | |
| Specific Gravity : 1.35 Percent volatiles:75% by weight | | |

Note : In some cases, the % of volatiles value reported in the MSDS contains water and other non-VOC components. The quantities of these components, if they can be identified, should be excluded from the % volatiles during VOC emission calculations.

Determination of Reporting Applicability for Table 2A Contaminants

As *Company D* used more than 3,000 kg/yr of coating material, it meets one of the reporting criteria listed in Section 2.2 of the Guideline. *Company D* then has to assess the Table 2A contaminants emitted and compare the emissions against the corresponding thresholds.

The following steps show how the **mass balance approach** is used to calculate VOC (from Table 2A contaminant list) emissions.

The following equations are used by this company:

1. Calculate uncontrolled VOC emissions from the coating material using the above MSDS

$$E_{VOC} = Q * p * d / 100$$

Where E_{VOC} = Total uncontrolled VOC emission, kg
 Q = Total annual consumption of coating material, litres
 p = Density of coating material, kg/L
 d = VOC content by weight in coating material, %

Density of coating material = 1.35 * 1 kg/litre = 1.35 kg/litre (from MSDS)
 d = 75 % (from MSDS)

Uncontrolled VOC emission = 15,000 * 1.35 * 75 / 100
 = 15,188 kg / year

Reporting Threshold Consideration

| Contaminant | CAS | Calculated Emission (kg/yr) | Threshold (kg/yr) | Equal to or Greater than Threshold | Reported Value (kg) |
|-------------|-----------|-----------------------------|-------------------|------------------------------------|---------------------|
| VOC | N/A - M16 | 15,188 | 10,000 * | ✓ | 15,188 |

* MOE release based threshold (Table 2A)

Company D must report its emissions of VOCs since its facility emissions of VOCs exceeds the reporting threshold for that contaminant.

Determination of Reporting Applicability for Table 2C Contaminants

Company D also has to assess the contaminants manufactured, processed or otherwise used (MPO) within the facility. The following steps show how the **mass balance approach** is used to calculate the MPO quantities of contaminants.

2. Calculate MPO quantities of an individual compound

$$M_y = Q * p * w_y / 100$$

Where M_y = Quantity of compound y in the coating material, kg
 Q = Total annual consumption of coating material, litres
 p = Density of coating material, kg/L
 w_y = Percent by weight of compound y in the coating material, %

Methyl Ethyl Ketone

$$M_{\text{Methyl Ethyl Ketone}} = 15,000 \text{ litres} * 1.35 \text{ kg/litres} * 25/100 = 5,063 \text{ kg}$$

Xylene

$$M_{\text{xylene}} = 15,000 \text{ litres} * 1.35 \text{ kg/litres} * 25/100 = 5,063 \text{ kg}$$

Ethyl Benzene

$$M_{\text{Ethyl Benzene}} = 15,000 \text{ litres} * 1.35 \text{ kg/litres} * 15/100 = 3,085 \text{ kg}$$

N-Butyl Alcohol

$$M_{\text{N-Butyl Alcohol}} = 15,000 \text{ litres} * 1.35 \text{ kg/litres} * 10/100 = 2,025 \text{ kg}$$

MPO Threshold Consideration

| Contaminant | CAS | Calculated MPO Quantity (kg/yr) | Threshold (kg/yr) |
|---------------------|-----------|---------------------------------|-------------------|
| N-Butyl Alcohol | 71-36-3 | 2,025 | 10,000 *** |
| Ethylbenzene | 100-41-4 | 3,085 | 10,000 *** |
| Methyl Ethyl Ketone | 78-93-3 | 5,063 | 10,000 *** |
| Xylene (mixed) | 1330-20-7 | 5,063 | 10,000 *** |

*** NPRI MPO threshold (Table 2C)

Company D is not required to proceed to calculate and report the emissions of the above contaminants to air since the respective MPO thresholds were not exceeded.

Appendix A.5 Estimation of Annual Emissions Using Fuel Analysis

Fuel analysis can be used to predict emissions based on the application of conservation laws. The presence of certain elements in fuels may be used to predict their presence in emission streams. This includes toxic elements such as metals found in coal as well as other elements such as sulphur that may be converted to other compounds during the combustion process.

The basic equation used in fuel analysis emission estimation is:

$$Er_{Xe} = Q_f * C_x * \frac{(MW_{Xe})}{(MW_x)} * \frac{(100 - CE_{Xe})}{100}$$

| | | | |
|-------|-----------|---|--|
| Where | Er_{Xe} | = | Emission rate of contaminant xe, kg/hr |
| | Q_f | = | Fuel flow rate, kg/hr |
| | C_x | = | Concentration of contaminant x in fuel, g/g-fuel |
| | MW_{Xe} | = | Molecular weight of contaminant xe emitted, g/g-mole |
| | MW_x | = | Molecular weight of contaminant x in fuel, g/g-mole |
| | CE_{Xe} | = | Overall emission control efficiency of contaminant xe, % |

SO₂ emissions from coal combustion can be calculated based on the concentration of sulphur in the coal. This approach assumes complete conversion of sulphur to SO₂. Therefore, for every kg of sulphur (MW = 32g) burned, 2 kg of SO₂ (MW = 64 g) are emitted. The application of this emission estimation technique is shown as follows:

| | | |
|-------------|---|--|
| Q_f | = | 20,000 kg/hr |
| C_s | = | 1.5% |
| MW_{SO_2} | = | Molecular weight of SO ₂ emitted (= 64) |
| MW_s | = | Molecular weight of sulphur in fuel (= 32) |
| CE_{SO_2} | = | 90% |

$$\text{Hourly emission of SO}_2 = 20,000 * 1.5/100 * (64/32) * (100 - 90)/100 = 60 \text{ kg/hr}$$

If the boiler is operated 8,000 hours per year, then

$$\begin{aligned} \text{Annual emission of SO}_2 &= \text{hourly emission rate} * \text{number of operating hours/year} \\ &= 60 \text{ kg/hr} * 8,000 \text{ hr} = 480,000 \text{ kg} \end{aligned}$$

Reporting Threshold Consideration

| Contaminant | CAS | Calculated Emission (kg/yr) | Threshold (kg/yr) | Equal to or Greater than Threshold | Reported Value (kg) |
|----------------------------------|-----------|-----------------------------|-------------------|------------------------------------|---------------------|
| Sulphur Dioxide, SO ₂ | 7446-09-5 | 480,000 | 20,000 * | ✓ | 480,000 |

* MOE release based threshold (Table 2A)

The owner and operator of a facility must report the emissions of sulphur dioxide since its facility emissions of sulphur dioxide exceed the reporting threshold for that contaminant.

Appendix A.6 Estimation of Annual Emissions Using Emission Factors

The following example shows the general approach in using the emission factors method to calculate emissions from an electric induction furnace process. It should be noted that emissions of all the contaminants in the emission profile are calculated and shown here for completeness. Facilities should be aware that emission calculations of any of the Table 2B and 2C contaminants are required only if they meet their respective MPO requirement.

Foundry F produced 5,000 tonnes of grey iron in a given year. The scrap metal was melted in an electric induction furnace and made into iron castings. Foundry F has to (i) calculate the emissions of applicable contaminants listed in Table 2A and compare against the respective contaminant reporting thresholds; and (ii) evaluate the MPO quantities of applicable contaminants listed in Tables 2B and 2C, and calculate the emissions of the contaminants that meet their respective MPO requirements.

Emission factors are commonly used when site-specific stack monitoring data are unavailable. These established emission factors are available from many sources^{1,2,3,5,6}.

The basic equation used in emission factor emissions calculation is:

$$E_x = BQ * EF_x * \frac{100 - CE_x}{100}$$

Where

| | | |
|--------|---|---|
| E_x | = | Emission of contaminant x, kg |
| BQ | = | Activity rate or base quantity (BQ), BQ unit |
| EF_x | = | Uncontrolled emission factor of contaminant x, kg/BQ unit |
| CE_x | = | Overall emission control efficiency of contaminant x, % |

or

$$E_x = BQ * CEF_x$$

Where

| | | |
|---------|---|---|
| E_x | = | Emission of contaminant x, kg |
| BQ | = | Activity rate or base quantity (BQ), BQ unit |
| CEF_x | = | Controlled emission factor of contaminant x, kg/BQ unit |

The following steps shows how to obtain the emission factors for this particular process:

- I. FIRE database²
The following emission factors are available.

| | |
|---|--|
| SCC: 3-04-003-03 | |
| Description: Grey Iron Foundries/Electric Induction Furnace | |
| Contaminant | Factors (kg/tonne of iron produced) |
| Lead | 0.02725 which is the average of the range (0.0045 to 0.05) given in FIRE |
| Manganese | 0.01125 |
| PM | 0.45 |
| PM ₁₀ | 0.43 |

II. Particulate Matter Calculator⁶

The following particle size distribution can be obtained from PM Calculator and is used to derive the emission factor for PM_{2.5}.

| | |
|-------------------|----------------------------------|
| SCC: 3-04-003-03 | |
| Particle | Particle Size Distribution (PSD) |
| PM ₁₀ | 0.96 |
| PM _{2.5} | 0.94 |

Derived PM_{2.5} emission factor would be:

$$EF_{PM_{2.5}} = 0.45 * 0.94 = 0.42 \text{ kg/tonne}$$

III. SPECIATE database⁵

Since there are no VOC emissions in this process, VOC speciation is not necessary. The PM speciation profile for this process is **28201** (Cast Iron Induction Furnace) and the following contaminants' speciation percentages are obtained and used to derive their respective emission factors.

| SCC: 3-04-003-03 | | |
|---|---------|------------------------------------|
| PM Factor: 0.45 kg/tonne (from FIRE) | | |
| PM Profile: 28201 | | |
| Profile Name: Cast Iron Induction Furnace | | |
| Contaminant | % of PM | Derived Emission Factor (kg/tonne) |
| Aluminum | 1.3 | $0.45 * 1.3 / 100 = 0.00585$ |
| Arsenic | 0.012 | $0.45 * 0.012 / 100 = 0.000054$ |
| Bromine | 0.021 | $0.45 * 0.021 / 100 = 0.000095$ |
| Cadmium | 0.012 | $0.45 * 0.012 / 100 = 0.000054$ |
| Chlorine | 2.5 | $0.45 * 2.5 / 100 = 0.01125$ |
| Chromium | 0.024 | $0.45 * 0.024 / 100 = 0.000108$ |
| Cobalt | 0.002 | $0.45 * 0.002 / 100 = 0.000009$ |
| Copper | 0.12 | $0.45 * 0.12 / 100 = 0.00054$ |
| Iron | 5.7 | $0.45 * 5.7 / 100 = 0.02565$ |
| Nickel | 0.098 | $0.45 * 0.098 / 100 = 0.000441$ |
| Titanium | 0.48 | $0.45 * 0.48 / 100 = 0.00216$ |
| Vanadium | 0.006 | $0.45 * 0.006 / 100 = 0.000027$ |
| Zinc | 2.9 | $0.45 * 2.9 / 100 = 0.01305$ |

After gathering the emission factors, the emissions can be estimated by multiplying these factors with the process activity.

Summary of the calculated emission profile

| SCC: 3-04-003-03 | | | | |
|---|-----------|--|---|-------------------------------------|
| Description: Grey Iron Foundries/Electric Induction Furnace | | | | |
| Activity, BQ : 5,000 tonnes | | | | |
| Control: No Control, all CE_x = 0 | | | | |
| Contaminant | CAS | Emission Factors EF_x (kg/tonne) ^{note} | | Emissions E_x (kg) |
| Aluminum | 7429-90-5 | 0.00585 | S | 29 |
| Arsenic | NA - 02 | 0.00005 | S | 0.27 |
| Bromine | 7726-95-6 | 0.0001 | S | 0.47 |
| Cadmium | NA - 03 | 0.00005 | S | 0.27 |
| Chlorine | 7782-50-5 | 0.01125 | S | 56 |
| Chromium | NA - 04 | 0.000108 | S | 0.54 |
| Cobalt | NA - 05 | 0.000009 | S | 0.05 |
| Copper | NA - 06 | 0.00054 | S | 2.7 |
| Iron | 7439-89-6 | 0.02565 | S | 128 |
| Lead | NA - 08 | 0.02725 | F | 136 |
| Manganese | NA - 09 | 0.01125 | F | 56 |
| Nickel | NA - 11 | 0.000441 | S | 2.2 |
| PM | N/A - M08 | 0.45 | F | 2,250 |
| PM ₁₀ | N/A - M09 | 0.43 | F | 2,150 |
| PM _{2.5} | N/A - M10 | 0.42 | P | 2,100 |
| Titanium | 7440-32-6 | 0.00216 | S | 11 |
| Vanadium | 7440-62-2 | 0.00003 | S | 0.14 |
| Zinc | NA - 14 | 0.01305 | S | 65 |

Notes F = Factors from FIRE
 S = Factors from speciation profile
 P = Factors from PM Calculator

Reporting Threshold Consideration

| Contaminant | CAS | Calculated Emission (kg/yr) | Threshold (kg/yr) | Equal to or Greater than Threshold | Reported Value (kg) |
|-------------------|-----------|-----------------------------|-------------------|------------------------------------|---------------------|
| PM | N/A - M08 | 2,250 | 20,000 * | No | — BTH |
| PM ₁₀ | N/A - M09 | 2,150 | 500 * | ✓ | 2,150 |
| PM _{2.5} | N/A - M10 | 2,100 | 300 * | ✓ | 2,100 |

* MOE release based threshold (Table 2A)
 — BTH means below reporting threshold.

Foundry F must report its emissions of PM₁₀ and PM_{2.5} since its facility emissions of each of these contaminants exceed the reporting thresholds for these contaminants. For a contaminant whose emissions do not exceed its reporting threshold, the contaminant name has to be reported and identified with assigned codes indicating that the emission is below the reporting threshold or that there is no emission reportable.

Appendix A.7 Calculation of Annual Emissions Using an Emission Estimation Model

Plant G is a ready mix concrete batching facility with 500 metres (0.5 kilometre) of unpaved roadway and an average daily traffic volume of 50 trucks (each truck weighs 20 tonnes and has 6 wheels). *Plant G* operated only 240 days in a given year.

To calculate the fugitive emissions from the unpaved road, an emission estimation algorithm can be used. USEPA has an empirical equation used in calculating the quantity in kilograms (kg) of size specific particulate emissions from an unpaved road per vehicle kilometre travelled (VKMT) (refer to AP-42³, chapter 13, Section 2.2 for details). The EPA empirical equation for the unpaved road is adopted and converted to SI units (International System of Units) as follows:

$$EF = \frac{k(s / 12)^a (W / 3)^b}{(M / 0.2)^c}$$

Where EF = Size-specific emission factor, kg/VKMT
 s = Surface material silt content, %
 W = Mean vehicle weight, tonnes
 M = Surface material moisture content, %

and

| Constant | PM _{2.5} | PM ₁₀ | PM |
|-------------|-------------------|------------------|------|
| k (kg/VKMT) | 0.111 | 0.76 | 2.96 |
| a | 0.8 | 0.8 | 0.8 |
| b | 0.4 | 0.4 | 0.5 |
| c | 0.3 | 0.3 | 0.4 |

| Range of Source Conditions Required to Apply the Above Equation | | | | | | |
|---|---------------------|-----------|--------------------|--------|--------------------|-----------------------------|
| Surface Silt Content, % | Mean Vehicle Weight | | Mean Vehicle Speed | | Mean No. of Wheels | Surface Moisture Content, % |
| | Mg | ton | km/hr | mph | | |
| 1.2 - 35 | 1.4 - 260 | 1.5 - 290 | 8 - 88 | 5 - 55 | 4 - 7 | 0.03 - 20 |

To apply the above equation for *Plant G*, the following parameters must be determined first.

Vehicle kilometres travelled on the unpaved road within the facility (VKMT) in a given year:

VKMT = no. of trucks/day * length of unpaved road * # operating days/year * 2 ← in/out traffic
 = 50 * 0.5 * 240 * 2 = 12,000 VKMT

Mean vehicle weight (W) = 20 tonnes

Plant G's unpaved roadway has the following characteristics:

Silt content (s) = 5 %
 Moisture content (M) = 10 % (assume moderate season with normal precipitation)

The calculated emission rates are :

$$EF_{PM} = \frac{2.96(5/12)^{0.8}(20/3)^{0.5}}{(10/0.2)^{0.4}} = 0.7933 \text{ kg PM / vkmt}$$

$$EF_{PM_{10}} = \frac{0.762(5/12)^{0.8}(20/3)^{0.4}}{(10/0.2)^{0.3}} = 0.2498 \text{ kg PM}_{10} / \text{vkmt}$$

$$EF_{PM_{2.5}} = \frac{0.111(5/12)^{0.8}(20/3)^{0.4}}{(10/0.2)^{0.3}} = 0.0364 \text{ kg PM}_{2.5} / \text{vkmt}$$

The corresponding annual emission estimates are :

$$E_x = VKMT * EF_x$$

Where E_x = Emission of contaminant x, kg/year
 VKMT = Annual vehicle kilometres travelled, km
 EF_x = Emission factor of contaminant x, kg/VKMT

PM emission = 12,000 * 0.7933 = 9,519 kg/yr

PM₁₀ emission = 12,000 * 0.2498 = 2,998 kg/yr

PM_{2.5} emission = 12,000 * 0.0364 = 437 kg/yr

Reporting Threshold Consideration

| Contaminant | CAS | Calculated Emission (kg/yr) | Threshold (kg/yr) | Equal to or Greater than Threshold | Reported Value (kg) |
|-------------------|-----------|-----------------------------|-------------------|------------------------------------|---------------------|
| PM | N/A - M08 | 9,519 | 20,000 * | No | — BTH |
| PM ₁₀ | N/A - M09 | 2,998 | 500 * | ✓ | 2,998 |
| PM _{2.5} | N/A - M10 | 437 | 300 * | ✓ | 437 |

* MOE release based threshold (Table 2A)

— BTH means below reporting threshold.

Plant G must report its emissions of PM₁₀ and PM_{2.5} since its facility emissions of each of these contaminants exceed the reporting thresholds for these contaminants. For a contaminant whose emissions do not exceed its reporting threshold, the contaminant name has to be reported and identified with assigned codes indicating that the emission is below the reporting threshold or that there is no emission reportable.

Appendix A.8 Reporting Polycyclic Aromatic Hydrocarbons (PAH) Emissions

Company H has two combustion sources that are emitting Polycyclic Aromatic Hydrocarbons (PAHs). Emissions from each combustion source are exhausted directly to the atmosphere through separate stacks. Emission measurements were performed at the stacks each year.

Approach (using source testing method)

Step 1. Obtain Test Results

Stack 1 test result

| Contaminant | CAS | Emission Rate, Er (microgram/sec) |
|----------------------------|----------|-----------------------------------|
| PAH - Acenaphthene | 83-32-9 | 100 |
| PAH - Anthracene | 120-12-7 | 200 |
| PAH - Benzo(a)pyrene | 50-32-8 | 2 |
| PAH - Benzo(g,h,i)perylene | 191-24-2 | 15 |
| PAH - Fluoranthene | 206-44-0 | 400 |
| PAH - Phenanthrene | 85-1-8 | 1,000 |

Note : Measurements are at normal loading capacity.

Stack 2 test result

| Contaminant | CAS | Emission Rate, Er (microgram/sec) |
|---------------------------------------|----------|-----------------------------------|
| PAH - Acenaphthylene | 208-96-8 | 200 |
| PAH - Anthracene | 120-12-7 | 150 |
| PAH - Benzo(a)phenanthrene (Chrysene) | 218-1-9 | 40 |
| PAH - Benzo(a)pyrene | 50-32-8 | 10 |
| PAH - Benzo(g,h,i)perylene | 191-24-2 | 20 |
| PAH - Fluoranthene | 206-44-0 | 500 |
| PAH - Indeno(1,2,3-c,d)pyrene | 193-39-5 | 3 |
| PAH - Perylene | 198-55-0 | 0.3 |
| PAH - Phenanthrene | 85-1-8 | 2,000 |

Step 2. Calculate Emissions

If the two combustion sources operated for 24 hours each day and 360 days within the reporting year.

$$Annual\ Emission\ (kg/yr) = Er\ (\mu g/s) * \frac{360 * 24 * 3,600}{10^9}$$

Summary of the calculated emission profile

| Contaminant | CAS | Calculated Emission (kg/yr) | | |
|---------------------------------------|----------|-----------------------------|---------|----------|
| | | Stack 1 | Stack 2 | Combined |
| PAH - Acenaphthene | 83-32-9 | 3.11 | | 3.11 |
| PAH - Acenaphthylene | 208-96-8 | | 6.22 | 6.22 |
| PAH - Anthracene | 120-12-7 | 6.22 | 4.67 | 10.89 |
| PAH - Benzo(a)phenanthrene (Chrysene) | 218-1-9 | | 1.24 | 1.24 |
| PAH - Benzo(a)pyrene | 50-32-8 | 0.06 | 0.31 | 0.37 |
| PAH - Benzo(g,h,i)perylene | 191-24-2 | 0.47 | 0.62 | 1.09 |
| PAH - Fluoranthene | 206-44-0 | 12.44 | 15.55 | 27.99 |
| PAH - Indeno(1,2,3-c,d)pyrene | 193-39-5 | | 0.09 | 0.09 |
| PAH - Perylene | 198-55-0 | | 0.009 | 0.009 |
| PAH - Phenantrene | 85-1-8 | 31.1 | 62.21 | 93.31 |

Reporting Threshold Consideration 1

| Contaminant | CAS | Calculated MPO Quantity (kg/yr) | | | Equal to or Greater than MOE MPO Threshold of 5 kg/yr ** | Reported Value (kg) |
|----------------------|----------|---------------------------------|---------|----------|--|---------------------|
| | | Stack 1 | Stack 2 | Combined | | |
| PAH - Acenaphthene | 83-32-9 | 3.11 | | 3.11 | No | — BTH |
| PAH - Acenaphthylene | 208-96-8 | | 6.22 | 6.22 | ✓ | 6.22 |

** MOE MPO based threshold (Table 2B)
— BTH means below reporting threshold.

Company H is not required to proceed to calculate and report the emissions of Acenaphthene to air since its MPO threshold was not exceeded. However, *Company H* is required to proceed to calculate and report the emissions of Acenaphthylene to air since its MPO threshold was exceeded.

Reporting Threshold Consideration 2

| Contaminant | CAS | Calculated Emission (kg/yr) | | | Exceed NPRI Alternate Threshold of total 50 kg/yr **** | Reported Value (kg) |
|---------------------------------------|----------|-----------------------------|---------|----------|--|---------------------|
| | | Stack 1 | Stack 2 | Combined | | |
| PAH - Benzo(a)phenanthrene (Chrysene) | 218-1-9 | | 1.24 | 1.24 | | 1.24 |
| PAH - Benzo(a)pyrene | 50-32-8 | 0.06 | 0.31 | 0.37 | | 0.37 |
| PAH - Benzo(g,h,i)perylene | 191-24-2 | 0.47 | 0.62 | 1.09 | | 1.09 |
| PAH - Fluoranthene | 206-44-0 | 12.44 | 15.55 | 27.99 | | 27.99 |
| PAH - Indeno(1,2,3-c,d)pyrene | 193-39-5 | | 0.09 | 0.09 | | 0.09 |
| PAH - Perylene | 198-55-0 | | 0.009 | 0.009 | | 0.009 |
| PAH - Phenantrene | 85-1-8 | 31.1 | 62.21 | 93.31 | | 93.31 |
| TOTAL | | | | 124 | ✓ | report all |

**** NPRI alternate threshold (Table 2C)

Since these PAHs are subjected to NPRI's alternate threshold requirement, NPRI's reporting guideline should be consulted. The 50 kg/yr threshold applies to total quantity of contaminants released and transferred.

Reporting Threshold Consideration 3

Company H determined that the amount of Anthracene MPO (including by-products) is less than the 10 tonnes MPO threshold and is not required to proceed to calculate and report the contaminant emissions. (Anthracene is a Table 2C contaminant).

Appendix A.9 Estimation of Annual Emissions for Portable Facilities

The following example shows the general approach in using the emission factors method to calculate emissions from Company I. It should be noted that emissions of all the contaminants in the emission profile are calculated and shown here for completeness. The facility should be aware that emission calculations of any of the Table 2B and 2C contaminants are required only if they meet their respective MPO requirement.

Company I is a **portable Hot Mix Asphalt facility** producing 75,000 tonnes of asphalt in a given reporting year. The portable facility operated 8 months in the Sarnia area and the remaining 4 months in Walford. The company has identified the following three emission contributing sources:

1. A #2 Oil fired drum type dryer, 5 million BTU/hr capacity
(equipped with a baghouse for controlling particulate emissions)
2. Storage Piles
3. Haul Road (unpaved road)

Since Company I operates a dryer which uses #2 Oil as the fuel input and has a rated energy input capacity of 5 million BTU/hr, it meets one of the reporting criteria [refer to Section 2.2(2) of the Guideline] and must calculate and report emissions of Table 2A contaminants. Company I has to (i) calculate the emissions of applicable contaminants listed in Table 2A and compare against the respective contaminant reporting thresholds; and (ii) evaluate the MPO quantities of applicable contaminants listed in Tables 2B and 2C, and calculate the emissions for the contaminants that meet their respective MPO requirements.

