California Environmental Protection Agency

Air Resources Board

STAFF REPORT: INITIAL STATEMENT OF REASONS FOR REPEAL OF REGULATIONS

REGULATORY IMPROVEMENT INITIATIVE: REPEAL OF REGULATIONS

Date of Release: April 12, 1996
Scheduled for Consideration: May 30, 1996

This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

State of California
AIR RESOURCES BOARD

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State of California
AIR RESOURCES BOARD

Staff Report: Initial Statement of Reasons
for Proposed Repeal of Regulations

PUBLIC HEARING TO CONSIDER THE REPEAL OF REGULATIONS
(Repeal of Title 13, California Code of Regulations, sections 2201 and 2202; Repeal of Title 17, California Code of Regulations, sections 93301-93355 and Appendices A-E and addition of section 93300.5)

Date of Release: April 12, 1996
Scheduled for Consideration: May 30, 1996
Agenda Item No.: [__-__-__]

INTRODUCTION AND BACKGROUND

The Governor's Executive Order W-127-95 requires all California regulatory agencies to review all of their respective regulations and identify all regulations suitable for repeal. The California Environmental Protection Agency (Cal/EPA), of which the California Air Resources Board (ARB) is a constituent agency, conducted an agency-wide Regulatory Improvement Initiative in response to the Executive Order. The action proposed herein is part of the continuing process to eliminate excess regulations.

"REGULATORY RELIEF" IDENTIFIED AS NEEDED BY GOVERNOR'S EXECUTIVE ORDER; PROPOSED ACTION IMPLEMENTS GOVERNOR'S EXECUTIVE ORDER

The Governor's order commanded all agencies to identify regulations which could be repealed in order to reduce the regulatory burden on California businesses and the economy. As part of the Regulatory Improvement Initiative, the ARB undertook an intensive review of all its regulations. This review was conducted on several levels. Each ARB division reviewed its regulations and identified regulations which could be repealed. Each division then reviewed the regulations identified by the other divisions, to ensure that no unintended consequences would result from this effort.

After the ARB's internal review was completed, a public workshop was scheduled and notice was sent to approximately 2,000 persons and entities. The workshop notice included a list of the

regulations proposed to be eliminated from Title 13 and Title 17 of the California Code of Regulations. In response to written comments and comments received at the workshop, three regulations were removed from the list.[1] Most of the regulations identified for elimination do not require Board action for their repeal; they may be eliminated through the process set forth in section 100 of Title 1 of the California Code of Regulations ("Section 100").

Section 100 allows changes "without regulatory effect" to take place without complying with the rulemaking procedure set forth in the Administrative Procedure Act (Government Code sections 11340 et seq.). The Section 100 procedure has been used for the majority of the regulations identified for repeal by ARB staff. Attachment 2 provides a list of the regulations repealed under the Section 100 procedure. In addition to regulations previously repealed under the Section 100 procedure, staff is making Section 100 amendments to two sections of Title 17 in order to conform section numbers to corresponding changes in that title. (These are Hot Spots fee regulation sections 90701 and 90702 which refer to the Hot Spots Guidelines.)

The sections for which Board action is requested are both from Title 13. Section 2201 provides that

> It shall be the policy of the state board to evaluate all ideas, proposals, devices, and fuel additives submitted to the staff of the state board as possible means of reducing vehicular air pollution. In the review of such submittals, the state board staff shall provide courteous, prompt, and reasonable evaluation, but at the same time, the staff is not to be subjected to unnecessary diversions that would be cause by the review of proposals which are either clearly incapable of producing solutions to any air pollution problems or have been subject to previous exhaustive test programs.

Because this section states formal Board policy, Board action is required to eliminate it. The elimination of this section will not affect ARB staff 's obligation to evaluate vehicular air pollution proposals; these obligations are provided for by statute. Health and Safety Code section 43011 already requires the ARB to evaluate motor vehicle pollution control devices submitted to it for testing. Health and Safety Code section 43833 requires the ARB to establish criteria for evaluating the effectiveness of fuel additives.

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[1]The regulations that were removed from the list ARB 13 CCR sections 2301, 2304(a)(2), and 2305. These regulations ARB part of the "Clean Fuels" program, and were identified by ARB staff for repeal because they had a limited application period which had expired. However, several comments (including the American Methanol Institute, the South Coast Air Quality Management District, and the California Energy Commission) asked that these sections not be repealed at this time, and we have acceded to these comments.

Section 2202 provides that

> Subject to the other provisions of this subchapter, applicable test procedure(s), if any, adopted by the state board, will be used in the evaluation process. The performance of each control device or fuel additive will be evaluated to determine its effectiveness in reducing vehicular emissions and compliance with the applicable emission standards.

Again, the policy articulated in this regulation is set forth in statute, rendering the regulation redundant. For example, Health and Safety Code section 43833 requires the establishment of criteria for evaluating the effectiveness of motor vehicle fuel additives sold or proposed to be sold in California. The statute makes it clear that test procedures are to be specified by ARB for testing fuel additives, whether the testing is done by ARB or by independent laboratories. Similarly, Health and Safety Code section 43603 requires the Board to adopt regulations setting forth criteria for certification of motor vehicle exhaust devices.

With respect to the Hot Spots regulations, Title 17 CCR sections 93301 through 93355, the staff proposes to remove the regulations from Title 17 and place them in a separate document, which will be incorporated by reference. A new regulation, section 93300.5, would effect the incorporation of the separate document, entitled "Emission Inventory Criteria and Guidelines Report." This change is proposed as part of the Regulatory Improvement Initiative package because it will improve the ease of use of both Title 17 and the Emission Inventory Criteria and Guidelines. Title 17 will be much less cumbersome to use for those who do not need to refer to the Emission Inventory Criteria and Guidelines. The regulations to be removed from Title 17 comprise more than one hundred pages. Similarly, those who use Title 17 only to refer to the Emission Inventory Criteria and Guidelines will not have to negotiate the entirety of the Title to do so.

SUMMARY OF RECOMMENDED ACTION

The Board is respectfully requested to authorize the Executive Officer to repeal sections 2201 and 2202 of Title 13 of the California Code of Regulations, to repeal sections 93301 through 93355 and Appendices A-E of Title 17 of the California Code of Regulations, and to add section 93300.5 of Title 17 of the California Code of Regulations, as specified in Appendix D. The Title 17 sections affected here also appear in Title 26 at sections 17-93301 through 17-93355 and Appendices A-E. Repeal of Title 26 regulations is occurring concurrently and is not included in this action.

