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Unofficial Version of the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants

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Documents relevant to the rulemaking process for this version of the regulation, including the Final Regulation Order, with underline/strikeout formatting showing additions and deletions to the regulation, is available on the CARB website here:

https://ww2.arb.ca.gov/rulemaking/2020/ctr2020

Official Legal Edition Available

The official legal edition of title 17, CCR, section 93400 et seq. is available via OAL. To access relevant provisions of the regulation online, go to the website below:

https://govt.westlaw.com/calregs/Index

From the website, follow the links shown to access the regulation:

1. Select "Title 17. Public Health";
2. Select "Division 3. Air Resources";
3. Select "Chapter 1. Air Resources Board";
4. Select "Subchapter 7.7. Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants";
5. Choose the relevant article(s), subarticle(s) and section(s).

Subchapter 7.7. Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants

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California Code of Regulations, Title 17, Division 3, Chapter 1,
Subchapter 7.7, Articles 1 and 2

Subchapter 7.7: Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants

Article 1. General Requirements for Criteria and Toxics Reporting

§ 93400. Purpose and Scope

The purpose of this article is to establish a uniform statewide system for the annual reporting of emissions of criteria air pollutants and toxic air contaminants for specified facilities that have been issued one or more permits to operate by a local air quality management district, air pollution control district, or air resources district. This article also requires owners or operators of such facilities to report to the state board (or in many cases, the local air district) annual emissions of criteria air pollutants and toxic air contaminants (or associated activity level data) using the uniform statewide system of annual reporting. This article implements the requirements of sections 39607 and 39607.1 of the California Health and Safety Code (H&SC) by identifying facilities subject to annual reporting, data to be reported, mechanisms for reporting, requirements for quantifying emissions data, and the timing and phase-in of specified data reporting requirements. It is also designed to support implementation and tracking of the requirements outlined in sections 42705.5 and 44391.2 of the H&SC.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93401. Applicability

(a) *General Applicability.*

Except as provided in section 93401(b), this article applies to the owners or operators of any facility described in sections 93401(a)(1), (2), (3), or (4) that is located in California and has been issued a permit to operate by an air district.

(1) *Greenhouse Gas (GHG) Reporter Applicability (GHG Facility).* A facility that is required to report to the state board the facility's greenhouse gas emissions for the data year, pursuant to H&SC section 38530. For determining applicability under section 93401(a)(1), a facility includes any onshore petroleum and natural gas production facility.

(2) *Criteria Emissions Greater Than 250 Tons per Year (tpy) Applicability (Criteria Facility).* A facility that is located in an air district for which any portion of the air district has been designated as nonattainment with respect to either the National Ambient Air Quality Standards (NAAQS) or the California Ambient Air Quality Standards (CAAQS), and that is authorized by one or more permit(s) issued by an air district to emit 250 or more tpy of any applicable nonattainment pollutant or its precursors during the data year.

(3) *Elevated Prioritization Toxics Applicability (Elevated Toxics Facility).* A facility that is categorized by the local air district as high priority for toxic air contaminant emissions at the beginning of the data year, based on cancer or noncancer health impacts pursuant to H&SC section 44360. A local air district may recategorize a facility's priority based on an assessment of human health risk or other information, pursuant to the district's prioritization policies.

(4) *Additional Applicability (Additional Applicability Facility).* A facility with one or more permits to operate issued by an air district with actual emissions or activity levels exceeding any of the thresholds specified in (A) through (C) below, within the data year. The applicability determination must include the data year emissions from all permitted processes and devices at the facility. If local air district rules or policies require reporting of emissions from unpermitted sources for a facility, such sources may be included in the applicability determination specified in (A) through (C), below.

(A) For a facility located within District Group A, 4 tpy of any criteria air pollutant (except for carbon monoxide). For a facility located within District Group B, 10 tpy of any criteria air pollutant (except for carbon monoxide). At the discretion of the local air district, the 4 tpy and 10 tpy thresholds for applicability can be based on the facility's authorized (permitted) potential to emit, instead of actual data year emissions.

(B) 100 tpy of carbon monoxide. At the discretion of the local air district, the 100 tpy threshold for applicability can be based on the facility's authorized (permitted) potential to emit, instead of actual data year emissions.

(C) Activity levels or emissions levels published in Appendix A, Table A-3 for a permitted emissions process at a facility classified with a matching primary or secondary Standard Industrial Classification (SIC) code or North American Industry Classification System (NAICS) code listed for the permitted emissions process. If the SIC or NAICS codes have a designation of "Any" in Table A-3 for a permitted process, then reporting for the process is required regardless of the SIC or NAICS designation for the facility performing the process, if the listed activity level reporting threshold is exceeded.

(b) *Facility Exclusions.*

(1) For facilities identified in section 93401(a)(1), this article does not apply to, and emissions reporting is not required for, the following facilities or entities that are subject to reporting their greenhouse gas emissions pursuant to California Code of Regulations (CCR), title 17, section 95101:

(A) Suppliers of transportation fuels (CCR, title 17, section 95121), suppliers of natural gas, natural gas liquids, and liquefied petroleum gas (CCR, title 17, section 95122), and suppliers of carbon dioxide (CCR, title 17, section 95123), that do not report any facility combustion emissions under the requirements of CCR, title 17, sections 95100 through 95158.

(B) Electric power entities as defined in CCR, title 17, section 95102.

(C) Natural gas distribution facilities.

(2) This article does not apply to, and emissions reporting is not required for the sources specified in subsections (A), (B), and (C) below. Any emissions associated with the specified sources are excluded from facility applicability determinations.

(A) Emissions from the combustion of diesel fuel or other fuels in internal combustion engines that are used for irrigation pumps (including booster pumps and groundwater well pumps) at agricultural operations.

(B) Emissions from open burning of fields, or open burning of agricultural wastes or agricultural residues, or permitted open burning including prescribed forest burns and permitted open burning of debris on-site.

(C) Emissions from tactical support equipment (TSE).

(c) *Cessation of Reporting.*

The owner or operator of a facility that is subject to reporting pursuant to the applicability criteria in sections 93401(a)(1), (2), (3), or (4), and submits notification to the California Air Resources Board (CARB) and the local air district according to this section certifying that no applicability criteria apply to the facility, may cease reporting required by this article.

(1) The owner or operator of the facility must provide in the notification the reason(s) for cessation of reporting, describing which applicability criteria no longer apply to the facility and why applicability is no longer triggered, for example: the facility has permanently shut down, the facility's permits to operate have been cancelled, or the facility is no longer categorized by the local air district as high priority for toxic air contaminant emissions (and does not meet any other applicability criteria). The designated representative for the facility must certify in writing or via email that no applicability criteria of this article apply to the facility. Facility owners or operators must provide the cessation notification to CARB at the mail address or email address indicated in section 93403(f) of this article, and to the local air district.

(2) The cessation notification must be submitted no later than May 1, or by the local air district's data reporting deadline if it is earlier than May 1, of the year in which the emissions report is due.

(3) *Reinstatement of Reporting Requirements*. Any facility that ceases reporting is again subject to reporting under the full requirements of this article if in the future it meets any of the applicability criteria in sections 93401(a)(1) through (4).

(d) *Determination of Nonapplicability*. CARB's Executive Officer or the Air Pollution Control Officer of the local air district, or their respective designees may request from any facility owner or operator emissions data, fuel use, throughput information, activity data, or process data necessary to determine if the facility meets one or more of the applicability criteria specified under sections 93401(a)(1) through (4). Requests by the Executive Officer or local air districts shall be based on the evaluation of CARB, local air district, or other information regarding the expected or known facility operations, processes, or emission levels, which indicate whether there is reasonable potential for a facility to be subject to one or more of the applicability criteria of this article. Such requested information must be provided to the Executive Officer or local air district within 30 calendar days of receipt of a written request.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93402. Definitions

(a) For the purposes of this article, the following definitions apply:

"Activity level" means a measurable factor or parameter of a process that relates directly or indirectly to the emissions of an air pollution source during the period for which emissions are reported. Some examples of activity levels include throughput, hours of operation, quantity of fuel consumed, quantity of material produced, quantity of coating applied, etc.

"Activity level data acquisition method" means documentation of the type of method used to collect the activity level information. Some examples include potential to emit, direct measurement (of fuel used, hours of operation, etc.), engineering estimates, permitted operating hours, mass balance, product or raw material inventory reconciliation, etc.

"Actual emissions" means the mass of a criteria air pollutant or toxic air contaminant measured, observed, or estimated to have been actually released by a process into the atmosphere during an associated data year, except in the case of radionuclide emissions, where the actual emissions are quantified in units of radioactivity instead of mass.

"Agricultural operations" means the growing or harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural operations do not include activities involving the processing or distribution of crops or animals.

"Air district" or "air quality management district" or "air pollution control district" or "district" means any district created or continued in existence pursuant to the provisions of Part 3 (commencing with section 40000) of Division 26 of the H&SC.

"Air District Group" or "District Group" means the air district group identifier for a facility, as denoted in Appendix A, Table A-2. The air district classification identifier is used in conjunction with Tables A-1 and B-1.

"Air Pollution Control Officer" means the Air Pollution Control Officer of a California Air Pollution Control District, Air Quality Management District, or Air Resources District, or her or his delegate.

"Annual" means with a frequency of once each year; unless otherwise noted, annual events such as reporting requirements will be based on the calendar year.

"Applicable nonattainment pollutant or its precursors" means:

- A pollutant for which any portion of the air district in which the facility is located has been designated as nonattainment with respect to NAAQS under 42 United States Code (U.S.C.) section 7407(d) and the precursors of such pollutants identified in the applicable State Implementation Plan, including local attainment plans, approved by the U.S. Environmental Protection Agency (U.S. EPA);

- A pollutant for which any portion of the air district in which the facility is located has been identified as nonattainment with respect to a CAAQS under H&SC section 39608 and the precursors of such pollutants listed in CCR, title 17, section 70700.

"Best available data and methods" means technically justifiable and documented quantification methods and emission factors used in conjunction with technically justifiable and documented activity level data, for estimating criteria air pollutant and toxic air contaminant emissions. Best available data and methods may be based on and include continuous emission monitoring systems, source test data, material balance, manufacturer-guaranteed emission rates (on an activity level basis), source-specific emissions data, facility-established methods and protocols, engineering estimates, and emission factors published in literature. Best available data and methods should not necessarily be maximum emissions values, potential to emit, or prescriptive limits established by permitting or regulation, unless those values provide the most accurate estimates available.

“Calendar year” means the time period from January 1 through December 31 of the same year.

“California Ambient Air Quality Standard” or “CAAQS” means the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without any harmful effects on people or the environment, as determined by CARB and codified in CCR, title 17, section 70200, Table of Standards.

“CARB” means the California Air Resources Board.

“Construction aggregate processing” includes the following activities: extraction from the earth of sand, gravel, or rock, and/or loading, unloading, conveying, crushing, screening, processing, and loadout of these materials.

“Continuous Emissions Monitoring System” or “CEMS” means the total equipment required to obtain a continuous measurement of an emissions concentration or emission rate from combustion or industrial processes, which meets local air district or U.S. EPA certification standards.

“Criteria air pollutant” or “criteria pollutant” means those pollutants for which there is an established California Ambient Air Quality Standard or National Ambient Air Quality Standard, including their precursors, except as otherwise specified herein. These pollutants and precursors include total volatile organic compounds (VOCs) or total reactive organic gases (ROG), nitrogen oxides (NO_x), sulfur oxides (SO_x), carbon monoxide (CO), particulate matter (PM), lead (Pb), and ammonia (NH_3). For the purposes of this article, vinyl chloride, hydrogen sulfide, and sulfates are considered toxic air contaminants, and must be reported as such.

“Data year” means the calendar year in which emissions occurred.

“Design capacity” means, for devices or emissions units that combust gaseous, liquid, or solid fuels, the maximum design capacity of the device or emissions unit.

For example, design capacity may be expressed as million British thermal units per hour (mmBtu/hr) or brake horsepower (bhp).

"Designated representative" means the person responsible for certifying and submitting the emissions report.

"Device" means a piece or set of equipment that has at least one process associated with it (e.g., internal combustion engine, boiler, tank, spray paint booth, etc.).

"Direct emissions" means emissions released directly from a stack, or other functionally equivalent opening.

"Emission calculation method" means a description and reference of the method used to calculate emissions for a pollutant (e.g., by source test, Continuous Emissions Monitoring System, emission factor, etc.).

"Emission factor" means the value relating the quantity of emissions of a pollutant to an activity level. Emission factors are typically empirically, experimentally, or mathematically derived, and are typically multiplied by, or otherwise mathematically applied to, a measured activity level to estimate the emissions associated with that activity.

"Emissions" means the release of criteria air pollutants or toxic air contaminants into the atmosphere from any sources and processes within a facility, including direct emissions or fugitive emissions.

"Emissions report" or "report" means the report prepared each year for a facility subject to this article that provides the information required by this article. The emissions report is for the submission of required data for the calendar year prior to the year in which the report is due. For example, a 2019 emissions report would include data pertinent to emissions that occurred during the 2019 calendar year (i.e., data year) and would be reported in 2020.

"Emittent ID" means the identification numbers assigned to substances as identified in Appendix A-I, Substances for which Emissions Must Be Quantified, of the Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program, version effective September 26, 2007, as issued by CARB, which is incorporated by reference herein, or as identified in Appendix B, Table B-1 of this article.

"Engineering estimate" means an estimate of emissions based on engineering principles applied to measured and/or approximated physical parameters such as fuel use, hours of operation, production, throughputs, flow rates, or other data.

"Equipment unit" means equipment that emits PM_{10} over and above that emitted from an associated engine.

"Executive Officer" means the Executive Officer of the California Air Resources Board, or his or her delegate.

"Facility" means any physical property, plant, building, structure, or stationary

equipment, having one or more sources, classified under the same two-digit, i.e., major industry grouping Standard Industrial Classification code (SIC) or under the same North American Industry Classification System (NAICS) code, located on one or more contiguous or adjacent properties in actual physical contact or separated solely by a public roadway or other public right-of-way and under common ownership or common control.

- Operators of military installations may classify such installations as more than a single facility based on distinct and independent functional groupings within contiguous military properties. See also the definition for "Onshore petroleum and natural gas production facility" for additional specifications regarding these facilities.

"Fugitive emissions" means those emissions from a source which could not reasonably be expected to pass through a stack, chimney, vent, or other functionally-equivalent opening.

"Geospatial coordinates" means the latitude and longitude values identifying a physical location, without considering elevation, under the North American Datum of 1983, National Oceanic and Atmospheric Administration, December 1989, incorporated by reference herein.

"Hazardous waste treatment, storage, disposal and recycling facility" means any facility as defined by "hazardous waste facility" in Health and Safety Code, section 25117.1 and in title 22, California Code of Regulations (CCR), section 66260.10 except: (1) transfer stations (as defined in the same section of CCR) that do not pump or package hazardous waste; and (2) storage facilities (as defined in Health and Safety Code, section 25123.3) that store only containerized waste.

"Lead" or "Pb" means lead and lead compounds, measured as elemental lead. Emissions of Pb which occur as elemental Pb or as a chemical compound containing Pb should be reported as the mass of the Pb atoms only.

"Local air district" means the air district within whose geographic boundaries an affected facility is located.

"Local distribution company" or "LDC," for purposes of this article, means a company that owns or operates distribution pipelines, not interstate pipelines, that physically deliver natural gas to end users and includes public utility gas corporations, publicly-owned natural gas utilities and intrastate pipelines that are delivering natural gas to end users.

"Maximum Rated Horsepower (brake horsepower (bhp))" is the maximum brake horsepower rating specified by the engine manufacturer and listed on the nameplate or emission control label of the engine.