The operating conditions of Company I for the two locations are as follows:

| <i>Company : K</i> | | |
|--|-------------------|-----------------------|
| Operation Location | Sarnia | Walford |
| Period of Operation | January to August | September to December |
| Tonnes of Asphalt produced | 50,000 tonnes | 25,000 tonnes |
| Storage piles | 20,000 tonnes | 10,000 tonnes |
| Cold Aggregate Handling | 46,000 tonnes | 23,000 tonnes |
| Length of Unpaved Road within Facilities | 0.4 km | 0.33 km |
| Total Traffic per Operating Period | 3,500 | 1,500 |
| Total VKMT Travelled on Unpaved Road (per operating period) | 2,750 | 1,000 |
| Silt Content | 5 | 5 |
| Moisture % | 10 | 10 |

The Emission Factors method (refer to example A.6) was used by this company to calculate emissions. Emission factor information was obtained from FIRE database², AP-42³, and the particle size distribution (PSD) from PM Calculator⁶. The corresponding emission calculation approach is as follows:

Summary of the calculated emission profile

| SCC | | 3-05-002-58 | | | | |
|--|------------|---|-----------|--------------------------|----------|-----------|
| DESCRIPTION | | Minerals/Asphalt Concrete Rotary Drum Dryer/Mixer, Oil-fired | | | | |
| Location | | Sarnia | Walford | TOTAL | | |
| Production, tonnes | | 50,000 | 25,000 | 75,000 | | |
| Contaminant | CAS | Emission Factor (kg/tonnes) (and reference) | | Calculated Emission (kg) | | |
| Arsenic | 7440-38-2 | 0.00000055 | AP-42 | 0.0275 | 0.01375 | 0.04125 |
| Acetaldehyde | 75-07-0 | 0.00065 | AP-42 | 32.5 | 16.25 | 48.75 |
| Acetone | 67-64-1 | 0.00042 | AP-42 | 21 | 10.5 | 31.5 |
| Acrolein | 107-02-8 | 0.000013 | AP-42 | 0.65 | 0.325 | 0.975 |
| Benzene | 71-43-2 | 0.0002 | AP-42 | 10 | 5 | 15 |
| Cadmium | 7440-43-9 | 0.00000022 | AP-42 | 0.011 | 0.0055 | 0.0165 |
| Carbon Dioxide | 124-38-9 | 19 | AP-42 | 950,000 | 475,000 | 1,425,000 |
| Carbon Monoxide | 630-8-0 | 0.018 | AP-42 | 900 | 450 | 1350 |
| Chromium | 7440-47-3 | 0.000006 | AP-42 | 0.3 | 0.15 | 0.45 |
| Copper | 7440-50-8 | 0.0000031 | AP-42 | 0.155 | 0.0775 | 0.2325 |
| Ethylbenzene | 100-41-4 | 0.00019 | AP-42 | 9.5 | 4.75 | 14.25 |
| Formaldehyde | 50-00-0 | 0.0012 | AP-42 | 60 | 30 | 90 |
| Lead | 7439-92-1 | 0.0000017 | AP-42 | 0.085 | 0.0425 | 0.1275 |
| Manganese | 7439-96-5 | 0.0000055 | AP-42 | 0.275 | 0.1375 | 0.4125 |
| Mercury | 7439-97-6 | 0.0000000037 | AP-42 | 0.000185 | 0.000093 | 0.000278 |
| Methane | 74-82-8 | 0.0096 | AP-42 | 480 | 240 | 720 |
| Methyl Ethyl Ketone | 78-93-3 | 0.00001 | AP-42 | 0.5 | 0.25 | 0.75 |
| Nickel | 7440-2-0 | 0.0000075 | AP-42 | 0.375 | 0.1875 | 0.5625 |
| Oxides of Nitrogen (as NO ₂) | 10102-44-0 | 0.0375 | AP-42 | 1,875 | 938 | 2,813 |
| PAH - Acenaphthylene | 208-96-8 | 0.000011 | AP-42 | 0.55 | 0.275 | 0.825 |
| PAH - Anthracene | 120-12-7 | 0.0000018 | AP-42 | 0.09 | 0.045 | 0.135 |
| PAH - Fluorene | 86-73-7 | 0.0000085 | AP-42 | 0.425 | 0.2125 | 0.6375 |
| PAH - Phenanthrene | 85-01-8 | 0.000028 | AP-42 | 1.4 | 0.7 | 2.1 |
| PAH - Pyrene | 129-00-0 | 0.0000015 | AP-42 | 0.075 | 0.0375 | 0.1125 |
| PM | N/A - M08 | 0.02 | AP-42 | 1,000 | 500 | 1,500 |
| PM ₁₀ | N/A - M09 | 0.015 | AP-42 | 750 | 375 | 1,125 |
| PM _{2.5} | N/A - M10 | 0.0052 | AP-42+PSD | 260 | 130 | 390 |
| Propionaldehyde | 123-38-6 | 0.000065 | AP-42 | 3.25 | 1.625 | 4.875 |
| Quinone | 106-51-4 | 0.00008 | AP-42 | 4 | 2 | 6 |
| Silver | 7440-22-4 | 0.0000007 | AP-42 | 0.035 | 0.0175 | 0.0525 |
| Sulphur Dioxide | 7446-09-5 | 0.028 | AP-42 | 1,400 | 700 | 2,100 |
| Toluene | 108-88-3 | 0.00037 | AP-42 | 18.5 | 9.25 | 27.75 |
| VOC | N/A - M16 | 0.0345 | AP-42 | 1,725 | 863 | 2,588 |
| Xylene | 1330-20-7 | 0.000082 | AP-42 | 4.1 | 2.05 | 6.15 |
| Zinc | 7440-66-6 | 0.000021 | AP-42 | 1.05 | 0.525 | 1.575 |

Summary of the calculated emission profile

| SCC | | 3-05-002-03 | | | | |
|-------------------|-----------|--|---------------|--------------------------|-------|--|
| DESCRIPTION | | Minerals/Asphalt Concrete Storage Piles | | | | |
| Location | | Sarnia | Walford | TOTAL | | |
| Quantity, tonnes | | 20,000 | 10,000 | 30,000 | | |
| Contaminant | CAS | Emission Factor (kg/tonnes) (and reference) | | Calculated Emission (kg) | | |
| PM | N/A - M08 | 0.17 | FIRE + PSD | 3,400 | 1,700 | |
| PM ₁₀ | N/A - M09 | 0.06 | FIRE | 1,200 | 600 | |
| PM _{2.5} | N/A - M10 | 0.019 | FIRE + PSD | 380 | 190 | |

Summary of the calculated emission profile

| SCC | | 3-05-002-90 | | | | |
|------------------------------------|-----------|--|---------|--------------------------|-------|--|
| DESCRIPTION | | Minerals/Asphalt Concrete Haul Roads-General (Road Dust) | | | | |
| Location | | Sarnia | Walford | TOTAL | | |
| Vehicle Kilometre Travelled (VKMT) | | 2,750 | 1,000 | 3,750 | | |
| Contaminant | CAS | Emission Factor (kg/VKMT) (and reference) | | Calculated Emission (kg) | | |
| PM | N/A - M08 | 2.39 | AP-42 | 6,573 | 2,390 | |
| PM ₁₀ | N/A - M09 | 0.51 | AP-42 | 1,403 | 510 | |
| PM _{2.5} | N/A - M10 | 0.074 | AP-42 | 203.5 | 74 | |

Calculation of the unpaved road emission is based on the USEPA unpaved road emission estimation equation. Please see example A.7 for reference.

Summary of the calculated emission profile

(Total of emissions from above three processes: 3-05-002-58, 3-05-002-03, 3-05-002-90)

| Total Emission for Portable Facility (Two Locations) | | | | |
|--|------------|--------------------------|----------|-----------|
| Contaminant | CAS | Calculated Emission (kg) | | |
| | | Sarnia | Walford | Total |
| Acetaldehyde | 75-07-0 | 32.5 | 16.25 | 48.75 |
| Acetone | 67-64-1 | 21 | 10.5 | 31.5 |
| Acrolein | 107-02-8 | 0.65 | 0.325 | 0.975 |
| Arsenic | NA - 02 | 0.0275 | 0.01375 | 0.04125 |
| Benzene | 71-43-2 | 10 | 5 | 15 |
| Cadmium | NA - 03 | 0.011 | 0.0055 | 0.0165 |
| Carbon Dioxide | 124-38-9 | 950,000 | 475,000 | 1,425,000 |
| Carbon Monoxide | 630-8-0 | 900 | 450 | 1350 |
| Chromium | NA - 04 | 0.3 | 0.15 | 0.45 |
| Copper | NA - 06 | 0.155 | 0.0775 | 0.2325 |
| Ethylbenzene | 100-41-4 | 9.5 | 4.75 | 14.25 |
| Formaldehyde | 50-00-0 | 60 | 30 | 90 |
| Lead | NA - 08 | 0.085 | 0.0425 | 0.1275 |
| Manganese | NA - 09 | 0.275 | 0.1375 | 0.4125 |
| Mercury | NA - 10 | 0.000185 | 0.000093 | 0.000278 |
| Methane | 74-82-8 | 480 | 240 | 720 |
| Methyl Ethyl Ketone | 78-93-3 | 0.5 | 0.25 | 0.75 |
| Nickel | NA - 11 | 0.375 | 0.1875 | 0.5625 |
| Oxides of Nitrogen (as NO) ^{note} | 10102-43-9 | 1225 | 612.5 | 1,837.5 |
| PAH - Acenaphthylene | 208-96-8 | 0.55 | 0.275 | 0.825 |
| PAH - Anthracene | 120-12-7 | 0.09 | 0.045 | 0.135 |
| PAH - Fluorene | 86-73-7 | 0.425 | 0.2125 | 0.6375 |
| PAH - Phenanthrene | 85-01-8 | 1.4 | 0.7 | 2.1 |
| PAH - Pyrene | 129-00-0 | 0.075 | 0.0375 | 0.1125 |
| PM | N/A - M08 | 10,973 | 4,590 | 15,563 |
| PM ₁₀ | N/A - M09 | 3,353 | 1,485 | 4,838 |
| PM _{2.5} | N/A - M10 | 843 | 394 | 1,237 |
| Propionaldehyde | 123-38-6 | 3.25 | 1.625 | 4.875 |
| Quinone | 106-51-4 | 4 | 2 | 6 |
| Silver | NA - 13 | 0.035 | 0.0175 | 0.0525 |
| Sulphur Dioxide | 7446-09-5 | 1,400 | 700 | 2,100 |
| Toluene | 108-88-3 | 18.5 | 9.25 | 27.75 |
| VOC | N/A - M16 | 1,725 | 863 | 2,588 |
| Xylene | 1330-20-7 | 4.1 | 2.05 | 6.15 |
| Zinc | NA - 14 | 1.05 | 0.525 | 1.575 |

Note The calculated oxides of nitrogen emission from AP-42 factors is expressed as NO₂. This value is multiplied by 0.6522 to obtain the reported oxides of nitrogen emissions as NO.

Reporting Threshold Consideration

| Total Emission for Portable Facility (Two Locations) | | | | | |
|--|------------|-----------------------------|-------------------|------------------------------------|---------------------|
| Contaminant | CAS | Calculated Emission (kg/yr) | Threshold (kg/yr) | Equal to or Greater than Threshold | Reported Value (kg) |
| Carbon Dioxide | 124-38-9 | 1,425,000 | 100,000,000 * | No | — BTH |
| Carbon Monoxide | 630-8-0 | 1350 | 20,000 * | No | — BTH |
| Oxides of Nitrogen (as NO) ^{note} | 10102-43-9 | 1,837.5 | 14,000 * | No | — BTH |
| PM | N/A - M08 | 15,563 | 20,000 * | No | — BTH |
| PM ₁₀ | N/A - M09 | 4,838 | 500 * | ✓ | 4,838 |
| PM _{2.5} | N/A - M10 | 1,237 | 300 * | ✓ | 1,237 |
| Sulphur Dioxide | 7446-09-5 | 2,100 | 20,000 * | No | — BTH |
| VOC | N/A - M16 | 2,588 | 10,000 * | No | — BTH |

Note The calculated oxides of nitrogen emissions from AP-42 factors are expressed as NO₂. This value is multiplied by 0.6522 to obtain the reported oxides of nitrogen emission expressed as NO.

* MOE release based threshold (Table 2A)
— BTH means below reporting threshold.

Company I must report its emissions of PM₁₀ and PM_{2.5} since its facility emissions of each of these contaminants exceed the reporting thresholds for these contaminants. For a contaminant whose emissions do not exceed its reporting threshold, the contaminant name has to be reported and identified with assigned codes indicating that the emission is below the reporting threshold or that there is no emission reportable.

Reporting Threshold Consideration 1 of PAH

| Contaminant | CAS | Calculated MPO Quantity (kg/yr) | Equal to or Greater than MOE MPO Threshold of 5 kg/yr ** | Reported Value (kg) |
|----------------------|----------|---------------------------------|--|---------------------|
| PAH - Acenaphthylene | 208-96-8 | 0.825 | No | — BTH |
| PAH - Fluorene | 86-73-7 | 0.638 | No | — BTH |

** MOE MPO based threshold (Table 2B)
— BTH means below reporting threshold.

Company I is not required to proceed to calculate and report the emissions of Acenaphthylene or Fluorene to air since their respective MPO thresholds were not exceeded.

Reporting Threshold Consideration 2 of PAH

| Total Emission for Portable Facility (Two Locations) | | | | |
|--|----------|-----------------------------|---|---------------------|
| Contaminant | CAS | Calculated Emission (kg/yr) | Exceed NPRI Alternate Threshold of total 50 kg/yr **** | Reported Value (kg) |
| PAH - Phenanthrene | 85-01-8 | 2.1 | | |
| PAH - Pyrene | 129-00-0 | 0.1125 | | |
| TOTAL | | 2.2 | No | --- |

**** NPRI alternate threshold (Table 2C)

Since these PAHs are subjected to NPRI's alternate threshold requirement, NPRI's reporting guideline should be consulted. The 50 kg/yr threshold applies to total quantity of contaminants released and transferred.

Reporting Threshold Consideration 3 of PAH

Company I determined that the amount of Anthracene MPO (including by-products) is less than the 10 tonnes MPO threshold and is not required to proceed to calculate and report the contaminant emissions. (Anthracene is a Table 2C contaminant).

Appendix A.10 Calculation of Annual Emissions from an Office Building

Commercial buildings are required to report SO₂, NO_x, CFCs, HFCs and HCFCs emissions only.

Office Building J uses two natural gas boilers for providing space heating for the building in cold winter months and hot water throughout the year. The following example shows the general approach in using the emission factors method to calculate emissions from *Office Building J*. It should be noted that emissions of all the contaminants in the emission profile are calculated and shown here for completeness.

Boiler #1: 100 million BTU/hr
 Boiler #2: 100 million BTU/hr
 Annual fuel consumption 20,000,000 m³ natural gas (from gas bills)

Apportionment of fuel consumption to the two boilers (estimation)
 Boiler #1: 12,000,000 m³
 Boiler #2: 8,000,000 m³

The emission factors for a natural gas-fired boiler are available from AP-42³ (Chapter 1 Section 4) and are tabulated below:

Emissions Calculation using AP-42³ Factors

Summary of the calculated emission profile

| SCC | | 1-03-006-02 | | |
|---|------------|---|-------|-----------------------------|
| DESCRIPTION | | External Combustion Boilers/Commercial/Institutional Natural Gas, 10 - 100 million BTU/hr | | |
| Annual Natural Gas Consumption, m ³ converted to million cu.ft. | | 20,000,000 706.3 | | |
| Contaminant | CAS | Emission Factor (lb/million cu.ft.) (and reference) | | Calculated Emission (kg) |
| Arsenic | 7440-38-2 | 0.0002 | AP-42 | 0.064 |
| Benzene | 71-43-2 | 0.0021 | AP-42 | 0.672 |
| Beryllium | 7440-41-7 | < 0.000012 | AP-42 | < 0.00384 |
| Cadmium | 7440-43-9 | 0.0011 | AP-42 | 0.352 |
| Carbon Dioxide | 124-38-9 | 120,000 | AP-42 | 38,400,000 |
| Carbon Monoxide | 630-8-0 | 84 | AP-42 | 26,900 |
| Chromium | 7440-47-3 | 0.0014 | AP-42 | 0.448 |
| Cobalt | 7440-48-4 | 0.000084 | AP-42 | 0.02688 |
| Copper | 7440-50-8 | 0.00085 | AP-42 | 0.272 |
| Formaldehyde | 50-00-0 | 0.075 | AP-42 | 24 |
| Hexane | 110-54-3 | 1.8 | AP-42 | 577 |
| Lead | 7439-92-1 | 0.0005 | AP-42 | 0.16 |
| Manganese | 7439-96-5 | 0.00038 | AP-42 | 0.1216 |
| Mercury | 7439-97-6 | 0.00026 | AP-42 | 0.0832 |
| Methane | 74-82-8 | 2.3 | AP-42 | 737 |
| Nickel | 7440-02-0 | 0.0021 | AP-42 | 0.672 |
| Naphthalene | 91-20-3 | 0.00061 | AP-42 | 0.1952 |
| Nitrous Oxide | 10024-97-2 | 2.2 | AP-42 | 705 |

| Contaminant | CAS | Emission Factor (lb/million cu.ft.) (and reference) | | Calculated Emission (kg) |
|--|------------|---|-------|--------------------------------|
| | | | | |
| Oxides of Nitrogen (as NO ₂) | 10102-44-0 | 100 | AP-42 | 32,000 |
| PAH - Acenaphthene | 83-32-9 | < 0.0000018 | AP-42 | < 0.000576 |
| PAH - Acenaphthylene | 208-96-8 | < 0.0000018 | AP-42 | < 0.000576 |
| PAH - Anthracene | 120-12-7 | < 0.0000024 | AP-42 | < 0.000768 |
| PAH - Benz(a)anthracene | 56-55-3 | < 0.0000018 | AP-42 | < 0.000576 |
| PAH - Benzo(a)phenanthrene (Chrysene) | 218-01-9 | < 0.0000018 | AP-42 | < 0.000576 |
| PAH - Benzo(a)pyrene | 50-32-8 | < 0.0000012 | AP-42 | < 0.000384 |
| PAH - Benzo(b)fluoranthene | 205-99-2 | < 0.0000018 | AP-42 | < 0.000576 |
| PAH - Benzo(g,h,i)perylene | 191-24-2 | < 0.0000012 | AP-42 | < 0.000384 |
| PAH - Benzo(k)fluoranthene | 207-08-9 | < 0.0000018 | AP-42 | < 0.000576 |
| PAH - Dibenzo(a,h)anthracene | 53-70-3 | < 0.0000012 | AP-42 | < 0.000384 |
| PAH - Fluoranthene | 206-44-0 | 0.000003 | AP-42 | 0.00096 |
| PAH - Fluorene | 86-73-7 | 0.000003 | AP-42 | 0.00096 |
| PAH - Indeno(1,2,3-cd)pyrene | 193-39-5 | < 0.0000018 | AP-42 | < 0.000576 |
| PAH - Phenanthrene | 85-01-8 | 0.000017 | AP-42 | 0.00544 |
| PAH - Pyrene | 129-00-0 | 0.000005 | AP-42 | 0.0016 |
| PM | N/A - M08 | 7.6 | AP-42 | 2,435 |
| PM ₁₀ | N/A - M09 | 7.6 | AP-42 | 2,435 |
| PM _{2.5} | N/A - M10 | 7.6 | AP-42 | 2,435 |
| Selenium | 7782-49-2 | < 0.000024 | AP-42 | < 0.00768 |
| Sulphur Dioxide | 7446-09-5 | 0.6 | AP-42 | 192 |
| Toluene | 108-88-3 | 0.0034 | AP-42 | 1.088 |
| Vanadium | 7440-62-2 | 0.0023 | AP-42 | 0.736 |
| VOC | N/A - M16 | 5.5 | AP-42 | 1,761 |
| Zinc | 7440-66-6 | 0.029 | AP-42 | 9.28 |

Reporting Threshold Consideration

| Contaminant | CAS | Calculated Emission, (kg/yr) | Reporting Threshold (kg/yr) | Equal to or Greater than Threshold | Reported Value (kg) |
|--|------------|------------------------------------|-----------------------------------|---|------------------------|
| Oxides of Nitrogen (as NO) ^{note} | 10102-43-9 | 20,870 | 14,000 * | ✓ | 20,870 |
| Sulphur Dioxide | 7446-09-5 | 192 | 20,000 * | No | — BTH |

Note The calculated oxides of nitrogen emission from AP-42 factors is expressed as NO₂. This value is multiplied by 0.6522 to obtain the reported oxides of nitrogen emission expressed as NO.

* MOE release based threshold (Table 2A)
— BTH means below reporting threshold.

Office Building J must report its oxides of nitrogen (as NO) emissions since its facility emissions of oxides of nitrogen (as NO) exceed the reporting threshold for this contaminant. For a contaminant whose emissions do not exceed its reporting threshold, the contaminant name has to be reported and identified with assigned codes indicating that the emission is below the reporting threshold or that there is no emission reportable.

Appendix B

Reportable Contaminants from Fuel Combustion

(For Information Only)

APPENDIX B

REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Anthracite Coal Combustion | |
|-----------------------------------|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ACETYLENE | 74-86-2 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(E)PYRENE | 192-97-2 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZO(K)FLUORANTHENE | 207-08-9 |
| BERYLLIUM | 7440-41-7 |
| BIPHENYL | 92-52-4 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| ETHYLBENZENE | 100-41-4 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Anthracite Coal Combustion | |
|--|------------|
| Contaminant | CAS |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PERYLENE | 198-55-0 |
| PHENANTHRENE | 85-01-8 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPYLENE | 115-07-1 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Bituminous/Subbituminous Coal Combustion | |
|---|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ACETALDEHYDE | 75-07-0 |
| ACETOPHENONE | 98-86-2 |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZYL CHLORIDE | 100-44-7 |
| BERYLLIUM | 7440-41-7 |
| BIPHENYL | 92-52-4 |
| BIS(2-ETHYLHEXYL) PHTHALATE | 117-81-7 |
| BORON | 7440-42-8 |
| BROMINE | 7726-95-6 |
| BROMOMETHANE | 74-83-9 |
| CADMIUM | NA - 03 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| CHROMIUM | NA - 04 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Bituminous/Subbituminous Coal Combustion | |
|---|------------|
| Contaminant | CAS |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| DIMETHYL SULPHATE | 77-78-1 |
| 2,4-DINITROTOLUENE | 121-14-2 |
| ETHYLBENZENE | 100-41-4 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| LITHIUM - OTHER THAN HYDRIDES | 7439-93-2 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL METHACRYLATE | 80-62-6 |
| METHYL TERT-BUTYL ETHER | 1634-04-4 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| NITROUS OXIDE | 10024-97-2 |
| PHENANTHRENE | 85-01-8 |

APPENDIX B

REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Bituminous/Subbituminous Coal Combustion | |
|--|------------|
| Contaminant | CAS |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPIONALDEHYDE | 123-38-6 |
| PROPYLENE | 115-07-1 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VANADIUM | 7440-62-2 |
| VINYL ACETATE | 108-05-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Lignite Coal Combustion | |
|---------------------------------|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ACETALDEHYDE | 75-07-0 |
| ACETOPHENONE | 98-86-2 |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZYL CHLORIDE | 100-44-7 |
| BERYLLIUM | 7440-41-7 |
| BIPHENYL | 92-52-4 |
| BIS(2-ETHYLHEXYL) PHTHALATE | 117-81-7 |
| BROMOMETHANE | 74-83-9 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| CHROMIUM | NA - 04 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 |
| COBALT | NA - 05 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Lignite Coal Combustion | |
|---------------------------------------|------------|
| Contaminant | CAS |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| DIMETHYL SULPHATE | 77-78-1 |
| 2,4-DINITROTOLUENE | 121-14-2 |
| ETHYLBENZENE | 100-41-4 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL METHACRYLATE | 80-62-6 |
| METHYL TERT-BUTYL ETHER | 1634-04-4 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| NITROUS OXIDE | 10024-97-2 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Lignite Coal Combustion | |
|---|------------|
| Contaminant | CAS |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPIONALDEHYDE | 123-38-6 |
| PROPYLENE | 115-07-1 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VANADIUM | 7440-62-2 |
| VINYL ACETATE | 108-05-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Liquid/Solid Waste Combustion | |
|--------------------------------------|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(E)PYRENE | 192-97-2 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZO(K)FLUORANTHENE | 207-08-9 |
| BERYLLIUM | 7440-41-7 |
| BORON | 7440-42-8 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLORINE | 7782-50-5 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| DIBENZO(A,H)ANTHRACENE | 53-70-3 |
| ETHYLENE | 74-85-1 |
| FLUORANTHENE | 206-44-0 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

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| Liquid/Solid Waste Combustion | |
|--|------------|
| Contaminant | CAS |
| FLUORENE | 86-73-7 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN CYANIDE | 74-90-8 |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| LITHIUM - OTHER THAN HYDRIDES | 7439-93-2 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| P-NITROPHENOL | 100-02-7 |
| NITROUS OXIDE | 10024-97-2 |
| PERYLENE | 198-55-0 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED BIPHENYLS (PCBS) | 1336-36-3 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPYLENE | 115-07-1 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Liquid/Solid Waste Combustion | |
|---|------------|
| Contaminant | CAS |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| ZINC | NA - 14 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Natural Gas Combustion | |
|---------------------------------|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ACETALDEHYDE | 75-07-0 |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| AMMONIA (TOTAL) | NA - 16 |
| ANTHRACENE | 120-12-7 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(B)FLUORANTHENE | 205-99-2 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZO(K)FLUORANTHENE | 207-08-9 |
| BERYLLIUM | 7440-41-7 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CYCLOHEXANE | 110-82-7 |
| DIBENZO(A,H)ANTHRACENE | 53-70-3 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Natural Gas Combustion | |
|---|------------|
| Contaminant | CAS |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| IRON | 7439-89-6 |
| ISOBUTYRALDEHYDE | 78-84-2 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| NITROUS OXIDE | 10024-97-2 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