AIR QUALITY, ENVIRONMENTAL AND ECONOMIC IMPACTS

Air Quality

The regulations which have been identified for repeal are: (1) general statements relating to the staff's consideration of ideas, proposals, devices, and fuel additives submitted to the ARB as possible means of reducing vehicular air pollution, and (2) regulations that contain voluminous technical material, including extensive tables, regarding the Hot Spots program established by the Air Toxicities "Hot Spots" Information and Assessment Act of 1987 (Health & Safety Code sections 44300-44394). The regulations in category (1) articulate general policy statements which are in essence duplicative of existing statutes. The regulations in category (2) are specifications and regulatory procedures that are to be incorporated by reference in a document to be titled "Emission Inventory Criteria and Guidelines Report," (Report) which will contain all technical specifications and regulatory procedures for the Hot Spots program that have been included in sections 93301-93355 and appendices of Title 17. The technical specifications and regulatory procedures in the Report which is to be incorporated by reference are unchanged from current specifications and procedures. The Report will be readily available to the public through ARB.

The repeal and incorporation by reference of these regulations will have no impact on air quality. The repeal and incorporation by reference of these regulations will have no environmental impacts requiring CEQA review. In addition, the repeal and incorporation by reference of these regulations will not have any economic impact on small business.

Alternatives

No alternative considered by the agency would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected private persons than the proposed regulation.

REFERENCES

Executive Order W-127-95.
Health and Safety Code sections 39000, 39002, 39600, 39601, 43000, 43011, 43014, 43603, 43833, 44340, 44341, and 44342.

Attachments 5

APPENDIX A

Notice of Public Hearing to Consider the Repeal of Sections 2201 and 2202, Title 13, California Code of Regulations, Repeal of Sections 93301-93355 and Appendices A to E, Title 17, California Code of Regulations, and Addition of Section 93300.5, Title 17, California Code of Regulations

GOVERNOR'S EXECUTIVE ORDER NO. W-127-95

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

EXECUTIVE ORDER W-127-95

WHEREAS, in an increasingly competitive world, a strong economy is crucial for improving the quality of life for all the people of California; and

WHEREAS, a globally competitive California business sector is the engine that keeps California's economy strong; and

WHEREAS, my Administration has committed itself to economic development and regulatory reform, including eliminating red tape, streamlining the state permit process, reviewing regulations and curbing law suit abuse; and

WHEREAS, nearly three-fourths of state regulations impact California businesses; many of those regulations imposing excessive cost burdens on those businesses and limiting economic growth; and

WHEREAS, the objective of state regulations to protect the people and the environment of California can be accomplished with a well reasoned approach accounting for costs as well as benefits and minimizing the negative impacts on businesses and the economy; and

WHEREAS, in order to enhance the competitiveness of California businesses it is necessary to significantly reduce the excessive burden of existing state regulations;

NOW, THEREFORE, I, PETE WILSON, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effective immediately:

1. All state agencies are directed to review each of the nearly 28,000 regulations affecting the business sector within their respective jurisdictions, identify all regulations suitable for repeal, and submit formal recommendations to the Governor's Office. This process shall commence immediately.

2. Regulatory relief shall involve the input and consultation of both the business and environmental communities impacted by the various regulations. The process shall be sufficiently flexible to allow for the maximum reduction in regulatory burden consistent with the varied circumstances in the many departments within the Executive Branch.

3. Regulatory relief will be accomplished through the use of existing resources.

4. Each agency will submit to the Governor's Office the following by December 8, 1995.

   (a) A plan and schedule of actions to eliminate or to modify those regulations identified.

   (b) Any recommended legislative changes needed to reduce all excessive regulatory burdens in California.

5. Furthermore, I urge each fellow constitutional officer to undertake the same review and plan development in order to achieve comprehensive state regulatory reform.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 20th day of September 1995.

Governor of California

ATTEST:

Secretary of State

APPENDIX B

Notice of Public Hearing to Consider the Repeal of Sections 2201 and 2202, Title 13, California Code of Regulations, Repeal of Sections 93301-93355 and Appendices A to E, Title 17, California Code of Regulations, and Addition of Section 93300.5, Title 17, California Code of Regulations

Proposed Regulation Order

Repeal Title 13, California Code of Regulations, Sections 2201 and 2202

PROPOSED REGULATION ORDER

Repeal Title 13, California Code of Regulations, Sections 2201 and 2202, as follows:

~~**§ 2201. General Policy.**~~

~~It shall be the policy of the state board to evaluate all ideas, proposals, devices, and fuel additives submitted to the staff of the state board as possible means of reducing vehicular pollution. In the review of such submittals, the state board staff shall provide courteous, prompt, and reasonable evaluation, but at the same time, the staff is not to be subjected to unnecessary diversions that would be caused by the review of proposals which are either clearly incapable of producing solutions to any air pollution problems or have been subject to previous exhaustive test programs.~~

~~Note: Authority cited: Sections 39600, 39601, 43011, 43014 and 43833, Health and Safety Code. Reference: Sections 39002, 39003 and 43000. Health and Safety Code; and Section 27156, Vehicle Code.~~

~~**§ 2202. Performance Requirements**~~

~~Subject to other provisions of this subchapter, applicable test procedure(s), if any, adopted by the state board, will be used in the evaluation process. The performance of each control device or fuel additive will be evaluated to determine its effectiveness in reducing vehicular emissions and compliance to determine its effectiveness emission standards.~~

~~Note: Authority cited: Sections 39600, 39601, 43011 and 43833, Health and Safety Code. Reference: Sections 39002, 39003, 39500, 43000 and 43013, Health and Safety Code; and Section 27156, Vehicle Code.~~

APPENDIX C

Notice of Public Hearing to Consider the Repeal of Sections 2201 and 2202, Title 13, California Code of Regulations, Repeal of Sections 93301-93355 and Appendices A to E, Title 17, California Code of Regulations, and Addition of Section 93300.5, Title 17, California Code of Regulations

Proposed Regulation Order

Emission Inventory Criteria and Guidelines Report

Published in Accordance with the Air Toxics "Hot Spots" Information and Assessment Act of 1987

State of California
Air Resources Board
Technical Support Division

EMISSION INVENTORY CRITERIA AND GUIDELINES REPORT

PUBLISHED IN ACCORDANCE WITH
THE AIR TOXICS "HOT SPOTS" INFORMATION AND ASSESSMENT ACT OF 1987

(Formerly sections 93301-93355 and Appendices of Title 17, California Code of Regulations as amended June 1990, September 1990, June 1991, and June 1993)

Adopted: _____

EMISSION INVENTORY CRITERIA AND GUIDELINES REPORT

Article 1. General

301. Definitions.

(a) **"Air emission", "emission", "air release", or "release"** has the same meaning as defined in Health and Safety Code Section 44303.