"National Ambient Air Quality Standards" or "NAAQS" means those pollutants and associated standards identified in the Code of Federal Regulations, Title 40, Part 50, as it existed June 14, 2019, which is incorporated by reference herein.

"Natural gas distribution facility" means the collection of all distribution pipelines

and metering and regulating equipment at metering or regulating stations that are operated by a local distribution company (LDC) within California that are regulated as a separate operating company by a public utility commission or that is operated as an independent municipally-owned distribution system. This also includes customer meters and regulators, infrastructure, and pipelines (both interstate and intrastate) delivering natural gas directly to major industrial users and farm taps upstream of the local distribution company inlet.

"Nitrogen oxides" or "NO_x" means all oxides of nitrogen except N_2O.

"Nonattainment pollutant" means a criteria air pollutant for which a district is classified as a nonattainment area pursuant to the CAAQS and/or the NAAQS.

"North American Datum of 1983" or "NAD83", means the coordinate system, and a set of reference points, used to locate places on the Earth used to define the geodetic network in North America.

"North American Industry Classification System" or "NAICS" means the six-digit code(s) that represent the products, activities, and/or services at a facility as defined in North American Industry Classification System Manual, 2017, United States Office of Management and Budget, which is incorporated by reference herein.

"Onshore petroleum and natural gas production facility" means all petroleum or natural gas equipment on a well pad, or associated with a well pad or to which emulsion is transferred and CO_2 enhanced oil recovery operations that are under common ownership or common control including leased, rented, or contracted activities by an onshore petroleum or natural gas production owner or operator that are located in a single basin as defined in the Code of Federal Regulations, title 40, section 98.238, last amended October 22, 2015, which is incorporated by reference herein. For the purposes of this article, any cogeneration plant(s) permitted by a local air pollution control district as part of an onshore petroleum and natural gas production facility, are to be included as part of the facility for the purposes of reporting criteria air pollutant and toxic air contaminant emissions. This definition applies only to the determination that an onshore petroleum and natural gas facility is subject to the reporting requirements of this article; for the reporting of emissions, air districts or CARB may choose to disaggregate the emissions required to be reported within the onshore petroleum and natural gas facility to smaller sub-facility groupings, which may also be identified as individual "facilities" within the single basin.

"Operational control" for a facility subject to this article means the authority to introduce and implement operating, environmental, health and safety policies. In any circumstance where this authority is shared among multiple entities, the entity holding the permit to operate from the local air pollution control district or air quality management district is considered to have operational control for purposes of this article.

"Operator" means the entity, including an owner or leaseholder, having

operational control of a facility. For onshore petroleum and natural gas production, the operator is the operating entity listed on the state well drilling permit, or a state operating permit for wells where no drilling permit is issued by the state.

"Particulate matter" or "PM" is a criteria air pollutant for the purposes of this article. The requirements for reporting particulate matter are included in 93404(c)(1)(A). For the purposes of this article, the following definitions apply:

- "$PM_{2.5}$" means PM with an aerodynamic diameter equal to or less than 2.5 micrometers, including both filterable PM and condensable PM.
- "PM_{10}" means PM with an aerodynamic diameter equal to or less than 10 micrometers, including both filterable PM and condensable PM. PM_{10} will include $PM_{2.5}$.
- "Condensable PM" means material that exists in vapor phase at stack conditions, but which condenses or reacts upon cooling or dilution in the ambient air to form solid or liquid PM after discharge from the stack. All condensable PM is in the $PM_{2.5}$ size fraction.
- "Filterable PM" means particles that are directly emitted by a source as a solid or liquid at stack or release conditions such that they could be captured on the filter of a source test sampling train. Filterable PM can be in the $PM_{2.5}$ or PM_{10} size fraction, or may be larger in size.

"Permit" or "Air District Permit" means a temporary or permanent document, issued by a district, which authorizes a facility to operate a device, process, or facility that emits substances into the air, including, but not limited to, criteria air pollutants and toxic air contaminants. Permits may establish numeric limits on activity levels for devices or processes, or the amount of emissions a facility is legally authorized to emit over a specified period of time. If existing air district policy requires emissions data reporting under the requirements of an air district issued authority to construct or permit to construct, districts may treat these documents as "Permits" or "Air District Permits" for the purpose of implementing this article.

"Permit ID" or "Air District Permit ID" means the identification code or other identifier used by the local air district for a facility permit.

"Physical address" means the street address, city, state and zip code of a facility's or company's actual physical location. For facilities, the physical address serves to locate one or more emission sources rather than to locate a corporate office or as a mailing address. For facilities in rural or other locations without a distinct street or other address, or that are geographically dispersed, a best available address should be provided, which is nearest to the most significant emission source(s). A best available address could include cross streets, a road or highway number, or other identifying information for the street address and city.

"Pollutant code" means the numeric codes associated with the pollutant names as specified in the table below.

Pollutant Code	Pollutant Name	Abbreviated Name
42101	Carbon Monoxide	CO
42603	Oxides of Nitrogen	NO_x
42401	Oxides of Sulfur	SO_x
11101	Particulate Matter	PM
85101	Particulate Matter 10 Microns or Less	PM_{10}
88101	Particulate Matter 2.5 Microns or Less	$PM_{2.5}$
16113	Reactive Organic Gases	ROG
43101	Total Organic Gases	TOG
43104	Volatile Organic Compounds	VOC
42604	Ammonia (toxics Emittent ID 7664417)	NH_3
12128	Lead (toxics Emittent ID 7439921)	Pb

"Portable" means designed and capable of being carried or moved from one location to another. Indicia of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. For the purposes of this regulation, dredge engines on a boat or barge are considered portable. The engine or equipment unit is not portable if any of the following are true:

- The engine or equipment unit or its replacement is attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months. The period during which the engine or equipment unit is maintained at a storage facility shall be excluded from the residency time determination. Any engine or equipment unit such as back-up or stand-by engines or equipment units, that replace engine(s) or equipment unit(s) at a location, and is intended to perform the same or similar function as the engine(s) or equipment unit(s) being replaced, will be included in calculating the consecutive time period. In that case, the cumulative time of all engine(s) or equipment unit(s), including the time between the removal of the original engine(s) or equipment unit(s) and installation of the replacement engine(s) or equipment unit(s), will be counted toward the consecutive time period; or
- The engine or equipment unit remains or will reside at a location for less than 12 consecutive months if the engine or equipment unit is located at a seasonal source and operates during the full annual operating period of the seasonal source, where a seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location at least three months each year; or
- The engine or equipment unit is moved from one location to another in an attempt to circumvent the portable residence time requirements.

"Process" means a type of activity for a device that produces emissions (e.g. flaring, internal combustion, heating, painting, gravel screening, breathing loss, vehicle fueling, spillage, solvent cleaning, etc.). One device has at least one process.

"Process description" means a description of the emitting process indicating how

substances are emitted to the atmosphere.

"Reactive organic gases" or "ROG" means gaseous volatile organic compounds (or VOC), as defined in the Code of Federal Regulations, title 40, section 51.100(s), as of June 12, 2019, which is incorporated by reference herein. If a district has, prior to the effective date of this regulation, established a rule that defines ROG differently than this article, the district may use the district rule definition to quantify ROG.

"Release location" or "Release location exit" means the location at which a gas stream enters the ambient air.

"Release location exit gas flow rate" means the numeric value of the volumetric flow rate of a stack gas stream as measured in the stack or at the release point exit, in units of actual cubic feet per minute, or ACFM. Exit gas flow rate should represent, to the extent feasible, the typical, or the most common or generally used, annual operating conditions. Exit gas flow rate may be based on, in order of preference: direct measurements (including measurements recorded during source testing), engineering evaluation, engineering specifications, or other science-based methods.

"Release location exit gas temperature" means the numeric value of the temperature of an exit gas stream as measured in the stack or at the release point exit, in units of degrees Fahrenheit. Exit gas temperature should represent, to the extent feasible, the typical, or the most common or generally used, annual operating conditions. Exit gas temperature may be based on, in order of preference: direct measurements (including measurements recorded during source testing), engineering evaluation, engineering specifications, or other science-based methods.

"Release location exit gas velocity" means the numeric value of the velocity of an exit gas stream as measured in the stack or at the release point exit, in units of feet per minute. Exit gas velocity should represent, to the extent feasible, the typical, or the most common or generally used, annual operating conditions. Exit gas velocity may be based on, in order of preference: direct measurements (including measurements recorded during source testing), engineering evaluation, engineering specifications, or other science-based methods.

"Release location height above ground" means the physical height of a release point above the immediate surrounding terrain, in units of feet.

"Release location stack diameter" means the inner physical diameter of a circular stack or the equivalent diameter of a rectangular stack, in units of feet.

"Release location type" means the identification of whether the release location is a point source (e.g. a stack), or a volume source (e.g. fugitive leaks).

"Release point physical configuration" means an indication of whether the stack or release point is fugitive, vertical, horizontal, goose-neck, vertical with rain cap, or downward-facing vent.

"Sector Phase" means the sector phase identification number for a facility or activity, as identified in Appendix A, Table A-3 of this article. The Sector Phase identification number is used in conjunction with the Air District Group identifier to determine the initial data year for a facility subject per section 93401(a)(4)(C).

"Short ton" means a common international measurement for mass, equivalent to 2,000 pounds, referred to as "tons" herein.

"Shut down" means the permanent or indefinite cessation of operation of an emission source for any purpose.

"Source" means any physical unit, process, or other use or activity that releases a criteria air pollutant or toxic air contaminant into the atmosphere.

"Source Classification Code(s)" or "SCCs" means the typically eight-digit code(s) that represent distinct source processes, as listed in Appendix C to the "Staff Report: Initial Statement of Reasons" published by the California Air Resources Board on October 23, 2018, which is incorporated by reference herein.

"Stack" or "release point" means any opening or passage designed to emit gases, solids, or liquids from a source into the air, including a chimney, vent, pipe, or duct.

"Standard cubic foot" or "scf" is a measure of quantity of gas, equal to a cubic foot of volume at 60 degrees Fahrenheit and either 14.696 pounds per square inch (1 atm) or 14.73 PSI (30 inches Hg) of pressure.

"Standard Industrial Classification Codes" or "SICs" or "SIC Codes" means the four-digit codes that are used to identify and classify a company's primary business function or activity. SIC code numbers were last updated in 1987 by the U.S. Office of Management and Budget, and are no longer maintained or revised. The SIC codes are available on the United States Department of Labor, Occupational Safety and Health Administration, "SIC Division Structure" website page, which is incorporated by reference herein.

"Stationary" means neither portable nor self-propelled, and operated at a single facility.

"Sulfur oxides" or "SO_x" means all oxides of sulfur.

"Tactical Support Equipment" or "TSE" means equipment using a portable engine, including turbines, that meets military specifications, owned by the U.S. Department of Defense, the U.S. military services, or its allies, and used in combat, combat support, combat service support, tactical or relief operations, or training for such operations. Examples include, but are not limited to, internal combustion engines associated with portable generators, aircraft start carts, heaters and lighting carts.

"Total organic gases" or "TOG" means any gaseous compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

"Toxic air contaminant" means, for the purpose of this article, those substances identified in Appendix A-I of the Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program (EICG), version effective September 26, 2007, as issued by CARB, and substances identified in Appendix B of this article.

"Unit Type Code" means the numeric code that represents the broad category or type of a device, as listed in Table 1 of Appendix B to the "Staff Report: Initial Statement of Reasons" for the Public Hearing to Consider Amendments to the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants, dated October 2, 2020, and published by the California Air Resources Board , which is incorporated by reference herein. Examples of Unit Type Codes include: 100 (for Boilers), 120 (for Turbines), and 200 (for Furnaces).

"U.S. EPA" means the United States Environmental Protection Agency.

"Volatile Organic Compounds" or "VOCs" means, for the purpose of this article the same as Reactive Organic Gases.

"Wastewater treatment plant" means any of the following: (1) A facility owned by a state, local, or federal agency and used in the treatment or reclamation of sewage or industrial wastes; (2) A privately owned facility used in the treatment or reclamation of sewage or industrial wastes, and regulated by the Public Utilities Commission pursuant to sections 216 and 230.6 of, and chapter 4 (commencing with section 701) of part 1 of division 1, of the Public Utilities Code; or (3) A privately owned facility used primarily in the treatment or reclamation of sewage, and for which the State Water Board or a Regional Water Board has issued waste discharge requirements. "Wastewater treatment plant" includes water recycling treatment plants. The term, "wastewater treatment plant" does not include onsite sewage treatment systems as defined in section 13290 of the Water Code.

A covered system wastewater treatment plant has a covering over the physical area where the primary settling process occurs in the wastewater treatment process, such as sedimentation tanks. The primary tanks may be sealed or covered with a fixed, floating, or retractable covering and shall be air tight, thus preventing emissions from being released into the air.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93403. Emission Reporting Requirements

Owners or operators of the facilities subject to this article must submit complete emissions reports according to the requirements specified in section 93403 for criteria air pollutants and toxic air contaminants.

(a) *GHG, Criteria, and Elevated Toxics Facilities Emissions Reporting: Phase-In Schedule*. Owners or operators of a GHG, Criteria, or Elevated Toxics Facility subject to reporting per sections 93401(a)(1), (2), or (3) must submit annual emissions reports according to the following phase-in schedule.

(1) *Annual Emissions Reporting Using Existing District Program and Methods: Phase-In Period*. Owners or operators of a facility specified below in 93403(a)(1)(A) and (B) must submit annual emissions reports during the phase-in periods described below that include all data as specified by the local air district's existing emissions reporting program and methods for the 12-month period of time currently required to be reported by the local air district. The annual emissions reports submitted during this phase-in period do not require reporting of the contents of section 93404, unless required by the local air district. Facility owners or operators submitting emissions reports during the phase-in period must either provide emissions data for the criteria air pollutants and toxic air contaminants pursuant to the local air district's existing emissions reporting program, or provide sufficient activity level data for the air district to calculate such emissions using the existing district program and methods.

(A) For GHG and Criteria Facilities subject to reporting per sections 93401(a)(1) and (2), the above phase-in period and district existing methods requirements apply for 2019 data reported in 2020.

1. *Criteria Facility Permitted Emissions Reporting Delay*. Criteria Facilities subject to reporting per section 93401(a)(2), but not subject to 93401(a)(1) or 93401(a)(3), are not required to provide an annual emissions report per this article for the 2019 data year unless actual emissions of any applicable nonattainment pollutant or its precursors exceeds 250 tpy. Following the 2019 data submission in 2020, applicability for Criteria Facilities is based on air district permitted emissions, and not actual emissions.

(B) For Elevated Toxics Facilities subject to reporting only per section 93401(a)(3), the above section 93403(a)(1) phase-in and district existing methods requirements apply to both the 2019 data reported in 2020, and the 2020 data reported in 2021.

(2) *Annual Emissions Reporting*. Following the phase-in periods described above in 93403(a)(1), owners and operators of GHG, Criteria, or Elevated Toxics Facilities must submit annual emissions reports according to the

requirements and containing the *Facility Data* of section 93404(a) and the *Full Report Contents* of 93404(b)(1).

(A) Owners or operators of a GHG, Criteria, or Elevated Toxic Facility subject per 93401(a)(1), (2), or (3) may defer reporting the release location data specified in 93404(b)(1)(D) and the substances listed in Appendix B, Table B-2, until 2022 data reported in 2023. Additionally, for these sources, reporting of substances listed in Appendix B, Table B-3, may be deferred until 2026 data reported in 2027.

(b) *Additional Applicability Facilities Emissions Reporting*. Owners and operators of an Additional Applicability Facility subject to reporting only per section 93401(a)(4) and no other applicability criteria, must submit emissions reports according to this section.