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| Oil Combustion | |
|---------------------------------|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(B)FLUORANTHENE | 205-99-2 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZO(K)FLUORANTHENE | 207-08-9 |
| BERYLLIUM | 7440-41-7 |
| BORON | 7440-42-8 |
| BROMINE | 7726-95-6 |
| 1,3-BUTADIENE | 106-99-0 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| DIBENZO(A,H)ANTHRACENE | 53-70-3 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

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| Oil Combustion | |
|--|------------|
| Contaminant | CAS |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| NITROUS OXIDE | 10024-97-2 |
| PHENANTHRENE | 85-01-8 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPIONALDEHYDE | 123-38-6 |
| PROPYLENE | 115-07-1 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| STYRENE | 100-42-5 |

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(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Oil Combustion | |
|----------------------------------|------------|
| Contaminant | CAS |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wood/Bark Combustion | |
|---------------------------------|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ACETALDEHYDE | 75-07-0 |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(B)FLUORANTHENE | 205-99-2 |
| BENZO(E)PYRENE | 192-97-2 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZO(K)FLUORANTHENE | 207-08-9 |
| BERYLLIUM | 7440-41-7 |
| BIPHENYL | 92-52-4 |
| BORON | 7440-42-8 |
| BROMINE | 7726-95-6 |
| BUTYRALDEHYDE | 123-72-8 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| DIBENZO(A,H)ANTHRACENE | 53-70-3 |
| ETHYLENE | 74-85-1 |

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REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wood/Bark Combustion | |
|--|------------|
| Contaminant | CAS |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| FURFURAL | 98-01-1 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN CYANIDE | 74-90-8 |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| IRON | 7439-89-6 |
| ISOBUTYRALDEHYDE | 78-84-2 |
| LEAD | NA - 08 |
| LITHIUM - OTHER THAN HYDRIDES | 7439-93-2 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| P-NITROPHENOL | 100-02-7 |
| NITROUS OXIDE | 10024-97-2 |
| PERYLENE | 198-55-0 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPIONALDEHYDE | 123-38-6 |
| PROPYLENE | 115-07-1 |

APPENDIX B

REPORTABLE CONTAMINANTS FROM FUEL COMBUSTION

(This information is extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wood/Bark Combustion | |
|---|------------|
| Contaminant | CAS |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

Appendix C

Reportable Contaminants from Solvent Evaporation

(For Information Only)

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Degreasing/Solvent Cleaning/Solvent Use | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| BENZENE | 71-43-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CFC-11 | 75-69-4 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| O-DICHLOROBENZENE | 95-50-1 |
| DICHLOROMETHANE | 75-09-2 |
| DIMETHYLAMINE | 124-40-3 |
| 2-ETHOXYETHANOL | 110-80-5 |
| ETHYL ETHER | 60-29-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FURFURAL | 98-01-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHANOL | 67-56-1 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL METHACRYLATE | 80-62-6 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| PHENOL | 108-95-2 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| TRICHLOROETHYLENE | 79-01-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Degreasing/Solvent Cleaning/Solvent Use | |
|--|------------|
| Contaminant | CAS |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Organic Chemical Storage | |
|---------------------------------|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETIC ACID | 64-19-7 |
| ACETONE | 67-64-1 |
| ACETONITRILE | 75-05-8 |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| ACRYLIC ACID | 79-10-7 |
| ACRYLONITRILE | 107-13-1 |
| ANILINE | 62-53-3 |
| BENZENE | 71-43-2 |
| BENZYL CHLORIDE | 100-44-7 |
| 2-BUTOXYETHANOL | 111-76-2 |
| BUTYL ACRYLATE | 141-32-2 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| TERT-BUTYL ALCOHOL | 75-65-0 |
| BUTYRALDEHYDE | 123-72-8 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| CRESOL | 1319-77-3 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| CYCLOHEXANOL | 108-93-0 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| O-DICHLOROBENZENE | 95-50-1 |
| P-DICHLOROBENZENE | 106-46-7 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| DIMETHYLAMINE | 124-40-3 |
| EPICHLOROHYDRIN | 106-89-8 |

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Organic Chemical Storage | |
|---------------------------------|------------|
| Contaminant | CAS |
| 2-ETHOXYETHANOL | 110-80-5 |
| ETHYL ACETATE | 141-78-6 |
| ETHYL ACRYLATE | 140-88-5 |
| ETHYL ETHER | 60-29-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| ETHYLENE GLYCOL | 107-21-1 |
| ETHYLENE OXIDE | 75-21-8 |
| FORMALDEHYDE | 50-00-0 |
| FORMIC ACID | 64-18-6 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOBUTYRALDEHYDE | 78-84-2 |
| ISOPRENE | 78-79-5 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| MALEIC ANHYDRIDE | 108-31-6 |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| 2-METHOXYETHANOL | 109-86-4 |
| METHYL ACRYLATE | 96-33-3 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL METHACRYLATE | 80-62-6 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| MONOMETHYL AMINE | 74-89-5 |
| NITROBENZENE | 98-95-3 |
| PHENOL | 108-95-2 |
| PHTHALIC ANHYDRIDE | 85-44-9 |
| PROPIONALDEHYDE | 123-38-6 |
| PROPYLENE | 115-07-1 |
| PROPYLENE OXIDE | 75-56-9 |
| STYRENE | 100-42-5 |
| TETRACHLOROETHYLENE | 127-18-4 |

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Organic Chemical Storage | |
|----------------------------------|------------|
| Contaminant | CAS |
| TETRAHYDROFURAN | 109-99-9 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VINYL ACETATE | 108-05-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |

Note: Reporting contaminant depends on the contaminant stored.

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Petroleum Liquids Storage | |
|----------------------------------|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| CHLOROBENZENE | 108-90-7 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPRENE | 78-79-5 |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| METHYL TERT-BUTYL ETHER | 1634-04-4 |
| NAPHTHALENE | 91-20-3 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| TOLUENE | 108-88-3 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |

Note: Reporting contaminant depends on the contaminant stored.

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Surface Coating/Printing | |
|---------------------------------|------------|
| Contaminant | CAS |
| ACETIC ACID | 64-19-7 |
| ACETONE | 67-64-1 |
| ACETOPHENONE | 98-86-2 |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| BIPHENYL | 92-52-4 |
| 1,3-BUTADIENE | 106-99-0 |
| 2-BUTOXYETHANOL | 111-76-2 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| BUTYL BENZYL PHTHALATE | 85-68-7 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| CRESOL | 1319-77-3 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| DIBUTYL PHTHALATE | 84-74-2 |
| DICHLOROMETHANE | 75-09-2 |
| DIMETHYL PHENOL | 1300-71-6 |
| DIMETHYL PHTHALATE | 131-11-3 |
| DIPHENYLAMINE | 122-39-4 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYL ETHER | 60-29-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| ETHYLENE GLYCOL | 107-21-1 |
| ETHYLENE OXIDE | 75-21-8 |
| FORMALDEHYDE | 50-00-0 |

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Surface Coating/Printing | |
|--------------------------------------|------------|
| Contaminant | CAS |
| FORMIC ACID | 64-18-6 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPRENE | 78-79-5 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| 2-METHOXYETHANOL | 109-86-4 |
| 2-METHOXYETHYL ACETATE | 110-49-6 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL TERT-BUTYL ETHER | 1634-04-4 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| MINERAL SPIRITS GROUP #2 | N/A - M17 |
| NAPHTHALENE | 91-20-3 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| O-PHENYLPHENOL | 90-43-7 |
| PHTHALIC ANHYDRIDE | 85-44-9 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| TRICHLOROETHYLENE | 79-01-6 |
| TRIETHYLAMINE | 121-44-8 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VINYL ACETATE | 108-05-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |

REPORTABLE CONTAMINANTS FROM SOLVENT EVAPORATION

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

Appendix D

Reportable Contaminants by Industrial Sector

(For Information Only)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Conventional Oil and Gas Extraction (NAICS Code: 211113) | |
|---|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| CHLOROBENZENE | 108-90-7 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPRENE | 78-79-5 |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| METHYL TERT-BUTYL ETHER | 1634-04-4 |
| NAPHTHALENE | 91-20-3 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TOLUENE | 108-88-3 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Conventional Oil Extraction (NAICS Code: 211114) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Bituminous Coal Mining (NAICS Code: 212114) | |
|--|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Subbituminous Coal Mining (NAICS Code: 212115) | |
|---|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Lignite Coal Mining (NAICS Code: 212116) | |
|---|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Iron Ore Mining (NAICS Code: 212210) | |
|---|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BERYLLIUM | 7440-41-7 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| CYCLOHEXANE | 110-82-7 |
| ETHYLBENZENE | 100-41-4 |
| FORMALDEHYDE | 50-00-0 |
| N-HEXANE | 110-54-3 |
| HYDROGEN SULPHIDE | 7783-06-4 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Iron Ore Mining (NAICS Code: 212210) | |
|---|------------|
| Contaminant | CAS |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Gold and Silver Ore Mining (NAICS Code: 212220) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Lead-Zinc Ore Mining (NAICS Code: 212231) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Nickel-Copper Ore Mining (NAICS Code: 212232) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Copper-Zinc Ore Mining (NAICS Code: 212233) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Uranium Ore Mining (NAICS Code: 212291) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Metal Ore Mining (NAICS Code: 212299) | |
|--|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| CYCLOHEXANE | 110-82-7 |
| ETHYLBENZENE | 100-41-4 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Metal Ore Mining (NAICS Code: 212299) | |
|--|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Granite Mining and Quarrying (NAICS Code: 212314) | |
|--|------------|
| Contaminant | CAS |
| ALUMINIUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Limestone Mining and Quarrying (NAICS Code: 212315) | |
|--|------------|
| Contaminant | CAS |
| ALUMINIUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Marble Mining and Quarrying (NAICS Code: 212316) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| ASBESTOS | 1332-21-4 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sandstone Mining and Quarrying (NAICS Code: 212317) | |
|--|------------|
| Contaminant | CAS |
| ALUMINIUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sand and Gravel Mining and Quarrying (NAICS Code: 212323) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TITANIUM | 7440-32-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Shale, Clay and Refractory Mineral Mining and Quarrying (NAICS Code: 212326) | |
|---|------------|
| Contaminant | CAS |
| CARBON DIOXIDE | 124-38-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Diamond Mining (NAICS Code: 212392) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| ASBESTOS | 1332-21-4 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Salt Mining (NAICS Code: 212393) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Asbestos Mining (NAICS Code: 212394) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| ASBESTOS | 1332-21-4 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Gypsum Mining (NAICS Code: 212395) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| ASBESTOS | 1332-21-4 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Potash Mining (NAICS Code: 212396) | |
|---|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Peat Extraction (NAICS Code: 212397) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| ASBESTOS | 1332-21-4 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Non-Metallic Mineral Mining and Quarrying (NAICS Code: 212398) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| ASBESTOS | 1332-21-4 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Oil and Gas Contract Drilling (NAICS Code: 213111) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Contract Drilling (except Oil and Gas) (NAICS Code: 213117) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Services to Oil and Gas Extraction (NAICS Code: 213118) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Support Activities for Mining (NAICS Code: 213119) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Hydro-Electric Power Generation (NAICS Code: 221111) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Fossil-Fuel Electric Power Generation (NAICS Code: 221112) | |
|---|------------|
| Contaminant | CAS |
| REFER TO FUEL COMBUSTION SECTIONS | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Nuclear Electric Power Generation (NAICS Code: 221113) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Electric Power Generation (NAICS Code: 221119) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Electric Bulk Power Transmission and Control (NAICS Code: 221121) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Electric Power Distribution (NAICS Code: 221122) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Natural Gas Distribution (NAICS Code: 221210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sewage Treatment Facilities (NAICS Code: 221320) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ACETONITRILE | 75-05-8 |
| ACROLEIN | 107-02-8 |
| ACRYLONITRILE | 107-13-1 |
| ANILINE | 62-53-3 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CFC-11 | 75-69-4 |
| CFC-12 | 75-71-8 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| CRESOL | 1319-77-3 |
| O-CRESOL | 95-48-7 |
| P-CRESOL | 106-44-5 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| P-DICHLOROBENZENE | 106-46-7 |
| 1,1-DICHLOROETHANE | 75-34-3 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 1,2-DICHLOROPROPANE | 78-87-5 |
| DIMETHYL SULPHIDE | 75-18-3 |
| 1,4-DIOXANE | 123-91-1 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FORMALDEHYDE | 50-00-0 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sewage Treatment Facilities (NAICS Code: 221320) | |
|--|------------|
| Contaminant | CAS |
| HCFC-22 | 75-45-6 |
| HEXACHLOROBENZENE | 118-74-1 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| HYDROGEN SULPHIDE | 7783-06-4 |
| MERCAPTANS (AS METHYL MERCAPTAN) - TOTAL | 74-93-1 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| NAPHTHALENE | 91-20-3 |
| NITROBENZENE | 98-95-3 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PENTACHLOROPHENOL (PCP) | 87-86-5 |
| PHENOL | 108-95-2 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED BIPHENYLS (PCBS) | 1336-36-3 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| 1,2,4-TRICHLOROBENZENE | 120-82-1 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| TRICHLOROETHYLENE | 79-01-6 |
| VINYL CHLORIDE | 75-01-4 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sewage Treatment Facilities (NAICS Code: 221320) | |
|---|------------|
| Contaminant | CAS |
| VINYLDENE CHLORIDE | 75-35-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Steam and Air-Conditioning Supply (NAICS Code: 221330) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Dog and Cat Food Manufacturing (NAICS Code: 311111) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Animal Food Manufacturing (NAICS Code: 311119) | |
|---|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Flour Milling (NAICS Code: 311211) | |
|---|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Rice Milling and Malt Manufacturing (NAICS Code: 311214) | |
|---|------------|
| Contaminant | CAS |
| ARSENIC | NA - 02 |
| COPPER | NA - 06 |
| MANGANESE | NA - 09 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wet Corn Milling (NAICS Code: 311221) | |
|--|------------|
| Contaminant | CAS |
| N-HEXANE | 110-54-3 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Oilseed Processing (NAICS Code: 311224) | |
|--|------------|
| Contaminant | CAS |
| N-HEXANE | 110-54-3 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Fat and Oil Refining and Blending (NAICS Code: 311225) | |
|---|------------|
| Contaminant | CAS |
| N-HEXANE | 110-54-3 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Breakfast Cereal Manufacturing (NAICS Code: 311230) | |
|--|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sugar Manufacturing (NAICS Code: 311310) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Chocolate and Confectionery Manufacturing from Cacao Beans (NAICS Code: 311320) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Confectionery Manufacturing from Purchased Chocolate (NAICS Code: 311330) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Chocolate Confectionery Manufacturing (NAICS Code: 311340) | |
|---|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Frozen Food Manufacturing (NAICS Code: 311410) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Fruit and Vegetable Canning, Pickling and Drying (NAICS Code: 311420) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Fluid Milk Manufacturing (NAICS Code: 311511) | |
|--|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Butter, Cheese, and Dry and Condensed Dairy Products Manufacturing (NAICS Code: 311515) | |
|--|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Ice Cream and Frozen Dessert Manufacturing (NAICS Code: 311520) | |
|--|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Animal (except Poultry) Slaughtering (NAICS Code: 311611) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Rendering and Meat Processing from Carcasses (NAICS Code: 311614) | |
|--|------------|
| Contaminant | CAS |
| ACETIC ACID | 64-19-7 |
| FORMALDEHYDE | 50-00-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Poultry Processing (NAICS Code: 311615) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Seafood Product Preparation and Packaging (NAICS Code: 311710) | |
|---|------------|
| Contaminant | CAS |
| HYDROGEN SULPHIDE | 7783-06-4 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| TRIETHYLAMINE | 121-44-8 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Commercial Bakeries and Frozen Bakery Product Manufacturing (NAICS Code: 311814) | |
|---|------------|
| Contaminant | CAS |
| I-BUTYL ALCOHOL | 78-83-1 |
| ETHYL ACETATE | 141-78-6 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Cookie and Cracker Manufacturing (NAICS Code: 311821) | |
|--|------------|
| Contaminant | CAS |
| I-BUTYL ALCOHOL | 78-83-1 |
| ETHYL ACETATE | 141-78-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Flour Mixes and Dough Manufacturing from Purchased Flour (NAICS Code: 311822) | |
|--|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Dry Pasta Manufacturing (NAICS Code: 311823) | |
|---|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Tortilla Manufacturing (NAICS Code: 311830) | |
|--|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Roasted Nut and Peanut Butter Manufacturing (NAICS Code: 311911) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Snack Food Manufacturing (NAICS Code: 311919) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Coffee and Tea Manufacturing (NAICS Code: 311920) | |
|--|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACROLEIN | 107-02-8 |
| CARBON MONOXIDE | 630-08-0 |
| METHANE | 74-82-8 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Flavouring Syrup and Concentrate Manufacturing (NAICS Code: 311930) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Seasoning and Dressing Manufacturing (NAICS Code: 311940) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Food Manufacturing (NAICS Code: 311990) | |
|--|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Soft Drink and Ice Manufacturing (NAICS Code: 312110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Breweries (NAICS Code: 312120) | |
|---|------------|
| Contaminant | CAS |
| I-BUTYL ALCOHOL | 78-83-1 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| ETHYL ACETATE | 141-78-6 |
| HYDROGEN SULPHIDE | 2148875 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wineries (NAICS Code: 312130) | |
|--------------------------------------|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| ETHYL ACETATE | 141-78-6 |
| HYDROGEN SULPHIDE | 2148875 |
| METHANOL | 67-56-1 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Distilleries (NAICS Code: 312140) | |
|--|------------|
| Contaminant | CAS |
| I-BUTYL ALCOHOL | 78-83-1 |
| ETHYL ACETATE | 141-78-6 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Tobacco Stemming and Redrying (NAICS Code: 312210) | |
|---|------------|
| Contaminant | CAS |
| SULPHUR DIOXIDE | 7446-09-5 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Tobacco Product Manufacturing (NAICS Code: 312220) | |
|---|------------|
| Contaminant | CAS |
| SULPHUR DIOXIDE | 7446-09-5 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Fibre, Yarn and Thread Mills (NAICS Code: 313110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Broad-Woven Fabric Mills (NAICS Code: 313210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Narrow Fabric Mills and Schiffli Machine Embroidery (NAICS Code: 313220) | |
|---|------------|
| Contaminant | CAS |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Nonwoven Fabric Mills (NAICS Code: 313230) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Knit Fabric Mills (NAICS Code: 313240) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Textile and Fabric Finishing (NAICS Code: 313310) | |
|--|------------|
| Contaminant | CAS |
| METHANE | 74-82-8 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Fabric Coating (NAICS Code: 313320) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| 2-BUTOXYETHANOL | 111-76-2 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CYCLOHEXANE | 110-82-7 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHANOL | 67-56-1 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Carpet and Rug Mills (NAICS Code: 314110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Curtain and Linen Mills (NAICS Code: 314120) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Textile Bag and Canvas Mills (NAICS Code: 314910) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Textile Product Mills (NAICS Code: 314990) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Hosiery and Sock Mills (NAICS Code: 315110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Clothing Knitting Mills (NAICS Code: 315190) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Cut and Sew Clothing Contracting (NAICS Code: 315210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing (NAICS Code: 315221) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Men's and Boys' Cut and Sew Suit, Coat and Overcoat Manufacturing (NAICS Code: 315222) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Men's and Boys' Cut and Sew Shirt Manufacturing (NAICS Code: 315226) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Men's and Boys' Cut and Sew Trouser, Slack and Jean Manufacturing (NAICS Code: 315227) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Men's and Boys' Cut and Sew Clothing Manufacturing (NAICS Code: 315229) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Women's and Girls' Cut and Sew Lingerie, Loungewear and Nightwear Manufacturing (NAICS Code: 315231) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing (NAICS Code: 315232) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Women's and Girls' Cut and Sew Dress Manufacturing (NAICS Code: 315233) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket and Skirt Manufacturing (NAICS Code: 315234) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Women's and Girls' Cut and Sew Clothing Manufacturing (NAICS Code: 315239) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Infants' Cut and Sew Clothing Manufacturing (NAICS Code: 315291) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Fur and Leather Clothing Manufacturing (NAICS Code: 315292) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| 2-BUTOXYETHANOL | 111-76-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLENE GLYCOL | 107-21-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| TOLUENE | 108-88-3 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Cut and Sew Clothing Manufacturing (NAICS Code: 315299) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Clothing Accessories and Other Clothing Manufacturing (NAICS Code: 315990) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Leather and Hide Tanning and Finishing (NAICS Code: 316110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Footwear Manufacturing (NAICS Code: 316210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Leather and Allied Product Manufacturing (NAICS Code: 316990) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sawmills (except Shingle and Shake Mills) (NAICS Code: 321111) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| CHLORINE | 7782-50-5 |
| IRON | 7439-89-6 |
| MANGANESE | NA - 09 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Shingle and Shake Mills (NAICS Code: 321112) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| CHLORINE | 7782-50-5 |
| IRON | 7439-89-6 |
| MANGANESE | NA - 09 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wood Preservation (NAICS Code: 321114) | |
|---|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ANTHRACENE | 120-12-7 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(B)FLUORANTHENE | 205-99-2 |
| BENZO(K)FLUORANTHENE | 207-08-9 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| DICHLOROMETHANE | 75-09-2 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| NAPHTHALENE | 91-20-3 |
| PHENANTHRENE | 85-01-8 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PYRENE | 129-00-0 |
| TETRACHLOROETHYLENE | 127-18-4 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Hardwood Veneer and Plywood Mills (NAICS Code: 321211) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(E)PYRENE | 192-97-2 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| FORMALDEHYDE | 50-00-0 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Softwood Veneer and Plywood Mills (NAICS Code: 321212) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(E)PYRENE | 192-97-2 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| FORMALDEHYDE | 50-00-0 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Structural Wood Product Manufacturing (NAICS Code: 321215) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Particle Board and Fibreboard Mills (NAICS Code: 321216) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| CHLORINE | 7782-50-5 |
| IRON | 7439-89-6 |
| MANGANESE | NA - 09 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Waferboard Mills (NAICS Code: 321217) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| CHLORINE | 7782-50-5 |
| IRON | 7439-89-6 |
| MANGANESE | NA - 09 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wood Window and Door Manufacturing (NAICS Code: 321911) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Millwork (NAICS Code: 321919) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wood Container and Pallet Manufacturing (NAICS Code: 321920) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Manufactured (Mobile) Home Manufacturing (NAICS Code: 321991) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Prefabricated Wood Building Manufacturing (NAICS Code: 321992) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Miscellaneous Wood Product Manufacturing (NAICS Code: 321999) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| 2-BUTOXYETHANOL | 111-76-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLENE GLYCOL | 107-21-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| TOLUENE | 108-88-3 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Mechanical Pulp Mills (NAICS Code: 322111) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BERYLLIUM | 7440-41-7 |
| BROMINE | 7726-95-6 |
| 2-BUTOXYETHANOL | 111-76-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLORINE | 7782-50-5 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FLUORANTHENE | 206-44-0 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN SULPHIDE | 7783-06-4 |
| IRON | 7439-89-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Mechanical Pulp Mills (NAICS Code: 322111) | |
|--|------------|
| Contaminant | CAS |
| ISOPROPYL ALCOHOL | 67-63-0 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANOL | 67-56-1 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Chemical Pulp Mills (NAICS Code: 322112) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BERYLLIUM | 7440-41-7 |
| BROMINE | 7726-95-6 |
| 2-BUTOXYETHANOL | 111-76-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLORINE | 7782-50-5 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FLUORANTHENE | 206-44-0 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN SULPHIDE | 7783-06-4 |
| IRON | 7439-89-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Chemical Pulp Mills (NAICS Code: 322112) | |
|--|------------|
| Contaminant | CAS |
| ISOPROPYL ALCOHOL | 67-63-0 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANOL | 67-56-1 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Paper (except Newsprint) Mills (NAICS Code: 322121) | |
|--|-----------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BERYLLIUM | 7440-41-7 |
| BROMINE | 7726-95-6 |
| 2-BUTOXYETHANOL | 111-76-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLORINE | 7782-50-5 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FLUORANTHENE | 206-44-0 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| HYDROCHLORIC ACID | 7647-01-0 |
| IRON | 7439-89-6 |
| ISOPROPYL ALCOHOL | 67-63-0 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Paper (except Newsprint) Mills (NAICS Code: 322121) | |
|--|------------|
| Contaminant | CAS |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANOL | 67-56-1 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Newsprint Mills (NAICS Code: 322122) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BERYLLIUM | 7440-41-7 |
| BROMINE | 7726-95-6 |
| 2-BUTOXYETHANOL | 111-76-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLORINE | 7782-50-5 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FLUORANTHENE | 206-44-0 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| HYDROCHLORIC ACID | 7647-01-0 |
| IRON | 7439-89-6 |
| ISOPROPYL ALCOHOL | 67-63-0 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Newsprint Mills (NAICS Code: 322122) | |
|--|------------|
| Contaminant | CAS |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANOL | 67-56-1 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Paperboard Mills (NAICS Code: 322130) | |
|--|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BERYLLIUM | 7440-41-7 |
| BROMINE | 7726-95-6 |
| 2-BUTOXYETHANOL | 111-76-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLORINE | 7782-50-5 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| 1,2-DIBROMOETHANE | 106-93-4 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FLUORANTHENE | 206-44-0 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| HYDROCHLORIC ACID | 7647-01-0 |
| IRON | 7439-89-6 |
| ISOPROPYL ALCOHOL | 67-63-0 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Paperboard Mills (NAICS Code: 322130) | |
|--|------------|
| Contaminant | CAS |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANOL | 67-56-1 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Corrugated and Solid Fibre Box Manufacturing (NAICS Code: 322211) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Folding Paperboard Box Manufacturing (NAICS Code: 322212) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Paperboard Container Manufacturing (NAICS Code: 322219) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Paper Bag and Coated and Treated Paper Manufacturing (NAICS Code: 322220) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| 2-BUTOXYETHANOL | 111-76-2 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLENE GLYCOL | 107-21-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| TOLUENE | 108-88-3 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Stationery Product Manufacturing (NAICS Code: 322230) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sanitary Paper Product Manufacturing (NAICS Code: 322291) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Converted Paper Product Manufacturing (NAICS Code: 322299) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Commercial Screen Printing (NAICS Code: 323113) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Quick Printing (NAICS Code: 323114) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Digital Printing (NAICS Code: 323115) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Manifold Business Forms Printing (NAICS Code: 323116) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Printing (Includes Commercial Lithographic, Gravure and Flexographic Printing) (NAICS Code: 323119) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Support Activities for Printing (NAICS Code: 323120) | |
|---|------------|
| Contaminant | CAS |
| LEAD | NA - 08 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Petroleum Refineries (NAICS Code: 324110) | |
|--|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETYLENE | 74-86-2 |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BROMINE | 7726-95-6 |
| 1,3-BUTADIENE | 106-99-0 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN SULPHIDE | 7783-06-4 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Petroleum Refineries (NAICS Code: 324110) | |
|--|------------|
| Contaminant | CAS |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| METHYL TERT-BUTYL ETHER | 1634-04-4 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| TRICHLOROETHYLENE | 79-01-6 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Asphalt Paving Mixture and Block Manufacturing (NAICS Code: 324121) | |
|--|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| ANTHRACENE | 120-12-7 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(B)FLUORANTHENE | 205-99-2 |
| BENZO(E)PYRENE | 192-97-2 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZO(K)FLUORANTHENE | 207-08-9 |
| BERYLLIUM | 7440-41-7 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHROMIUM | NA - 04 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 |
| COPPER | NA - 06 |
| CROTONALDEHYDE | 4170-30-3 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| DIBENZO(A,H)ANTHRACENE | 53-70-3 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Asphalt Paving Mixture and Block Manufacturing (NAICS Code: 324121) | |
|--|------------|
| Contaminant | CAS |
| N-HEXANE | 110-54-3 |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| ISOBUTYRALDEHYDE | 78-84-2 |
| ISOPRENE | 78-79-5 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PERYLENE | 198-55-0 |
| PHENANTHRENE | 85-01-8 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPIONALDEHYDE | 123-38-6 |
| PROPYLENE | 115-07-1 |
| PYRENE | 129-00-0 |
| P-QUINONE | 106-51-4 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Asphalt Shingle and Coating Material Manufacturing (NAICS Code: 324122) | |
|--|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FLUORANTHENE | 206-44-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |
| MANGANESE | NA - 09 |
| METHANE | 74-82-8 |
| NAPHTHALENE | 91-20-3 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| STYRENE | 100-42-5 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Petroleum and Coal Products Manufacturing (NAICS Code: 324190) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Petrochemical Manufacturing (NAICS Code: 325110) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETIC ACID | 64-19-7 |
| ACETONE | 67-64-1 |
| ACETONITRILE | 75-05-8 |
| ACROLEIN | 107-02-8 |
| ACRYLIC ACID | 79-10-7 |
| ACRYLONITRILE | 107-13-1 |
| ALUMINUM | 7429-90-5 |
| ANILINE | 62-53-3 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| BUTYL ACRYLATE | 141-32-2 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CFC-11 | 75-69-4 |
| CFC-114 | 76-14-2 |
| CFC-115 | 76-15-3 |
| CFC-12 | 75-71-8 |
| CFC-13 | 75-72-9 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| CYCLOHEXANOL | 108-93-0 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Petrochemical Manufacturing (NAICS Code: 325110) | |
|---|------------|
| Contaminant | CAS |
| O-DICHLOROBENZENE | 95-50-1 |
| P-DICHLOROBENZENE | 106-46-7 |
| 1,1-DICHLOROETHANE | 75-34-3 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| EPICHLOROHYDRIN | 106-89-8 |
| ETHYL ACRYLATE | 140-88-5 |
| ETHYL ETHER | 60-29-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| ETHYLENE GLYCOL | 107-21-1 |
| ETHYLENE OXIDE | 75-21-8 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| HCFC-22 | 75-45-6 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| HYDROGEN CYANIDE | 74-90-8 |
| IRON | 7439-89-6 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL METHACRYLATE | 80-62-6 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| NITROUS OXIDE | 10024-97-2 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Petrochemical Manufacturing (NAICS Code: 325110) | |
|---|------------|
| Contaminant | CAS |
| PROPYLENE | 115-07-1 |
| PROPYLENE OXIDE | 75-56-9 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VANADIUM | 7440-62-2 |
| VINYL ACETATE | 108-05-4 |
| VINYL CHLORIDE | 75-01-4 |
| VINYLDENE CHLORIDE | 75-35-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Industrial Gas Manufacturing (NAICS Code: 325120) | |
|--|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Synthetic Dye and Pigment Manufacturing (NAICS Code: 325130) | |
|---|------------|
| Contaminant | CAS |
| LEAD | NA - 08 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Alkali and Chlorine Manufacturing (NAICS Code: 325181) | |
|---|------------|
| Contaminant | CAS |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| SULPHUR DIOXIDE | 7446-09-5 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Basic Inorganic Chemical Manufacturing (NAICS Code: 325189) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| FLUORINE | 7782-41-4 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Basic Organic Chemical Manufacturing (NAICS Code: 325190) | |
|--|-----------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETIC ACID | 64-19-7 |
| ACETONE | 67-64-1 |
| ACETONITRILE | 75-05-8 |
| ACROLEIN | 107-02-8 |
| ACRYLIC ACID | 79-10-7 |
| ACRYLONITRILE | 107-13-1 |
| ALUMINUM | 7429-90-5 |
| ANILINE | 62-53-3 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| BUTYL ACRYLATE | 141-32-2 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CFC-11 | 75-69-4 |
| CFC-114 | 76-14-2 |
| CFC-115 | 76-15-3 |
| CFC-12 | 75-71-8 |
| CFC-13 | 75-72-9 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| CYCLOHEXANOL | 108-93-0 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Basic Organic Chemical Manufacturing (NAICS Code: 325190) | |
|--|------------|
| Contaminant | CAS |
| O-DICHLOROBENZENE | 95-50-1 |
| P-DICHLOROBENZENE | 106-46-7 |
| 1,1-DICHLOROETHANE | 75-34-3 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| EPICHLOROHYDRIN | 106-89-8 |
| ETHYL ACRYLATE | 140-88-5 |
| ETHYL ETHER | 60-29-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| ETHYLENE GLYCOL | 107-21-1 |
| ETHYLENE OXIDE | 75-21-8 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| HCFC-22 | 75-45-6 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| HYDROGEN CYANIDE | 74-90-8 |
| IRON | 7439-89-6 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL METHACRYLATE | 80-62-6 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| NITROUS OXIDE | 10024-97-2 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Basic Organic Chemical Manufacturing (NAICS Code: 325190) | |
|--|------------|
| Contaminant | CAS |
| PROPYLENE | 115-07-1 |
| PROPYLENE OXIDE | 75-56-9 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VANADIUM | 7440-62-2 |
| VINYL ACETATE | 108-05-4 |
| VINYL CHLORIDE | 75-01-4 |
| VINYLDENE CHLORIDE | 75-35-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Resin and Synthetic Rubber Manufacturing (NAICS Code: 325210) | |
|--|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| ACRYLONITRILE | 107-13-1 |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| CFC-11 | 75-69-4 |
| CFC-114 | 76-14-2 |
| CFC-115 | 76-15-3 |
| CFC-12 | 75-71-8 |
| DICHLOROMETHANE | 75-09-2 |
| EPICHLOROHYDRIN | 106-89-8 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FORMALDEHYDE | 50-00-0 |
| HCFC-22 | 75-45-6 |
| N-HEXANE | 110-54-3 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENOL | 108-95-2 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TOLUENE | 108-88-3 |
| TRICHLOROETHYLENE | 79-01-6 |
| VINYL CHLORIDE | 75-01-4 |
| VINYLDENE CHLORIDE | 75-35-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Artificial and Synthetic Fibres and Filaments Manufacturing (NAICS Code: 325220) | |
|---|------------|
| Contaminant | CAS |
| BENZENE | 71-43-2 |
| CARBON DISULPHIDE | 75-15-0 |
| CFC-11 | 75-69-4 |
| CFC-114 | 76-14-2 |
| CFC-115 | 76-15-3 |
| CFC-12 | 75-71-8 |
| HCFC-22 | 75-45-6 |
| HYDROGEN SULPHIDE | 7783-06-4 |
| NITROBENZENE | 98-95-3 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| STYRENE | 100-42-5 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| VINYL CHLORIDE | 75-01-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Chemical Fertilizer (except Potash) Manufacturing (NAICS Code: 325313) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| AMMONIA (TOTAL) | NA - 16 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| FORMALDEHYDE | 50-00-0 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| NITRIC ACID | 7697-37-2 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| NITROUS OXIDE | 10024-97-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Mixed Fertilizer Manufacturing (NAICS Code: 325314) | |
|--|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Pesticide and Other Agricultural Chemical Manufacturing (NAICS Code: 325320) | |
|---|------------|
| Contaminant | CAS |
| BENZENE | 71-43-2 |
| N-HEXANE | 110-54-3 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TOLUENE | 108-88-3 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Pharmaceutical and Medicine Manufacturing (NAICS Code: 325410) | |
|---|------------|
| Contaminant | CAS |
| DICHLOROMETHANE | 75-09-2 |
| PHENOL | 108-95-2 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Paint and Coating Manufacturing (NAICS Code: 325510) | |
|---|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| ETHYLBENZENE | 100-41-4 |
| N-HEPTANE | 142-82-5 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| STYRENE | 100-42-5 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Adhesive Manufacturing (NAICS Code: 325520) | |
|--|------------|
| Contaminant | CAS |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TITANIUM | 7440-32-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Soap and Cleaning Compound Manufacturing (NAICS Code: 325610) | |
|--|------------|
| Contaminant | CAS |
| CHLOROBENZENE | 108-90-7 |
| CUMENE | 98-82-8 |
| ETHYLBENZENE | 100-41-4 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Toilet Preparation Manufacturing (NAICS Code: 325620) | |
|--|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Printing Ink Manufacturing (NAICS Code: 325910) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| CYCLOHEXANE | 110-82-7 |
| ETHYLBENZENE | 100-41-4 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHANOL | 67-56-1 |
| METHYL ETHYL KETONE | 78-93-3 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Explosives Manufacturing (NAICS Code: 325920) | |
|--|------------|
| Contaminant | CAS |
| BENZENE | 71-43-2 |
| ETHYLENE | 74-85-1 |
| METHANE | 74-82-8 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SULPHUR DIOXIDE | 7446-09-5 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Custom Compounding of Purchased Resins (NAICS Code: 325991) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Miscellaneous Chemical Product Manufacturing (NAICS Code: 325999) | |
|--|------------|
| Contaminant | CAS |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Unsupported Plastic Bag Manufacturing (NAICS Code: 326111) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Unsupported Plastic Film and Sheet Manufacturing (NAICS Code: 326114) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Unsupported Plastic Profile Shape Manufacturing (NAICS Code: 326121) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Plastic Pipe and Pipe Fitting Manufacturing (NAICS Code: 326122) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Laminated Plastic Plate, Sheet and Shape Manufacturing (NAICS Code: 326130) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Polystyrene Foam Product Manufacturing (NAICS Code: 326140) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Urethane and Other Foam Product (except Polystyrene) Manufacturing (NAICS Code: 326150) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Plastic Bottle Manufacturing (NAICS Code: 326160) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Plastic Plumbing Fixture Manufacturing (NAICS Code: 326191) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Plastic Parts Manufacturing (NAICS Code: 326193) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Plastic Product Manufacturing (NAICS Code: 326198) | |
|---|------------|
| Contaminant | CAS |
| ACETIC ACID | 64-19-7 |
| ACETONE | 67-64-1 |
| ACETOPHENONE | 98-86-2 |
| BENZENE | 71-43-2 |
| 2-BUTOXYETHANOL | 111-76-2 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CRESOL | 1319-77-3 |
| CYCLOHEXANE | 110-82-7 |
| DIMETHYL PHENOL | 1300-71-6 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYL ETHER | 60-29-7 |
| ETHYLBENZENE | 100-41-4 |
| FORMALDEHYDE | 50-00-0 |
| FORMIC ACID | 64-18-6 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHANOL | 67-56-1 |
| 2-METHOXYETHANOL | 109-86-4 |
| 2-METHOXYETHYL ACETATE | 110-49-6 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| MINERAL SPIRITS GROUP #2 | N/A - M17 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| TRICHLOROETHYLENE | 79-01-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Plastic Product Manufacturing (NAICS Code: 326198) | |
|---|------------|
| Contaminant | CAS |
| TRIETHYLAMINE | 121-44-8 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Tire Manufacturing (NAICS Code: 326210) | |
|--|------------|
| Contaminant | CAS |
| BENZENE | 71-43-2 |
| CYCLOHEXANE | 110-82-7 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| TOLUENE | 108-88-3 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Rubber and Plastic Hose and Belting Manufacturing (NAICS Code: 326220) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Rubber Product Manufacturing (NAICS Code: 326290) | |
|--|------------|
| Contaminant | CAS |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| STYRENE | 100-42-5 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Pottery, Ceramics and Plumbing Fixture Manufacturing (NAICS Code: 327110) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Clay Building Material and Refractory Manufacturing (NAICS Code: 327120) | |
|---|------------|
| Contaminant | CAS |
| CARBON DIOXIDE | 124-38-9 |
| CHROMIUM | NA - 04 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SULPHUR DIOXIDE | 7446-09-5 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Glass Manufacturing (NAICS Code: 327214) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BERYLLIUM | 7440-41-7 |
| BORON | 7440-42-8 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| FLUORINE | 7782-41-4 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| METHANE | 74-82-8 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Glass Product Manufacturing from Purchased Glass (NAICS Code: 327215) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Cement Manufacturing (NAICS Code: 327310) | |
|--|------------|
| Contaminant | CAS |
| ACENAPHTHYLENE | 208-96-8 |
| ACETONE | 67-64-1 |
| ALUMINUM | 7429-90-5 |