(b) **"ARB-adopted source test method" or "ARB-adopted method"** means a procedure for performing source testing as set forth in Title 17 California Code of Regulations, Section 94100 et seq.

(c) **"Device"** means any article, machine, equipment or other contrivance (whether or not operated under a permit from an air pollution control district or air quality management district) which may cause the emission of a listed substance.

(d) **"Emission inventory plan", "inventory plan", or "plan"** means the emission inventory plan required by Health and Safety Code Sections 44340 and 44342.

(e) **"Emission inventory report", "inventory report", or "report"** means the emission inventory report required by Health and Safety Code Section 44341.

(f) **"Emitting process"** means any fugitive source or any operation within a device that involves the manufacture, formulation, use, or release of one or more of the listed substances, when the substance is present in any capacity whatsoever, including but not limited to an ingredient, product, auxiliary, or catalyst.

(g) **"Facility"** means the same as defined in Health and Safety Code Section 44304. "Facility" shall not include any motor vehicle as defined in Section 415 of the Vehicle Code.

(1) Except for the oil production operations defined in subsection (2) below, for purposes of this regulation, the phrase "every structure, appurtenance, installation" shall mean all equipment, buildings, and other stationary items, or aggregations thereof, (A) which are associated with a source of air emission or potential air emission of a listed substance; (B) which involve activities that belong to the same two-digit Standard Industrial Classification code, or are part of a common operation; (C) which are located on a single site or on contiguous or adjacent sites; and (D) which are under common ownership, operation, or control, or which are owned or operated by entities which are under common ownership, operation, or control.

(2) For oil production operations in the counties of Kern and Fresno, the phrase "every structure, appurtenance, installation" shall mean the same as "stationary source" defined in Section 3.3, "Definitions" in San Joaquin Valley Unified Air Pollution Control District Rule 2201 "New and Modified Stationary Source Review Rule" as amended December 17, 1992, which is incorporated by reference herein.

(h) **"Facility diagram"** means a diagram submitted with the inventory report that shows all points of actual or potential air release of a listed substance, including fugitive emissions.

(i) **"Fugitive emissions"** means those emissions which do not pass through a stack, chimney, vent, or other functionally equivalent opening.

(j) **"List of substances"** means the list of chemical substances which may pose a threat to public health when present in the ambient air as set forth in Appendix A of Title 17 California Code of Regulations, Sections 90700 through 90704, and in Appendices A-I and A-II of this regulation; a "listed substance" is a substance included on this list.

(k) **"Material Safety Data Sheet" ("MSDS")** means printed material concerning a hazardous substance which is prepared by manufacturers and importers in accordance with Section 5194(g) of Title 8, California Code of Regulations, "Hazard Communication".

(l) **"Operator" or "facility operator"** means the same as defined in Health and Safety Code Section 44307.

(m) **"Small business"** means the same as defined in Government Code Section 11342(e).

(n) **"Source" or "point of release"** means the location of a facility activity, device or emitting process, including locations of fugitive emissions, which may be associated with air emissions of a listed substance or other air pollutant; or the location of any substance which may be associated with emissions of a listed substance or other air pollutant.

(o) **"Total organic gases (TOG)"** means all gases consisting of substances containing carbon, except carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

(p) **"Trade secrets"** means the same as defined in Government Code Section 6254.7(d).

(q) **"Update plan"** means an emission inventory plan which is revised and updated as required by Health and Safety Code Section 44344.

(r) **"Update report"** means an emission inventory report which is revised and updated as required by Health and Safety Code Section 44344.

(s) "Use" means any application, whether primary or secondary to the main facility operation, which may result in an air release of a listed substance, unless exempted pursuant to Section 333.

Article 2. Applicability

303. Facilities Covered.

(a) Except for facilities or activities exempted by Health and Safety Code Sections 44324 and 44325, as further defined in subsection (c), below, this regulation shall apply upon its effective date to any facility which:

(1) manufactures, formulates, uses, or releases any listed substance or any other substance which reacts to form a listed substance, and releases 25 tons per year or more of total organic gases, particulate matter, nitrogen oxides, or sulfur oxides; or

(2) is listed in any current toxics use or toxics air emission survey, inventory, or report released or compiled by an air pollution control district or air quality management district (herein referred to as "district") and referenced in Appendix B of Title 17 California Code of Regulations, Sections 90700 through 90704.

(b) Effective July 1, 1989, this regulation shall also apply to any facility which manufactures, formulates, uses, or releases any listed substance or any other substance which reacts to form a listed substance, and releases 10 or more but less than 25 tons per year of total organic gases, particulate matter, nitrogen oxides, or sulfur oxides.

(c) For purposes of this subchapter, the phrase "in compliance with Section 41805.5" as used in Health and Safety Code Section 44325, regarding solid waste disposal facilities, shall refer only to those activities conducted at a solid waste disposal facility which are subject to the Calderon testing program described in Health and Safety Code Section 41805.5 and which have complied with its requirements. All other activities conducted at a solid waste disposal facility are subject to the requirements of this subchapter. A facility is deemed to have complied with the requirements of the Calderon testing program if the facility has performed the required testing or is on schedule, as determined by the district, to do so.

304. Plan Submittal.

(a) Every facility included in subsection 303(a) shall submit an emission inventory plan to the appropriate district by August 1, 1989, unless the district notifies the facility in writing that the facility's emissions are or will be included in an industrywide emission inventory prepared by the district pursuant to Health and Safety Code Section 44323.

(b) Every facility included in subsection 303(b) shall submit an emission inventory plan to the appropriate district by August 1, 1990, unless the district notifies the facility in writing that the facility's emissions are or will be included in an industrywide emission inventory prepared by the district.

305. New Facilities and Facilities whose Emissions Increase.

This regulation shall also apply to facilities commencing operation or increasing emissions of total organic gases, particulate matter, nitrogen oxides, or sulfur oxides after June 1, 1989 which meet the conditions specified in Section 303. The operator of every such facility commencing operation or increasing emissions on or before January 1 of a given year shall submit an emission inventory plan to the appropriate district by the following August 1, unless:

(a) The district notifies the facility in writing that the facility's emissions are or will be included in an industrywide emission inventory prepared by the district; or

(b) The facility is subject to earlier submission of an inventory plan pursuant to district requirements adopted in accordance with Health and Safety Code Sections 44365(b).