(1) *Initial Emissions Reporting*. Based on the facility District Group location and the Sector Phase of the Permitted Process triggering applicability, owners and operators of an Additional Applicability Facility subject to reporting only per section 93401(a)(4) and no other applicability criteria, must submit an initial emissions report for the data year indicated in Table A-1 of Appendix A, except for agricultural operation facilities as specified in 93403(b)(5). As specified under Section 93401(a)(4)(C), once any applicability criteria is met by a facility, all facility sources specified in 93404(c)(2) are reportable, regardless of the Sector Phase of additional facility sources. Submittal of emissions reports for other data years is optional until the years indicated for *Annual Emissions Reporting* in 93403(b)(2).

(2) *Annual Emissions Reporting*. With the exception of facilities that meet the Sector Phase 3B category criteria in Table A-3, following initial emissions reporting, owners and operators of an Additional Applicability Facility subject to reporting only per section 93401(a)(4) and no other applicability criteria, must submit annual emissions reports beginning with the 2026 data year reported in 2027 for facilities in District Group A, and beginning with the 2028 data year reported in 2029 for facilities in District Group B. Sector Phase 3B sources must submit annual emissions reports beginning with the 2028 data year in 2029, regardless of District Group, as specified in Table A-1.

(3) *Emissions Report Contents*. Emissions reports for an Additional Applicability Facility subject to reporting only per section 93401(a)(4) and no other applicability criteria must include the *Facility Data* of 93404(a), and either the *Full Report Contents* specified in section 93404(b)(1) or the *Abbreviated Report Contents* specified in section 93404(b)(2), as applicable.

(A) *Release Location Data Reporting*. Owners or operators of an Additional Applicability Facility subject only per 93401(a)(4) and required to report the *Full Report Contents* of section 93404(b)(1) are not required to report the release location data specified in 93404(b)(1)(D), unless the

data is requested by the Executive Officer or the local air district prior to the beginning of the data year for which the release location data reporting is required.

(4) For a facility subject only to reporting per section 93401(a)(4) and not submitting an abbreviated report, that facility's emissions report must include all emissions sources specified in 93404(c)(2), as applicable (not only those triggering applicability in Table A-3 of Appendix A), including those permitted processes that may be subject to phase-in emission reporting requirements in a future data year.

For sources subject to reporting only per sections 93401(a)(4)(A)-(C) that are included under Sector Phase 3B in Table A-3, such facilities may postpone the initial reporting year reporting until the 2028 data year, even if other permitted processes in Sector Phases 1, 2, or 3 are present at the facility.

(5) Agricultural operation facilities subject only to reporting per section 93401(a)(4) may postpone the initial year of reporting to Sector Phase 3 for the applicable District Group identified in Table A-1 of Appendix A.

(c) *Submittal of Emissions Reports.* For facilities subject to this article, emissions reports must be submitted to the local air district, or alternatively, to CARB, as specified in this section.

(1) *Submittal to the Local Air District*. Owners and operators of a facility subject to this article must submit emissions reports to the local air district by May 1 of the year immediately following the data year, unless approved by the local air district and the Executive Officer to submit emissions reports directly to CARB as specified in 93403(c)(2). For one or more facilities, a local air district may specify a different submittal date which supersedes the May 1 submittal date, if the district is able to provide the data to CARB no later than August 1 of the year following the data year. The local air district will determine the format in which the facility report contents are submitted to the district.

(A) By August 1 of the year immediately following the data year, annual emissions reports submitted to the air district may be submitted by the local air district on behalf of the owner or operator of the facility to CARB. If the local air district does not submit the required emissions data to CARB on behalf of the owner or operator of the facility by August 1 of the year immediately following the data year, the Executive Officer, after consultation with the local air district, will notify the designated representative and/or the owner or operator of the facility to obtain the data required by this article. The facility designated representative and/or owner or operator must provide the required emissions data as specified in 93403 and 93404 to both the local air district and CARB within 30 calendar days of notification.

If an air district elects to quantify emissions on behalf of the owner or operator of a facility subject to this article, owners or operators must

provide sufficient data for the air district to determine the data required by section 93404, except for the data elements identified in sections 93404(b)(1)(C)(3) through (12), as the air district will determine those data elements.

(2) *Alternative Submittal to CARB*. Alternatively, the designated representative and/or owner or operator of an affected facility may request to submit current and future emissions reports directly to a CARB administered electronic data system, if such a system is available, as specified below. Air districts may require one or more facilities within its boundaries to submit emissions reports directly to the CARB administered electronic data system. Owners and operators of a facility submitting directly to CARB must submit emissions reports by August 1 of the year following the data year.

(A) *Requests for Alternative Submittal to CARB*. Requests by the designated representative and/or owner or operator of an affected facility must be submitted to the email address in section 93403(f) and the Air Pollution Control Officer of the local air district by January 31 of the year immediately following the data year, to be considered for that data year. In making the determination, the potential benefits of direct submission to the CARB administered electronic data system including factors such as data processing efficiencies, district and CARB data review needs, and report submission consistency, will be evaluated. The determination will be made within 45 calendar days of submission. If the request is approved both by designated representatives of CARB and the Air Pollution Control Officer of the local air district, the facility emissions reports may be directly submitted to the CARB administered electronic data system.

(3) If data required from any facility subject to this article is found to be missing, incomplete, or incorrect, CARB will contact the air district and notify the facility designated representative of missing, incomplete, or incorrect data. For the purpose of compliance determinations, the facility owner or operator shall maintain liability for any late submittals and errors in data submitted to the local air district or CARB by the facility owner or operator.

(d) *Disaggregation for GHG Facilities*. For owners or operators of a facility subject to this article pursuant to section 93401(a)(1) based on greenhouse gas (GHG) emissions, who report aggregated facility GHG emissions under CCR, title 17, sections 95100-95163, including but not limited to onshore petroleum and natural gas production facilities and geothermal electricity generation facilities, the criteria air pollutant and toxic air contaminant emissions must be quantified and reported for individual facilities as identified by local air districts.

(e) *Reporting Responsibilities During Changes in Ownership.* The owner or operator at the time of a reporting deadline specified in this article must comply with the requirements of this article.

(1) For a facility, emissions data for the facility must be reported for the entire data year during which reporting is required. If an ownership change takes place during a data year or prior to a reporting deadline for the data year, the prior owner and current owner share responsibility to ensure that facility emissions data are reported for the entire data year. Each party is responsible for data collection and reporting for the period during which they had operational control of the facility..

(2) For annual reporting when a change of ownership occurs during the data year or prior to the reporting deadline for the data year, with concurrence of the local air district, facility owners or operators must either:

(A) Submit a single consolidated emissions report which provides data for the entire data year and spans the ownership change, with the report typically being submitted by the current owner or operator; or,

(B) Submit individual emissions reports, by the respective owners or operators, that include data only for the period during which they held ownership of the facility.

(f) *Addresses*. The following address (in addition to the appropriate address of the local air district) shall be used for any necessary notifications or materials that are not submitted by other means as described in this article:

Manager, Criteria Pollutant and Air Toxics Reporting Section
Special Assessment Branch
Air Quality Planning & Science Division
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

Emailed notifications or materials must be submitted to CARB at:
ctr-report@arb.ca.gov

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93404. Emissions Report Contents

Emissions reports must contain the contents identified in this section, as applicable. Refer to section 93403 for specifications regarding when identified data elements are subject to reporting.

(a) *Facility Data*. Emissions reports must include the following facility data.

(1) Facility name and facility identification number established by the local air district and CARB; and for GHG Facilities subject to reporting under the provisions of 93401(a)(1), the six-digit facility ARB ID, as reported under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR), title 17, California Code of Regulations, section 95100 et seq.

(2) Owner or Operator. Legal name(s) and mailing address of the facility owner or operator at the time of a reporting deadline specified in this article.

(3) NAICS code(s) that apply to the facility:

(A) Primary NAICS code. Report the NAICS code that most accurately describes the facility's primary product, activity, or service. The primary product, activity, or service is the principal source of revenue for the facility.

(B) Secondary and additional NAICS code(s). A facility that has two or more distinct products, activities, or services may report additional NAICS code(s) associated with additional activities or processes. Report all additional NAICS codes that describe all products, activities, or services at the facility that are not related to the principal source of revenue, as applicable.

(4) Standard Industrial Classification (SIC) code. Report the SIC code that most accurately describes the facility's primary business function or activity. Report any secondary or additional SIC codes that apply to additional facility activities or services.

(5) The air basin, air district, and county in which the facility is located.

(6) The facility physical address, as applicable.

(7) Geospatial coordinates. Latitude and longitude, in decimal degrees, of the approximate center (or centroid) of the facility, or the latitude and longitude of the location's street address.

(b) *Specific Contents*. In addition to the *Facility Data* of 93404(a), emissions reports must include the *Full Report Contents* or *Abbreviated Report Contents* below.

(1) *Full Report Contents*. Owners and operators of a facility that does not qualify for abbreviated reporting per section 93404(b)(2) must report the following. In general, Device IDs, Process IDs, associated descriptions, and related

information are to be those used by the local air districts in identifying emission sources.

(A) *Device Data*. For each device at the facility:

1. Device ID
2. Device name or description of the device
3. U.S. EPA Unit Type Code
4. Air District Permit ID associated with the device
5. For combustion devices only, design capacity of device

(B) *Process Data*. For each process associated with a device at the facility:

1. Process ID
2. Process description
3. Device ID associated with the process
4. Source Classification Code
5. Activity level for the data year
6. Activity level unit of measure. Activity levels for fuel use are to be reported in units of million British thermal units (MMbtu) for gases (or optionally, million of standard cubic feet (MMscf)), gallons for liquids, short tons for non-biomass solids, and bone dry short tons for biomass-derived solids.
7. Description of activity level data acquisition method

(C) *Emissions Data*. For each criteria air pollutant and toxic air contaminant emitted by a process at the facility:

1. Data year being reported
2. Device ID associated with the criteria air pollutant or toxic air contaminant
3. Process ID associated with the criteria air pollutant or toxic air contaminant
4. Pollutant Code for criteria air pollutants or Emittent ID for toxic air contaminants
5. Actual emissions
6. Actual emissions unit of measure
7. Emission factor as applicable
8. Source of the emission factor, as described in 93404(d), as applicable
9. Emission factor unit(s) of measure

10. Emission calculation method, as described in 93404(d)
11. The control efficiency of all emissions control devices, if the control efficiency is used to quantify emissions. If no control device is used, or if the reduction in emissions resulting from use of the device is not required to quantify emissions, the control efficiency is not required to be reported.
12. For toxic air contaminants, the amount of the substance that is produced or used at the facility during the data year, if no best available data and methods exist to estimate the quantity of the substance that is emitted during the data year, pursuant to section 93404(c)(1)(B)

(D) *Release Location Data*. For each release location associated with a process at the facility:

1. Release location type, point or volume
2. Geospatial coordinates
3. If the release location type is "point (i.e. stack)," the following must be reported:
    a. Stack ID
    b. Stack name
    c. Release location height above ground
    c. Release location exit gas temperature
    e. Release location stack diameter in feet
    f. Release location exit gas velocity in feet per minute or
    g. Release location exit gas flow rate in actual cubic feet per minute
    h. Release point physical configuration
4. If the release location type is "volume (i.e. fugitive)," then individual equipment components may be aggregated for the purposes of reporting if they are geographically located in a similar area and have similar release parameters and/or constituents. For example, fugitive emissions from flanges, valves, non-ducted venting, connectors, seals, and other similar equipment may be combined for reporting. Fugitive emissions may also be combined in a manner consistent with existing air district reporting, provided that geospatial coordinate information, as described in 93404(b)(1)(D)(2), is provided.
5. *Update Frequency*. The data items listed in this section 93404(b)(1)(D) must be updated in the next required emissions

report when there are physical changes to the facility structure or emissions release locations, or if there are substantive changes to emissions sources or operations, such as those requiring the addition, modification, or removal of district air permits.

(2) *Abbreviated Report Contents*. Owners and operators of a facility that qualifies for abbreviated reporting pursuant to 93421(a) or (b) are required to report the *Facility Data* of 93404(a) and 93404(b)(1)(B)(5) and (6), but are not required to report the remaining contents of 93404(b)(1). The abbreviated report must include the content listed in 93421(a) for each qualifying activity, and any activity data specified pursuant to 93421(b). Additional device level, process level, and emissions level data for the facility may be provided to CARB by the local air district.

(c) *Emissions and Sources*. Annual emissions reports for a facility must include the emissions and sources as specified in 93404(c)(1) and (2).

(1) *Emissions*. For permitted processes and devices (and unpermitted processes and devices, if emissions reporting is required pursuant to district rules or policies), the annual direct and fugitive emissions of the following air pollutants must be reported. Alternatively, at the discretion of the local air district, sufficient activity level data must be submitted for the air district to calculate such emissions.

(A) Criteria air pollutants, in units of short tons per year. For organic gases, unless otherwise required by the local air district, ROG, VOC, or total organic gases may be reported to satisfy this requirement, and CARB will quantify the other two using CARB speciation profiles. If a district has established a rule that defines ROG differently than this article, the district may use the district rule definition to quantify ROG. For particulate matter, emissions of $PM_{2.5}$, PM_{10}, and total PM must be reported, or as required by the local air district, one of the three values must be reported and CARB will quantify the other two values using CARB particulate matter speciation profiles.

Lead must be reported in both tons per year using Pollutant Code 12128 and in pounds per year using Emittent ID 7439921. Ammonia must be reported in both tons per year using Pollutant Code 42604 and pounds per year using Emittent ID 7664417.

(B) Toxic air contaminants, as defined herein, in units of pounds per year, except for radionuclides which must be reported in units of curies per year. The reported toxic air contaminants must include those chemicals that are actually emitted by the facility by permitted processes and devices (and unpermitted processes and devices, if emissions reporting is required pursuant to district rules or policies), based on existing quantification methods. Reporting must include the substances identified in the 2007 EICG, previously cited in the "Toxic air

contaminants" definition, and the substances identified in Appendix B, with reporting of the Appendix B toxic substances phased-in as specified in Table B-1.

If at the time a substance becomes subject to reporting per Table B-1, a listed toxic air contaminant substance is present or is used or produced at a facility in a way that may result in airborne emissions, one of the alternatives identified as "best available data and methods," as defined in this article, must be used to quantify the emissions, as applicable. If an air district determines that none of the alternatives listed would provide a reasonable, technically justified emissions estimate, and no other method can be determined that will provide such an estimate, then the presence of the toxic air contaminant and the amount used or produced at the facility during the data year must be reported without an estimated quantitative emissions value. Purchase records, substance inventory reconciliation, direct measurement, or other methods may be used to estimate amounts used or produced.

(2) *Sources*. Except as indicated in section 93404(c)(2)(C), below, emissions as specified in 93404(c)(1), must be reported for the following emissions sources:

(A) Permitted processes and devices at the facility.

(B) Unpermitted processes and devices at the facility, including unpermitted fugitive emissions, if at the beginning of the data year such facility-specific emissions are required by the local air district to be reported or if the emissions are quantified on behalf of the facility owner or operator by the local air district.

(C) *Portable Diesel-Fueled Engines and Devices*. Except as provided in section 93404(c)(2)(D), emissions from portable diesel-powered engines and devices (including equipment registered under the Portable Equipment Registration Program) rated at 50 maximum rated horsepower (brake horsepower (bhp)) or above and operated at a GHG and/or Criteria Facility (sections 93401(a)(1-2)), regardless of equipment ownership or permit status, if the engine or device is operated on site at any time during the data year. If local air district rules or policies requires reporting of emissions from additional portable diesel-fueled engines and devices, the district may require reporting for such sources under this article.

The data of 93404(b)(1) does not need to be provided for portable engines and devices, unless required by the local air district. The use of best available data and methods, including the use of engineering estimates, may be used to quantify emissions from portable engines and devices, and the emissions data from multiple engines may be

aggregated if approved by the local air district. Alternatively, the activity data necessary to estimate the emissions from such portable diesel-powered engines and devices shall be reported to the district, and the district may quantify the emissions on behalf of the facility. Reporting of emissions from such engines and devices begins with 2022 emissions reported in 2023.