| AMMONIA (TOTAL) | NA - 16 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BENZO(B)FLUORANTHENE | 205-99-2 |
| BENZO(G,H,I)PERYLENE | 191-24-2 |
| BENZO(K)FLUORANTHENE | 207-08-9 |
| BERYLLIUM | 7440-41-7 |
| BIPHENYL | 92-52-4 |
| BIS(2-ETHYLHEXYL) PHTHALATE | 117-81-7 |
| BORON | 7440-42-8 |
| BROMINE | 7726-95-6 |
| BROMOMETHANE | 74-83-9 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROMETHANE | 74-87-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| DIBENZO(A,H)ANTHRACENE | 53-70-3 |
| DIBUTYL PHTHALATE | 84-74-2 |
| DICHLOROMETHANE | 75-09-2 |
| ETHYLBENZENE | 100-41-4 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FLUORINE | 7782-41-4 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Cement Manufacturing (NAICS Code: 327310) | |
|--|------------|
| Contaminant | CAS |
| FORMALDEHYDE | 50-00-0 |
| HYDROCHLORIC ACID | 7647-01-0 |
| INDENO(1,2,3-C,D)PYRENE | 193-39-5 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHYL ETHYL KETONE | 78-93-3 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| NITRIC ACID | 7697-37-2 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Ready-Mix Concrete Manufacturing (NAICS Code: 327320) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Concrete Pipe, Brick and Block Manufacturing (NAICS Code: 327330) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Concrete Product Manufacturing (NAICS Code: 327390) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Lime Manufacturing (NAICS Code: 327410) | |
|--|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CHLOROFORM | 67-66-3 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| ETHYLBENZENE | 100-41-4 |
| N-HEXANE | 110-54-3 |
| MERCURY | NA - 10 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Gypsum Product Manufacturing (NAICS Code: 327420) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Abrasive Product Manufacturing (NAICS Code: 327910) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Non-Metallic Mineral Product Manufacturing (NAICS Code: 327990) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Iron and Steel Mills and Ferro-Alloy Manufacturing (NAICS Code: 331110) | |
|--|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| AMMONIA (TOTAL) | NA - 16 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BENZO(A)PYRENE | 50-32-8 |
| BROMINE | 7726-95-6 |
| 1,3-BUTADIENE | 106-99-0 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COKE OVEN EMISSIONS | N/A - M02 |
| COPPER | NA - 06 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FLUORINE | 7782-41-4 |
| FORMALDEHYDE | 50-00-0 |
| FURFURYL ALCOHOL | 98-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Iron and Steel Mills and Ferro-Alloy Manufacturing (NAICS Code: 331110) | |
|--|------------|
| Contaminant | CAS |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Iron and Steel Pipes and Tubes Manufacturing from Purchased Steel (NAICS Code: 331210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Cold-Rolled Steel Shape Manufacturing (NAICS Code: 331221) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Steel Wire Drawing (NAICS Code: 331222) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Primary Production of Alumina and Aluminum (NAICS Code: 331313) | |
|--|------------|
| Contaminant | CAS |
| ACENAPHTHENE | 83-32-9 |
| ACENAPHTHYLENE | 208-96-8 |
| ALUMINUM | 7429-90-5 |
| ANTHRACENE | 120-12-7 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BORON | 7440-42-8 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| ETHYLBENZENE | 100-41-4 |
| FLUORANTHENE | 206-44-0 |
| FLUORENE | 86-73-7 |
| FLUORINE | 7782-41-4 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENANTHRENE | 85-01-8 |
| PHENOL | 108-95-2 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Primary Production of Alumina and Aluminum (NAICS Code: 331313) | |
|--|------------|
| Contaminant | CAS |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PYRENE | 129-00-0 |
| SELENIUM | NA - 12 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Aluminum Rolling, Drawing, Extruding and Alloying (NAICS Code: 331317) | |
|--|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ALUMINUM | 7429-90-5 |
| ANILINE | 62-53-3 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| FORMALDEHYDE | 50-00-0 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHYLENEBIS(PHENYLISOCYANATE) | 101-68-8 |
| P,P'-METHYLENEDIANILINE | 101-77-9 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Aluminum Rolling, Drawing, Extruding and Alloying (NAICS Code: 331317) | |
|---|------------|
| Contaminant | CAS |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Ferrous Metal (except Aluminum) Smelting and Refining (NAICS Code: 331410) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Copper Rolling, Drawing, Extruding and Alloying (NAICS Code: 331420) | |
|---|------------|
| Contaminant | CAS |
| ACETIC ACID | 64-19-7 |
| ACETONE | 67-64-1 |
| ACETOPHENONE | 98-86-2 |
| 2-BUTOXYETHANOL | 111-76-2 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CRESOL | 1319-77-3 |
| CYCLOHEXANE | 110-82-7 |
| DIMETHYL PHENOL | 1300-71-6 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYL ETHER | 60-29-7 |
| ETHYLBENZENE | 100-41-4 |
| FORMALDEHYDE | 50-00-0 |
| FORMIC ACID | 64-18-6 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHANOL | 67-56-1 |
| 2-METHOXYETHANOL | 109-86-4 |
| 2-METHOXYETHYL ACETATE | 110-49-6 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| MINERAL SPIRITS GROUP #2 | N/A - M17 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| TRICHLOROETHYLENE | 79-01-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Copper Rolling, Drawing, Extruding and Alloying (NAICS Code: 331420) | |
|---|------------|
| Contaminant | CAS |
| TRIETHYLAMINE | 121-44-8 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Ferrous Metal (except Copper and Aluminum) Rolling, Drawing, Extruding and Alloying (NAICS Code: 331490) | |
|---|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Iron Foundries (NAICS Code: 331511) | |
|--|------------|
| Contaminant | CAS |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PHENANTHRENE (CHRYSENE) | 218-01-9 |
| BENZO(A)PYRENE | 50-32-8 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| CHROMIUM (VI) COMPOUNDS | 18540-29-9 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| FLUORANTHENE | 206-44-0 |
| FORMALDEHYDE | 50-00-0 |
| FURFURYL ALCOHOL | 98-00-0 |
| HYDROCHLORIC ACID | 7647-01-0 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENOL | 108-95-2 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| SELENIUM | NA - 12 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Iron Foundries (NAICS Code: 331511) | |
|--|------------|
| Contaminant | CAS |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Steel Foundries (NAICS Code: 331514) | |
|---|------------|
| Contaminant | CAS |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| BENZENE | 71-43-2 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| FORMALDEHYDE | 50-00-0 |
| FURFURYL ALCOHOL | 98-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Steel Foundries (NAICS Code: 331514) | |
|---|------------|
| Contaminant | CAS |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Ferrous Die-Casting Foundries (NAICS Code: 331523) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETOPHENONE | 98-86-2 |
| ACETYLENE | 74-86-2 |
| ACROLEIN | 107-02-8 |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BERYLLIUM | 7440-41-7 |
| BIPHENYL | 92-52-4 |
| BIS(2-ETHYLHEXYL) PHTHALATE | 117-81-7 |
| BROMINE | 7726-95-6 |
| BROMOMETHANE | 74-83-9 |
| 1,3-BUTADIENE | 106-99-0 |
| CADMIUM | NA - 03 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROMETHANE | 74-87-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| DICHLOROMETHANE | 75-09-2 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FORMALDEHYDE | 50-00-0 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Ferrous Die-Casting Foundries (NAICS Code: 331523) | |
|--|------------|
| Contaminant | CAS |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| STYRENE | 100-42-5 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Ferrous Foundries (except Die-Casting) (NAICS Code: 331529) | |
|--|------------|
| Contaminant | CAS |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| COPPER | NA - 06 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| METHANE | 74-82-8 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| SELENIUM | NA - 12 |
| SULPHUR DIOXIDE | 7446-09-5 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| TIN | 7440-31-5 |
| TOLUENE | 108-88-3 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Forging (NAICS Code: 332113) | |
|---|------------|
| Contaminant | CAS |
| ALUMINIUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Stamping (NAICS Code: 332118) | |
|---|------------|
| Contaminant | CAS |
| ALUMINIUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Cutlery and Hand Tool Manufacturing (NAICS Code: 332210) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Prefabricated Metal Building and Component Manufacturing (NAICS Code: 332311) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Concrete Reinforcing Bar Manufacturing (NAICS Code: 332314) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Plate Work and Fabricated Structural Product Manufacturing (NAICS Code: 332319) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Metal Window and Door Manufacturing (NAICS Code: 332321) | |
|---|------------|
| Contaminant | CAS |
| ALUMINIUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Ornamental and Architectural Metal Products Manufacturing (NAICS Code: 332329) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Power Boiler and Heat Exchanger Manufacturing (NAICS Code: 332410) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Metal Tank (Heavy Gauge) Manufacturing (NAICS Code: 332420) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Metal Can Manufacturing (NAICS Code: 332431) | |
|---|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BROMINE | 7726-95-6 |
| 2-BUTOXYETHANOL | 111-76-2 |
| 1-BUTYL ALCOHOL | 78-83-1 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| ETHYLENE GLYCOL | 107-21-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NICKEL | NA - 11 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Metal Can Manufacturing (NAICS Code: 332431) | |
|---|------------|
| Contaminant | CAS |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| STYRENE | 100-42-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Metal Container Manufacturing (NAICS Code: 332439) | |
|---|------------|
| Contaminant | CAS |
| ACETIC ACID | 64-19-7 |
| ACETONE | 67-64-1 |
| ACETOPHENONE | 98-86-2 |
| ACETYLENE | 74-86-2 |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BROMINE | 7726-95-6 |
| 2-BUTOXYETHANOL | 111-76-2 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| CRESOL | 1319-77-3 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| DIMETHYL PHENOL | 1300-71-6 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYL ETHER | 60-29-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FORMALDEHYDE | 50-00-0 |
| FORMIC ACID | 64-18-6 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Metal Container Manufacturing (NAICS Code: 332439) | |
|---|------------|
| Contaminant | CAS |
| ISOPROPYL ALCOHOL | 67-63-0 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| 2-METHOXYETHANOL | 109-86-4 |
| 2-METHOXYETHYL ACETATE | 110-49-6 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| MINERAL SPIRITS GROUP #2 | N/A - M17 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| STYRENE | 100-42-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| TRICHLOROETHYLENE | 79-01-6 |
| TRIETHYLAMINE | 121-44-8 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Hardware Manufacturing (NAICS Code: 332510) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Spring (Heavy Gauge) Manufacturing (NAICS Code: 332611) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Fabricated Wire Product Manufacturing (NAICS Code: 332619) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Machine Shops (NAICS Code: 332710) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Turned Product and Screw, Nut and Bolt Manufacturing (NAICS Code: 332720) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Coating, Engraving, Heat Treating and Allied Activities (NAICS Code: 332810) | |
|---|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| STYRENE | 100-42-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Coating, Engraving, Heat Treating and Allied Activities (NAICS Code: 332810) | |
|---|------------|
| Contaminant | CAS |
| VANADIUM | 7440-62-2 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Metal Valve Manufacturing (NAICS Code: 332910) | |
|---|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Ball and Roller Bearing Manufacturing (NAICS Code: 332991) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Miscellaneous Fabricated Metal Product Manufacturing (NAICS Code: 332999) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Agricultural Implement Manufacturing (NAICS Code: 333110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Construction Machinery Manufacturing (NAICS Code: 333120) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Mining and Oil and Gas Field Machinery Manufacturing (NAICS Code: 333130) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sawmill and Woodworking Machinery Manufacturing (NAICS Code: 333210) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Rubber and Plastics Industry Machinery Manufacturing (NAICS Code: 333220) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Paper Industry Machinery Manufacturing (NAICS Code: 333291) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Industrial Machinery Manufacturing (NAICS Code: 333299) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Commercial and Service Industry Machinery Manufacturing (NAICS Code: 333310) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing (NAICS Code: 333413) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Heating Equipment and Commercial Refrigeration Equipment Manufacturing (NAICS Code: 333416) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Industrial Mould Manufacturing (NAICS Code: 333511) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Metalworking Machinery Manufacturing (NAICS Code: 333519) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Turbine and Turbine Generator Set Unit Manufacturing (NAICS Code: 333611) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Engine and Power Transmission Equipment Manufacturing (NAICS Code: 333619) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Pump and Compressor Manufacturing (NAICS Code: 333910) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Material Handling Equipment Manufacturing (NAICS Code: 333920) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other General-Purpose Machinery Manufacturing (NAICS Code: 333990) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Computer and Peripheral Equipment Manufacturing (NAICS Code: 334110) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Telephone Apparatus Manufacturing (NAICS Code: 334210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing (NAICS Code: 334220) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Communications Equipment Manufacturing (NAICS Code: 334290) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Audio and Video Equipment Manufacturing (NAICS Code: 334310) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Semiconductor and Other Electronic Component Manufacturing (NAICS Code: 334410) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Navigational and Guidance Instruments Manufacturing (NAICS Code: 334511) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Measuring, Medical and Controlling Devices Manufacturing (NAICS Code: 334512) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING. ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Manufacturing and Reproducing Magnetic and Optical Media (NAICS Code: 334610) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Electric Lamp Bulb and Parts Manufacturing (NAICS Code: 335110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Lighting Fixture Manufacturing (NAICS Code: 335120) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Small Electrical Appliance Manufacturing (NAICS Code: 335210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Major Kitchen Appliance Manufacturing (NAICS Code: 335223) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Major Appliance Manufacturing (NAICS Code: 335229) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Power, Distribution and Specialty Transformers Manufacturing (NAICS Code: 335311) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor and Generator Manufacturing (NAICS Code: 335312) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Switchgear and Switchboard, and Relay and Industrial Control Apparatus Manufacturing (NAICS Code: 335315) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Battery Manufacturing (NAICS Code: 335910) | |
|---|------------|
| Contaminant | CAS |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Communication and Energy Wire and Cable Manufacturing (NAICS Code: 335920) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wiring Device Manufacturing (NAICS Code: 335930) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Electrical Equipment and Component Manufacturing (NAICS Code: 335990) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Automobile and Light-Duty Motor Vehicle Manufacturing (NAICS Code: 336110) | |
|---|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| BIPHENYL | 92-52-4 |
| BUTYL BENZYL PHTHALATE | 85-68-7 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| DIBUTYL PHTHALATE | 84-74-2 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPRENE | 78-79-5 |
| NAPHTHALENE | 91-20-3 |
| PHTHALIC ANHYDRIDE | 85-44-9 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Heavy-Duty Truck Manufacturing (NAICS Code: 336120) | |
|--|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| BIPHENYL | 92-52-4 |
| BROMINE | 7726-95-6 |
| BUTYL BENZYL PHTHALATE | 85-68-7 |
| CADMIUM | NA - 03 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| DIBUTYL PHTHALATE | 84-74-2 |
| DICHLOROMETHANE | 75-09-2 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| IRON | 7439-89-6 |
| ISOPRENE | 78-79-5 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| PHTHALIC ANHYDRIDE | 85-44-9 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Body Manufacturing (NAICS Code: 336211) | |
|--|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| BIPHENYL | 92-52-4 |
| BUTYL BENZYL PHTHALATE | 85-68-7 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| DIBUTYL PHTHALATE | 84-74-2 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPRENE | 78-79-5 |
| NAPHTHALENE | 91-20-3 |
| PHTHALIC ANHYDRIDE | 85-44-9 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| TOLUENE | 108-88-3 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Truck Trailer Manufacturing (NAICS Code: 336212) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Home, Travel Trailer and Camper Manufacturing (NAICS Code: 336215) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Gasoline Engine and Engine Parts Manufacturing (NAICS Code: 336310) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Electrical and Electronic Equipment Manufacturing (NAICS Code: 336320) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing (NAICS Code: 336330) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Brake System Manufacturing (NAICS Code: 336340) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Transmission and Power Train Parts Manufacturing (NAICS Code: 336350) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Seating and Interior Trim Manufacturing (NAICS Code: 336360) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Motor Vehicle Metal Stamping (NAICS Code: 336370) | |
|--|------------|
| Contaminant | CAS |
| ALUMINUM | 7429-90-5 |
| ARSENIC | NA - 02 |
| BROMINE | 7726-95-6 |
| CADMIUM | NA - 03 |
| CHLORINE | 7782-50-5 |
| CHROMIUM | NA - 04 |
| COPPER | NA - 06 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCURY | NA - 10 |
| NICKEL | NA - 11 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TITANIUM | 7440-32-6 |
| VANADIUM | 7440-62-2 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Motor Vehicle Parts Manufacturing (NAICS Code: 336390) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Aerospace Product and Parts Manufacturing (NAICS Code: 336410) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Railroad Rolling Stock Manufacturing (NAICS Code: 336510) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Ship Building and Repairing (NAICS Code: 336611) | |
|---|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| 2-BUTOXYETHANOL | 111-76-2 |
| 1-BUTYL ALCOHOL | 78-83-1 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLENE GLYCOL | 107-21-1 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| TOLUENE | 108-88-3 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Boat Building (NAICS Code: 336612) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Transportation Equipment Manufacturing (NAICS Code: 336990) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wood Kitchen Cabinet and Counter Top Manufacturing (NAICS Code: 337110) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Upholstered Household Furniture Manufacturing (NAICS Code: 337121) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| 2-BUTOXYETHANOL | 111-76-2 |
| 1-BUTYL ALCOHOL | 78-83-1 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| BUTYRALDEHYDE | 123-72-8 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLENE GLYCOL | 107-21-1 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Wood Household Furniture Manufacturing (NAICS Code: 337123) | |
|--|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| BUTYRALDEHYDE | 123-72-8 |
| FORMALDEHYDE | 50-00-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Household Furniture (except Wood and Upholstered) Manufacturing (NAICS Code: 337126) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| BENZENE | 71-43-2 |
| 2-BUTOXYETHANOL | 111-76-2 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| BUTYRALDEHYDE | 123-72-8 |
| CHLOROETHANE | 75-00-3 |
| CHLOROMETHANE | 74-87-3 |
| DICHLOROMETHANE | 75-09-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLENE GLYCOL | 107-21-1 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VINYL ACETATE | 108-05-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Institutional Furniture Manufacturing (NAICS Code: 337127) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| BUTYRALDEHYDE | 123-72-8 |
| FORMALDEHYDE | 50-00-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Wood Office Furniture, including Custom Architectural Woodwork, Manufacturing (NAICS Code: 337213) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| 2-BUTOXYETHANOL | 111-76-2 |
| 1-BUTYL ALCOHOL | 78-83-1 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| BUTYRALDEHYDE | 123-72-8 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLENE GLYCOL | 107-21-1 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Office Furniture (except Wood) Manufacturing (NAICS Code: 337214) | |
|--|-----------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| BENZENE | 71-43-2 |
| 2-BUTOXYETHANOL | 111-76-2 |
| I-BUTYL ALCOHOL | 78-83-1 |
| N-BUTYL ALCOHOL | 71-36-3 |
| SEC-BUTYL ALCOHOL | 78-92-2 |
| BUTYRALDEHYDE | 123-72-8 |
| CHLOROETHANE | 75-00-3 |
| CHLOROMETHANE | 74-87-3 |
| DICHLOROMETHANE | 75-09-2 |
| 2-ETHOXYETHANOL | 110-80-5 |
| 2-ETHOXYETHYL ACETATE | 111-15-9 |
| ETHYL ACETATE | 141-78-6 |
| ETHYLENE GLYCOL | 107-21-1 |
| FORMALDEHYDE | 50-00-0 |
| GLYCOL ETHERS (MISC.) | N/A - M04 |
| ISOPROPYL ALCOHOL | 67-63-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VINYL ACETATE | 108-05-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Showcase, Partition, Shelving and Locker Manufacturing (NAICS Code: 337215) | |
|--|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| BUTYRALDEHYDE | 123-72-8 |
| FORMALDEHYDE | 50-00-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Mattress Manufacturing (NAICS Code: 337910) | |
|--|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| BUTYRALDEHYDE | 123-72-8 |
| FORMALDEHYDE | 50-00-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Blind and Shade Manufacturing (NAICS Code: 337920) | |
|---|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| BUTYRALDEHYDE | 123-72-8 |
| FORMALDEHYDE | 50-00-0 |
| METHYL ETHYL KETONE | 78-93-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Medical Equipment and Supplies Manufacturing (NAICS Code: 339110) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Jewellery and Silverware Manufacturing (NAICS Code: 339910) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sporting and Athletic Goods Manufacturing (NAICS Code: 339920) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Doll, Toy and Game Manufacturing (NAICS Code: 339930) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Office Supplies (except Paper) Manufacturing (NAICS Code: 339940) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Sign Manufacturing (NAICS Code: 339950) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Miscellaneous Manufacturing (NAICS Code: 339990) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Petroleum Product Wholesaler-Distributors (NAICS Code: 412110) | |
|---|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| CHLOROBENZENE | 108-90-7 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPRENE | 78-79-5 |
| METHANE | 74-82-8 |
| METHANOL | 67-56-1 |
| METHYL TERT-BUTYL ETHER | 1634-04-4 |
| NAPHTHALENE | 91-20-3 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| TOLUENE | 108-88-3 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Recyclable Material Wholesaler-Distributors (NAICS Code: 418190) | |
|---|------------|
| Contaminant | CAS |
| LEAD | NA - 08 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Chemical (except Agricultural) and Allied Product Wholesaler-Distributors (NAICS Code: 418410) | |
|---|------------|
| Contaminant | CAS |
| ACETYLENE | 74-86-2 |
| BENZENE | 71-43-2 |
| 1,3-BUTADIENE | 106-99-0 |
| CHLOROBENZENE | 108-90-7 |
| CUMENE | 98-82-8 |
| CYCLOHEXANE | 110-82-7 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| N-HEPTANE | 142-82-5 |
| N-HEXANE | 110-54-3 |
| ISOPRENE | 78-79-5 |
| METHANOL | 67-56-1 |
| METHYL TERT-BUTYL ETHER | 1634-04-4 |
| NAPHTHALENE | 91-20-3 |
| PROPYLENE | 115-07-1 |
| STYRENE | 100-42-5 |
| TOLUENE | 108-88-3 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| M-XYLENE | 108-38-3 |
| O-XYLENE | 95-47-6 |
| P-XYLENE | 106-42-3 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Scheduled Air Transportation (NAICS Code: 481110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Scheduled Chartered Air Transportation (NAICS Code: 481214) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Non-Scheduled Specialty Flying Services (NAICS Code: 481215) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Short-Haul Freight Rail Transportation (NAICS Code: 482112) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| BROMINE | 7726-95-6 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| O-DICHLOROBENZENE | 95-50-1 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FURFURAL | 98-01-1 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL METHACRYLATE | 80-62-6 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| PHENOL | 108-95-2 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Mainline Freight Rail Transportation (NAICS Code: 482113) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| BROMINE | 7726-95-6 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| O-DICHLOROBENZENE | 95-50-1 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FURFURAL | 98-01-1 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL METHACRYLATE | 80-62-6 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| PHENOL | 108-95-2 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Passenger Rail Transportation (NAICS Code: 482114) | |
|---|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| BROMINE | 7726-95-6 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| O-DICHLOROBENZENE | 95-50-1 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FURFURAL | 98-01-1 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL METHACRYLATE | 80-62-6 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| PHENOL | 108-95-2 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Deep Sea, Coastal and Great Lakes Water Transportation (except by Ferries) (NAICS Code: 483115) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Deep Sea, Coastal and Great Lakes Water Transportation by Ferries (NAICS Code: 483116) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Urban Transit Systems (NAICS Code: 485110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Interurban and Rural Bus Transportation (NAICS Code: 485210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Pipeline Transportation of Crude Oil (NAICS Code: 486110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Pipeline Transportation of Natural Gas (NAICS Code: 486210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Pipeline Transportation of Refined Petroleum Products (NAICS Code: 486910) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Pipeline Transportation (NAICS Code: 486990) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Air Traffic Control (NAICS Code: 488111) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Airport Operations (NAICS Code: 488119) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Support Activities for Air Transportation (NAICS Code: 488190) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Support Activities for Rail Transportation (NAICS Code: 48210) | |
|---|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| BROMINE | 7726-95-6 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROFORM | 67-66-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| CUMENE | 98-82-8 |
| O-DICHLOROBENZENE | 95-50-1 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE GLYCOL | 107-21-1 |
| FURFURAL | 98-01-1 |
| IRON | 7439-89-6 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| METHYL METHACRYLATE | 80-62-6 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| PHENOL | 108-95-2 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| SELENIUM | NA - 12 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| TRICHLOROETHYLENE | 79-01-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Support Activities for Water Transportation (NAICS Code: 488390) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Support Activities for Road Transportation (NAICS Code: 488490) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Other Freight Transportation Arrangement (NAICS Code: 488519) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Lessors of Non-Residential Buildings (except Mini-Warehouses) (NAICS Code: 531120) | |
|---|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| SULPHUR DIOXIDE | 7446-09-5 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Testing Laboratories (NAICS Code: 541380) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Professional, Scientific and Technical Services (NAICS Code: 541990) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Support Services (NAICS Code: 561990) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Waste Collection (NAICS Code: 562110) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Waste Treatment and Disposal (NAICS Code: 562210) | |
|--|------------|
| Contaminant | CAS |
| ACETALDEHYDE | 75-07-0 |
| ACETONE | 67-64-1 |
| ACETONITRILE | 75-05-8 |
| ACRYLONITRILE | 107-13-1 |
| ALUMINUM | 7429-90-5 |
| ANTIMONY | NA - 01 |
| ARSENIC | NA - 02 |
| BENZ(A)ANTHRACENE | 56-55-3 |
| BENZENE | 71-43-2 |
| BENZO(A)PYRENE | 50-32-8 |
| BERYLLIUM | 7440-41-7 |
| BIS(2-ETHYLHEXYL) PHTHALATE | 117-81-7 |
| CADMIUM | NA - 03 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CFC-11 | 75-69-4 |
| CFC-12 | 75-71-8 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| CHROMIUM | NA - 04 |
| COBALT | NA - 05 |
| COPPER | NA - 06 |
| O-DICHLOROBENZENE | 95-50-1 |
| P-DICHLOROBENZENE | 106-46-7 |
| 1,1-DICHLOROETHANE | 75-34-3 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 1,2-DICHLOROPROPANE | 78-87-5 |
| DIMETHYL SULPHIDE | 75-18-3 |
| 4,6-DINITRO-O-CRESOL | 534-52-1 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Waste Treatment and Disposal (NAICS Code: 562210) | |
|--|------------|
| Contaminant | CAS |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| FLUORANTHENE | 206-44-0 |
| FORMALDEHYDE | 50-00-0 |
| HCFC-22 | 75-45-6 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| HYDROGEN SULPHIDE | 2148875 |
| LEAD | NA - 08 |
| MANGANESE | NA - 09 |
| MERCAPTANS (AS METHYL MERCAPTAN) - TOTAL | 74-93-1 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| NAPHTHALENE | 91-20-3 |
| NICKEL | NA - 11 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| P-NITROPHENOL | 100-02-7 |
| NITROUS OXIDE | 10024-97-2 |
| PENTACHLOROPHENOL (PCP) | 87-86-5 |
| PHENOL | 108-95-2 |
| PHOSPHORUS | 7723-14-0 |
| PM - PARTICULATE MATTER | N/A - M08 |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED BIPHENYLS (PCBS) | 1336-36-3 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPYLENE | 115-07-1 |
| SELENIUM | NA - 12 |
| SILVER | NA - 13 |
| SULPHUR DIOXIDE | 7446-09-5 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Waste Treatment and Disposal (NAICS Code: 562210) | |
|--|------------|
| Contaminant | CAS |
| SULPHURIC ACID | 7664-93-9 |
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 1746-01-6 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TIN | 7440-31-5 |
| TITANIUM | 7440-32-6 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| 1,2,4-TRICHLOROBENZENE | 120-82-1 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| TRICHLOROETHYLENE | 79-01-6 |
| VANADIUM | 7440-62-2 |
| VINYL CHLORIDE | 75-01-4 |
| VINYLDENE CHLORIDE | 75-35-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| ZINC | NA - 14 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Remediation Services (NAICS Code: 562910) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| ACETONITRILE | 75-05-8 |
| ACRYLONITRILE | 107-13-1 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CFC-11 | 75-69-4 |
| CFC-12 | 75-71-8 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| 1,1-DICHLOROETHANE | 75-34-3 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 1,2-DICHLOROPROPANE | 78-87-5 |
| DIMETHYL SULPHIDE | 75-18-3 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| HCFC-22 | 75-45-6 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| HYDROGEN SULPHIDE | 2148875 |
| MERCAPTANS (AS METHYL MERCAPTAN) - TOTAL | 74-93-1 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Remediation Services (NAICS Code: 562910) | |
|--|------------|
| Contaminant | CAS |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED BIPHENYLS (PCBS) | 1336-36-3 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPYLENE | 115-07-1 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| 1,2,4-TRICHLOROBENZENE | 120-82-1 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| TRICHLOROETHYLENE | 79-01-6 |
| VINYL CHLORIDE | 75-01-4 |
| VINYLDENE CHLORIDE | 75-35-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Material Recovery Facilities (NAICS Code: 562920) | |
|--|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| ACETONITRILE | 75-05-8 |
| ACRYLONITRILE | 107-13-1 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CFC-11 | 75-69-4 |
| CFC-12 | 75-71-8 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| 1,1-DICHLOROETHANE | 75-34-3 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 1,2-DICHLOROPROPANE | 78-87-5 |
| DIMETHYL SULPHIDE | 75-18-3 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| HCFC-22 | 75-45-6 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| HYDROGEN SULPHIDE | 2148875 |
| MERCAPTANS (AS METHYL MERCAPTAN) - TOTAL | 74-93-1 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Material Recovery Facilities (NAICS Code: 562920) | |
|--|------------|
| Contaminant | CAS |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED BIPHENYLS (PCBS) | 1336-36-3 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPYLENE | 115-07-1 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| 1,2,4-TRICHLOROBENZENE | 120-82-1 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| TRICHLOROETHYLENE | 79-01-6 |
| VINYL CHLORIDE | 75-01-4 |
| VINYLDENE CHLORIDE | 75-35-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Waste Management Services (NAICS Code: 562990) | |
|---|------------|
| Contaminant | CAS |
| ACETONE | 67-64-1 |
| ACETONITRILE | 75-05-8 |
| ACRYLONITRILE | 107-13-1 |
| ARSENIC | NA - 02 |
| BENZENE | 71-43-2 |
| CARBON DIOXIDE | 124-38-9 |
| CARBON DISULPHIDE | 75-15-0 |
| CARBON MONOXIDE | 630-08-0 |
| CARBON TETRACHLORIDE | 56-23-5 |
| CFC-11 | 75-69-4 |
| CFC-12 | 75-71-8 |
| CHLOROBENZENE | 108-90-7 |
| CHLOROETHANE | 75-00-3 |
| CHLOROFORM | 67-66-3 |
| CHLOROMETHANE | 74-87-3 |
| 1,1-DICHLOROETHANE | 75-34-3 |
| 1,2-DICHLOROETHANE | 107-06-2 |
| DICHLOROMETHANE | 75-09-2 |
| 1,2-DICHLOROPROPANE | 78-87-5 |
| DIMETHYL SULPHIDE | 75-18-3 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE | 74-85-1 |
| HCFC-22 | 75-45-6 |
| N-HEXANE | 110-54-3 |
| HYDROCHLORIC ACID | 7647-01-0 |
| HYDROGEN FLUORIDE | 7664-39-3 |
| HYDROGEN SULPHIDE | 2148875 |
| MERCAPTANS (AS METHYL MERCAPTAN) - TOTAL | 74-93-1 |
| MERCURY | NA - 10 |
| METHANE | 74-82-8 |
| METHYL ETHYL KETONE | 78-93-3 |
| METHYL ISOBUTYL KETONE | 108-10-1 |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| PM - PARTICULATE MATTER | N/A - M08 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| All Other Waste Management Services (NAICS Code: 562990) | |
|--|------------|
| Contaminant | CAS |
| PM10 - PARTICULATE MATTER <=10MICRONS | N/A - M09 |
| PM2.5 - PARTICULATE MATTER <=2.5MICRONS | N/A - M10 |
| POLYCHLORINATED BIPHENYLS (PCBS) | 1336-36-3 |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | N/A - M11 |
| PROPYLENE | 115-07-1 |
| 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 51207-31-9 |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| TOTAL REDUCED SULPHUR (TRS) | N/A - M14 |
| 1,2,4-TRICHLOROBENZENE | 120-82-1 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| 1,1,2-TRICHLOROETHANE | 79-00-5 |
| TRICHLOROETHYLENE | 79-01-6 |
| VINYL CHLORIDE | 75-01-4 |
| VINYLDENE CHLORIDE | 75-35-4 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Community Colleges and C.E.G.E.P.s (NAICS Code: 611210) | |
|--|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| SULPHUR DIOXIDE | 7446-09-5 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Universities (NAICS Code: 611310) | |
|--|------------|
| Contaminant | CAS |
| OXIDES OF NITROGEN (EXPRESSED AS NO) | 10102-43-9 |
| SULPHUR DIOXIDE | 7446-09-5 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| General (except Paediatric) Hospitals (NAICS Code: 622111) | |
|---|------------|
| Contaminant | CAS |
| CFC-11 | 75-69-4 |
| ETHYLENE OXIDE | 75-21-8 |
| FORMALDEHYDE | 50-00-0 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Paediatric Hospitals (NAICS Code: 622112) | |
|--|------------|
| Contaminant | CAS |
| CFC-11 | 75-69-4 |
| ETHYLENE OXIDE | 75-21-8 |
| FORMALDEHYDE | 50-00-0 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Psychiatric and Substance Abuse Hospitals (NAICS Code: 622210) | |
|---|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Specialty (except Psychiatric and Substance Abuse) Hospitals (NAICS Code: 622310) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Automotive Body, Paint and Interior Repair and Maintenance (NAICS Code: 811121) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Dry Cleaning and Laundry Services (except Coin-Operated) (NAICS Code: 812320) | |
|--|------------|
| Contaminant | CAS |
| CHLOROBENZENE | 108-90-7 |
| CUMENE | 98-82-8 |
| ETHYLBENZENE | 100-41-4 |
| ETHYLENE OXIDE | 75-21-8 |
| MINERAL SPIRITS GROUP #1 | N/A - M06 |
| NAPHTHALENE | 91-20-3 |
| TETRACHLOROETHYLENE | 127-18-4 |
| TOLUENE | 108-88-3 |
| 1,1,1-TRICHLOROETHANE | 71-55-6 |
| VOLATILE ORGANIC COMPOUNDS (VOC) | N/A - M16 |
| XYLENE | 1330-20-7 |
| O-XYLENE | 95-47-6 |