305.5 Facilities whose Emissions Decrease Below 10 Tons Per Year of Criteria Pollutants

(a) This regulation shall cease to apply to any facility whose emissions of total organic gases, particulate matter, nitrogen oxides, or sulfur oxides are reduced to the extent that the facility no longer satisfies the conditions specified in Section 303(a)(1) and (b), if the facility demonstrates to the district, and the district finds and the state board concurs that the following criteria are satisfied:

(1) the facility does not satisfy the conditions specified in Sections 303(a)(2) or 308;

(2) the emission reductions are permanent and enforceable; and

(3) the facility poses no significant risk to public health.

(b) The operator of every facility which satisfies the criteria of subsection (a) and obtains the district's findings thereof and the state board's concurrence thereof on or before January 1 of a given year, shall not be required to comply with the update requirements that apply to that or to any subsequent year.

(c) If at any time a facility ceases to satisfy any of the criteria specified in subsection (a), the facility shall automatically become subject to this regulation. A facility must notify the district immediately if it ceases to satisfy the criteria specified in subsection (a).

306. Facilities Added to District Surveys.

This regulation shall also apply to facilities added after July 1, 1988, to a toxics use or toxics air emission survey, inventory, or report released or compiled by a district and subsequently referenced in Appendix B of Title 17 California Code of Regulations, Sections 90700 through 90704. The operator of any such facility referenced in such Appendix B on or before April 1 of a given year shall submit an emission inventory plan to the appropriate district by the following August 1, unless the district notifies the facility in writing that the facility's emissions are or will be included in an industrywide emission inventory prepared by the district.

306.5 Facilities Removed from District Surveys.

(a) This regulation ceases to apply to any facility that is removed from a district's toxics use or toxics air emission survey, inventory, or report referenced in Appendix B of Title 17 California Code of Regulations, Section 90700 through 90704, if the facility demonstrates to the district, and the district finds and the state board concurs that the following criteria are satisfied:

(1) the facility does not satisfy the conditions specified in Section 303 or 308; and

(2) the facility poses no significant risk to public health.

(b) The operator of every such facility that satisfies the criteria of subsection (a) and is deleted from a reference in Appendix B of Title 17 California Code of Regulations, Section 90700 through 90704, on or before April 1 of a given year shall not be required to comply with the update requirements that apply to that or to any subsequent year.

(c) If at any time a facility ceases to satisfy any of the criteria specified in subsection (a), the facility shall automatically become subject to this regulation. A facility must notify the district immediately if it fails to satisfy the criteria specified in subsection (a).

307. Updates to the List of Substances.

The operator of any facility which manufactures, formulates, uses, or releases any substance added to the list of substances on or before April 1 of a given year shall include such substance in any emission inventory plan required pursuant to this Article, or in the next update of the emission inventory required pursuant to Health and Safety Code Section 44344 and to Article 6, beginning with Section 348, unless the district notifies the facility in writing that the facility's emissions of the substance are or will be included in an industrywide emission inventory prepared by the district.

308. Facilities Emitting Less Than 10 Tons Per Year of Criteria Pollutants.

(a) This Section shall apply on its effective date to any facility which manufactures, formulates, uses, or releases any listed substance or any other substance which reacts to form a listed substance; and which releases less than 10 tons per year of each of total organic gases, particulate matter, nitrogen oxides, and sulfur oxides; and which falls in any class listed in Appendix E-I or Appendix E-II.

(b) Each such facility shall comply with subsections (c) and (d) below, unless:

(1) The district notifies the facility in writing that the facility's emissions are or will be included in an industrywide emission inventory prepared by the district pursuant to Health and Safety Code Section 44323; or

(2) The facility is subject to earlier submission of an inventory plan pursuant to Sections 304, 305, or 306 or pursuant to district requirements adopted in accordance with Health and Safety Code Section 44365(b).

(c) Except as provided in (b), above, the operator of any such facility which falls in any class listed in Appendix E-I shall submit to the appropriate district an inventory plan and inventory report which meet all the requirements of this subchapter. The inventory plan shall be due August 1 of the year following the effective date of this subsection for any such facility in operation at the time of such effective date. For any such facility commencing operation after such effective date, the operator of every such facility commencing operation on or before January 1 of a given year shall submit an inventory plan to the appropriate district by the following August 1, except as provided in subsection (b)(1), above. The schedule specified in Health and Safety Code Sections 44340(b), 44341, and 44343, and in Sections 320 and 347 herein shall apply to the review, approval, and implementation of the plan and submittal of the report.

(d) Except as provided in (b), above, the operator of any such facility which does not fall in any class listed in Appendix E-I but falls in any class listed in Appendix E-II shall submit to the appropriate district, for one time only, in lieu of a plan and a report, a completed copy of the Facility Description Form and a completed copy of Form S-UP which includes all applicable substances listed in both Appendix A-I and Appendix A-II. The operator shall include on Form S-UP or on an attachment a brief description regarding the nature and approximate quantity of the indicated use, production, or other presence of each applicable substance. These completed forms shall be submitted to the district on or before August 1 of the year following the effective date of this subsection for any such facility in operation at the time of such effective date. For any such facility commencing operation after such effective date, the operator of every such facility commencing

operation on or before January 1 of a given year shall submit the required forms to the appropriate district by the following August 1, except as provided in subsection (b)(1), above. The district shall forward these forms to the ARB within sixty (60) days of receipt.

(e) This regulation shall also apply to any such facility which falls in any class which is subsequently added to Appendix E-I or Appendix E-II. The operator of any such facility which falls in a class added to Appendix E-I or E-II on or before April 1 of a given year shall submit the required emission inventory plan or the completed Facility Description Form and Form S-UP, respectively, to the appropriate district by the following August 1, unless:

(1) The district notifies the facility in writing that the facility's emissions are or will be included in an industrywide emission inventory prepared by the district pursuant to Health and Safety Code Section 44323; or

(2) The facility is subject to earlier submission of an inventory plan pursuant to Sections 304, 305, or 306 or pursuant to district requirements adopted in accordance with Health and Safety Code Sections 44365(b).

309. Facilities Emitting Less Than 10 Tons Per Year of Criteria Pollutants And No Longer Falling Within an "Any SIC" Class Description Listed in Appendix E-I.