(D) *Exemptions*. Device, process, emissions, and release location data, as requested under section 93404(b)(1), do not need to be reported for the following sources.

1. Internal combustion engines used for irrigation pumps (including booster pumps and groundwater well pumps), combusting diesel fuel or other fuels, at agricultural operations.
2. Open burning of fields, or open burning of agricultural wastes or agricultural residues that is subject to burn permitting by a local air district.
3. Tactical support equipment (TSE).

(d) *Use of Best Available Data and Methods*. Annual emissions reports prepared pursuant to this article must provide the emissions calculation method, the source of the reported emissions factor, and the control efficiency, as applicable, using best available data and methods, that are used to compute emissions of criteria air pollutants and toxic air contaminants. If an air district calculates emissions on behalf of a facility using activity level data provided by the facility, the district will report the calculation methods, emission factors and other information used to quantify emissions, using best available data and methods. Calculation methods must identify the general methods used, such as continuous emissions monitoring system, facility-specific emission factors, facility source test data, emission factors provided by an air district, or U.S. EPA emission factors. If activity data is used to calculate emissions, the reported calculation method must include a general description of the technique used to acquire the activity data, such as sales records, measurement devices, material balance, throughput, or material produced used to quantify parameters to which emission factors are applied.

(e) *Attestation.* With the submitted annual report, the designated representative for a facility subject to this article must provide an attestation to the local air district or to CARB that he or she is authorized by the owner or operator of the facility to submit the emissions report, and that to the best of his or her knowledge, all information submitted by the designated representative pursuant to this article is true, complete, and correct.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93405. Document Retention and Record Keeping Requirements

(a) The owner or operator of a facility subject to this article, including those facilities that cease reporting pursuant to 93401(c), must retain records and documentation necessary to validate the data in the emissions report for a period of no less than five years, notwithstanding other federal, state, or local recordkeeping requirements, from the date that the emissions report is submitted to CARB or the air district. Retained records include but are not limited to, information used to quantify or report emissions data in the emissions report, underlying monitoring and metering data, invoices of receipts or deliveries, sales transaction data, calculation methods, protocols used, analysis results, calibration records, and other relevant information.

(b) All records must be retained at the facility and made available to CARB or air district staff for onsite inspection at the time of inspection.

(c) *Emission Report Audits*. Copies of any records or other materials maintained under the requirements of this article must be made available to the Executive Officer upon request, within 30 calendar days of receipt of such request to the designated representative of the owner or operator of the facility subject to this article. The facility owner or operator must make available appropriate records, data, and personnel for either in-person on-site audits, or remotely implemented audit activities, so that CARB may review and verify the completeness and accuracy of submitted emissions data.

(d) *Requests for Additional Data from Abbreviated Reporters*. The local air district, or CARB (in consultation with the local air district) may require additional information and data from the owners and operators of a facility that qualifies for abbreviated reporting. The additional data will be requested if the local air district or CARB determines that the data from the abbreviated report indicates a potential elevated risk to receptors due to the emissions from the facility or due to the cumulative effects of emissions from the facility combined with other sources. Additional data requested includes the data elements under the *Full Report Contents* of section 93404(b). Requested information and data must be made available to the Executive Officer upon request, within 60 days of receipt of such request to the designated representative of the owner or operator of the facility subject to this article.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93406. Confidentiality

(a) Emissions data submitted to CARB under this article are public information and shall not be designated as confidential.

(b) Any entity submitting information to the Executive Officer or local districts pursuant to this article may claim such information as "confidential" by clearly identifying such information as "confidential." Any claim of confidentiality by an entity submitting information must be based on the entity's belief that the information identified as confidential is either trade secret or otherwise exempt from public disclosure under the California Public Records Act (Government Code section 6250 et seq.). The designated representative must attest that the claim of confidentiality is true, correct, and complete. All such requests for confidentiality must be handled in accordance with the procedures specified in CCR, title 17 sections 91000 to 91022.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93407. Enforcement

(a) Owners or operators of facilities subject to this article are subject to enforcement by CARB as specified:

(1) Failure to comply with any of the requirements of this article shall be a violation of this article. Penalties may be assessed for any violation of this article pursuant to H&SC section 42400 et seq.

(2) Any facility report, data, or documentation submittal required by this article that is not submitted by the facility owner or operator to CARB or a district, or is submitted late by the facility owner or operator to CARB or a district, shall be a violation of this article.

(3) Falsifying any information or record required to be submitted or retained by this article, shall be a violation of this article.

(4) Failure to retain and failure to produce any record that this article requires to be retained or produced shall each constitute a violation of this article.

(b) Any violation of this article may be enjoined pursuant to Health and Safety Code section 41513.

(c) These enforcement provisions do not preempt any local air district enforcement authority.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health

and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93408. No Preemption of More Stringent Air District or Federal Requirements.

This regulation does not preempt any more stringent requirements imposed by any air district. Compliance with this article does not excuse noncompliance with any Federal regulation. The Executive Officer retains authority to determine whether an air district requirement is more stringent than any requirement of this article.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93409. Severability

Each part of this article is deemed severable, and in the event that any part of this article is held to be invalid, the remainder of the article shall continue in full force and effect.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93410. Implementation by CARB and by the Local Air Districts

(a) The requirements of this article are provisions of state law and may be enforced by either CARB or the local air districts where facilities covered by this article are located. Local air districts may incorporate the terms of this article into local air district rules and/or permits. Any penalties secured by a local air district as the result of an enforcement action that it undertakes to enforce the provisions of this article may be retained by the local air district.

(b) The Executive Officer may enter into an agreement or agreements with any local air district to further define funding, implementation and enforcement processes, including arrangements further specifying approaches for implementation and enforcement of this article, and for information sharing between CARB and local air districts relating to this article.

(c) Implementation and enforcement of the requirements of this article by a local air district may in no instance result in a standard, requirement, or prohibition less stringent than provided for by this article, as determined by the Executive Officer. The terms of any local air district permit or rule relating to this article do not alter the terms of this article, which remain as separate requirements for all sources subject to this article.

(d) Implementation and enforcement of the requirements of this article by a local air district, including inclusion or exclusion of any of its terms within any local air district permit, or within a local air district rule, or registration of a facility with a local air district or CARB, does not in any way waive or limit CARB's authority to implement and enforce upon the requirements of this article. A facility's permitting or registration status also in no way limits the ability of a local air district to enforce the requirements of this article.

(e) If an air district requires additional facilities that do not meet the applicability criteria of this article to provide emissions or activity level data to the air district to meet any district, state, or federal reporting requirements, the air district may report the associated emissions data to CARB; however such a facility is not required to comply with the requirements of this article.

(f) *Request for Determination of Applicability*. A citizen may request that CARB coordinate with a local air district to clarify a facility's permit status, and the facility's applicability under this article. The request must be sent to the contact information in 93403(f). Only one facility may be identified for each request; requests that include multiple facilities will not be accepted. The request must include the address of the facility or enough information to determine the location of the source. The request may include additional information to assist with identification of the facility, which may include the facility name. The applicability determination will include the reason for applicability or non-applicability. The Executive Officer will acknowledge the request by responding within 5 business days after receipt of such request. The Executive Officer will provide a determination of applicability within 60 business days from receipt of the initial request.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

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Article 2. Requirements for Calculating and Reporting Criteria Pollutant and Toxic Air Contaminant Emissions

§ 93420. Purpose and Scope

The purpose of this article is to establish requirements for calculating and reporting emissions of criteria air pollutants and toxic air contaminants for specified permitted facilities. This article supports Subchapter 7.7, Article 1, *General Requirements for Criteria and Toxics Reporting*, thereby assisting in implementing the requirements of sections 39607 and 39607.1 of the California Health and Safety Code (H&SC) and the requirements outlined in sections 42705.5 and 44391.2 of the H&SC.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

§ 93421. Abbreviated Reporting

(a) *Qualifying Activities for Abbreviated Reporting and Report Contents*. Except for facilities subject to the applicability criteria in sections 93401(a)(1), (2), and (3), for the qualifying activities below, the air district or CARB may prepare and submit the emissions data on behalf of a facility. Those facility operators, that exclusively engage in qualifying activities herein and choosing to comply with the reporting requirements using the abbreviated reporting mechanism, must submit the general emissions report contents specified in 93404(a), and the additional activity data as identified in subsections 93421(a)(1)-(6) for each qualifying activity, as reported under section 93404(b)(1)(B)(5) and (6). Air districts will then use the submitted data to compute the source(s) emissions levels, and submit the emissions and other data to CARB following the schedule specified in section 93403(b). Additional device level, process level, and emissions level data for the facility may be provided by the local air district.

(1) Agricultural operations.

(A) Quantity of head of cattle.

(2) Combustion of natural gas or propane in boilers or heaters

(A) Total annual fuel usage, in million scf or MMbtu.

(3) Diesel-powered emergency standby generators and direct-drive emergency standby fire suppression pump engines and direct-drive emergency standby fire water pump engines.

(A) Total annual hours of operation.

(4) Retail sale of gasoline.

(A) Total annual gasoline dispensed, in gallons

(5) Cremation of humans or animals.

(A) Total annual mass cremated by type of remains, in pounds

(6) Construction aggregate processing, where no asphalt products are used or produced.

(A) Total annual mass of dried material produced, in tons

(b) *Petition Process for Requesting Additional Qualifying Activities for Abbreviated Reporting, and for Requesting Alternative Schedules or Alternative Parameters for Acquiring Activity Data for Qualifying Activities*. A facility owner or operator, or a district, on behalf of facility owners or operators, may submit a request to CARB that additional processes or activities be included as qualifying activities for abbreviated reporting. Such requests must include the name of the process or activity to be requested as a qualifying activity for abbreviated reporting, the requested activity data parameters to be used for quantifying emissions, the method and emission factors, as applicable, to be used to quantify emissions, the requested alternative activity data collection schedule, as applicable, and a justification for the request. Requests shall be submitted to the email address in section 93403(f) and, if applicable, the emissions inventory staff of the local air district. In making a determination for approval or disapproval of the request, CARB will evaluate the proposed activity, quantification method, and activity data collection schedule, as applicable, to determine whether the proposed data acquisition process meets the general requirements of this article. If CARB approves the request in writing or via email, or if CARB does not respond to the request within 90 days, the facility owner or operator, or district, as applicable, may apply the requested alternatives when preparing and submitting emissions reports. All reports using abbreviated reporting must include the data elements described in section 93404(a) and the approved or accepted activity level data, at a minimum, and may contain the emissions quantified using the abbreviated reporting mechanism.

NOTE: Authority cited: 39600, 39601, 39602, 39605, 39606, 39607, 39607.1, 39607.3, 39701, 40913, 41500, 41511, 42700, 42705, 42705.5, 42705.6, and 44391.2, Health and Safety Code. Reference: 39003, 39500, 39606, 39607.1, 42705.5, 44301, 44391.2 Health and Safety Code.

Appendix A

to the Regulation for the Reporting of Criteria Air Pollutants
and Toxic Air Contaminants

Applicability Thresholds and Lookup Tables for Facilities Subject to Reporting Per Section 93401(a)(4)

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Table A-1.
Initial Data Year by District Group and Sector Phase for Additional Applicability Facilities Subject Per 93401(a)(4)*

District Group	Initial Emissions Reporting: Data Year for Section 93401(a)(4) Facilities				Ongoing Emissions Reporting: Data Year (All Reporters)
	Sector Phase 1 only** and 93401(a)(4)(A) and (B)	**Sector Phase 2** only	**Sector Phase 3** only	**Sector Phase 3B*****	
A	2022	2024	2025	2028	2026***
B	2024	2026	2027	2028	2028

* The initial data year is the first data year subject to reporting. For example, for District Group A, Sector Phase 1, 2022 data must be submitted during 2023. For the sector phases, for each of the initial years, only one phase is subject to reporting each year. For example, for District Group A, facilities in the Phase 1 sector categories in Table A-3 are subject to the sector-based reporting applicability for 2022 emissions data reported in 2023, but Phase 1 sources are not subject to reporting again until the 2026 data year. For 2024, only Phase 2 facilities are subject to the sector-based reporting applicability, and so on. For District Group A, all sources are subject to annual reporting beginning with 2026 data reported in 2027.

** Agricultural operation facilities that are required to submit reports pursuant to a threshold identified in section 93401(a)(4), regardless of which threshold category is exceeded, may postpone the initial year of reporting to Sector Phase 3.

***As with the Sector Phase 3B sectors subject to reporting per Section 93401(a)(4)(C), Sector 3B sources that are subject to applicability under 93401(a)(4)(A) or (B), based on criteria pollutant emissions, must begin ongoing emissions reporting with 2028 data reported in 2029. Reporting for these facilities is not required prior to 2028 data even if other permitted processes in Sector Phases 1, 2, or 3 are present at the facility.

Table A-2.
District Group Lookup for Additional Applicability Facilities Subject Per 93401(a)(4)

District Group	District	
A	Bay Area AQMD	San Diego County APCD
	Imperial County APCD	San Joaquin Valley Unified APCD
	Sacramento Metropolitan AQMD	South Coast AQMD
B	Amador County APCD	Mojave Desert AQMD
	Antelope Valley APCD	Monterey Bay Air Resources District
	Butte County AQMD	North Coast Unified APCD
	Calaveras County APCD	Northern Sierra AQMD
	Colusa County APCD	Northern Sonoma County APCD
	Eastern Kern County APCD	Placer County APCD
	El Dorado County APCD	San Luis Obispo County APCD
	Feather River AQMD	Santa Barbara County APCD
	Glenn County APCD	Shasta County AQMD
	Great Basin Unified APCD	Siskiyou County APCD
	Lake County AQMD	Tehama County APCD
	Lassen County APCD	Tuolumne County APCD
	Mariposa County APCD	Ventura County APCD
	Mendocino County AQMD	Yolo/Solano AQMD
	Modoc County APCD	

Table A-3. Sector Phases and Activity Level Reporting Thresholds for Additional Applicability Facilities Subject Per Section 93401(a)(4)

Sector No.	Sector Phase	Permitted Process	SIC Code(s)*	NAICS Code(s)*	Activity Level Reporting Threshold for Permitted Process
1	1	Metal plating, anodizing, or grinding using cadmium or chromium	Any	Any	Any activity level
2	1	Plating, polishing, coating, engraving, and allied services, including thermal spraying, using chromium, cadmium, or nickel	347x	3328xx and 33991x	Any activity level
3	1	Petroleum refining and industries related to petroleum refining	2911 through 2999	3241xx, 325110, and 325194	Any activity level
4	1	Industrial machinery manufacturing	353x, 356x	333xxx	Any activity level
5	1	Release of fumigant or fumigation of crops for market using ethylene oxide, propylene oxide, sulfur dioxide, methyl bromide, sulfuryl fluoride, or phosphine and phosphine-generating processes	0723, 2033, 2034, 2068, 2099, 5148	115111, 115114, 3111xx through 3114xx, 3118xx, and 3119xx	Any activity level
6	1	Rubber and miscellaneous plastics products manufacturing if styrene, butadiene, phthalates, carcinogenic solvents, or isocyanates are used	3011 through 3089, 3293, 3555	31332x, 31491x, 3162xx, 3252xx, 325991, 3261xx, 3262xx, and 339113	Any activity level
7	1	Processes emitting 1,4-dioxane in reverse osmosis equipment manufacturing, water treatment filtration systems, manufacturing of paints, lacquers, cosmetics, and cleaning agents; manufacturing or processing of petroleum, pulp and paper, explosives; commercial printing, electroplating/polishing; manufacturing of pesticides, dyes, fibers, pharmaceuticals, adhesives, semiconductors, electronic components, photographic equipment, magnetic recording media, polymers, plastics, rubber, and organic and inorganic chemicals; and cleaning or degreasing solvent use containing 1,4-dioxane	13xx, 22xx, 26xx, 27xx, 28xx, 29xx, 30xx, 35xx, 36xx, 37xx, 38xx, 49xx, 50xx, 51xx, 73xx, 75xx, 76xx, 97xx	211xxx, 221xxx, 236xxx, 2371xx, 2389xx, 3115xx, 3121xx, 3149xx, 3222xx, 3231xx, 325xxx, 326xxx, 331xxx, 332xxx, 333xxx, 334xxx, 3361xx, 3364xx, 3399xx, 4881xx, 5311xx, 5417xx, 5622xx, 61xxxx, 8111xx, 92811x	10 pounds of 1,4-dioxane emitted per year