REPORTABLE CONTAMINANTS BY INDUSTRIAL SECTOR

(These information are extracted from USEPA FIRE 6.22 emission factors and SPECIATE database. It is not intended to be a complete list of contaminants reportable by a specific sector. Methods of emission estimation, such as mass balance; stack testing data; engineering process emission calculation can also be used by reporting facilities to determine the air contaminants. This list may be updated from time to time when new information are available.)

| Photo Finishing Laboratories (except One-Hour) (NAICS Code: 812921) | |
|--|------------|
| Contaminant | CAS |
| REFER TO OTHER APPLICABLE SECTIONS, SUCH AS COMBUSTION, DEGREASING/CLEANING, ETC. | |

Appendix E

Reference Tables for Reporting and Record Keeping

(For Information Only)

REFERENCE TABLES FOR REPORTING AND RECORD KEEPING

1. CDEV: CONTROL DEVICES
2. CONTAM: CONTAMINANT LIST
3. DUEQT: DISCHARGE UNIT TYPE
4. ENERGY: ENERGY TYPE
5. FUEL: FUEL TYPE
6. FUGTYPE: FUGITIVE EMISSION TYPE
7. METHOD: EMISSION ESTIMATION METHOD CODE
8. NAICS: NORTH AMERICA INDUSTRIAL CLASSIFICATION SYSTEM CODE
9. REPT: REPORTING PERIOD
10. RMODE: RELEASE MODE
11. ROADTYPE: ROAD TYPE
12. SCC: SOURCE CLASSIFICATION CODE
13. TANK: STORAGE TANK TYPE
14. UNIT: ENGINEERING UNITS

**REFERENCE TABLE: CDEV
(CONTROL DEVICES)**

PARAMETERS: [CDEV_CODE:A3, CDEV_DESC:A60]

| CODE [CDEV_CODE] [A3] | CONTROL DEVICE DESCRIPTION [CDEV_DESC] [A60] |
|-----------------------------|--|
| 000 | UNCONTROLLED |
| 001 | WET SCRUBBER - HIGH EFFICIENCY |
| 002 | WET SCRUBBER - MEDIUM EFFICIENCY |
| 003 | WET SCRUBBER - LOW EFFICIENCY |
| 004 | GRAVITY COLLECTOR - HIGH EFFICIENCY |
| 005 | GRAVITY COLLECTOR - MEDIUM EFFICIENCY |
| 006 | GRAVITY COLLECTOR - LOW EFFICIENCY |
| 007 | CENTRIFUGAL COLLECTOR (CYCLONE) - HIGH EFFICIENCY |
| 008 | CENTRIFUGAL COLLECTOR (CYCLONE) - MEDIUM EFFICIENCY |
| 009 | CENTRIFUGAL COLLECTOR (CYCLONE) - LOW EFFICIENCY |
| 010 | ELECTROSTATIC PRECIPITATOR - HIGH EFFICIENCY |
| 011 | ELECTROSTATIC PRECIPITATOR - MEDIUM EFFICIENCY |
| 012 | ELECTROSTATIC PRECIPITATOR - LOW EFFICIENCY |
| 014 | MIST ELIMINATOR - HIGH VELOCITY, I.E. $V > 250$ FT/MIN |
| 015 | MIST ELIMINATOR - LOW VELOCITY, I.E. $V < 250$ FT/MIN |
| 016 | FABRIC FILTER - HIGH TEMPERATURE, I.E. $T > 250$ F |
| 017 | FABRIC FILTER - MEDIUM TEMPERATURE, I.E. $180\text{F} < T < 250\text{F}$ |
| 018 | FABRIC FILTER - LOW TEMPERATURE, I.E. $T < 180$ F |
| 021 | DIRECT FLAME AFTERBURNER |
| 028 | STEAM OR WATER INJECTION |
| 046 | PROCESS CHANGE |
| 049 | LIQUID FILTRATION SYSTEM |
| 050 | PACKED-GAS ABSORPTION COLUMN |
| 051 | TRAY-TYPE GAS ABSORPTION COLUMN |
| 052 | SPRAY TOWER |
| 053 | VENTURI SCRUBBER |
| 054 | PROCESS ENCLOSED |
| 055 | IMPINGEMENT PLATE SCRUBBER |
| 056 | DYNAMIC SEPARATOR (DRY) |
| 057 | DYNAMIC SEPARATOR (WET) |
| 058 | MAT OR PANEL FILTER |
| 059 | METAL FABRIC FILTER SCREEN (COTTON GINS) |
| 061 | DUST SUPPRESSION BY WATER SPRAYS |

| CODE [CDEV_CODE] [A3] | CONTROL DEVICE DESCRIPTION [CDEV_DESC] [A60] |
|-----------------------------|---|
| 062 | DUST SUPPRESSION BY CHEMICAL STABILIZERS OR WETTING AGENT |
| 063 | GRAVEL BED FILTER |
| 064 | ANNULAR RING FILTER |
| 071 | FLUID BED DRY SCRUBBER |
| 075 | SINGLE CYCLONE |
| 076 | MULTIPLE CYCLONE W/O FLY ASH REINJECTION |
| 077 | MULTIPLE CYCLONE W/ FLY ASH REINJECTION |
| 079 | DRY ELECTROSTATIC GRANULAR FILTER (DEGF) |
| 085 | WET CYCLONIC SEPARATOR |
| 086 | WATER CURTAIN |
| 099 | MISCELLANEOUS CONTROL DEVICES |
| 100 | BAGHOUSE |
| 101 | HIGH-EFFICIENCY PARTICULATE AIR FILTER (HEPA) |
| 113 | ROTOCLONE |
| 117 | PACKED SCRUBBER |
| 119 | DRY SCRUBBER |
| 121 | MULTIPLE CYCLONES |
| 127 | FABRIC FILTER |
| 128 | ELECTROSTATIC PRECIPITATOR |
| 129 | SCRUBBER |
| 131 | THERMAL OXIDIZER |
| 133 | INCINERATOR |
| 134 | DEMISTER |
| 141 | WET SCRUBBER |
| 143 | WET SUPPRESSION |
| 146 | WET ELECTROSTATIC PRECIPITATOR |
| 147 | INCREASED AIR/FUEL RATIO WITH INTERCOOLING |
| 151 | FIBER MIST ELIMINATOR |
| 157 | SCREEN |
| 159 | ELECTRIFIED FILTER BED |

**REFERENCE TABLE: CONTAM
(CONTAMINANT LIST)**

**PARAMETERS: [CAS_NUMBER:A11, NAME:A85, THRESHOLD:N16.4,
REFERENCE:A15]**

| [CAS_NUMBER] [A11] | [NAME] [A85] | [THRESHOLD] [N16.4] | [REFERENCE] [A15] |
|-----------------------|---------------------------------|------------------------|----------------------|
| 83-32-9 | ACENAPHTHENE | 5.0000 | MOE MPO |
| 208-96-8 | ACENAPHTHYLENE | 5.0000 | MOE MPO |
| 75-07-0 | ACETALDEHYDE | 10000.0000 | NPRI MPO |
| 64-19-7 | ACETIC ACID | 3000.0000 | MOE MPO |
| 67-64-1 | ACETONE | 3000.0000 | MOE MPO |
| 75-05-8 | ACETONITRILE | 10000.0000 | NPRI MPO |
| 98-86-2 | ACETOPHENONE | 10000.0000 | NPRI MPO |
| 74-86-2 | ACETYLENE | 3000.0000 | MOE MPO |
| 107-02-8 | ACROLEIN | 10000.0000 | NPRI MPO |
| 79-06-1 | ACRYLAMIDE | 10000.0000 | NPRI MPO |
| 79-10-7 | ACRYLIC ACID | 10000.0000 | NPRI MPO |
| 107-13-1 | ACRYLONITRILE | 10000.0000 | NPRI MPO |
| 68920-70-7 | ALKANES, C6-18, CHLORO | 10000.0000 | NPRI MPO |
| 85535-84-8 | ALKANES, C10-13, CHLORO | 10000.0000 | NPRI MPO |
| 107-18-6 | ALLYL ALCOHOL | 10000.0000 | NPRI MPO |
| 107-05-1 | ALLYL CHLORIDE | 10000.0000 | NPRI MPO |
| 7429-90-5 | ALUMINUM | 10000.0000 | NPRI MPO |
| 1344-28-1 | ALUMINUM OXIDE | 10000.0000 | NPRI MPO |
| NA - 16 | AMMONIA (TOTAL) | 10000.0000 | NPRI MPO |
| 62-53-3 | ANILINE | 10000.0000 | NPRI MPO |
| 120-12-7 | ANTHRACENE | 10000.0000 | NPRI MPO |
| NA - 01 | ANTIMONY | 10000.0000 | NPRI MPO |
| NA - 02 | ARSENIC | 10000.0000 | NPRI MPO |
| 7784-42-1 | ARSINE | 500.0000 | MOE MPO |
| 1332-21-4 | ASBESTOS | 10000.0000 | NPRI MPO |
| 56-55-3 | BENZ(A)ANTHRACENE | 50.0000 | NPRI ATH REL |
| 71-43-2 | BENZENE | 10000.0000 | NPRI MPO |
| 92-87-5 | BENZIDINE | 500.0000 | MOE MPO |
| 218-01-9 | BENZO(A)PHENANTHRENE (CHRYSENE) | 50.0000 | NPRI ATH REL |
| 50-32-8 | BENZO(A)PYRENE | 50.0000 | NPRI ATH REL |
| 205-99-2 | BENZO(B)FLUORANTHENE | 50.0000 | NPRI ATH REL |
| 192-97-2 | BENZO(E)PYRENE | 50.0000 | NPRI ATH REL |
| 191-24-2 | BENZO(G,H,I)PERYLENE | 50.0000 | NPRI ATH REL |
| 205-82-3 | BENZO(J)FLUORANTHENE | 50.0000 | NPRI ATH REL |
| 207-08-9 | BENZO(K)FLUORANTHENE | 50.0000 | NPRI ATH REL |
| 98-88-4 | BENZOYL CHLORIDE | 10000.0000 | NPRI MPO |
| 94-36-0 | BENZOYL PEROXIDE | 10000.0000 | NPRI MPO |
| 100-44-7 | BENZYL CHLORIDE | 10000.0000 | NPRI MPO |
| 7440-41-7 | BERYLLIUM | 500.0000 | MOE MPO |
| 92-52-4 | BIPHENYL | 10000.0000 | NPRI MPO |
| 111-44-4 | BIS(2-CHLOROETHYL) ETHER | 500.0000 | MOE MPO |
| 103-23-1 | BIS(2-ETHYLHEXYL) ADIPATE | 10000.0000 | NPRI MPO |
| 117-81-7 | BIS(2-ETHYLHEXYL) PHTHALATE | 10000.0000 | NPRI MPO |
| 542-88-1 | BIS(CHLOROMETHYL) ETHER | 500.0000 | MOE MPO |
| 7440-42-8 | BORON | 3000.0000 | MOE MPO |
| 10294-33-4 | BORON TRIBROMIDE | 3000.0000 | MOE MPO |
| 10294-34-5 | BORON TRICHLORIDE | 3000.0000 | MOE MPO |
| 7637-07-2 | BORON TRIFLUORIDE | 10000.0000 | NPRI MPO |
| 7726-95-6 | BROMINE | 10000.0000 | NPRI MPO |
| 107-04-0 | 1-BROMO-2-CHLOROETHANE | 10000.0000 | NPRI MPO |
| 74-83-9 | BROMOMETHANE | 10000.0000 | NPRI MPO |

| [CAS_NUMBER] [A11] | [NAME] [A85] | [THRESHOLD] [N16.4] | [REFERENCE] [A15] |
|-----------------------|---|------------------------|----------------------|
| 106-99-0 | 1,3-BUTADIENE | 10000.0000 | NPRI MPO |
| 111-76-2 | 2-BUTOXYETHANOL | 10000.0000 | NPRI MPO |
| 141-32-2 | BUTYL ACRYLATE | 10000.0000 | NPRI MPO |
| 78-83-1 | I-BUTYL ALCOHOL | 10000.0000 | NPRI MPO |
| 71-36-3 | N-BUTYL ALCOHOL | 10000.0000 | NPRI MPO |
| 78-92-2 | SEC-BUTYL ALCOHOL | 10000.0000 | NPRI MPO |
| 75-65-0 | TERT-BUTYL ALCOHOL | 10000.0000 | NPRI MPO |
| 85-68-7 | BUTYL BENZYL PHTHALATE | 10000.0000 | NPRI MPO |
| 106-88-7 | 1,2-BUTYLENE OXIDE | 10000.0000 | NPRI MPO |
| 123-72-8 | BUTYRALDEHYDE | 10000.0000 | NPRI MPO |
| 4680-78-8 | C.I. ACID GREEN 3 | 10000.0000 | NPRI MPO |
| 569-64-2 | C.I. BASIC GREEN 4 | 10000.0000 | NPRI MPO |
| 989-38-8 | C.I. BASIC RED 1 | 10000.0000 | NPRI MPO |
| 28407-37-6 | C.I. DIRECT BLUE 218 | 10000.0000 | NPRI MPO |
| 2832-40-8 | C.I. DISPERSE YELLOW 3 | 10000.0000 | NPRI MPO |
| 81-88-9 | C.I. FOOD RED 15 | 10000.0000 | NPRI MPO |
| 3118-97-6 | C.I. SOLVENT ORANGE 7 | 10000.0000 | NPRI MPO |
| 842-07-9 | C.I. SOLVENT YELLOW 14 | 10000.0000 | NPRI MPO |
| NA - 03 | CADMIUM | 10000.0000 | NPRI MPO |
| 156-62-7 | CALCIUM CYANAMIDE | 10000.0000 | NPRI MPO |
| 7789-75-5 | CALCIUM FLUORIDE | 10000.0000 | NPRI MPO |
| 1305-62-0 | CALCIUM HYDROXIDE | 3000.0000 | MOE MPO |
| 1305-78-8 | CALCIUM OXIDE | 3000.0000 | MOE MPO |
| 1333-86-4 | CARBON BLACK | 500.0000 | MOE MPO |
| 124-38-9 | CARBON DIOXIDE | 100000000.0000 | MOE REL |
| 75-15-0 | CARBON DISULPHIDE | 10000.0000 | NPRI MPO |
| 630-08-0 | CARBON MONOXIDE | 20000.0000 | MOE REL |
| 56-23-5 | CARBON TETRACHLORIDE | 10000.0000 | NPRI MPO |
| 120-80-9 | CATECHOL | 10000.0000 | NPRI MPO |
| 75-69-4 | CFC-11 | 10000.0000 | NPRI MPO |
| 75-71-8 | CFC-12 | 10000.0000 | NPRI MPO |
| 75-72-9 | CFC-13 | 10000.0000 | NPRI MPO |
| 76-14-2 | CFC-114 | 10000.0000 | NPRI MPO |
| 76-15-3 | CFC-115 | 10000.0000 | NPRI MPO |
| 115-28-6 | CHLORENDIC ACID | 10000.0000 | NPRI MPO |
| 7782-50-5 | CHLORINE | 10000.0000 | NPRI MPO |
| 10049-04-4 | CHLORINE DIOXIDE | 10000.0000 | NPRI MPO |
| 563-47-3 | 3-CHLORO-2-METHYL-1-PROPENE | 10000.0000 | NPRI MPO |
| 79-11-8 | CHLOROACETIC ACID | 10000.0000 | NPRI MPO |
| 108-90-7 | CHLOROBENZENE | 10000.0000 | NPRI MPO |
| 75-00-3 | CHLOROETHANE | 10000.0000 | NPRI MPO |
| 67-66-3 | CHLOROFORM | 10000.0000 | NPRI MPO |
| 74-87-3 | CHLOROMETHANE | 10000.0000 | NPRI MPO |
| 542-76-7 | 3-CHLOROPROPIONITRILE | 10000.0000 | NPRI MPO |
| NA - 04 | CHROMIUM | 10000.0000 | NPRI MPO |
| 18540-29-9 | CHROMIUM (VI) COMPOUNDS | 500.0000 | MOE MPO |
| 8007-45-2 | COAL TAR PITCH VOLATILES - SOLUBLE FRACTION | 500.0000 | MOE MPO |
| NA - 05 | COBALT | 10000.0000 | NPRI MPO |
| N/A - M02 | COKE OVEN EMISSIONS | 500.0000 | MOE MPO |
| NA - 06 | COPPER | 10000.0000 | NPRI MPO |
| 1319-77-3 | CRESOL | 10000.0000 | NPRI MPO |
| 108-39-4 | M-CRESOL | 10000.0000 | NPRI MPO |
| 95-48-7 | O-CRESOL | 10000.0000 | NPRI MPO |
| 106-44-5 | P-CRESOL | 10000.0000 | NPRI MPO |
| 4170-30-3 | CROTONALDEHYDE | 10000.0000 | NPRI MPO |
| 98-82-8 | CUMENE | 10000.0000 | NPRI MPO |

| [CAS_NUMBER] [A11] | [NAME] [A85] | [THRESHOLD] [N16.4] | [REFERENCE] [A15] |
|-----------------------|---|------------------------|----------------------|
| 80-15-9 | CUMENE HYDROPEROXIDE | 10000.0000 | NPRI MPO |
| NA - 07 | CYANIDES | 10000.0000 | NPRI MPO |
| 110-82-7 | CYCLOHEXANE | 10000.0000 | NPRI MPO |
| 108-93-0 | CYCLOHEXANOL | 10000.0000 | NPRI MPO |
| 17702-41-9 | DECABORANE | 3000.0000 | MOE MPO |
| 1163-19-5 | DECABROMODIPHENYL OXIDE | 10000.0000 | NPRI MPO |
| 95-80-7 | 2,4-DIAMINOTOLUENE | 10000.0000 | NPRI MPO |
| 224-42-0 | DIBENZ(A,J)ACRIDINE | 50.0000 | NPRI ATH REL |
| 53-70-3 | DIBENZO(A,H)ANTHRACENE | 50.0000 | NPRI ATH REL |
| 189-55-9 | DIBENZO(A,I)PYRENE | 50.0000 | NPRI ATH REL |
| 194-59-2 | 7H-DIBENZO(C,G)CARBAZOLE | 50.0000 | NPRI ATH REL |
| 19287-45-7 | DIBORANE | 500.0000 | MOE MPO |
| 106-93-4 | 1,2-DIBROMOETHANE | 500.0000 | MOE MPO |
| 84-74-2 | DIBUTYL PHTHALATE | 10000.0000 | NPRI MPO |
| 128-37-0 | 2,6-DI-T-BUTYL-4-METHYLPHENOL | 10000.0000 | NPRI MPO |
| 131-15-7 | DICAPRYL PHTHALATE | 3000.0000 | MOE MPO |
| 95-50-1 | O-DICHLOROBENZENE | 10000.0000 | NPRI MPO |
| 106-46-7 | P-DICHLOROBENZENE | 10000.0000 | NPRI MPO |
| 612-83-9 | 3,3'-DICHLOROBENZIDINE DIHYDROCHLORIDE | 10000.0000 | NPRI MPO |
| 91-94-1 | 3,3-DICHLOROBENZIDINE | 500.0000 | MOE MPO |
| 75-34-3 | 1,1-DICHLOROETHANE | 3000.0000 | MOE MPO |
| 107-06-2 | 1,2-DICHLOROETHANE | 10000.0000 | NPRI MPO |
| 75-09-2 | DICHLOROMETHANE | 10000.0000 | NPRI MPO |
| 120-83-2 | 2,4-DICHLOROPHENOL | 10000.0000 | NPRI MPO |
| 78-87-5 | 1,2-DICHLOROPROPANE | 10000.0000 | NPRI MPO |
| 77-73-6 | DICYCLOPENTADIENE | 10000.0000 | NPRI MPO |
| 111-42-2 | DIETHANOLAMINE | 10000.0000 | NPRI MPO |
| 84-66-2 | DIETHYL PHTHALATE | 10000.0000 | NPRI MPO |
| 64-67-5 | DIETHYL SULPHATE | 10000.0000 | NPRI MPO |
| 624-92-0 | DIMETHYL DISULPHIDE | 3000.0000 | MOE MPO |
| 1300-71-6 | DIMETHYL PHENOL | 10000.0000 | NPRI MPO |
| 131-11-3 | DIMETHYL PHTHALATE | 10000.0000 | NPRI MPO |
| 77-78-1 | DIMETHYL SULPHATE | 10000.0000 | NPRI MPO |
| 75-18-3 | DIMETHYL SULPHIDE | 3000.0000 | MOE MPO |
| 124-40-3 | DIMETHYLAMINE | 10000.0000 | NPRI MPO |
| 121-69-7 | N,N-DIMETHYLANILINE | 10000.0000 | NPRI MPO |
| 57-14-7 | 1,2-DIMETHYLHYDRAZINE | 500.0000 | MOE MPO |
| 534-52-1 | 4,6-DINITRO-O-CRESOL | 10000.0000 | NPRI MPO |
| 42397-64-8 | 1,6-DINITROPYRENE | 500.0000 | MOE MPO |
| 42397-65-9 | 1,8-DINITROPYRENE | 500.0000 | MOE MPO |
| 25321-14-6 | DINITROTOLUENE | 10000.0000 | NPRI MPO |
| 121-14-2 | 2,4-DINITROTOLUENE | 10000.0000 | NPRI MPO |
| 606-20-2 | 2,6-DINITROTOLUENE | 10000.0000 | NPRI MPO |
| 117-84-0 | DI-N-OCTYL PHTHALATE | 10000.0000 | NPRI MPO |
| 123-91-1 | 1,4-DIOXANE | 10000.0000 | NPRI MPO |
| 122-39-4 | DIPHENYLAMINE | 10000.0000 | NPRI MPO |
| 106-89-8 | EPICHLOROHYDRIN | 10000.0000 | NPRI MPO |
| 110-80-5 | 2-ETHOXYETHANOL | 10000.0000 | NPRI MPO |
| 111-15-9 | 2-ETHOXYETHYL ACETATE | 10000.0000 | NPRI MPO |
| 28679-13-2 | ETHOXYNONYL BENZENE | 10000.0000 | NPRI MPO |
| 141-78-6 | ETHYL ACETATE | 3000.0000 | MOE MPO |
| 140-88-5 | ETHYL ACRYLATE | 10000.0000 | NPRI MPO |
| 541-41-3 | ETHYL CHLOROFORMATE | 10000.0000 | NPRI MPO |
| 60-29-7 | ETHYL ETHER | 3000.0000 | MOE MPO |
| 100-41-4 | ETHYLBENZENE | 10000.0000 | NPRI MPO |
| 74-85-1 | ETHYLENE | 10000.0000 | NPRI MPO |
| 107-21-1 | ETHYLENE GLYCOL | 10000.0000 | NPRI MPO |

| [CAS_NUMBER] [A11] | [NAME] [A85] | [THRESHOLD] [N16.4] | [REFERENCE] [A15] |
|-----------------------|---|------------------------|----------------------|
| 75-21-8 | ETHYLENE OXIDE | 10000.0000 | NPRI MPO |
| 96-45-7 | ETHYLENE THIOUREA | 10000.0000 | NPRI MPO |
| 1309-37-1 | FERRIC OXIDE | 3000.0000 | MOE MPO |
| 206-44-0 | FLUORANTHENE | 50.0000 | NPRI ATH REL |
| 86-73-7 | FLUORENE | 5.0000 | MOE MPO |
| 7782-41-4 | FLUORINE | 10000.0000 | NPRI MPO |
| 50-00-0 | FORMALDEHYDE | 10000.0000 | NPRI MPO |
| 64-18-6 | FORMIC ACID | 10000.0000 | NPRI MPO |
| 98-01-1 | FURFURAL | 3000.0000 | MOE MPO |
| 98-00-0 | FURFURYL ALCOHOL | 3000.0000 | MOE MPO |
| N/A - M04 | GLYCOL ETHERS (MISC.) | 3000.0000 | MOE MPO |
| 353-59-3 | HALON 1211 | 10000.0000 | NPRI MPO |
| 75-63-8 | HALON 1301 | 10000.0000 | NPRI MPO |
| 75-45-6 | HCFC-22 | 10000.0000 | NPRI MPO |
| 41834-16-6 | HCFC-122 AND ALL ISOMERS | 10000.0000 | NPRI MPO |
| 34077-87-7 | HCFC-123 AND ALL ISOMERS | 10000.0000 | NPRI MPO |
| 63938-10-3 | HCFC-124 AND ALL ISOMERS | 10000.0000 | NPRI MPO |
| 1717-00-6 | HCFC-141B | 10000.0000 | NPRI MPO |
| 75-68-3 | HCFC-142B | 10000.0000 | NPRI MPO |
| 76-44-8 | HEPTACHLOR | 500.0000 | MOE MPO |
| 142-82-5 | N-HEPTANE | 3000.0000 | MOE MPO |
| 87-68-3 | HEXACHLORO-1,3-BUTADIENE | 500.0000 | MOE MPO |
| 118-74-1 | HEXACHLOROBENZENE | 0.0000 | NPRI ATH |
| 319-84-6 | HEXACHLOROCYCLOHEXANE | 500.0000 | MOE MPO |
| 77-47-4 | HEXACHLOROCYCLOPENTADIENE | 10000.0000 | NPRI MPO |
| 67-72-1 | HEXACHLOROETHANE | 10000.0000 | NPRI MPO |
| 70-30-4 | HEXACHLOROPHENE | 10000.0000 | NPRI MPO |
| 822-06-0 | HEXAMETHYLENE DIISOCYANATE MONOMER | 500.0000 | MOE MPO |
| 110-54-3 | N-HEXANE | 10000.0000 | NPRI MPO |
| 811-97-2 | HFC-134A | 10.0000 | MOE REL |
| 302-01-2 | HYDRAZINE | 10000.0000 | NPRI MPO |
| 7647-01-0 | HYDROCHLORIC ACID | 10000.0000 | NPRI MPO |
| 74-90-8 | HYDROGEN CYANIDE | 10000.0000 | NPRI MPO |
| 7664-39-3 | HYDROGEN FLUORIDE | 10000.0000 | NPRI MPO |
| 7783-06-4 | HYDROGEN SULPHIDE | 10000.0000 | NPRI MPO |
| 123-31-9 | HYDROQUINONE | 10000.0000 | NPRI MPO |
| 193-39-5 | INDENO(1,2,3-C,D)PYRENE | 50.0000 | NPRI ATH REL |
| 7439-89-6 | IRON | 3000.0000 | MOE MPO |
| 13463-40-6 | IRON PENTACARBONYL | 10000.0000 | NPRI MPO |
| 78-84-2 | ISOBUTYRALDEHYDE | 10000.0000 | NPRI MPO |
| 4098-71-9 | ISOPHORONE DIISOCYANATE | 10000.0000 | NPRI MPO |
| 78-79-5 | ISOPRENE | 10000.0000 | NPRI MPO |
| 67-63-0 | ISOPROPYL ALCOHOL | 10000.0000 | NPRI MPO |
| 80-05-7 | P,P'-ISOPROPYLIDENEDIPHENOL | 10000.0000 | NPRI MPO |
| 120-58-1 | ISOSAFROLE | 10000.0000 | NPRI MPO |
| NA - 08 | LEAD | 10000.0000 | NPRI MPO |
| 7439-93-2 | LITHIUM - OTHER THAN HYDRIDES | 3000.0000 | MOE MPO |
| 554-13-2 | LITHIUM CARBONATE | 10000.0000 | NPRI MPO |
| 7580-67-8 | LITHIUM HYDRIDES | 500.0000 | MOE MPO |
| 1309-48-4 | MAGNESIUM OXIDE | 3000.0000 | MOE MPO |
| 108-31-6 | MALEIC ANHYDRIDE | 10000.0000 | NPRI MPO |
| NA - 09 | MANGANESE | 10000.0000 | NPRI MPO |
| 74-93-1 | MERCAPTANS (AS METHYL MERCAPTAN) - TOTAL | 500.0000 | MOE MPO |
| 149-30-4 | 2-MERCAPTOBENZOTHAZOLE | 10000.0000 | NPRI MPO |
| NA - 10 | MERCURY | 5.0000 | NPRI ATH MPO |
| 74-82-8 | METHANE | 5000000.0000 | MOE REL |
| 67-56-1 | METHANOL | 10000.0000 | NPRI MPO |