(a) This regulation shall cease to apply to any facility at which a process is discontinued such that the facility no longer falls within an "any SIC" class listed in Appendix E-I, if the facility demonstrates to the district, and the district finds and the state board concurs that the following criteria are satisfied:

(1) the facility does not satisfy the conditions specified in Section 303 or any other condition specified in Section 308;

(2) the process is discontinued permanently; and

(3) the facility poses no significant risk to public health.

(b) The operator of every facility which satisfies the criteria of subsection (a) and obtains the district's findings thereof and the state board's concurrence thereof on or before January 1 of a given year, shall not be required to comply with the update requirements that apply to that or to any subsequent year.

(c) If at any time a facility ceases to satisfy any of the criteria specified in subsection (a), the facility shall automatically become subject to this regulation. A facility must notify the district immediately if it ceases to satisfy the criteria specified in subsection (a).

Article 3. Requirements for Preparing Emission Inventory Plans

310. General.

The emission inventory plan shall provide a comprehensive and detailed description of the methods that will be used to quantify air releases or potential air releases of listed substances from all points of release. The plan shall include quantification methods which shall result in an accurate and comprehensive characterization of releases and shall comply with all other applicable requirements in this regulation.

311. Flow Diagram.

Each inventory plan shall include a flow diagram consisting of a comprehensive schematic drawing of the process flows which affect the nature or quantity of emissions of listed substances. If necessary, a reference document shall be attached to the drawing to include any information needed to fulfill the flow diagram requirements which cannot be included on the drawing. An existing diagram which meets the requirements of this section may be submitted. The diagram shall indicate the following:

(a) All devices associated with an emitting process within a facility, including but not limited to:

(1) Boilers
(2) IC Engines
(3) Incinerators
(4) Flares
(5) Furnaces
(6) Kilns
(7) Process Heaters
(8) Control Devices (including hoods)
(9) Storage or Process Tanks or Enclosures
(10) Cooling Towers

Each device shall be represented by a block labeled with the name and number of the device it represents.

For purposes of this section, similar small devices which are substantially equivalent may be aggregated and considered for reporting purposes as one device. The number of such devices which are so aggregated shall be reported.

(b) Specific emitting processes, each associated with a device number and numbered sequentially as an emitting process within that device number. Emittents which always occur simultaneously from the same point of release shall be considered to result from a single emitting process. Each fuel burned at a combustion device shall be reported as a separate emitting process. Each air pollution control device and process shall be reported.

For purposes of this section, similar small emitting processes which are substantially equivalent may be aggregated and considered for reporting purposes as one emitting process. The number of such emitting processes which are so aggregated shall be reported.

(c) An estimate of the numbers of valves, vents, flanges, seals, and gaskets associated with each listed substance at the general locations of fugitive emissions. The estimate shall be sufficiently accurate so calculations of emissions based on the estimate meet the degree of accuracy required in Section 334. The estimate of such components may be indicated as an aggregation at a general location.

(d) All stacks, vents, ducted building exhaust sites, and other sites of exhaust release of a listed substance.

(e) Interconnections showing functional relationships that affect emissions or their reportable characteristics, sufficient to support evaluation of the completeness and representativeness of each required source test protocol and inventory plan, including but not limited to connections between devices, stacks, emitting processes, and control equipment. Interconnections shall be indicated by arrows labeled to identify the listed substances associated with each discrete emission point or general fugitive location.

(f) All major modifications to existing processes or devices anticipated to result in a significant change in the amount or nature of emissions which are expected to occur during the reporting period.

312. Trade Secrets.

Information claimed to be a trade secret shall be denoted by use of a "black box" block on the flow diagram which is labeled with the non-proprietary name(s) of the operation(s) therein. All devices and emitting processes within the "black box" shall be identified by name and by number. Fugitive emissions of listed substances located within the black box shall be indicated.

313. Numbering.

Numbering of devices and stacks shall be consistent throughout all parts of the plan, report, and reporting forms and with existing device and stack numbers currently used by the district to characterize the facility. For devices and stacks for which the district has not assigned numbers, the facility operator shall number the devices and stacks in a manner compatible with the existing numbering convention. In cases where a facility has one or more substantially identical activities, repetitions may be indicated with an appropriately labeled box or boxes.

314. Specification of Emission Quantification Methods.

For each emission point on the flow diagram, including the general location of fugitive emissions, the facility operator shall identify the listed substances being emitted and specify in detail the estimation method, source test method or other measurement method that will be used to quantify the air releases of the listed substances as required by Sections 336 through 345, as appropriate. Each method shall result in an accurate and comprehensive characterization of releases.

315. Source Test Protocol and Other Required Information.

The inventory plan shall include a source test protocol which describes how each source test method will be applied to each emission point where source testing is required pursuant to Section 336 and Appendix D. The inventory plan shall propose values for the effectiveness of air pollution control equipment in accordance with the requirements of subsection 345(c) and shall include any other documentation required to be cited pursuant to Article 5, beginning with Section 330.

Article 4. Requirements for Emission Inventory Reports

320. General.

The emission inventory report shall be submitted to the district within 180 days after approval of the plan and shall include a facility diagram; the results of all source tests, material analysis and other measurements performed; and completed copies of the necessary multiples of the four core reporting forms and the S-UP Form, or the required information in an alternative format if so required by the district. Any deficiencies or errors noted by the district, or by the ARB where applicable, shall be corrected.

321. Facility Diagram.

(a) The facility diagram shall include all the information presented in the flow diagram and in the equivalent format and shall also include any specific required information which the facility chooses to designate as trade secret.

(b) Only the necessary data used to calculate emissions which are required in the facility diagram may be designated trade secret. For purposes of this regulation, "necessary data to calculate emissions" shall include process rate, operating schedule, equipment capacity, emission factors, and feed composition. "Necessary data to calculate emissions" which may be designated trade secret shall not include information previously disclosed or easily discernable, including all information which the district requires any applicant to provide before such applicant builds, alters, replaces, or operates a facility, device, or emitting process; information on the Facility Description Form, the Stack Data Form, the Device Description and Device-Stack Relations Form, and all other

information on the Process and Emittents Data Form, with the exception of process description, which was not defined earlier as "necessary data to calculate emissions."

(c) Information claimed to be a trade secret shall be included on the facility diagram and reference document with a box around such information, using dashed lines and a bold letter "C" in the upper right corner of the dashed box. The designated information will be protected as a trade secret when it appears in another component of the emission inventory report only if thus denoted on the facility diagram and denoted in such other component in accordance with the provisions of this regulation.