Table A-3. Sector Phases and Activity Level Reporting Thresholds for Additional Applicability Facilities Subject Per Section 93401(a)(4)

Sector No.	Sector Phase	Permitted Process	SIC Code(s)*	NAICS Code(s)*	Activity Level Reporting Threshold for Permitted Process
8	1	Combustion of crude, residual, distillate, or diesel oil, except for the agricultural operations and medical-related industry sectors as defined in the SIC and NAICS columns	Any, except SIC codes 0110 through 0762 and 8011 through 8099	Any, except 111xxx, 112xxx, 1151xx, 1152xx, and 621xxx through 623xxx	Tier 4 or higher diesel engines: 100 gallons of fuel combusted per year, or 5 hours per year of non-emergency operation. Tier zero through tier 3 diesel engines: 30 gallons of fuel combusted per year or 5 hours per year of non-emergency operation. Combustion devices other than compression ignition engines: 100 gallons of fuel combusted per year.
9	1	Processes emitting styrene, in boat and ship building and repair; rubber products manufacturing; plastics, resins, and foams manufacturing; utility vault manufacturing; cultured marble and stone manufacturing and wholesale; fiber cans and drums manufacturing; manufacturing and installation of polystyrene products; and furniture and fixtures manufacturing	17xx, 22xx, 23xx, 24xx, 25xx, 26xx, 28xx, 30xx, 32xx, 34xx, 35xx, 37xx, 38xx, 44xx, 45xx, 49xx, 50xx, 51xx, 75xx, 97xx	211xxx, 2123xx, 213xxx, 221xxx, 236xxx, 237xxx, 311xxx, 3121xx, 313xxx, 314xxx, 315xxx, 316xxx, 321xxx, 322xxx, 32311x, 324xxx, 325xxx, 326xxx, 327xxx, 331xxx, 332xxx, 333xxx, 334xxx, 336xxx, 337xxx, 339xxx, 441xxx, 443xxx, 4441xx, 445xxx, 447xxx, 448xxx, 481xxx, 484xxx, 485xxx, 486xxx, 4881xx, 4883xx, 493xxx, 562xxx, 62xxxx, 722xxx, 8111xx, 8114xx, 8122xx, 92811x	1 pound of styrene emitted per year

Table A-3. Sector Phases and Activity Level Reporting Thresholds for Additional Applicability Facilities Subject Per Section 93401(a)(4)

Sector No.	Sector Phase	Permitted Process	SIC Code(s)*	NAICS Code(s)*	Activity Level Reporting Threshold for Permitted Process
10	1	Methylene chloride use for paint or coating removal, printing or print shop cleaning, or aircraft maintenance or repair	Any	Any	1 gallon of methylene chloride used per year
11	1	Paint stripping and varnish stripping	7641	811420	Any activity level
12	1	Use of N-methyl pyrrolidone	Any	Any	1 gallon of N-methyl pyrrolidone per year
13	1	Dry cleaning facilities, except facilities that only use water or carbon dioxide based cleaning systems	7216, 7217	812320, 561740	Any activity level
14	1	Tert-butyl acetate use in, aerospace manufacturing and maintenance; fabricated metal products manufacturing; manufacture or use of coatings, inks, adhesives, cleaners and degreasers; and military facilities. Tert-butyl acetate from auto body repair and coating operations are reported under the Phase 2 category for that process.	28xx, 32xx, 33xx, 34xx, 37xx, 38xx, 49xx, 50xx, 97xx. Auto body repair and coating operations, and the associated SICs, 5511 through 5521, 7532, and 7535, are reported under Phase 2.	325xxx, 327xxx, 331xxx, 332xxx, 3362xx, 3363xx, 3369xx, 3364xx, 5417xx, 5629xx, 92811x. Auto body repair and coating operations, and the associated NAICS, 4411xx, 44121x, 441228, 44131x, 811111, and 811121, are reported under Phase 2.	20 pounds of tert-butyl acetate used per year
15	1	Use of parachlorobenzotrifluoride (PCBTF) in cleaning or degreasing solvents, adhesives, printing inks, or coating operations. PCBTF from auto body repair and coating operations are reported under the Phase 2 category for that process.	Any Auto body repair and coating operations, and the associated SICs, 5511 through 5521, 7532, and 7535, are reported under Phase 2.	Any	5 pounds or 0.5 gallons of parachlorobenzotrifluoride used per year

Table A-3. Sector Phases and Activity Level Reporting Thresholds for Additional Applicability Facilities Subject Per Section 93401(a)(4)

Sector No.	Sector Phase	Permitted Process	SIC Code(s)*	NAICS Code(s)*	Activity Level Reporting Threshold for Permitted Process
16	1	Solvent cleaning and degreasing	13xx, 17xx, 22xx, 25xx, 26xx, 27xx, 28xx, 29xx, 30xx, 32xx, 33xx, 34xx, 35xx, 36xx, 37xx, 38xx, 39xx, 45xx, 49xx, 509x, 519x, 75xx, 7623, 7641, 8071, 822x, 9711	211xxx, 212xxx 213xxx, 221xxx, 238xxx, 322xxx, 323xxx, 324xxx, 325xxx, 326xxx, 327xxx, 332xxx, 333xxx, 334xxx, 335xxx, 336xxx, 337xxx, 339xxx, 423xxx, 425xxx, 441xxx, 447xxx, 451xxx, 486xxx, 488xxx, 541xxx, 562xxx, 611xxx, 811xxx, 928xxx	Use of solvents that are a listed substance designated as a human carcinogen or potential human carcinogen: Any activity level. Use of solvents that are a listed substance but not designated as a human carcinogen or potential human carcinogen: Annual average of 55 gallons per month.
17	2	Isocyanate compound use, in print shops and commercial printing; aerospace manufacturing and maintenance; adhesive and sealants manufacturing; plastics foam products manufacturing; military facilities; manufacture of flexible and rigid foams, fibers, coatings such as paints and varnishes, and elastomers; spraying of polyurethane coatings on cement, wood, fiberglass and metals; surface coating of appliances; surface coating of magnetic tape; manufacture or use of blowing agents; and production of polyurethane foam	24xx, 25xx, 26xx, 27xx, 28xx, 30xx, 33xx, 347x, 36xx, 37xx, 38xx, 39xx, 45xx, 50xx, 51xx, and 97xx.	321xxx ,322xxx, 32311x, 324xxx, 325xxx, 326xxx, 3279xx, 331xxx, 334xxx, 335xxx, 3361xx, 3364xx, 3366xx, 339xxx, 481xxx, 4881xx, 4883xx, 5417xx, 8114xx, 92811x.	Use of materials containing 3 pounds of isocyanates per year
18	2	Printing and publishing including print shops and miscellaneous commercial printing	2711 through 2771, 2782	313310, 32311x, 5111xx, 51223x, 561439, 81292x	Use of graphic arts materials with no isocyanates: Annual average of 2 gallons per day. Use of graphic arts materials with isocyanates: Annual average of 0.5 gallons per day.
19	2	Hazardous waste treatment, storage, disposal and recycling at a hazardous waste treatment, storage, disposal and recycling facility	Any	Any	Any activity level

Table A-3. Sector Phases and Activity Level Reporting Thresholds for Additional Applicability Facilities Subject Per Section 93401(a)(4)

Sector No.	Sector Phase	Permitted Process	SIC Code(s)*	NAICS Code(s)*	Activity Level Reporting Threshold for Permitted Process
20	2	Welding, laser cutting and plasma cutting of metal materials	1799, 3356, 3496, 3541, 3542, 3544 3548, 3699, 7692	325998, 331491, 332313, 333514, 333517, 333922, 335311, 811310	Any activity level
21	2	Construction aggregate processing, if asphalt products are also used or produced	1442 through 1446	212321 and 212322	Any activity level
22	2	Chemicals and allied products manufacturing	2812 through 2899	211112, 311942, 331311, 325xxx	Any activity level
23	2	Bulk petroleum storage and loading, bulk benzene storage and loading, and related wholesalers	5171, 5172	4247xx	Any activity level
24	2	Polybrominated biphenyl compounds (PBBs), and any brominated diphenyl ethers, manufacture or use	Any	Any	Any activity level
25	2	Use of ethylene oxide for sterilization	Any	Any	Any activity level
26	2	Leather and hide tanning and finishing, processing and fabricated goods	3111	316110	Any activity level
27	2	Retail sale of gasoline	Any	Any	25,000 gallons of gasoline sold per year
28	2	Auto body repair and coating operations at auto body shops, including new and used car dealers	5511 through 5521, 7531, 7532, 7535	4411xx, 44121x, 441228, 44131x, 811111, 811121	50 gallons of paint used per year
29	2	Medical services, hospitals, and related facilities which use formaldehyde (or formalin), glutaraldehyde, ethylene oxide, or diesel engines	8011 through 8099	62xxxx	110 pounds of formaldehyde emitted per year, or 110 pounds of glutaraldehyde emitted per year, or any use of ethylene oxide, or 30 gallons of diesel fuel burned or 5 hours of non-emergency engine operation per year.
30	2	Flat glass manufacturing	3211	327211	100 pounds of glass production
31	2	Pressed and blown glassware manufacturing	3229, 3221	327212, 327213	100 pounds of glass production

Table A-3. Sector Phases and Activity Level Reporting Thresholds for Additional Applicability Facilities Subject Per Section 93401(a)(4)

Sector No.	Sector Phase	Permitted Process	SIC Code(s)*	NAICS Code(s)*	Activity Level Reporting Threshold for Permitted Process
32	2	Clay ceramics manufacturing	3253, 3261	327120, 327110	1 ton of product manufactured
33	3	Hexavalent chromium use in cooling towers	Any	Any	Any activity level
34	3	Incineration of hazardous, municipal, or biomedical waste, or tires	Any	Any	Any activity level
35	3	Cremation of humans or animals	7261, 6531, 8699	812220	Any activity level
36	3	Fiberglass and various fiberglass materials and product manufacturing	2221, 3229	326191, 326199, 337125	Any activity level
37	3	Pulp and paper manufacturing	2611, 2621, 2631	3221xx	Any activity level
38	3	Semiconductors and related devices manufacturing	3674	334413	Any activity level
39	3	Oil and gas extraction or production	1311 through 1389	211xxx, 213111, 213112	Any activity level
40	3	Melting, smelting, recovery, reclamation, or recycling of lead-containing materials, including but not limited to lead batteries	3300 through 3499, 3690 through 3699, 3714, 3728, 5051, 5093, 9711	331410, 331492, and 423930	Any activity level
41	3	Primary or secondary metal melting, smelting, refining, alloying, forging, or foundry/casting operations	3300 through 3499, 3690 through 3699, 3714, 3728, 5051, 5093, 9711	331410, 331492, 33151x, 33152x, and 423930	Any activity level
42	3	Prepared feed manufacturing	2048	321119	One ton of product manufactured
43	3	Wood preserving	259x	321114, 3212xx	Any activity level
44	3	Long term asbestos removal on a routine and predictable basis	Any	Any	One year duration

Table A-3. Sector Phases and Activity Level Reporting Thresholds for Additional Applicability Facilities Subject Per Section 93401(a)(4)

Sector No.	Sector Phase	Permitted Process	SIC Code(s)*	NAICS Code(s)*	Activity Level Reporting Threshold for Permitted Process
45	3	Combustion of residual, distillate, or diesel oil in agricultural operations-related industry sectors	0110 through 0762	1111xx, 1112xx, 1113xx, 1114xx, 1119xx, 1121xx, 1122xx, 1123xx, 1124xx, 1125xx, 1129xx, 1151xx, and 1152xx	Tier 4 or higher diesel engines: 100 gallons of fuel combusted per year, or 5 hours per year of non-emergency operation. Tier zero through tier 3 diesel Engines: 30 gallons of fuel combusted per year, or 5 hours per year of non-emergency operation. Combustion devices other than compression ignition engines: 100 gallons of fuel combusted per year.
46	3	Boat and ship building and repair	3731, 3732	336611, 336612, 488390, 811490	1 gallon of coatings used per year
47	3	Combustion of natural gas or propane	Any	Any	75 million standard cubic feet or 77,000 MMbtu combusted per year
48	3B	Collection and disposal of refuse	4953	5622xx, 562920	1 pound of vinyl chloride or 1 pound of benzene emitted per year
49	3B	Composting of organic waste	2875, 4953	325314, 562212, 562219	Over 500 tons per year of material composted
50	3B	Recycling facilities, and material recovery facilities that separate organic waste from recyclable materials	4953	562212, 562920	Facilities where putrescible material is retained on-site for more than 24 hours prior to removal or disposal in a landfill
51	3B	Scrap and waste wholesale handling and recycling, including but not limited to junk metals, shredding operations, and auto dismantling	5093	423930	40,000 tons of metal shredded per year or 1,000 tons of metal recycled per year
52	3B	Wastewater treatment at wastewater treatment plants, including incineration of sludge	4952	221320	Covered systems: 10 million gallons annual average daily flow. Uncovered systems: 5 million gallons annual average daily flow. Facilities that incinerate sludge: Any activity level

* Where SIC and NAICS codes are designated, the requirements of this article apply to facilities classified with either a matching primary

or secondary Standard Industrial Classification (SIC) code or North American Industry Classification System (NAICS) code listed for the permitted emissions process, and for which the listed process occurs at levels exceeding the emission or activity level threshold. If the SIC or NAICS codes have a designation of "Any" in Table A-3 for a permitted process, then the requirements of this article apply regardless of the SIC or NAICS designation for the facility performing the process, if the listed activity level reporting threshold is exceeded.

Appendix B

to the Regulation for the Reporting of Criteria Air Pollutants
and Toxic Air Contaminants

Additional Substances Subject to Quantification and Reporting

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Reporting Schedule for Substances Listed in Table B-2, Table B-3, and Table B-4

The substances listed in Table B-2, Table B-3, and Table B-4 must be reported in addition to those substances identified in Appendix A-I of the Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program, version effective September 26, 2007, as issued by CARB.

Emissions of substances listed in Table B-2, Table B-3, and Table B-4 must initially be reported no later than the initial quantification year shown below in Table B-1, and then for any subsequent year in which emissions reports are required. For example, in Table B-1, the year 2022 is listed for District Group A and Table B-2, therefore the Table B-2 substances must be reported during 2023 based on 2022 emissions data. District Groups are as described in Appendix A, Table A-2, shown previously.

Table B-1.
Initial Emission Data Quantification Year for Additional Substances in Tables B-2, B-3, and B-4

District Group	Effective Initial Emission Data Quantification Year for Additional Substances*,**		
	Table B-2	Table B-3	Table B-4***
A	2022	2026	2028
B	2024	2028	2028

* Reporting of substances in Tables B-2, B-3, and B-4 are in addition to those substances identified in Appendix A-I of the Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program, version effective September 26, 2007, as issued by CARB. Reporting for the "Hot Spots" Appendix A-I substances must begin with the first year in which a facility becomes subject to reporting, and be included for any future required report.