| [CAS_NUMBER] [A11] | [NAME] [A85] | [THRESHOLD] [N16.4] | [REFERENCE] [A15] |
|-----------------------|---|------------------------|----------------------|
| 109-86-4 | 2-METHOXYETHANOL | 10000.0000 | NPRI MPO |
| 110-49-6 | 2-METHOXYETHYL ACETATE | 10000.0000 | NPRI MPO |
| 96-33-3 | METHYL ACRYLATE | 10000.0000 | NPRI MPO |
| 78-93-3 | METHYL ETHYL KETONE | 10000.0000 | NPRI MPO |
| 74-88-4 | METHYL IODIDE | 10000.0000 | NPRI MPO |
| 108-10-1 | METHYL ISOBUTYL KETONE | 10000.0000 | NPRI MPO |
| 22967-92-6 | METHYL MERCURY | 5 | MOE MPO |
| 80-62-6 | METHYL METHACRYLATE | 10000.0000 | NPRI MPO |
| 1634-04-4 | METHYL TERT-BUTYL ETHER | 10000.0000 | NPRI MPO |
| 872-50-4 | N-METHYL-2-PYRROLIDONE | 10000.0000 | NPRI MPO |
| 12108-13-3 | METHYLCYCLOPENTADIENYL MANGANESE TRICARBONYL (MMT) | 500.0000 | MOE MPO |
| 101-14-4 | P,P'-METHYLENEBIS(2-CHLORANILINE) | 10000.0000 | NPRI MPO |
| 5124-30-1 | 1,1-METHYLENEBIS(4-ISOCYANATOCYCLOHEXANE) | 10000.0000 | NPRI MPO |
| 101-68-8 | METHYLENEBIS(PHENYLISOCYANATE) | 10000.0000 | NPRI MPO |
| 101-77-9 | P,P'-METHYLENEDIANILINE | 10000.0000 | NPRI MPO |
| 924-42-5 | N-METHYLOLACRYLAMIDE | 10000.0000 | NPRI MPO |
| 109-06-8 | 2-METHYLPYRIDINE | 10000.0000 | NPRI MPO |
| 90-94-8 | MICHLER'S KETONE | 10000.0000 | NPRI MPO |
| N/A - M06 | MINERAL SPIRITS GROUP #1 | 3000.0000 | MOE MPO |
| N/A - M17 | MINERAL SPIRITS GROUP #2 | 3000.0000 | MOE MPO |
| N/A - M18 | MINERAL SPIRITS GROUP #3 | 500.0000 | MOE MPO |
| 1313-27-5 | MOLYBDENUM TRIOXIDE | 10000.0000 | NPRI MPO |
| 74-89-5 | MONOMETHYL AMINE | 500.0000 | MOE MPO |
| 91-20-3 | NAPHTHALENE | 10000.0000 | NPRI MPO |
| NA - 11 | NICKEL | 10000.0000 | NPRI MPO |
| 13463-39-3 | NICKEL CARBONYL | 500.0000 | MOE MPO |
| NA - 17 | NITRATE ION | 10000.0000 | NPRI MPO |
| 7697-37-2 | NITRIC ACID | 10000.0000 | NPRI MPO |
| 139-13-9 | NITRILOTRIACETIC ACID | 10000.0000 | NPRI MPO |
| 100-01-6 | P-NITROANILINE | 10000.0000 | NPRI MPO |
| 98-95-3 | NITROBENZENE | 10000.0000 | NPRI MPO |
| 55-63-0 | NITROGLYCERIN | 10000.0000 | NPRI MPO |
| 100-02-7 | P-NITROPHENOL | 10000.0000 | NPRI MPO |
| 79-46-9 | 2-NITROPROPANE | 10000.0000 | NPRI MPO |
| 55-18-5 | N-NITROSODIETHYLAMINE | 500.0000 | MOE MPO |
| 62-75-9 | N-NITROSODIMETHYLAMINE | 500.0000 | MOE MPO |
| 86-30-6 | N-NITROSODIPHENYLAMINE | 10000.0000 | NPRI MPO |
| 10024-97-2 | NITROUS OXIDE | 2700.0000 | MOE REL |
| 104-40-5 | NONYLPHENOL | 10000.0000 | NPRI MPO |
| 27177-05-5 | NONYLPHENOL HEPTA(OXYETHYLENE) ETHANOL | 10000.0000 | NPRI MPO |
| 84852-15-3 | NONYLPHENOL, INDUSTRIAL | 10000.0000 | NPRI MPO |
| 27177-08-8 | NONYLPHENOL NONA(OXYETHYLENE) ETHANOL | 10000.0000 | NPRI MPO |
| 25154-52-3 | N-NONYLPHENOL | 10000.0000 | NPRI MPO |
| 9016-45-9 | NONYLPHENOL POLYETHYLENE GLYCOL ETHER | 10000.0000 | NPRI MPO |
| 26027-38-3 | P-NONYLPHENOL POLYETHYLENE GLYCOL ETHER | 10000.0000 | NPRI MPO |
| 27986-36-3 | NONYLPHENOXY ETHANOL | 10000.0000 | NPRI MPO |
| 104-35-8 | 2-(P-NONYLPHENOXY) ETHANOL | 10000.0000 | NPRI MPO |
| 20427-84-3 | 2-(2-(P-NONYLPHENOXY)ETHOXY) ETHANOL | 10000.0000 | NPRI MPO |
| 7311-27-5 | 2-(2-(2-(P-NONYLPHENOXY)ETHOXY)ETHOXY)ETHOXY) ETHANOL | 10000.0000 | NPRI MPO |

| [CAS_NUMBER] [A11] | [NAME] [A85] | [THRESHOLD] [N16.4] | [REFERENCE] [A15] |
|-----------------------|---|------------------------|----------------------|
| 29082-74-4 | OCTACHLOROSTYRENE | 500.0000 | MOE MPO |
| 10102-43-9 | OXIDES OF NITROGRN (NITROGEN OXIDES, EXPRESSED AS NO) | 14000.0000 | MOE REL |
| 37251-69-7 | OXIRANE, METHYL-, POLYMER WITH OXIRANE, MONO(NOYLPHENYL)ETHER | 10000.0000 | NPRI MPO |
| 123-63-7 | PARALDEHYDE | 10000.0000 | NPRI MPO |
| 56-38-2 | PARATHION | 500.0000 | MOE MPO |
| 19624-22-7 | PENTABORANE | 500.0000 | MOE MPO |
| 76-01-7 | PENTACHLOROETHANE | 10000.0000 | NPRI MPO |
| 82-68-8 | PENTACHLORONITROBENZENE | 3000.0000 | MOE MPO |
| 87-86-5 | PENTACHLOROPHENOL (PCP) | 500.0000 | MOE MPO |
| 79-21-0 | PERACETIC ACID | 10000.0000 | NPRI MPO |
| 198-55-0 | PERYLENE | 50.0000 | NPRI ATH REL |
| 85-01-8 | PHENANTHRENE | 50.0000 | NPRI ATH REL |
| 108-95-2 | PHENOL | 10000.0000 | NPRI MPO |
| 106-50-3 | P-PHENYLENEDIAMINE | 10000.0000 | NPRI MPO |
| 90-43-7 | O-PHENYLPHENOL | 10000.0000 | NPRI MPO |
| 75-44-5 | PHOSGENE | 10000.0000 | NPRI MPO |
| 7664-38-2 | PHOSPHORIC ACID | 10000.0000 | NPRI MPO |
| 7723-14-0 | PHOSPHORUS | 10000.0000 | NPRI MPO |
| 85-44-9 | PHTHALIC ANHYDRIDE | 10000.0000 | NPRI MPO |
| N/A - M08 | PM - PARTICULATE MATTER | 20000.0000 | MOE REL |
| N/A - M09 | PM10 - PARTICULATE MATTER <=10MICRONS | 500.0000 | MOE REL |
| N/A - M10 | PM2.5 - PARTICULATE MATTER <=2.5MICRONS | 300.0000 | MOE REL |
| 1336-36-3 | POLYCHLORINATED BIPHENYLS (PCBS) | 500.0000 | MOE MPO |
| N/A - M11 | POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) AND POLYCHLORINATED DIBENZOFURANS (PCDF) | | NPRI ATH |
| 9016-87-9 | POLYMERIC DIPHENYLMETHANE DIISOCYANATE | 10000.0000 | NPRI MPO |
| 7758-01-2 | POTASSIUM BROMATE | 10000.0000 | NPRI MPO |
| 107-19-7 | PROPARGYL ALCOHOL | 10000.0000 | NPRI MPO |
| 123-38-6 | PROPIONALDEHYDE | 10000.0000 | NPRI MPO |
| 115-07-1 | PROPYLENE | 10000.0000 | NPRI MPO |
| 75-56-9 | PROPYLENE OXIDE | 10000.0000 | NPRI MPO |
| 129-00-0 | PYRENE | 50.0000 | NPRI ATH REL |
| 110-86-1 | PYRIDINE | 10000.0000 | NPRI MPO |
| 91-22-5 | QUINOLINE | 10000.0000 | NPRI MPO |
| 106-51-4 | P-QUINONE | 10000.0000 | NPRI MPO |
| 94-59-7 | SAFROLE | 10000.0000 | NPRI MPO |
| NA - 12 | SELENIUM | 10000.0000 | NPRI MPO |
| NA - 13 | SILVER | 10000.0000 | NPRI MPO |
| 7681-49-4 | SODIUM FLUORIDE | 10000.0000 | NPRI MPO |
| 7632-00-0 | SODIUM NITRITE | 10000.0000 | NPRI MPO |
| 100-42-5 | STYRENE | 10000.0000 | NPRI MPO |
| 96-09-3 | STYRENE OXIDE | 10000.0000 | NPRI MPO |
| 7446-09-5 | SULPHUR DIOXIDE | 20000.0000 | MOE REL |
| 2551-62-4 | SULPHUR HEXAFLUORIDE | 10000.0000 | NPRI MPO |
| 7664-93-9 | SULPHURIC ACID | 10000.0000 | NPRI MPO |
| 13494-80-9 | TELLURIUM - EXCLUDING HYDROGEN TELLURIDE | 500.0000 | MOE MPO |
| 140-66-9 | 4-TERT-OCTYLPHENOL | 10000.0000 | NPRI MPO |
| 1746-01-6 | 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TEQ) | 0.0001 | MOE MPO |
| 51207-31-9 | 2,3,7,8-TETRACHLORODIBENZOFURAN (TEQ) | 0.0001 | MOE MPO |

| [CAS_NUMBER] [A11] | [NAME] [A85] | [THRESHOLD] [N16.4] | [REFERENCE] [A15] |
|-----------------------|--|------------------------|----------------------|
| 630-20-6 | 1,1,1,2-TETRACHLOROETHANE | 10000.0000 | NPRI MPO |
| 79-34-5 | 1,1,2,2-TETRACHLOROETHANE | 10000.0000 | NPRI MPO |
| 127-18-4 | TETRACHLOROETHYLENE | 10000.0000 | NPRI MPO |
| 64-75-5 | TETRACYCLINE HYDROCHLORIDE | 10000.0000 | NPRI MPO |
| 78-00-2 | TETRAETHYL LEAD | 10000.0000 | NPRI MPO |
| 109-99-9 | TETRAHYDROFURAN | 3000.0000 | MOE MPO |
| 62-56-6 | THIOUREA | 10000.0000 | NPRI MPO |
| 1314-20-1 | THORIUM DIOXIDE | 10000.0000 | NPRI MPO |
| 7440-31-5 | TIN | 3000.0000 | MOE MPO |
| 7440-32-6 | TITANIUM | 3000.0000 | MOE MPO |
| 7550-45-0 | TITANIUM TETRACHLORIDE | 10000.0000 | NPRI MPO |
| 108-88-3 | TOLUENE | 10000.0000 | NPRI MPO |
| 584-84-9 | TOLUENE-2,4-DIISOCYANATE | 10000.0000 | NPRI MPO |
| 91-08-7 | TOLUENE-2,6-DIISOCYANATE | 10000.0000 | NPRI MPO |
| 26471-62-5 | TOLUENEDIISOCYANATE | 10000.0000 | NPRI MPO |
| N/A - M14 | TOTAL REDUCED SULPHUR (TRS) | 3000.0000 | MOE MPO |
| 688-73-3 | TRIBUTYLTIN | 500.0000 | MOE MPO |
| 120-82-1 | 1,2,4-TRICHLOROENZENE | 10000.0000 | NPRI MPO |
| 71-55-6 | 1,1,1-TRICHLOROETHANE | 3000.0000 | MOE MPO |
| 79-00-5 | 1,1,2-TRICHLOROETHANE | 10000.0000 | NPRI MPO |
| 79-01-6 | TRICHLOROETHYLENE | 10000.0000 | NPRI MPO |
| 95-95-4 | 2,4,5-TRICHLOROPHENOL | 3000.0000 | MOE MPO |
| 88-06-2 | 2,4,6-TRICHLOROPHENOL | 500.0000 | MOE MPO |
| 96-18-4 | 1,2,3-TRICHLOROPROPANE | 3000.0000 | MOE MPO |
| 121-44-8 | TRIETHYLAMINE | 10000.0000 | NPRI MPO |
| 95-63-6 | 1,2,4-TRIMETHYLBENZENE | 10000.0000 | NPRI MPO |
| 16938-22-0 | 2,2,4-TRIMETHYLHEXAMETHYLENE DIISOCYANATE | 10000.0000 | NPRI MPO |
| 15646-96-5 | 2,4,4-TRIMETHYLHEXAMETHYLENE DIISOCYANATE | 10000.0000 | NPRI MPO |
| 7440-62-2 | VANADIUM | 10000.0000 | NPRI MPO |
| 108-05-4 | VINYL ACETATE | 10000.0000 | NPRI MPO |
| 593-60-2 | VINYL BROMIDE | 3000.0000 | MOE MPO |
| 75-01-4 | VINYL CHLORIDE | 10000.0000 | NPRI MPO |
| 75-02-5 | VINYL FLUORIDE | 3000.0000 | MOE MPO |
| 75-35-4 | VINYLDENE CHLORIDE | 10000.0000 | NPRI MPO |
| N/A - M16 | VOLATILE ORGANIC COMPOUNDS (VOC) | 10000.0000 | MOE REL |
| 1330-20-7 | XYLENE | 10000.0000 | NPRI MPO |
| 108-38-3 | M-XYLENE | 10000.0000 | MOE MPO |
| 95-47-6 | O-XYLENE | 10000.0000 | MOE MPO |
| 106-42-3 | P-XYLENE | 10000.0000 | MOE MPO |
| NA - 14 | ZINC | 10000.0000 | NPRI MPO |

**REFERENCE TABLE: DUEQT
(DISCHARGE UNIT TYPE)**

PARAMETERS: [EQT_CODE:A3, EQT_DESC:A30]

| CODE [EQT_CODE] [A3] | DISCHARGE UNIT TYPE DESCRIPTION [EQT_DESC] [A30] |
|----------------------------|--|
| AF | ARCH FIRED BOILER |
| C | CYCLONE BOILER |
| CB | CELL BURNER WALL-FIRED BOILER |
| CC | COMBINED CYCLE BOILER |
| CFB | CIRCULATING FLUIDIZED BED BOILER |
| DB | DRY BOTTOM WALL-FIRED BOILER |
| DTF | DRY BOTTOM TURBO-FIRED BOILER |
| DVF | DRY BOTTOM VERTICAL-FIRED BOILER |
| S | STOKER BOILER |
| T | TANGENTIAL FIRED BOILER |
| WBF | WET BOTTOM WALL-FIRED BOILER |
| WBT | WET BOTTOM TURBO-FIRED BOILER |
| WVF | WET BOTTOM VERTICAL-FIRED BOILER |
| OB | OTHER BOILER |
| CT | COMBUSTION TURBINE |
| RE | RECIPROCATING ENGINES |
| EAF | ELECTRIC ARC FURNACE |
| BLF | BLAST FURNACE |
| BOF | BASIC OXYGEN FURNACE |
| DUO | DUTCH OVEN |
| FUR | FURNACE |
| OTH | OTHER |

**REFERENCE TABLE: ENERGY
(ENERGY TYPE)**

PARAMETERS:[ENGY_CODE:A4, ENGY_TYPE:A30]

| CODE [ENGY_CODE] [A4] | ENERGY TYPE DESCRIPTION [ENGY_TYPE] [A30] |
|-----------------------------|---|
| FOSF | FOSSIL FUEL |
| HYDE | HYDRO-ELECTRIC |
| GEO | GEO THERMAL |
| NUCL | NUCLEAR |
| SOLR | SOLAR |
| WIND | WIND |

**REFERENCE TABLE: FUEL
(FUEL TYPE)**

PARAMETERS:[FUEL_CODE:A4, FUEL_TYPE:A30]

| CODE [FUEL_CODE] [A4] | FUEL TYPE DESCRIPTION [FUEL_TYPE] [A30] |
|-----------------------------|---|
| ANT | ANTHRACITE COAL |
| BAG | BAGASSE |
| BARK | BARK |
| BFG | BLAST FURNACE GAS |
| BIO | BIOMASS |
| BIT | BITUMINOUS COAL |
| LPGB | BUTANE |
| COG | COKE OVEN GAS |
| COKE | COKE |
| COM | COAL-OIL MIXTURE |
| DSL | DIESEL |
| ELEC | ELECTRICITY |
| FO-1 | FUEL OIL #1 |
| FO-2 | DISTILLATE OIL |
| FO-4 | FUEL OIL #4 |
| FO-5 | FUEL OIL #5 |
| FO-6 | RESIDUAL OIL |
| GASL | GASOLINE |
| GEO | GEO THERMAL |
| HOR | HEAT OF REACTION |
| HYDR | HYDRO POWER |
| JF | JET FUEL (OIL) |
| KER | KEROSENE |
| LIG | LIGNITE COAL |
| LPG | LIQUID PETROLEUM GAS |
| LWAS | LIQUID WASTE |
| MF | MULTI FUEL |
| MTE | METHANE GAS |
| NG | NATURAL GAS |
| NUCL | NUCLEAR |
| OTH | OTHER ENERGY SOURCE |
| PRG | PROCESS GAS |
| LPGP | PROPANE |
| RFG | REFINERY GAS |
| STM | STEAM |
| SNG | SYNTHETIC NATURAL GAS |
| SOLR | SOLAR |
| SUBB | SUB-BITUMINOUS COAL |
| SWAS | SOLID WASTE |
| WIND | WIND |
| WOOD | WOOD |

REFERENCE TABLE: FUGTYPE
(FUGITIVE EMISSION TYPE)

PARAMETERS: [FUG_CODE:A4, FUG_DESC:A40]

| CODE [FUG_CODE] [A4] | FUGITIVE EMISSION TYPE DESCRIPTION [FUG_DESC] [A40] |
|----------------------------|---|
| PAV | PAVED ROADS |
| UNPA | UNPAVED ROADS |
| CONS | HEAVY CONSTRUCTIONS |
| AGGH | AGGREGATE HANDLING |
| PILE | STORAGE PILES |
| TKWL | STORAGE TANKS - WORKING LOSS |
| TKSL | STORAGE TANKS - STANDING LOSS |
| FLAR | INDUSTRIAL FLARES |
| WIND | INDUSTRIAL WIND EROSION |
| EXPL | EXPLOSIVE DETONATION |
| COOL | WET COOLING TOWERS |
| SOIL | SOIL EVAPORATION |

**REFERENCE TABLE: METHOD
(EMISSION ESTIMATION METHOD CODE)**

PARAMETERS: [METH_CODE:A10, METH_DESC:A70]

| CODE [METH_CODE] [A10] | EMISSION ESTIMATION METHOD CODE DESCRIPTION [METH_DESC] [A70] |
|------------------------------|---|
| CEM | CONTINUOUS EMISSION MONITORING |
| PEM | PREDICTIVE EMISSION MONITORING |
| SSAM | SOURCE SPECIFIC/STACK SAMPLING |
| MASS | MASS BALANCE |
| EPAEFA | USEPA EMISSION FACTORS WITH QUALITY RATING A |
| EPAEFB | USEPA EMISSION FACTORS WITH QUALITY RATING B |
| EPAEFC | USEPA EMISSION FACTORS WITH QUALITY RATING C |
| EPAEFD | USEPA EMISSION FACTORS WITH QUALITY RATING D |
| EPAEFE | USEPA EMISSION FACTORS WITH QUALITY RATING E |
| EPAEF | USEPA EMISSION FACTORS WITH UNKNOWN QUALITY RATING |
| SECEF | INDUSTRIAL/SECTORIAL EMISSION FACTORS |
| OTHEF | OTHER EMISSION FACTORS, SPECIFY |
| SWFUG | EMISSION ESTIMATION SOFTWARE, FUGITIVE DUST |
| SWLAND | EMISSION ESTIMATION SOFTWARE, LANDFILL |
| SWBEIS | EMISSION ESTIMATION SOFTWARE, BIOGENIC EMISSIONS INVENTORY SYSTEM |
| SWPM | EMISSION ESTIMATION SOFTWARE, PM CALCULATOR |
| SWSPEC | EMISSION ESTIMATION SOFTWARE, SPECIATE |
| SWTANK | EMISSION ESTIMATION SOFTWARE, TANKS |
| SWWATER | EMISSION ESTIMATION SOFTWARE, WATER9 |
| SWOTH | EMISSION ESTIMATION SOFTWARE, OTHERS, SPECIFY |
| ENGCAL | ENGINEERING CALCULATION, SPECIFY |
| OTHER | OTHER APPROVED METHODS |

REFERENCE TABLE: NAICS
(NORTH AMERICA INDUSTRIAL CLASSIFICATION SYSTEM CODE)

North American Industry Classification System (NAICS) codes are available at <http://www.statcan.ca/english/Subjects/Standard/tabcon.htm>

PARAMETERS:

[NAICS_CODE:A6] The owner and operator of a facility are required to select the appropriate six-digit NAICS code.