322. Reporting Forms.

(a) The operator of each facility subject to the regulation shall complete one **Facility Description Form** , an entry on a **Stack Data Form** for each stack or vent from which a listed substance may be released, an entry on a **Device Description and Device-Stack Relations Form** for each device associated with a release of a listed substance, and a **Process and Emittents Data Form** for each emitting process within each device. A Process and Emittents Data Form and an entry on a Device Description and Device-Stack Relations Form shall be completed for each general location of fugitive emissions.

(b) **Form S-UP** shall be completed for all substances set forth in Appendix A-II which are: 1) used as ingredients in any activity or process at the facility; 2) manufactured or produced as a result of any activity or process at the facility; or 3) otherwise associated with an activity or process, including but not limited to presence in a formulation operation or presence as a by-product or a reaction intermediate which appears temporarily during processing.

(c) Information designated as trade secret on the facility diagram shall be identified on the reporting forms according to the instructions set forth in Appendix B.

(d) The forms shall be available at the district office and shall be provided to facility operators upon request.

(e) **Form S-UP** shall also be completed for all substances set forth in Appendix A-I when required pursuant to Section 334 (e) and for all substances set forth in Appendix A-I and Appendix A-II when required pursuant to Section 308(c).

323. Other Required Data.

(a) Each inventory report shall include the results of each required source test and source test protocol, each fuel or material analysis, and any other documentation required to be submitted pursuant to Article 5.

(b) The inventory report shall include the results of any source tests performed pursuant to district regulations implementing an ARB airborne toxic control measure which was adopted pursuant to Health and Safety Code Section 39666 for the control of toxic air contaminants, where such source tests have been performed prior to the date of submittal of the inventory report.

(c) If so required by the district, the facility operator shall include with the inventory report a facility-wide emissions summary which lists for each reported substance the total of the annual emissions and the maximum hourly emissions of each listed substance from the facility. The totals for each substance shall match the sums of the annual and maximum hourly emissions, respectively, which have been reported for the substance on the Process and Emittents Data Forms for all applicable emitting processes at the facility. If such a summary is required by the district, the district shall, on request, specify a standardized format for the summary data.

(d) If so required by the district, the facility operator shall include with the inventory report information on the proximity of the source to potential receptors, including but not limited to the distance to the nearest hospital, school, daycare center, worksite, and residence. If such information is required by the district, the district shall, on request, specify a standardized format for the information.

324. Plot Plan.

If so required by the district, the inventory report shall include a plot plan which shall show a plan view of the facility site and structure(s). The plot plan shall indicate the direction of north and shall be drawn to scale on one sheet of paper. All stacks shall be shown and referenced by stack number. The height of any buildings greater than two stories shall be noted. General locations of fugitive emissions shall be noted. The devices and operations situated in each separate building shall be designated by the corresponding name or number used on the flow diagram.

Article 5. Other Requirements

330. Instructions for Record Keeping.

The facility operator shall retain copies of the following records and documentation for a period of five years from the date of submission of the emission inventory report or the date of each subsequent update required pursuant to Health and Safety Code Section 44344:

(a) Each emission inventory plan.

(b) Each emission inventory report.

(c) All documentation and results of source tests and other measurement procedures.

(d) Purchase records of all listed substances or mixtures containing listed substances used at the facility, if information regarding the purchase of such substances was used to calculate emissions of any listed substance or to determine the production, use, or other presence of any substance reported on Form S-UP.

(e) All Material Safety Data Sheets and Technical Data Sheets used to prepare the emission inventory report.

(f) Receipts and manifests associated with the transfer of each listed substance in waste to off-site locations, if information regarding such transfer was used to calculate emissions of any listed substance.

(g) All other documentation supporting the estimates of emissions, including control equipment efficiency; of amounts present of each listed substance, including information used to evaluate exempted uses and degree of accuracy requirements; and of amounts used for mass balance calculations, including amounts removed or transferred to an off-site location in finished product, by-product, waste, or any other form.

331. Specification of Reporting Period and Averaging Intervals for Each Substance.

(a) The calendar reporting period for which emissions are to be representative shall be from January through December of the specified year, commencing January 1, 1989 for facilities required to submit inventory plans by August 1, 1989 and commencing January 1, 1990 for facilities required to submit inventory plans by August 1, 1990, and in like manner for subsequent submittal of inventory plans.

(b) Emissions of substances listed in Appendix A-I shall be reported both as maximum one hour emissions and as annual average emissions.

332. Specifications for Identifying Emission Points and Substances Emitted.

(a) The facility operator shall identify and report in the inventory plan and the inventory report as a distinct emitting process or device each occurrence within the facility of the emitting processes and devices set forth in Appendices C-I and C-II (the Facility Guidelines Index, herein referred to as the "Facility Look-up Table"), and shall determine whether any listed substance is present, including but not limited to those indicated in Appendices C-I and C-II.

(b) For the devices, emitting processes, and fugitive sources set forth for all facility classes in Appendix C-I and for the applicable facility class(es) set forth in Appendix C-II, the operator shall report all emissions of substances listed in Appendix A-I and shall report the production, use, or other presence of substances listed in Appendix A-II.

(c) The facility operator shall use and cite available technical guidance as needed to identify the presence of any listed substances and to quantify and report emissions in accordance with the requirements set forth in Section 334.

(d) Nothing in subsections (a) through (c), above, shall be construed as requiring that source testing be conducted for substances set forth in Appendix C. Further, in cases where a substance set forth in Appendix C is not in fact present at a particular facility, the facility operator shall not attempt to quantify the emissions of such substance, but shall provide adequate documentation to demonstrate to the district that the possible presence of the substance at the facility has been addressed and that there are no emissions of the substance for specified reasons.

333. Exempted Uses.

The following uses of listed substances shall not be subject to this regulation:

(a) Use as a structural component of the facility.

(b) Personal use by employees or other persons of foods, drugs, cosmetics, tobacco products, and other personal items, including supplies of such products within the facility in an on-site cafeteria, store, or infirmary.

(c) Office and administrative use of products including ink, marking pens, ink pads, correction fluid, correction fluid thinner, and glue.

(d) Use of products for routine janitorial or facility grounds maintenance.

(e) Use of products for structural maintenance and repair, including WD-40 and other lubricants, sealants, touch-up paints, spray paints, and varnishes. Structural maintenance does not include maintenance and repair of process and industrial equipment.

(f) Use of products for minor maintenance and repair of process and industrial equipment, including WD-40 and other lubricants, sealants, touch-up paints, spray paints, and varnishes. Minor maintenance and repair shall not include maintenance and repair which is routinely scheduled or which is due to predictable process upsets.