** Any Sector Phase 3B sectors identified in Table A-3 and sources subject to applicability under 93401(a)(4)(A) or (B) must begin ongoing annual emissions reporting of toxics identified in Tables B-2 and B-3 no later than 2028 data reported in 2029. Reporting of the specified toxics for these facilities is not required to begin earlier than 2028 data even if other permitted processes in Sector Phases 1, 2, or 3 listed in Table A-3 are present at the facility.

*** Table B-4 substances apply to wastewater treatment facilities, as identified in Sector Phase 3B, Sector 52, of Table A-3. These sources must begin ongoing annual emissions reporting of the toxics identified in Table B-4 no later than 2028 data reported in 2029.

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Table B-2. Additional Substances Subject to Initial Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
81492	1-Amino-2,4-dibromoanthraquinone [PAH-Derivative/Related, POM]	0.5	
153786	2-Aminofluorene [PAH-Derivative/Related, POM]	0.5	
142041	Aniline hydrochloride	5	
1345046	Antimony trisulfide	1	[4]
*	Arsenic compounds (inorganic) including but not limited to:	0.01	[4]
7778394	Arsenic acid	0.01	[4] [5]
*	Arsenic (inorganic oxides)	50	[4]
1303282	Arsenic pentoxide	0.01	[4] [5]
1327533	Arsenic trioxide	0.01	[4] [5]
7778441	Calcium arsenate	0.01	[4]
1303000	Gallium arsenide	0.01	[4]
1017	Arsenic compounds (other than inorganic)	0.1	[4]
75605	Cacodylic acid {Dimethylarsinic acid}	0.1	[4]
124583	Methylarsonic acid	0.1	[4] [5]
7727437	Barium sulfate	1	
28407376	C.I. Direct Blue 218 [PAH-Derivative/Related, POM]	0.0001	
612828	3,3'-Dimethylbenzidine dihydrochloride	0.0001	
119619	Benzophenone	2	
*	Beryllium compounds including but not limited to:	0.001	[4]
13510491	Beryllium sulfate	0.001	[4]
7787566	Beryllium sulfate (tetrahydrate)	0.001	[4]
1304569	Beryllium oxide	0.001	[4]
108601	Bis(2-chloro-1-methylethyl) ether {BCMEE}	50	
84852539	Decabromodiphenyl ethane {DBDPE}	1	
25637994	Hexabromocyclododecane {HBCD}	100	
79947	Tetrabromobisphenol A {TBBPA}	50	
21850442	Tetrabromobisphenol A bis(2,3-dibromopropyl) ether {TBBPA-DBPE}	100	
77098078	Tetrabromophthalic acid, mixed esters	100	
118796	2,4,6-Tribromophenol	100	
52434909	Tris(2,3-dibromopropyl) isocyanurate	100	
15541454	Bromate	50	
5589968	Bromochloroacetic acid	50	
83463621	Bromochloroacetonitrile	100	
109706	1-Bromo-3-chloropropane	50	
71133147	Bromodichloroacetic acid	50	
75272	Bromodichloromethane {BDCM}	100	
74964	Ethyl bromide {Bromoethane}	50	
2426086	n-Butyl glycidyl ether {Butyl 2,3-epoxypropylether}	50	
*	Cadmium compounds including but not limited to:	0.01	[4]
10108642	Cadmium chloride	0.01	[4] [5]
141004	Cadmium succinate	0.01	[4] [5]
63252	Carbaryl [PAH-Derivative/Related, POM]	100	
86748	Carbazole [PAH-Derivative/Related, POM]	5	

Table B-2. Additional Substances Subject to Initial Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
--	Carbon nanotubes including but not limited to	50	
308068566	Carbon nanotubes, multiwalled, other than MWCNT-7	50	
75876	Chloral	50	
10599903	Chloramine	100	
7790912	Chlorine trifluoride	0.05	
20265967	p-Chloroaniline hydrochloride	50	
83270319	2-Chloro-1-methylethyl(2-chloropropyl) ether	50	
91587	2-Chloronaphthalene [PAH-Derivative/Related, POM]	0.5	
--	Chloronitrobenzenes including but not limited to:	100	
88733	1-Chloro-2-nitrobenzene {o-Chloronitrobenzene}	50	
100005	1-Chloro-4-nitrobenzene {p-Chloronitrobenzene}	50	
89612	1,4-Dichloro-2-nitrobenzene	50	
611063	2,4-Dichloro-1-nitrobenzene	50	
121733	m-Chloronitrobenzene {3-Chloronitrobenzene}	100	
95794	5-Chloro-o-toluidine and its strong acid salts	0.5	
3165933	p-Chloro-o-toluidine Hydrochloride	0.5	
98566	1-Chloro-4-(trifluoromethyl)benzene {PCBTF}	50	
16065831	Chromium (III) compounds including but not limited to:	50	[4]
39345921	Chromium (III) chloride	50	[4]
10101538	Chromium (III) sulfate	50	[4]
18540299	Chromium, hexavalent (and compounds) including but not limited to:	0.0001	[4]
1189851	tert-Butyl chromate(VI)	0.001	[4]
1216	Cobalt compounds, insoluble, including but not limited to:	0.01	[4]
513791	Cobalt carbonate	0.01	[4]
10210681	Cobalt carbonyl	0.01	[4]
21041930	Cobalt hydroxide	0.01	[4]
814891	Cobalt oxalate	0.01	[4]
1307966	Cobalt [II] oxide	0.01	[4]
1308061	Cobalt [III] oxide	0.01	[4]
1317426	Cobalt sulfide	0.01	[4]
1217	Cobalt sulfate and other soluble cobalt compounds, including but not limited to:	0.1	[4]
71487	Cobalt acetate (tetrahydrate)	0.5	[4]
7646799	Cobalt chloride (hexahydrate)	0.5	[4]
16842038	Cobalt hydrocarbonyl	0.5	[4]
10141056	Cobalt nitrate (hexahydrate)	0.5	[4]
136527	Cobalt octoate	0.5	[4]
10124433	Cobalt sulfate	0.1	[4]
10026241	Cobalt sulfate (heptahydrate)	0.5	[4]
12070121	Cobalt metal with tungsten carbide	0.01	[4]
*	Copper fume (as Copper)	0.1	[7]
1074	Cyclosiloxanes, including but not limited to:	100	
541026	Decamethylcyclopentasiloxane {D5} {Decamethyl-1,3,5,7,9,2,4,6,8,10-pentaoxapentasilecane}	100	

Table B-2. Additional Substances Subject to Initial Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
540976	Dodecamethylcyclohexasiloxane {D6}	100	
556672	Octamethylcyclotetrasiloxane {D4}	100	
17702419	Decaborane	20	
431038	Diacetyl	100	
1075	Dialkylnitrosamines including but not limited to:	0.001	
7068839	N-Nitrosomethyl-n-butylamine	1	
75881220	N-Nitrosomethyl-n-decylamine	1	
55090443	N-Nitrosomethyl-n-dodecylamine	1	
16338991	N-Nitrosomethyl-n-heptylamine	1	
28538707	N-Nitrosomethyl-n-hexylamine	1	
75881195	N-Nitrosomethyl-n-nonylamine	1	
34423546	N-Nitrosomethyl-n-octylamine	1	
13256070	N-Nitrosomethyl-n-pentylamine	1	
924469	N-Nitrosomethyl-n-propylamine	1	
75881208	N-Nitrosomethyl-n-tetradecylamine	1	
68107266	N-Nitrosomethyl-n-undecylamine	1	
631641	Dibromoacetic acid	50	
3252435	Dibromoacetonitrile	50	
75605	Dimethylarsinic acid {Cacodylic acid} (see Arsenic compounds (inorganic))	50	[5]
--	Phthalates, ortho-Phthalates including:	100	
84753	Di-n-hexyl phthalate {DnHP}	100	
42397648	1,6-Dinitropyrene [PAH-Derivative/Related, POM]	0.001	
42397659	1,8-Dinitropyrene [PAH-Derivative/Related, POM]	0.5	
1326416	2,4-Dinitrotoluene, sulfurized	0.5	
1091	Epoxy resins (monomers or oligomers) including but not limited to:	100	
1092	Epikote ®	100	
68038324	Epikote 1055	100	
1093	Epon ®	100	
25068386	Resin 828	100	
1104	Fluorides and compounds including but not limited to:	100	
1141	Modified Hydrogen fluoride {MHF}	50	
102687650	trans-1-Chloro-3,3,3-trifluoropropene {t-HCFO-1233zd} {HCFO-1233zd(E)}	100	
1645836	trans-1,3,3,3-Tetrafluoropropylene {HFO-1234ze} {Genetron-1234ze}	100	
1115	Glycol ethers and their acetates, and related, including but not limited to:	100	
112732	Diethylene glycol dibutyl ether {DEGBE}	100	
124174	Diethylene glycol monobutyl ether acetate	100	
112152	Diethylene glycol monoethyl ether acetate	100	
112594	Diethylene glycol monohexyl ether	100	
629389	Diethylene glycol monomethyl ether acetate	100	
111557	Ethylene glycol diacetate	100	
112481	Ethylene glycol dibutyl ether	100	

Table B-2. Additional Substances Subject to Initial Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
97905	Ethylene glycol dimethacrylate {EGDMA}	100	
542596	Ethylene glycol monoacetate	100	
112072	Ethylene glycol monobutyl ether acetate	100	
112254	Ethylene glycol monohexyl ether	100	
10020436	Ethylene glycol monooctyl ether	100	
122996	Ethylene glycol monophenyl ether	100	
112505	Triethylene glycol monoethyl ether	100	
112356	Triethylene glycol monomethyl ether	100	
7440746	Indium and compounds including but not limited to:	50	[4]
22398807	Indium phosphide	50	[4]
50926119	Indium tin oxide	50	[4]
1218	Amino Isocyanates including but not limited to:	0.05	
1223	1,6-Hexamethylene amino isocyanate {1,6-HAI}	0.05	
1224	4,4-Methylenebisphenyl amino isocyanate	0.1	
99626876	2,4-Toluene amino isocyanate {3-Isocyanato-4-methylbenzenamine} {2,4-TAI}	0.1	
22683712	2,6-Toluene amino isocyanate {3-Isocyanato-2-methylbenzenamine} {2,6-TAI}	0.1	
99626887	4,2-Toluene amino isocyanate {5-Isocyanato-2-methylbenzenamine} {4-TIA} {4,2-TAI}	0.1	
1219	Diisocyanates including but not limited to:	0.05	
91930	3,3'-Dimethoxybenzidine-4,4'-diisocyanate	0.5	
4098719	Isophorone diisocyanate {IPDI}	0.5	
1225	Isophorone diisocyanate isomers	0.5	
3173726	1,5-Naphthalene diisocyanate	0.5	
9016879	Polymeric methylene diphenyl diisocyanate {PMDI} [POM]	0.1	
1220	Mono isocyanates including but not limited to:	1	
109900	Ethyl isocyanate	1	
110781	Propyl isocyanate	1	
103719	Phenyl isocyanate	1	
1221	Polymeric (Oligo) HDI including but not limited to:	0.5	
108190	Biuret	0.5	
1226	Diisocyanurate	0.5	
1227	HDI Prepolymer	0.5	
1228	Isocyanurate	0.5	
23501817	Uretdione (HDI) {Uretidone}	0.5	
7439910	Lanthanum and compounds	100	[4]
1129	Lead compounds (other than inorganic)	50	[4]
78002	Tetraethyllead	50	[4]
75741	Tetramethyllead	50	[4]
1222	Leather dust	50	
13552448	4,4'-Methylenedianiline dihydrochloride	0.1	
1134	Methylhydrazine and its salts	50	
302158	Methylhydrazine sulfate	50	
5118343	Methylhydrazine sulfate (alt. CAS 5118343, see 302158)	50	

Table B-2. Additional Substances Subject to Initial Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
693981	2-Methylimidazole	0.5	
822366	4-Methylimidazole	0.5	
872504	N-methyl-2-pyrrolidone {N-Methylpyrrolidone} {NMP}	50	
1135	Mineral fibers (other than man-made) including but not limited to:	100	[7]
1332214	Asbestos	0.0001	
77536664	Actinolite	100	
12172735	Amosite	100	
77536675	Anthophyllite	100	
12001295	Chrysotile	100	
12001284	Crocidolite	100	
77536686	Tremolite	100	
12510428	Erionite	50	[7]
66733219	Erionite (alt. CAS, see CAS 12510428)	50	[7]
1106	Fluoro-edenite fibrous amphibole	100	
96242	3-Monochloro-1,2-propanediol	1	
*	Nickel compounds including but not limited to:	1	[4]
7718549	Nickel chloride	100	[4]
13138459	Nickel nitrate {Nickel (II) nitrate}	100	[4]
7786814	Nickel sulfate	100	[4]
602879	5-Nitroacenaphthene [PAH-Derivative/Related, POM]	2	
100174	p-Nitroanisole	50	
7496028	6-Nitrochrysene [PAH-Derivative/Related, POM]		0.001
607578	2-Nitrofluorene [PAH-Derivative/Related, POM]		5
5522430	1-Nitropyrene [PAH-Derivative/Related, POM]		0.5
57835924	4-Nitropyrene [PAH-Derivative/Related, POM]		1
--	Nitrotoluenes including but not limited to	100	
88722	2-Nitrotoluene {o-Nitrotoluene}	0.5	
118967	2,4,6-Trinitrotoluene	0.5	
25321146	Dinitrotoluenes (mixed isomers) including but not limited to:	0.5	
618859	3,5-Dinitrotoluene	100	
--	Organophosphate Flame Retardants (OPFRs) including:	100	[6]
756796	Dimethyl methylphosphonate {DMMP}	100	[6]
1330785	Tricresyl phosphate {TCP}	100	[6]
115968	Tris(2-chloroethyl) phosphate {TCEP}	50	
13674845	Tris(1-chloro-2-propyl)phosphate {TCPP}	100	[7]
1689320	Tris(1-chloro-2-propyl)phosphate {TCPP} (alt. CAS No. 1, see CAS 13674845)	100	[7]
98112324	Tris(1-chloro-2-propyl)phosphate {TCPP} (alt. CAS No. 2, see CAS 13674845)	100	[7]
13674878	Tris(1,3-dichloro-2-propyl) phosphate {TCDP} {TDCPP}	10	
--	PAHs (Polycyclic aromatic hydrocarbons) and Methyl PAHs, including but not limited to:		[10]
1151	PAHs, total, w/o individ. components reported [PAH, POM]		
1150	PAHs, total, with individ. components also reported [PAH, POM]		
189640	Dibenzo[a,h]pyrene [PAH, POM]	1	