REFERENCE TABLE: REPT
(REPORTING PERIOD)

PARAMETERS: [REPT_CODE:A4, REPT_DESC:A40]

| CODE [REPT_CODE] [A4] | REPORTING PERIOD DESCRIPTION [REPT_DESC] [A40] |
|-----------------------------|--|
| ANN | ANNUAL (JANUARY TO DECEMBER) |
| QTR1 | QUARTER 1 (JANUARY TO MARCH) |
| QTR2 | QUARTER 2 (APRIL TO JUNE) |
| QTR3 | QUARTER 3 (JULY TO SEPTEMBER) |
| QTR4 | QUARTER 4 (OCTOBER TO DECEMBER) |
| SMOG1 | SMOG SEASON (MAY AND JUNE) |
| SMOG2 | SMOG SEASON (JULY TO SEPTEMBER) |
| SMOG | SMOG SEASON (MAY TO SEPTEMBER) |
| JAN | MONTH OF JANUARY |
| FEB | MONTH OF FEBRUARY |
| MAR | MONTH OF MARCH |
| APR | MONTH OF APRIL |
| MAY | MONTH OF MAY |
| JUN | MONTH OF JUNE |
| JUL | MONTH OF JULY |
| AUG | MONTH OF AUGUST |
| SEP | MONTH OF SEPTEMBER |
| OCT | MONTH OF OCTOBER |
| NOV | MONTH OF NOVEMBER |
| DEC | MONTH OF DECEMBER |

REFERENCE TABLE: RMODE
(RELEASE MODE)

PARAMETERS: [RMODE_CODE:A4, RMODE_DESC:A10]

| CODE [RMODE_CODE] [A4] | RELEASE MODE DESCRIPTION [RMODE_DESC] [A10] |
|------------------------------|---|
| STK | STACK |
| STOR | STORAGE |
| FUG | FUGITIVE |
| SPILL | SPILL |
| OTH | OTHER |

**REFERENCE TABLE: ROADTYPE
(ROAD TYPE)**

**PARAMETERS: [ROAD_CODE:A3, ROAD_TYPE:A60, SILTC_PC:N8.3,
SILTL_GPM2:N8.3]**

| CODE [ROAD_CODE] [A3] | ROAD TYPE DESCRIPTION [ROAD_TYPE] [A60] | SILT CONTENT, PERCENT [SILTC_PC] [N8.3] | SILT LOADING, g/m ² [SILTL_GPM2] [N8.3] |
|-----------------------------|--|--|---|
| P01 | ASPHALT BATCHING: PAVED ROAD | | 120 |
| P02 | CONCRETE BATCHING: PAVED ROAD | | 12.000 |
| P03 | COPPER SMELTING: PAVED ROAD | | 292.000 |
| P04 | IRON AND STEEL PRODUCTION: PAVED ROAD | | 9.700 |
| P05 | LIMITED ACCESS PAVED ROAD | | 0.015 |
| P06 | MUNICIPAL SOLID WASTE LANDFILL: PAVED ROAD | | 7.400 |
| P07 | PUBLIC PAVED ROAD: HIGH TRAFFIC | | 0.100 |
| P08 | PUBLIC PAVED ROAD: HIGH TRAFFIC, WORST CONDITION | | 0.500 |
| P09 | PUBLIC PAVED ROAD: LOW TRAFFIC | | 0.400 |
| P10 | PUBLIC PAVED ROAD: LOW TRAFFIC, WORST CONDITION | | 3.000 |
| P11 | QUARRY: PAVED ROAD | | 8.200 |
| P12 | SAND AND GRAVEL: PAVED ROAD | | 70.000 |
| U01 | CONSTRUCTION SITES: UNPAVED SCRAPER ROUTE | 8.500 | |
| U02 | COPPER SMELTING: UNPAVED PLANT ROAD | 17.000 | |
| U03 | IRON AND STEEL PRODUCTION: UNPAVED PLANT ROAD | 6.000 | |
| U04 | LUMBER SAWMILLS: LOG YARD | 8.400 | |
| U05 | MUNICIPAL SOLID WASTE LANDFILL: DISPOSAL ROTUE | 6.400 | |
| U06 | PUBLICLY ACCESSIBLE ROAD: DIRT | 11.000 | |
| U07 | PUBLICLY ACCESSIBLE ROAD: GRAVEL/CRUSHED LIMESTONE | 6.400 | |
| U08 | SAND AND GRAVEL PROCESSING: UNPAVED PLANT ROAD | 4.800 | |
| U09 | STONE QUARRYING AND PROCESSING: UNPAVED HAUL ROAD TO/FROM PIT | 8.300 | |
| U10 | STONE QUARRYING AND PROCESSING: UNPAVED PLANT ROAD | 10.000 | |
| U11 | TACONITE MINING AND PROCESSING: UNPAVED HAUL ROAD TO/FROM PIT | 5.800 | |
| U12 | TACONITE MINING AND PROCESSING: UNPAVED SERVICE ROAD | 4.300 | |
| U13 | WESTERN SURFACE COAL MINING: UNPAVED HAUL TO/FROM ROAD | 8.400 | |
| U14 | WESTERN SURFACE COAL MINING: | 5.100 | |

| CODE [ROAD_CODE] [A3] | ROAD TYPE DESCRIPTION [ROAD_TYPE] [A60] | SILT CONTENT, PERCENT [SILTC_PC] [N8.3] | SILT LOADING, g/m ² [SILTL_GPM2] [N8.3] |
|-----------------------------|---|--|---|
| | UNPAVED PLANT ROAD | | |
| U15 | WESTERN SURFACE COAL MINING: UNPAVED SCRAPER ROUTE | 17.000 | |

REFERENCE TABLE: SCC
(SOURCE CLASSIFICATION CODE)

Source Classification Code (SCC) is available at
<http://www.epa.gov/ttn/chief/codes/index.html>

PARAMETERS:

| | |
|----------------|---|
| [SCC_CODE:A11] | The owner and operator of a facility are required to select the appropriate SCC code. |
|----------------|---|

REFERENCE TABLE: TANK
(STORAGE TANK TYPE)

PARAMETERS: [TANK_CODE:A4, TANK_DESC:A30]

| CODE [TANK_CODE] [A4] | STORAGE TANK TYPE DESCRIPTION [TANK_DESC] [A40] |
|-----------------------------|---|
| DEFR | Domed External Floating Roof Tanks |
| EFR | External Floating Roof Tank |
| FR | Fixed Roof Tank |
| IFR | Internal Floating Roof Tank |
| PRES | Pressure Tanks |
| UDG | Underground Storage Tank |
| VVS | Variable Vapor Space Tanks |

**REFERENCE TABLE: UNIT
(ENGINEERING UNITS)**

PARAMETERS: [UNIT_CODE:A20, UNIT_NAME:A40, UNIT_TYPE:A20]

| CODE [UNIT_CODE] [A20] | UNIT DESCRIPTION [UNIT_NAME] [A40] | UNIT TYPE [UNIT_TYPE] [A20] |
|------------------------------|--|-----------------------------------|
| ALUMUMIN | ALUMUMIN | COUNT |
| APPLIANCES | APPLIANCES | COUNT |
| AUTOMOBILES | AUTOMOBILES | COUNT |
| BALES | BALES OF COTTON | COUNT |
| BATTERIES | BATTERIES | COUNT |
| BEDS | BEDS | COUNT |
| BLASTS | BLASTS | COUNT |
| BOATS | BOATS | COUNT |
| CALLS | CALLS | COUNT |
| CATTLE | CATTLE | COUNT |
| CHICKENS | CHICKENS | COUNT |
| CIGARETTES | CIGARETTES | COUNT |
| COATING LINES | COATING LINES | COUNT |
| COLD CLEANERS | COLD CLEANERS | COUNT |
| CONNECTIONS | CONNECTIONS | COUNT |
| CONTAINERS | CONTAINERS | COUNT |
| DEGREASING UNITS | DEGREASING UNITS | COUNT |
| DRAINS | DRAINS | COUNT |
| DRUMS | DRUMS | COUNT |
| E3 BATTERIES | 1,000 BATTERIES | COUNT |
| E3 BIRDS | 1,000 BIRDS | COUNT |
| E3 CONTAINERS | 1,000 CONTAINERS | COUNT |
| E3 OUTBOARDS | 1,000 OUTBOARDS | COUNT |
| E3 PARTS | 1,000 PARTS | COUNT |
| E3 PERSON | 1,000 PERSONS | COUNT |
| E3 PIECES | 1,000 PIECES | COUNT |
| E3 PROCESS UNITS | 1,000 PROCESS UNITS | COUNT |
| E3 TIRES | 1,000 TIRES | COUNT |
| E3 UNITS | 1,000 UNITS | COUNT |
| E6 CIGARETTES | 1,000,000 CIGARETTES | COUNT |
| E6 PIECES | 1,000,000 PIECES | COUNT |
| EACH | EACH | COUNT |
| FLANGES | FLANGES | COUNT |
| HEADS | HEADS | COUNT |
| HOLES | HOLES | COUNT |
| ITEMS | ITEMS | COUNT |
| LAWNMOWERS | LAWNMOWERS | COUNT |
| LTO | LANDING-TAKEOFF CYCLE | COUNT |
| MOTORCYCLES | MOTORCYCLES | COUNT |
| MOVEMENTS | MOVEMENTS | COUNT |
| PARTS | PARTS | COUNT |

| CODE [UNIT_CODE] [A20] | UNIT DESCRIPTION [UNIT_NAME] [A40] | UNIT TYPE [UNIT_TYPE] [A20] |
|------------------------------|--|-----------------------------------|
| PERSON | PERSONS | COUNT |
| PIECES | PIECES | COUNT |
| PRINTING LINES | PRINTING LINES | COUNT |
| PROCESS UNITS | PROCESS UNITS | COUNT |
| SEALS | SEALS | COUNT |
| SLIPS | SLIPS | COUNT |
| SNOWMOBILES | SNOWMOBILES | COUNT |
| SOLVENT CLEANERS | SOLVENT CLEANERS | COUNT |
| STRUCTURES | STRUCTURES | COUNT |
| TANK CARS | TANK CARS | COUNT |
| TANK TRUCKS | TANK TRUCKS | COUNT |
| TIRES | TIRES | COUNT |
| TRUCKS | TRUCKS | COUNT |
| UNITS | UNITS | COUNT |
| VALVES | VALVES | COUNT |
| VEHICLES | VEHICLES | COUNT |
| WELLS | WELLS | COUNT |
| FIBRES/CM3 | FIBRES PER CUBIC CENTIMETRE | COUNT/LENGTH^3 |
| FIBRES/M3 | FIBRES PER CUBIC METRE | COUNT/LENGTH^3 |
| \$ | DOLLARS | CURRENCY |
| E3 \$ | THOUSAND DOLLARS | CURRENCY |
| E6 \$ | MILLION DOLLARS | CURRENCY |
| BTU | BRITISH THERMAL UNITS | ENERGY |
| E5 BHP-H | 100,000 BRAKE HORSEPOWER-HOURS | ENERGY |
| E9 J | 1,000,000,000 JOULES | ENERGY |
| BRAKE GW-HR | BRAKE GIGAWATT HOUR | ENERGY |
| GW-HR | GIGAWATT HOUR | ENERGY |
| HP-HR | HORSEPOWER HOURS | ENERGY |
| J | JOULES | ENERGY |
| KCAL | KILOCALORIES | ENERGY |
| KJ | KILOJOULES | ENERGY |
| KW-HR | KILOWATT HOUR | ENERGY |
| MJ | MEGAJOULES | ENERGY |
| MMBTU | MILLION BRITISH THERMAL UNITS | ENERGY |
| MW-HR | MEGAWATT HOUR | ENERGY |
| W-HR | WATT HOUR | ENERGY |
| KJ/L | KILOJOULES PER LITRE | ENERGY/LENGTH^3 |
| MJ/L | MEGAJOULES PER LITRE | ENERGY/LENGTH^3 |
| MJ/TONNE | MEGAJOULES PER TONNE | ENERGY/MASS |
| BTU/HR | BRITISH THERMAL UNITS PER HOUR | ENERGY/TIME |
| KW | KILOWATTS | ENERGY/TIME |
| MMBTU/HR | MILLION BRITISH THERMAL UNITS PER HOUR | ENERGY/TIME |
| MW | MEGAWATTS | ENERGY/TIME |
| W | WATTS | ENERGY/TIME |
| E3 MILE | 1,000 MILES | LENGTH |
| E3 VKMT | 1,000 VEHICLE KILOMETRES TRAVELLED | LENGTH |

| CODE [UNIT_CODE] [A20] | UNIT DESCRIPTION [UNIT_NAME] [A40] | UNIT TYPE [UNIT_TYPE] [A20] |
|------------------------------|--|-----------------------------------|
| E4 VKMT | 10,000 VEHICLE KILOMETRES TRAVELLED | LENGTH |
| E6 M | 1,000,000 METRES | LENGTH |
| E6 VKMT | 1,000,000 VEHICLE KILOMETRES TRAVELLED | LENGTH |
| E9 M | 1,000,000,000 METRES | LENGTH |
| FT | FEET | LENGTH |
| KM | KILOMETRES | LENGTH |
| M | METRES | LENGTH |
| MILE | MILES | LENGTH |
| VKMT | VEHICLE KILOMETRES TRAVELLED | LENGTH |
| KM/HR | KILOMETRES PER HOUR | LENGTH/TIME |
| M/DAY | METRES PER DAY | LENGTH/TIME |
| M/MIN | METRES PER MINUTE | LENGTH/TIME |
| M/S | METRES PER SECOND | LENGTH/TIME |
| MPH | MILES PER HOUR | LENGTH/TIME |
| ACRE | ACRES | LENGTH^2 |
| E3 ACRE | 1,000 ACRES | LENGTH^2 |
| E3 M2 | 1,000 SQUARE METRES | LENGTH^2 |
| E4 M2 (9.5MM) | 10,000 SQUARE METRES (9.5MM) | LENGTH^2 |
| E6 M2 | 1,000,000 SQUARE METRES | LENGTH^2 |
| FT2 | SQUARE FEET | LENGTH^2 |
| HECTR | HECTARES | LENGTH^2 |
| M2 | SQUARE METRES | LENGTH^2 |
| M2 (19MM) | SQUARE METRES (19MM) | LENGTH^2 |
| M2 (9.5MM) | SQUARE METRES (9.5MM) | LENGTH^2 |
| BBL | BARRELS | LENGTH^3 |
| BBL50GAL | 50 GALLON BARRELS | LENGTH^3 |
| CC | CUBIC CENTIMETRES | LENGTH^3 |
| E2 M3 | 100 CUBIC METRES | LENGTH^3 |
| E3 GAL | 1,000 GALLON (U.S.) | LENGTH^3 |
| E3 L | 1,000 LITRES | LENGTH^3 |
| E3 M3 | 1,000 CUBIC METRES | LENGTH^3 |
| E6 L | 1,000,000 LITRES | LENGTH^3 |
| E6 M3 | 1,000,000 CUBIC METRES | LENGTH^3 |
| FT3 | CUBIC FEET | LENGTH^3 |
| GAL | GALLON (U.S.) | LENGTH^3 |
| E9 L | 1,000,000,000 LITRES | LENGTH^3 |
| IMPGAL | GALLON (IMPERIAL) | LENGTH^3 |
| KL | KILOLITRES | LENGTH^3 |
| L | LITRES | LENGTH^3 |
| M3 | CUBIC METRES | LENGTH^3 |
| M3(S) | STANDARD CUBIC METRES | LENGTH^3 |
| M3(SD) | DRY STANDARD CUBIC METRES | LENGTH^3 |
| E6 L | 1,000,000 LITRES | LENGTH^3 |
| BBL-YR | BARREL YEARS | LENGTH^3*TIME |
| CC/M3 | CUBIC CENTMETRES PER CUBIC METRE | LENGTH^3/LENGTH^3 |
| PPMV | PARTS PER MILLION BY VOLUME | LENGTH^3/LENGTH^3 |
| VOL% | VOLUME PERCENT | LENGTH^3/LENGTH^3 |

| CODE [UNIT_CODE] [A20] | UNIT DESCRIPTION [UNIT_NAME] [A40] | UNIT TYPE [UNIT_TYPE] [A20] |
|------------------------------|--|-----------------------------------|
| VOL/VOL | VOLUME RATIO | LENGTH^3/LENGTH^3 |
| CFM | CUBIC FEET PER MINUTE | LENGTH^3/TIME |
| L/S | LITRES PER SECOND | LENGTH^3/TIME |
| M3(S)/MIN | STANDARD CUBIC METRES PER MINUTE | LENGTH^3/TIME |
| M3/DAY | CUBIC METRES PER DAY | LENGTH^3/TIME |
| M3/HR | CUBIC METRES PER HOUR | LENGTH^3/TIME |
| M3/MIN | CUBIC METRES PER MINUTE | LENGTH^3/TIME |
| M3/S | CUBIC METRES PER SECOND | LENGTH^3/TIME |
| E2 TONNE | 100 TONNES | MASS |
| E3 TON | 1,000 TONS | MASS |
| E3 TONNE | 1,000 TONNES | MASS |
| E6 TONNE | 1,000,000 TONNES | MASS |
| G | GRAMS | MASS |
| KG | KILOGRAMS | MASS |
| KTONNE | KILOTONNES | MASS |
| LB | POUND | MASS |
| MILLGRAM | MILLIGRAMS | MASS |
| OZ | OUNCE | MASS |
| TON | TONS (2000 U.S. LBS) | MASS |
| TONNE | TONNES | MASS |
| UG | MICROGRAMS | MASS |
| KG/AMP | KILOGRAMS PER AMPRE | MASS/CHARGE/TIME |
| G/AMP/H | GRAMS PER AMPRE PER HOUR | MASS/CHARGE/TIME^2 |
| G/OUTBOARD | GRAMS PER OUTBOARD | MASS/COUNT |
| G/UNIT | GRAMS PER UNIT | MASS/COUNT |
| KG/APPLIANCE | KILOGRAMS PER APPLIANCE | MASS/COUNT |
| KG/BALE OF COTTON | KILOGRAMS PER BALE OF COTTON | MASS/COUNT |
| KG/BASEUNIT | KILOGRAMS PER BASEUNIT | MASS/COUNT |
| KG/BLAST | KILOGRAMS PER BLAST | MASS/COUNT |
| KG/COATING LINE | KILOGRAMS PER COATING LINE | MASS/COUNT |
| KG/DEGREASING UNIT | KILOGRAMS PER DEGREASING UNIT | MASS/COUNT |
| KG/DRUM | KILOGRAMS PER DRUM | MASS/COUNT |
| KG/E3 BATTERIES | KILOGRAMS PER 1,000 BATTERIES | MASS/COUNT |
| KG/E3 TANK CARS | KILOGRAMS PER 1,000 TANK CARS | MASS/COUNT |
| KG/E3 TIRES | KILOGRAMS PER 1,000 TIRES | MASS/COUNT |
| KG/E3 UNITS | KILOGRAMS PER 1,000 UNITS | MASS/COUNT |
| KG/E6 CIGARETTES | KILOGRAMS PER 1,000,000 CIGARETTES | MASS/COUNT |
| KG/HEAD OF CATTLE | KILOGRAMS PER HEAD OF CATTLE | MASS/COUNT |
| KG/HOLE | KILOGRAMS PER HOLE | MASS/COUNT |
| KG/MOVEMENT | KILOGRAMS PER MOVEMENT | MASS/COUNT |
| KG/OUTBOARD | KILOGRAMS PER OUTBOARD | MASS/COUNT |
| KG/PERSON | KILOGRAMS PER PERSON | MASS/COUNT |
| KG/PRINTING LINE | KILOGRAMS PER PRINTING LINE | MASS/COUNT |
| KG/PROCESS UNIT | KILOGRAMS PER PROCESS UNIT | MASS/COUNT |
| KG/SLIP | KILOGRAMS PER SLIP | MASS/COUNT |
| KG/SOLVENT CLEANER | KILOGRAMS PER SOLVENT CLEANER | MASS/COUNT |
| KG/TANK CAR | KILOGRAMS PER TANK CAR | MASS/COUNT |

| CODE [UNIT_CODE] [A20] | UNIT DESCRIPTION [UNIT_NAME] [A40] | UNIT TYPE [UNIT_TYPE] [A20] |
|------------------------------|--|-----------------------------------|
| KG/TANK TRUCK | KILOGRAMS PER TANK TRUCK | MASS/COUNT |
| KG/UNIT | KILOGRAMS PER UNIT | MASS/COUNT |
| KG/VEHICLE | KILOGRAMS PER VEHICLE | MASS/COUNT |
| KG/WELL | KILOGRAMS PER WELL | MASS/COUNT |
| MILLIGRAM/E3 BATTERIES | MILLIGRAMS PER 1,000 BATTERIES | MASS/COUNT |
| MILLIGRAM/LTO | MILLIGRAMS PER LANDING-TAKEOFF-CYCLE | MASS/COUNT |
| MILLIGRAM/PERSON | MILLIGRAMS PER PERSON | MASS/COUNT |
| MILLIGRAM/UNIT | MILLIGRAMS PER UNIT | MASS/COUNT |
| TONNE/CUVEEE | TONNES PER CUVEEE | MASS/COUNT |
| TONNE/FIRE | TONNES PER FIRE | MASS/COUNT |
| TONNE/PERSON | TONNES PER PERSON | MASS/COUNT |
| TONNE/PROCESS UNIT | TONNES PER PROCESS UNIT | MASS/COUNT |
| TONNE/UNIT | TONNES PER UNIT | MASS/COUNT |
| KG/CONNECTION/8760 H | KILOGRAMS PER CONNECTION/8760 H | MASS/COUNT/TIME |
| KG/DRAIN/8760 H | KILOGRAMS PER DRAIN/8760 H | MASS/COUNT/TIME |
| KG/FLANGE/8760 H | KILOGRAMS PER FLANGE/8760 H | MASS/COUNT/TIME |
| KG/SEAL/8760 H | KILOGRAMS PER SEAL/8760 H | MASS/COUNT/TIME |
| KG/VALVE/8760 H | KILOGRAMS PER VALVE/8760 H | MASS/COUNT/TIME |
| KG/\$1000 | KILOGRAMS PER THOUSAND DOLLARS | MASS/CURRENCY |
| G/J | GRAMS PER JOULE | MASS/ENERGY |
| KG/BRAKE GWH | KILOGRAM/BRAKE GIGAWATT HOUR | MASS/ENERGY |
| KG/E9 J | KILOGRAMS PER 1,000,000,000 JOULE | MASS/ENERGY |
| KG/J | KILOGRAMS PER JOULE | MASS/ENERGY |
| KG/MWH | KILOGRAMS PER MEGAWATT HOUR | MASS/ENERGY |
| MILLIGRAM/MJ | MILLIGRAMS PER MEGAJOULE | MASS/ENERGY |
| MILLIGRAM/MWH | MILLIGRAMS PER MEGAWATT HOUR | MASS/ENERGY |
| G/M | GRAMS PER METRE | MASS/LENGTH |
| G/MILE | GRAMS PER MILE | MASS/LENGTH |
| KG/E9 M | KILOGRAMS PER 1,000,000,000 METRE | MASS/LENGTH |
| KG/M | KILOGRAMS PER METRE | MASS/LENGTH |
| KG/E6 M | KILOGRAMS PER 1,000,000 METRE | MASS/LENGTH |
| KG/VKMT | KILOGRAMS PER KILOMETRE TRAVELLED | MASS/LENGTH |
| MILLIGRAM/VKMT | MILLIGRAMS PER KILOMETRE TRAVELLED | MASS/LENGTH |
| TONNE/E6 VKMT | TONNES PER 1,000,000 KILOMETRE TRAVELLED | MASS/LENGTH |
| UG/KM | MICROGRAMS PER KILOMETRE | MASS/LENGTH |
| KG/ACRE | KILOGRAMS PER ACRE | MASS/LENGTH^2 |
| KG/E3 M2 | KILOGRAMS PER 1,000 SQAURE METRE | MASS/LENGTH^2 |
| KG/E4 M2 | KILOGRAMS PER 10,000 SQAURE METRE | MASS/LENGTH^2 |
| KG/HECTR | KILOGRAMS PER HECTARE | MASS/LENGTH^2 |
| KG/M2 | KILOGRAMS PER SQAURE METRE | MASS/LENGTH^2 |
| TONNE/ACRE | TONNES PER ACRE | MASS/LENGTH^2 |
| KG/M2/HR | KG/M2/H | MASS/LENGTH^2/TIME |
| G/CC | GRAMS PER CUBIC CENTIMETRE | MASS/LENGTH^3 |
| G/KL | GRAMS PER KILOLITRE | MASS/LENGTH^3 |
| GRAM/M3 | GRAMS PER CUBIC METRE | MASS/LENGTH^3 |
| KG/E3 M3 | KILOGRAMS PER 1,000 CUBIC METRE | MASS/LENGTH^3 |
| KG/E6 M3 | KILOGRAMS PER 1,000,000 CUBIC METRE | MASS/LENGTH^3 |

| CODE [UNIT_CODE] [A20] | UNIT DESCRIPTION [UNIT_NAME] [A40] | UNIT TYPE [UNIT_TYPE] [A20] |
|------------------------------|--|-----------------------------------|
| KG/E9 L | KILOGRAMS PER 1,000,000,000 LITRE | MASS/LENGTH^3 |
| KG/KL | KILOGRAMS PER KILOLITRE | MASS/LENGTH^3 |
| KG/L | KILOGRAMS PER LITRE | MASS/LENGTH^3 |
| KG/M3 | KILOGRAMS PER CUBIC METRE | MASS/LENGTH^3 |
| KG/E6 L | KILOGRAMS PER 1,000,000 LITRE | MASS/LENGTH^3 |
| MILLIGRAM/KL | MILLIGRAMS PER KILOLITRE | MASS/LENGTH^3 |
| MILLIGRAM/M3 | MILLIGRAMS PER CUBIC METRE | MASS/LENGTH^3 |
| KG/M3/MIN | KILOGRAMS PER CUBIC METRES PER MINUTE | MASS/LENGTH^3/TIME |
| G/TONNE | GRAMS PER TONNE | MASS/MASS |
| KG/KG | KILOGRAMS PER KILOGRAM | MASS/MASS |
| KG/KTONNE | KILOGRAMS PER KILOTONNE | MASS/MASS |
| KG/E6 T | KILOGRAMS PER 1,000,000 TONNES | MASS/MASS |
| KG/TONNE | KILOGRAMS PER TONNE | MASS/MASS |
| MILLIGRAM/KG | MILLIGRAMS PER KILOGRAM | MASS/MASS |
| MILLIGRAM/TONNE | MILLIGRAMS PER TONNE | MASS/MASS |
| PPMWT | PARTS PER MILLION BY WEIGHT | MASS/MASS |
| WT% | WEIGHT PERCENT | MASS/MASS |
| WT/WT | WEIGHT RATIO | MASS/MASS |
| G/S | GRAMS PER SECOND | MASS/TIME |
| KG/HR | KILOGRAMS PER HOUR | MASS/TIME |
| T/DAY | TONNES PER DAY | MASS/TIME |
| DAY | DAY | TIME |
| HR | HOUR | TIME |
| MIN | MINUTE | TIME |
| S | SECONDS | TIME |
| YR | YEAR | TIME |