(g) Use of products for the purpose of maintaining motor vehicles operated by the facility, unless vehicle maintenance is a significant function of the facility, such as in an auto repair facility or in a trucking or other business where a fleet of vehicles is maintained.

(h) Use of process water or non-contact cooling water which is drawn from municipal water supplies or from other local ground or surface water sources but is not drawn from activities at the facility.

334. Emission Quantification and Degree of Accuracy.

(a) For all substances listed in Appendix A-I, the inventory report shall identify and quantify emissions from the use, manufacture, formulation, and release of the substance at all primary locations of actual or potential release.

(b) For each process for which source testing is required to quantify emissions of a listed substance pursuant to Section 336 and Appendix D, the measured concentrations shall meet the practical quantification limit in the applicable ARB-adopted source test method. All other parameters needed to calculate emissions shall be reported to within plus or minus 10 per cent of their total values. The emission results of each source test shall be reported to the degree of accuracy consistent with the detection and accuracy limits achievable using the applicable source test method, whether or not such emissions are below the lowest applicable degree of accuracy set forth in subsection (c) below.

The sampling frequency shall provide the best practicable characterization of emissions at the facility representative of the reporting year and shall be specified in the source test protocol submitted with the inventory plan.

In cases where source testing is required to quantify emissions of a listed substance from some but not all emitting processes at the facility, total emissions from the processes for which source testing is not required shall meet the applicable limits set forth in subsection (c) below.

(c) For each substance listed in Appendix A-I, the total emissions from processes for which source testing is not required shall be reported to within plus or minus 10 per cent of the total emissions of the substance, or to within plus or minus the applicable degree of accuracy value in Appendix A-I for that substance, whichever is greater.

(d) For all substances listed in Appendix A-II, the facility operator shall identify and report each substance produced, used, or otherwise present at all primary locations of use, manufacture, formulation, or release.

(e) For all substances listed in Appendix A-I which are manufactured, formulated, used, or released but for which emissions are below the applicable limits for degree of accuracy required by subsection (c) and listed in Appendix A-I, the facility operator shall complete Form S-UP to indicate the presence of such substances, unless a numeric estimate of such emissions is reported on a Process and Emittents Data Form for the appropriate emitting process.

335. Reporting Mixtures and Trade Name Products.

(a) Except as provided in subsections (c) through (h), below, the emissions of each listed substance contained in any mixture shall be individually reported to the degree of accuracy required in Section 334 and Appendix A.

(b) **Mixtures Without Emittent Identification Numbers:** Except as required in subsections (c) through (h), below, the emissions from any mixture or substance group header listed in Appendix A but for which an emittent identification number is not included shall be reported as emissions of the component listed substances.

(c) **Mixtures With Emittent Identification Numbers:** Except as required in subsections (d) through (h), below, the emissions of any listed mixture or group heading for which an emittent identification number is included in Appendix A-I shall be reported as follows:

(1) Emissions of individual substances listed under the mixture or group heading shall be reported individually. Other, unspecified substances in the mixture or group must be summed and reported under the emittent identification number for the mixture or group heading.

(2) If no individual substances are listed under the mixture or group heading, the emissions of the mixture or group heading shall be reported as total emissions of the aggregated mixture using the applicable emittent identification number. The listed mixture shall not be divided into constituent listed substances for purposes of reporting emissions on the reporting forms in Appendix B. Rather, the facility operator shall provide all reasonably obtainable information on the composition and variability of the mixture as it pertains to constituents which are listed substances, including at a minimum, each applicable Material Safety Data Sheet, Technical Data Sheet, and other data on batch composition.

(d) **Metal Compounds:** Emissions of individually listed metal compounds shall be reported as total emissions of the compound using the emittent identification number for that compound. Emissions of metal compounds for which an emittent identification number is not included in Appendix A-I, but which contains one or more listed metals, shall be reported as each listed metal's atom equivalent, using the emittent identification number for each metal or applicable metal compound group header.

(e) **Diesel and Gasoline Engine Exhaust:** Emissions of diesel engine exhaust and gasoline engine exhaust shall be reported as emissions of total particulate matter and total organic gas using the emittent identification numbers specified in Appendix A. Individually listed substances from diesel and gasoline combustion shall also be reported using the applicable emittent identification numbers.

(f) **Gasoline Vapors:** Total gasoline vapor emissions shall be reported using the applicable emittent identification number. Emissions of individual components of gasoline vapors which are listed substances shall also be reported.

(g) Source test results for polycyclic aromatic hydrocarbons (PAHs) shall include measurement of total PAHs and each of the component substances which are listed substances and to which the ARB-adopted source test method pertains. Each individual substance and total PAHs shall be reported in accordance with the instructions set forth in Appendix B.

(h) Source test results for dioxins and furans shall include measurement of total dioxins and furans and each of the component substances which are listed substances and to which the ARB-adopted source test method pertains. The results shall include the determination of total tetra-, penta-, hexa-, hepta-, and octa- PCDD/PCDF homologue groups and all the 2,3,7,8-substituted PCDD/PCDF isomers listed in the method. Each individual substance and total dioxins and furans shall be reported in accordance with the instructions set forth in Appendix B.

(i) Trade name products shall be treated as mixtures.

(j) A Material Safety Data Sheet (MSDS) or Technical Data Sheet (TDS) shall be considered sufficient to identify listed substances in a mixture or trade name product only if all listed substances can be identified to the degree of accuracy required by Section 334 and Appendix A unless the district concurs that the presence of a particular substance in the mixture is highly unlikely. An MSDS or TDS shall not be acceptable for purposes of this regulation if trade secret information has been omitted or if it includes a mixture or a category of substances (such as "petroleum process oil") that may reasonably be expected to contain a listed substance (such as benzene), unless, by consulting the manufacturer or performing a laboratory analysis of the material, the facility operator demonstrates that no listed substances are included in the mixture or establishes the amounts of listed substances that are present.

336. Source Testing and Measurement.

(a) Source testing shall be required for those sources set forth in Appendix D for the substances specified and in accordance with the measurement methods set forth therein. Exemptions and alternatives are set forth in the third column of Appendix D.

(b) The ARB-adopted test methods shall be used to fulfill the source test requirements in subsection (a) when the specified conditions exist, except that:

(1) To determine quantities of trace elements in fuel, waste, or material samples, the following methods shall be used: EPA Method 7196 for chromium (hexavalent), EPA Method 7471 for mercury, EPA Method 7740 for selenium, and EPA Method 6010 for all other trace elements, all of which are dated September 1986 and set forth in SW-846, Test Methods for Evaluating Solid Waste, Third Edition, November 1986, and all of which are incorporated by reference herein; and

(2) To determine chlorine content and sulfur content of coal and coke fuel samples, ASTM Methods D2361-85 amended as of 1985 and D3177-89 amended as of 1989, both of which are incorporated by reference herein, shall be used, respectively.