Table B-2. Additional Substances Subject to Initial Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
189559	Dibenzo[a,i]pyrene [PAH, POM]	1	
191300	Dibenzo[a,l]pyrene [PAH, POM]	1	
--	And Methyl PAHs including:	50	
57976	7,12-Dimethylbenz[a]anthracene [Methyl-PAH, POM]	0.0001	
56495	3-Methylcholanthrene [Methyl-PAH, POM]	0.001	
3697243	5-Methylchrysene [Methyl-PAH, POM]	0.05	
90120	1-Methylnaphthalene [Methyl-PAH, POM]	0.5	[5]
832699	1-Methylphenanthrene [Methyl-PAH, POM]	0.5	
7440053	Palladium and compounds	100	[4]
1155	PBBs (Polybrominated biphenyls) [POM]		
1336363	PCBs (Polychlorinated biphenyls), total [POM] including but not limited to:	0.01	
53469219	Chlorodiphenyl (42% Chlorine, PCB 1242)	0.01	
11097691	Chlorodiphenyl (54% Chlorine, PCB 1254)	0.01	
600146	2,3-Pentanedione	100	
1341453	2,3-Pentanedione (alt./deprecated CAS, see CAS 600146)		
--	Perfluoro and Polyfluoro compounds including but not limited to:		[4]
3825261	Ammonium perfluorooctanoate	10	
17527296	6:2 Fluorotelomer acrylate	100	
647427	6:2 Fluorotelomer alcohol {FtOH 6:2}	100	
678397	8:2 Fluorotelomer alcohol {FtOH 8:2}	100	
865861	10:2 Fluorotelomer alcohol {FtOH 10:2}	100	
425670753	6:2 Fluorotelomer sulfonate {FTS 6:2}	100	
481071787	8:2 Fluorotelomer sulfonate	100	
757124724	4:2 Fluorotelomer sulfonic acid {FTS 4:2}	100	
27619972	6:2 Fluorotelomer sulfonic acid	100	
13252136	Hexafluoropropylene oxide dimer acid {HFPO} and its ammonium salt {GenX/GenX Chemicals}	100	
62037803	Hexafluoropropylene oxide dimer acid {HFPO} and its ammonium salt {GenX/Gen x Chemicals} (alt. CAS, see CAS 13252136)	100	
2043530	1-Iodo-2-(perfluorooctyl)ethane	100	
1152	Perfluorobutane sulfonate (and salts)	100	
375735	Perfluorobutane sulfonic acid {PFBS}	100	
375224	Perfluorobutanoic acid {Perfluorobutyric acid} {PFBA}	100	
355464	Perfluorohexane sulfonic acid/sulfonate {PFHxS}	100	
307244	Perfluorohexanoic acid {PFHxA}	100	
1996889	2-Perfluorohexyl ethyl methacrylate {6:2 FTMAC}	100	
382218	Perfluoroisobutylene {PFIB}	1	
62037803	Perfluoro(2-methyl-3-oxahexanoic) acid {GenX/GenX Chemicals} (alt. CAS, see CAS 13252136)	100	
45298906	Perfluorooctane sulfonate {PFOS}	100	
1763231	Perfluorooctane sulfonic acid	100	
307357	Perfluorooctane sulfonyl fluoride	100	
335671	Perfluorooctanoic acid {PFOA}	10	
335660	Perfluorooctanoic acid fluoride	100	

Table B-2. Additional Substances Subject to Initial Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
1996889	2-(Perfluorooctyl)ethyl methacryate	100	
--	Phosphine generating compounds	100	[4] [5]
20859738	Aluminum Phosphide	100	[4] [5]
12057748	Magnesium Phosphide	100	[4] [5]
638211	Phenylphosphine	50	[5]
57396	Tris(2-methyl-1-aziridinyl)phosphine oxide	100	[5]
1314847	Zinc Phosphide	100	[4] [5]
51810709	Zinc Phosphide (alt. CAS No. 1., see CAS 1314847)	100	[5]
12037795	Zinc Phosphide (alt. CAS No. 2., see CAS 1314847)	100	[5]
--	Phthalates, ortho-Phthalates including:	100	
84695	Di-isobutyl phthalate {DIBP}	100	
26761400	Di-isodecyl phthalate	100	
68515491	Di-isodecyl phthalate, C9-11 branched esters, C10 rich	100	
89167	Di-isodecyl phthalate mixture {Bis(8-methylnonyl) phthalate}	100	
119394455	Di-isodecyl phthalate mixture {1,2-Benzenedicarboxylic acid, 4,4'-carbonylbis-, 1,1',2,2'-tetraisodecyl ester}	100	
28553120	Di-isononyl phthalate {DINP}	20	
68515480	Di-isononyl phthalate {DINP}, C8-10 branched esters, C9 rich (alt. CAS, see CAS 28553120)	20	
7440064	Platinum and compounds	100	[4]
106945	n-Propyl Bromide {1-Bromopropane}	50	
7440166	Rhodium and compounds	50	[4]
7440188	Ruthenium and compounds	100	[4]
*	Selenium compounds including but not limited to:	0.5	[4]
7783791	Selenium hexafluoride	100	
14464461	Silica, crystalline (respirable), in the form of cristobalite	0.1	
14808607	Silica, crystalline (respirable), in the form of quartz	0.1	
9003547	Styrene-acrylonitrile copolymers (must report the individual monomer components)	10	
9003558	Styrene-butadiene copolymers (must report the individual monomer components)	10	
98839	Styrene: Methylstyrene {alpha-Methylstyrene}	10	
7446095	Sulfur dioxide	100	[5]
2699798	Sulfuryl fluoride	10	[5]
15721025	2,2',5,5'-Tetrachlorobenzidine	0.0001	
630206	1,1,1,2-Tetrachloroethane	50	
137177	2,4,5-Trimethylaniline and its strong acid salts	50	
526738	1,2,3-Trimethylbenzene	10	
108678	1,3,5-Trimethylbenzene	10	
7440611	Uranium and compounds	100	[4]
9011056	Urea-formaldehyde {UF}	100	
9003229	"Vinyl chloride-vinyl acetate copolymers (must report the individual monomer components)"	100	
9011067	"Vinylidene chloride-vinyl chloride copolymers (must report the individual monomer components)"	100	
[8]	And the following functional groups:		[8]

Table B-2. Additional Substances Subject to Initial Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
[Note 8]	Any chemical containing two or more Isocyanate functional groups	0.1	[8]
[Note 8]	Fluorotelomer-related compounds	100	[8]

* Reporting of substances in Tables B-2, B-3, and B-4 are in addition to those substances identified in Appendix A-I of the Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program, version effective September 26, 2007, as issued by CARB. Reporting for the "Hot Spots" Appendix A-I substances must begin with the first year in which a facility becomes subject to reporting, and be included for any future required report.

Table B-3. Additional Substances with Health Values Subject to Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
30560191	Acephate	0.5	[5]
64197	Acetic acid	100	
108247	Acetic anhydride	100	
124049	Adipic acid	100	
111693	Adiponitrile	100	
116063	Aldicarb	1	[5]
106956	Allyl bromide	100	
96059	Allyl methacrylate	100	
2179591	Allyl propyl disulfide	100	
77094112	2-Amino-3,4-dimethylimidazo[4,5-f]quinoline	50	
77500040	2-Amino-3,8-dimethylimidazo[4,5-f]quinoxaline	50	
33089611	Amitraz	0.1	[5]
12125029	Ammonium chloride	100	
994058	tert-Amyl methyl ether	100	
84651	Anthraquinone [PAH-Derivative/Related, POM]	0.5	
*	Antimony compounds including but not limited to:		[4]
7803523	Stibine {Antimony hydride}	1	
1912249	Atrazine	20	[5]
86500	Azinphosmethyl	100	[5]
22781233	Bendiocarb	50	
17804352	Benomyl	0.01	[5]
100527	Benzaldehyde	100	
108985	Benzenethiol	100	
82657043	Bifenthrin	0.05	[5]
39638329	Bis(2-chloroisopropyl) ether	0.05	
80057	Bisphenol A {BPA}	100	
56359	Bis(tributyltin) oxide {TBTO}	5	
1303862	Boron oxide	100	[5]
10294334	Boron tribromide	100	
10294345	Boron trichloride	100	
109637	Boron trifluoride ethers	100	
353424	Boron trifluoride ethers (alt. CAS, see CAS 109637)	100	
314409	Bromacil	100	
--	Brominated and Chlorinated Organic Compounds used as Flame Retardants:	100	
87821	Hexabromobenzene {HBB}	10	
59080409	2,2',4,4',5,5'-Hexabromobiphenyl	10	
67774327	Hexabromobiphenyl mixture including Firemaster FF-1	10	
36355018	Hexabromobiphenyls	10	
108861	Bromobenzene	10	
1689992	Bromoxynil octanoate	100	[5]
75912	tert-Butyl hydroperoxide	100	
98511	p-tert-Butyltoluene	100	
95465999	Cadusafos	0.5	[5]

Table B-3. Additional Substances with Health Values Subject to Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
1563662	Carbofuran	50	[5]
1333864	Carbon black	50	
353504	Carbonyl fluoride	100	
31242930	Chlorinated diphenyl oxide {Hexachlorodiphenyl ether}	10	
1058	Chlorobenzenes including but not limited to:	100	
95943	1,2,4,5-Tetrachlorobenzene	100	
77439760	3-Chloro-4-(dichloromethyl)-5-hydroxy-2(5H)-furanone	50	
1060	Chlorophenols including but not limited to:	100	
108430	3-Chlorophenol {m-Chlorophenol}	100	
106489	4-Chlorophenol {p-Chlorophenol}	100	
583788	2,5-Dichlorophenol	100	
136323	2,4,5-Trichlorophenol sodium salt	100	[5]
598787	2-Chloropropionic acid	100	
78897	2-Chloroproponal	100	
2921882	Chlorpyrifos	20	[5]
1861321	Chlorthal-dimethyl	10	[5]
1215	Coal dust	50	
1073	Cyanide compounds (inorganic) including but not limited to:	0.05	[9]
592018	Calcium cyanide	0.05	[9]
151508	Potassium cyanide	0.05	[9]
143339	Sodium cyanide	0.05	[9]
506774	Cyanogen chloride	0.1	
121824	Cyclonite	100	
108941	Cyclohexanone	100	
1007289	Des-isopropyl atrazine	100	[5]
333415	Diazinon	10	[5]
2528361	Dibutyl phenyl phosphate	100	
107664	Dibutyl phosphate	100	
79436	Dichloroacetic acid	50	
7572294	Dichloroacetylene	100	
156592	cis-1,2-Dichloroethene {cis-1,2-Dichloroethylene}	100	
156605	trans-1,2-Dichloroethene {trans-1,2-Dichloroethylene}	50	
--	Dichlorophenoxyacetic acid, {2,4-D} and its salts and esters including but not limited to:	50	[5]
94757	2,4-Dichlorophenoxyacetic acid {2,4-D}	50	[5]
2702729	2,4-Dichlorophenoxyacetic acid salt	50	[5]
5742198	2,4-Dichlorophenoxyacetic acid diethanolamine salt	50	[5]
2008391	2,4-Dichlorophenoxyacetic acid dimethylamine salt	50	[5]
5742176	2,4-Dichlorophenoxyacetic acid isopropylamine salt	50	[5]
32341803	2,4-Dichlorophenoxyacetic acid isopropanolamine salt	50	[5]
1929733	2,4-Dichlorophenoxyacetic acid butoxyethyl ester	50	[5]
94804	2,4-Dichlorophenoxyacetic acid butyl ester	50	[5]
1928434	2,4-Dichlorophenoxyacetic acid 2-ethylhexyl ester	50	[5]
94111	2,4-Dichlorophenoxyacetic acid isopropyl ester	50	[5]

Table B-3. Additional Substances with Health Values Subject to Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
25168267	2,4-Dichlorophenoxyacetic acid isooctyl ester	50	[5]
1048373723	2,4-Dichlorophenoxyacetic acid choline salt	50	[5]
102545	Dicyclopentaienyl iron {Ferrocene}	100	
111400	Diethylenetriamine	100	
2238075	Diglycidyl ether	20	
60515	Dimethoate	100	[5]
25962770	trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)-vinyl]-1,3,4-oxadiazole	50	
124403	Dimethylamine	100	
624920	Dimethyl disulfide	100	
120616	Dimethyl terephthalate {DMT}	100	
646060	1,3-Dioxolane	100	
122394	Diphenylamine	100	
85007	Diquat dibromide	100	[5]
138932	Disodium cyanodithioimidocarbonate	100	
97778	Disulfiram	100	
330541	Diuron	5	[5]
115297	Endosulfan	10	[5]
72208	Endrin	50	[5]
141786	Ethyl acetate	100	
7085850	Ethyl cyanoacrylate	100	
759944	Ethyl dipropylthiocarbamate {EPTC}	50	[5]
107153	Ethylenediamine	100	[5]
628966	Ethylene glycol dinitrate	100	
75081	Ethyl mercaptan	100	
637923	Ethyl-tert-butyl ether {ETBE}	100	
22224926	Fenamiphos	10	[5]
51630581	Fenvalerate	100	[5]
12604589	Ferrovanadium, dust	100	
131341861	Fludioxonil	100	[5]
1101	Fluorides and compounds including but not limited to:	100	
15096523	Sodium aluminum fluoride	100	
7681494	Sodium fluoride	100	
69409945	Fluvalinate	100	[5]
75127	Formamide	100	
64186	Formic Acid	100	
39148248	Fosetyl-al	100	[5]
98011	Furfural	100	
98000	Furfuryl alcohol	50	
7782652	Germanium tetrahydride	100	
107222	Glyoxal	50	
1071836	Glyphosate	1	[5]
7440586	Hafnium and compounds	20	[4]
142825	Heptane	100	

Table B-3. Additional Substances with Health Values Subject to Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
70304	Hexachlorophene	100	
684162	Hexafluoroacetone	100	
116154	Hexafluoropropylene	100	
85427	Hexahydrophthalic anhydride, all isomers	0.001	
13149003	Hexahydrophthalic anhydride, all isomers (alt. CAS, see CAS 85427)		
14166213	Hexahydrophthalic anhydride, all isomers (alt. CAS, see CAS 85427)		
61788327	Hydrogenated terphenyls, nonirradiated	100	
420042	Hydrogen cyanamide {Cyanamide}	100	[5]
7722841	Hydrogen peroxide (excluding 5% or less solutions)	100	
35554440	Imazalil	50	[5]
7553562	Iodine	100	
75478	Iodoform	100	
36734197	Iprodione	5	[5]
1309371	Iron oxide	100	
78831	Isobutyl alcohol	100	
542563	Isobutyl nitrite	50	
4016142	Isopropyl glycidyl ether	100	
463514	Ketene	100	
330552	Linuron	5	[5]
1309484	Magnesium oxide	100	[5]
121755	Malathion	10	[5]
*	Manganese compounds including but not limited to:	0.1	[4]
12079651	Manganese cyclopentadienyl tricarbonyl	50	[4]
12108133	2-Methylcyclopentadienyl manganese tricarbonyl	100	[4]
137428	Metam sodium	5	[5]
79414	Methacrylic acid	100	
10265926	Methamidophos	100	[5]
950378	Methidathion	1	[5]
16752775	Methomyl	5	[5]
150765	4-Methoxyphenol {1-Hyroxy-4-methoxybenzene} {Hydroquinone monomethyl ether}	100	
126987	Methylacrylonitrile	100	
74895	Methylamine	100	
591786	Methyl-n-butyl ketone	100	
598550	Methyl carbamate	50	[5]
137053	Methyl cyanoacrylate	100	
8022002	Methyl demeton	20	
5124301	Methylene bis(4-cyclohexylisocyanate)	100	
1338234	Methyl ethyl ketone peroxide	0.5	
563804	Methyl isopropyl ketone	100	
298000	Methyl parathion	10	[5]
12001262	Mica	100	
100618	Monomethyl aniline {N-Methylaniline}	100	
110918	Morpholine	100	

Table B-3. Additional Substances with Health Values Subject to Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
3795888	5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone	0.5	
88671890	Myclobutanil	100	[5]
8030306	Naphtha {coal tar}	100	
86884	1-Naphthylthiourea {ANTU} {1-(1-Naphthyl)-2-thiourea}	100	[5]
60391926	N-Carboxymethyl-N-nitrosourea	50	
1929824	Nitrapyrin	50	[5]
17117349	3-Nitrobenzanthrone [PAH-Derivative/Related, POM]	0.0001	
75525	Nitromethane	50	
127195	N,N-Dimethylacetamide	50	
--	Nitrotoluenes including but not limited to	100	
99081	3-Nitrotoluene {m-Nitrotoluene}	100	
99990	4-Nitrotoluene {p-Nitrotoluene}	100	
99558	5-Nitro-o-toluidine	100	
19044883	Oryzalin	5	[5]
19666309	Oxadiazon	50	[5]
42874033	Oxyfluorfen	100	[5]
7783417	Oxygen difluoride	0.1	
--	PAHs (Polycyclic aromatic hydrocarbons) and Methyl PAHs, including but not limited to:		
191264	Anthanthrene {Dibenzo[cd,jk]pyrene} [PAH, POM]	0.5	
202335	Benz[j]aceanthrylene [PAH, POM]	0.5	
214175	Benzo[b]chrysene [PAH, POM]	0.5	
203338	Benzo[a]fluoranthene [PAH, POM]	0.5	
203123	Benzo[g,h,i]fluoranthene [PAH, POM]	0.5	
205129	Benzo[c]fluorene [PAH, POM]	0.5	
195197	Benzo[c]phenanthrene [PAH, POM]	0.5	
191071	Coronene [PAH, POM]	0.5	
215587	Dibenz[a,c]anthracene [PAH, POM]	0.1	
224419	Dibenz[a,j]anthracene [PAH, POM]	0.1	
192518	Dibenzo[e,l]pyrene [PAH, POM]	0.5	
	And Methyl PAHs including:		
26914181	Methylanthracene [Methyl-PAH, POM]	0.5	
613127	2-Methylanthracene [Methyl-PAH, POM]	0.5	
779022	9-Methylanthracene [Methyl-PAH, POM]	0.5	
2422799	12-Methylbenz(a)anthracene [Methyl-PAH, POM]	0.5	
65357699	Methylbenzopyrene [Methyl-PAH, POM]	0.5	
41637905	Methylchrysene [Methyl-PAH, POM]	5	
3351313	3-Methylchrysene [Methyl-PAH, POM]	5	
2531842	2-Methylphenanthrene [Methyl-PAH, POM]	0.5	
2381217	1-Methylpyrene [Methyl-PAH, POM]		
3353126	4-Methylpyrene [Methyl-PAH, POM]	0.5	
483658	Retene [Methyl-PAH, POM]	0.5	
2245387	2,3,5-Trimethylnaphthalene {1,6,7-Trimethylnaphthalene} [Methyl-PAH, POM]	0.5	

Table B-3. Additional Substances with Health Values Subject to Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
1910425	Paraquat	20	[5]
1155	PBBs (Polybrominated biphenyls) [POM] including but not limited to:	1	
13654096	Decabromobiphenyl	1	
61288139	Octabromobiphenyl	1	
40487421	Pendimethalin	100	[5]
19624227	Pentaborane	20	
60348609	Pentabromodiphenyl ether mixture [DE-71 (technical grade)]	1	
608935	Pentachlorobenzene	10	
76017	Pentachloroethane	100	
1321648	Pentachloronaphthalene	100	
594423	Perchloromethyl mercaptan	50	[5]
7616946	Perchloryl fluoride	100	
--	Perfluoro and Polyfluoro compounds including but not limited to:		
68141026	Chromium (III) perfluorooctanoate	100	
375951	Perfluorononanoic acid {PFNA}	10	
52645531	Permethrin	100	[5]
108452	meta-Phenylenediamine	50	
95545	o-Phenylenediamine and its salts	50	[5]
615281	o-Phenylenediamine dihydrochloride	50	[5]
100630	Phenylhydrazine and its salts	50	
59881	Phenylhydrazine hydrochloride	100	
298022	Phorate	20	[5]
732116	Phosmet	100	[5]
--	Phthalates, ortho-Phthalates including:	100	
71888896	Di-isoheptyl phthalate {DIHP}	100	
128030	Potassium dimethyldithiocarbamate	100	[5]
709988	Propanil	100	[5]
2312358	Propargite	50	[5]
107197	Propargyl alcohol	100	
71238	n-Propyl alcohol	100	
6423434	Propylene glycol dinitrate	100	
23950585	Propyzamide	100	[5]
10453868	Resmethrin	50	[5]
409212	Silicon carbide whiskers	50	
122349	Simazine	10	[5]
26628228	Sodium azide	0.1	
7758192	Sodium chlorite	100	
128041	Sodium dimethyldithiocarbamate	100	
78488	S,S,S-Tributyl phosphorotrithioate {Tribufos}	2	[5]
9014011	Subtilisins	0.1	
1395217	Subtilisins (alt. CAS, see CAS 9014011)	0.1	
5714227	Sulfur pentafluoride	0.01	
7783600	Sulfur tetrafluoride	0.01	
7783804	Tellurium hexafluoride	100	

Table B-3. Additional Substances with Health Values Subject to Quantification and Reporting*

Emittent ID [Note 1]	**Substance Name** [Note 2]	**Applicable Degree of Accuracy (lbs/yr)** [Note 3]	**Notes**
79276	1,1,2,2-Tetrabromoethane	100	
116143	Tetrafluoroethylene	50	
109999	Tetrahydrofuran	50	
3333526	Tetramethyl succinonitrile	100	
96695	4,4'-Thiobis(6-tert-butyl-m-cresol)	100	
68111	Thioglycolic acid and salts	100	
7719097	Thionyl chloride	0.1	
23564058	Thiophanate methyl	1	[5]
137268	Thiram	1	[5]
7440315	Tin	100	[4]
1332292	Tin Oxide	100	[4]
13463677	Titanium dioxide	50	[4]
108441	m-Toluidine	100	
43121433	Triadimefon	100	[5]
76039	Trichloroacetic acid	50	
552307	Trimellitic anhydride	0.1	
75503	Trimethylamine	100	
121459	Trimethyl phosphite	100	
50471448	Vinclozolin	50	[5]
88120	N-Vinyl-2-pyrrolidone	100	
25013154	Vinyl toluene	100	
1300738	Xylidine	100	
95681	2,4-Xylidine	100	
7440655	Yttrium and compounds	100	

* Reporting of substances in Tables B-2, B-3, and B-4 are in addition to those substances identified in Appendix A-I of the Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program, version effective September 26, 2007, as issued by CARB. Reporting for the "Hot Spots" Appendix A-I substances must begin with the first year in which a facility becomes subject to reporting, and be included for any future required report.

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Table B-4. Additional PFAS-Related Substances for Wastewater Treatment Facilities*

Emittent ID [Note 1]	**Substance Name** (and acronym if available)
375224	Perfluorobutanoic acid {Perfluorobutyric acid} {PFBA}
2706903	Perfluoropentanoic acid {PFPeA}
307244	Perfluorohexanoic acid {PFHxA}
375859	Perfluoroheptanoic acid {PFHpA}
335671	Perfluorooctanoic acid {PFOA}
2795393	Perfluorooctanoic acid {PFOA} and its salts, esters, and sulfonates
335660	Perfluorooctanoic acid fluoride
3825261	Ammonium perfluorooctanoate
375951	Perfluorononanoic acid {PFNA}
335762	Perfluorodecanoic acid {PFDA}
2058948	Perfluoroundecanoic acid {PFUnA}
307551	Perfluorododecanoic acid {PFDoA}
72629948	Perfluorotridecanoic acid {PFTrDA}
376067	Perfluorotetradecanoic acid {PFTeDA}
67905195	Perfluorohexadecanoic acid {PFHxDA}
16517116	Perfluorooctadecanoic acid {PFODA}
375735	Perfluorobutane sulfonic acid {PFBS}
1152	Perfluorobutane sulfonate (and salts)
2706914	Perfluoropentane sulfonic acid
175905369	Perfluoropentane sulfonate {PFPeS}
355464	Perfluorohexane sulfonic acid/sulfonate {PFHxS}
375928	Perfluoroheptane sulfonic acid
1763231	Perfluorooctane sulfonic acid
45298906	Perfluorooctane sulfonate {PFOS}
307357	Perfluorooctane sulfonyl fluoride
474511074	Perfluorononane sulfonate {PFNS}
333773	Perfluorodecane sulfonic acid
754916	Perfluorooctane sulfonamide {PFOSA}
1691992	N-Ethylperfluorooctanesulfonamidoethyl alcohol {N-EtFOSE}
24448097	N-Methylperfluorooctanesulfonamidoethanol {N-MeFOSE}
2991506	N-Ethyl-N-((heptadecafluorooctyl)sulfonyl)glycine (see 2-(N-Ethyl-perfluorooctanesulfonamido)acetic acid)
4151502	N-Ethyl perfluorooctane sulfonamid {EtFOSA} {MeFOSAm} {Sulfluramid}
31506328	Perfluoro-N-methyloctanesulfonamide {N-MeFOSA}
2355319	N-(Heptadecafluorooctylsulfonyl)-N-methylglycine {NMeFOSAA}
2991506	2-(N-Ethyl-perfluorooctanesulfonamido)acetic acid {NEtFOSAA}
757124724	4:2 Fluorotelomer sulfonic acid {FTS 4:2}
27619972	6:2 Fluorotelomer sulfonic acid
425670753	6:2 Fluorotelomer sulfonate {FTS 6:2}
647427	6:2 Fluorotelomer alcohol {FtOH 6:2}
17527296	6:2 Fluorotelomer acrylate
1996889	2-Perfluorohexyl ethyl methacrylate {6:2 FTMAC}
37858030	6:2 Fluorotelomer acetate

Table B-4. Additional PFAS-Related Substances for Wastewater Treatment Facilities*

Emittent ID [Note 1]	**Substance Name** (and acronym if available)
39108344	8:2 Fluorotelomer sulfonic acid
481071787	8:2 Fluorotelomer sulfonate
678397	8:2 Fluorotelomer alcohol {FtOH 8:2}
120226600	10:2 Fluorotelomer sulfonic acid {FTS 10:2}
865861	10:2 Fluorotelomer alcohol {FtOH 10:2}
13252136 (Alt 62037803)	Hexafluoropropylene oxide dimer acid {HFPO} and its ammonium salt {GenX/Gen X Chemicals}
62037803	Perfluoro(2-methyl-3-oxahexanoic) acid {GenX/GenX Chemicals}
958445448	Ammonium 4,8-dioxa-3H-perfluorononanoate {ADONA Ammonium salt}
382218	Perfluoroisobutylene {PFIB}
1996889	2-(Perfluorooctyl)ethyl methacryate {6:2 FTMAC}
2043530	1-Iodo-2-(perfluorooctyl)ethane
356025	3:3 Fluorotelomer carboxylic acid {2H,2H,3H,3H-Perfluorohexanoic acid}(3:3 FTCA)
914637493	5:3 Fluorotelomer carboxylic acid {2H,2H,3H,3H-Perfluorooctanoic acid} {5:3 acid} {FTCA 5:3}
812704	7:3 Fluorotelomer carboxylic acid {2H,2H,3H,3H-Perfluorodecanoic acid}
756426581	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid {9-Cl-PF3ONS}
763051929	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid {11-Cl-PF3OUdS}
151772586	Nonafluoro-3,6-dioxaheptanoic acid {NFDHA}
113507827	Perfluoro(2-ethoxyethane) sulfonic acid {PFEESA}
863090895	Perfluoro-4-methoxybutanoic acid {PFMBA}
377731	Perfluoro-3-methoxypropanoic acid {PFMPA}

* Reporting of substances in Tables B-2, B-3, and B-4 are in addition to those substances identified in Appendix A-I of the Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program, version effective September 26, 2007, as issued by CARB. Reporting for the "Hot Spots" Appendix A-I substances must begin with the first year in which a facility becomes subject to reporting, and be included for any future required report.

NOTES for Tables B-2, B-3, and B-4:

[1] Emittent ID (the emittent identification number) is the Chemical Abstract Service (CAS) number where available, or a CARB-assigned 4-digit emittent ID code.
A double dash ("- -") is shown for the Emittent ID to indicate that the entry is a non-reportable group header for the substances immediately following it.

[2] Individual substances listed under a group heading must be reported individually. Other, unspecified substances in the group must be summed and reported using the emittent ID of the group heading.
The square bracket designation, "[ ]", indicates that the substance is a component of the chemical group heading(s) within the brackets.
The braces designation, "{ }", indicates a synonym for the substance listed.

[3] Applicable degree of accuracy (in lbs/year except where noted). Radionuclides must be reported in Curie units, and the accuracy must be considered accordingly

Emission Quantification and Degree of Accuracy:

a. Following the phase-in schedule provided in Table A-1 of this article, emissions reports shall include emission estimates, in accordance with the instructions that follow, for any substances released to the atmosphere that are listed in Table B- 1 of Appendix B of this article.

b. For each substance listed in Table B-1, the total facility emissions from processes shall be reported to within plus or minus 10 percent of the total emissions of the substance, or to within plus or minus the applicable degree of accuracy value in Table B-1 for that substance, whichever is greater, in accordance with the instructions in which follow pertaining to "Using Degree of Accuracy Values in Reporting Facility Emissions."

   The degree of accuracy values shall be applied on a facility-wide basis, not at the level of each process. For reporting, the total facility emissions of substances shall be rounded to the nearest unit of the applicable degree of accuracy to determine whether they must be reported. If facility emissions of a substance exceed one-half of the applicable degree of accuracy unit for the substance, the substance emissions shall be reported.

Using Degree of Accuracy Values in Reporting Facility Emissions:

The general use of the degree of accuracy values is described above. The actual degree of accuracy values for each substance are listed in Appendix B, Table B-1. This text specifically describes how to apply the degree of accuracy values when reporting facility emissions.

Note that degree of accuracy values are to be applied on a facility-wide basis, and not at the process level. For reporting, the total facility emissions of substances should be rounded to the nearest unit of the applicable degree of accuracy to determine if they

must be reported. In other words, if facility emissions of a substance exceed one-half of the applicable degree of accuracy unit for the substance, then the substance emissions shall be reported. For example, assume that the total emissions of benzene from a facility are 1.7 lbs/year. The degree of accuracy value for benzene is 2 lbs/yr. Because the facility emissions exceed one-half of the benzene degree of accuracy, the emissions must be reported for any devices emitting benzene. If the total facility benzene emissions were 0.9 lbs/yr, the emissions (to the nearest unit of two pounds) would round down to zero and would not need to be reported.

[4] Emissions of unspecified metal compounds shall be reported as the amount of the metal atom equivalent, using the metal emittent identification number for the metal itself; (or using the emittent identification number indicated on the table, such as for reporting inorganic versus other-than-inorganic arsenic compounds),or for reporting soluble versus insoluble cobalt compounds.

For unspecified metal compounds which contain two or more listed metals (e.g., zinc chromate), each component metal shall be reported as the amount of the appropriate metal atom equivalent (i.e., the zinc portion of the weight as zinc equivalent and the chromate portion as hexavalent chromium equivalent.

For specific, individually listed metal compounds (e.g., Lead chromate or Cobalt oxalate), emissions shall be reported for the compound (as pounds of whole compound), using the emittent identification number for that compound.

The rare earth elements and their compounds shall be treated in the same way.

[5] For facilities that are subject to Hot Spots applicability provisions, for pesticide-related substances, reporting is required except during the time it is acting as a pesticide at an operation which is not a facility subject to the Hot Spots program (e.g. during typical field application).

[6] Additional Organophosphate Flame Retardants (OPFRs) are listed under the category "Brominated and Chlorinated Organics Compounds used as Flame Retardants."

[7] When multiple CAS appear to be used for the same chemical, we have included these CAS on the list.

[8] The facility operator shall report the CAS number and complete chemical name for any substance meeting the definition of this functional group class.

[9] Compounds of the form "X-CN", where formal dissociation can occur. Report as the amount of Cyanide equivalent in the compound using an emittent identification code of 1073.

[10] PAH: (Polycyclic Aromatic Hydrocarbon) - An organic compound consisting of a fused ring structure containing at least two (2) benzene rings, and which may also contain additional fused rings not restricted exclusively to hexagonal rings. The structure does not include any heteroatoms or substituent groups. The structure includes only carbon and hydrogen. PAHs are a subgroup of POM and have a boiling point of greater than or equal to 100 C. Reporting of individual PAHs is required.

[11] The emittent identification number 1105 has been discontinued for all facilities reporting for the first time and for all updates. Use the listed replacement emittent identification codes 1103 and 1104.