(3) To determine chlorine content and sulfur content in wood, refuse-derived, and other solid fuel, waste, or material samples, ASTM Methods E776-87 amended as of 1987 and E775-87 amended as of 1987, both of which are incorporated by reference herein, shall be used, respectively.

(4) To determine chlorine content and sulfur content in other fuel or material samples, ASTM Methods D808-87 amended as of 1987 and D129-64 amended as of 1964, both of which are incorporated by reference herein, shall be used, respectively.

(c) The facility operator may propose in the inventory plan and the district may approve equivalent sampling and analysis methods to accomplish the required source testing only if the facility operator includes in the inventory plan sufficient information to enable the Executive Officer of the ARB to determine in writing that the alternative method is substantially equivalent to the ARB-adopted method for that facility for purposes of complying with this regulation.

(d) The inventory plan may include a proposal for the use of existing source test data from the facility to satisfy the source testing requirement. The district may approve the proposal only if all conditions affecting emissions of listed substances are substantially the same, and the source test methods used are determined by the Air Pollution Control Officer or Executive Officer of the district to be substantially equivalent to the ARB-adopted test methods. The proposal must be approved in writing by the district prior to use.

337. Pooled Source Testing.

(a) The operators of a group of related facilities may propose in each of their respective inventory plans to satisfy any source testing requirement by performing a limited number of representative source tests and applying the results to each of their respective facilities. Such a proposal shall be submitted for district review and approval with the source test protocol in the inventory plan.

(b) Upon receipt of a proposal for pooled source testing, the district shall ensure that all required components of information are included. Once the proposal is complete, the district shall immediately submit the proposal to the Executive Officer of the ARB for technical review and comment. To the extent practicable, the Executive Officer of the ARB shall indicate whether the proposal is acceptable. If the proposal is unacceptable, the Executive Officer shall identify those areas of the proposal which are deficient. The proposal shall be deemed acceptable to the ARB if the Executive Officer does not respond to the district within 45 days of receipt of the proposal.

(c) The district may approve the proposal for participating facilities which were not source tested but to which the results are proposed to be applied only if:

(1) The facility operator includes in the plan sufficient information regarding operating conditions, input and output streams, equipment characteristics, control equipment, and other parameters affecting emission characteristics of the operator's facility and the facility tested to enable the district to make a determination that sufficient similarity in all parameters affecting emissions of listed substances exists between the facility tested and the facility to which the results are proposed to be applied, such that emissions can be calculated to yield representative emission results to the required degree of accuracy; and

(2) If applicable, the facility operator corrects the deficiencies identified by the Executive Officer of the ARB.

(d) If the proposal is not approved, each facility shall undertake individual source testing as required.

338. Alternatives to Required Source Testing.

(a) As a substitute for a required source test as set forth in Appendix D or the alternatives to it as set forth in Sections 336 and 337 and Appendix D, the inventory plan may include a proposal for the use of an alternative method to quantify emissions if the facility operator provides adequate documentation to demonstrate that the alternative method will result in the best technologically feasible characterization of the facility's emissions, and:

(1) the proposed alternative method:

(A) has been demonstrated in actual practice to result in a characterization of emissions which is as accurate or more accurate than that achievable by the ARB-adopted source test method, and

(B) is not to be used instead of the required source testing for combustion or incineration processes or for other processes where the mechanisms that result in emissions and the parameters which are necessary to determine the emissions cannot be quantified sufficiently to allow emissions to be estimated to meet the applicable degrees of accuracy set forth in Section 334; or

(2) use of the required source testing is not technologically feasible because of physical circumstances at the facility, but the ARB-adopted source test method may be modified for use at the facility, in which case such modified method shall be used; or

(3) use of the required source testing is not technologically feasible because of physical circumstances at the facility and the ARB-adopted source test method cannot be modified in accordance with subsection (a)(2) above, in which case the best technologically feasible non-testing alternative may be proposed.

(b) Upon receipt of a proposal for the use of such an alternative method, the district shall ensure that all required components of information are included. Once the proposal is complete, the district shall immediately submit the proposal to the Executive Officer of the ARB for technical review and comment. To the extent practicable, the Executive Officer of the ARB shall determine whether the required source test is feasible and shall note any deficiencies in the proposal. The proposal shall be deemed acceptable to the ARB if the Executive Officer does not respond to the district within 45 days of receipt of the proposal.

(c) If the proposed alternative method is to determine emissions of arsenic or arsenic compounds, beryllium or beryllium compounds, cadmium or cadmium compounds, chromium (hexavalent), benzo(a)pyrene, or chlorinated dioxins and dibenzofurans, the district may approve the proposed alternative only if both the district and the ARB concur that the proposed alternative method complies with subsection (a) above. If the proposal is not approved, the facility shall undertake source testing as required or shall use an alternative method which is determined by the district and the ARB to meet the requirements of subsection (a).

(d) If the proposed alternative method is to determine emissions of a substance other than those identified in subsection (c), the district may approve the proposed alternative only if, after considering any comments by the Executive Officer of the ARB, the district determines that the proposed alternative method complies with subsection (a) above. If the proposal is not approved, the facility shall undertake source testing as required or shall use an alternative method which is determined by the district to meet the requirements of subsection (a).

339. Source Test Protocol and Source Test Report.

For each required source test, including pooled source tests conducted pursuant to Section 337, a proposed source test protocol shall be submitted with the inventory plan. The proposed protocol shall include the information set forth in subsections (a) through (w) below, responding to language in brackets to indicate future intent or anticipated values, and excluding information claimed to be trade secret.

For each required source test, a source test report shall be submitted with the inventory report. The source test report shall include the actual test values for the information required in subsections (a) through (w) below. Information denoted as trade secret on the facility diagram shall be so denoted in the source test report according to the procedure set forth in subsection 321(c). Facilities participating in pooled source tests conducted pursuant to Section 337 need only reference the source test report in their inventory report if the district already possesses a copy of the report and the facility obtains the district's findings that a further copy is not needed.

(a) Date on which the source test was [will be] performed.
(b) Name and qualifications of companies and/or persons who conducted [will conduct] the source test and analyzed [will analyze] the samples.
(c) Name of contractor.
(d) Process description.
(e) Process reactant composition and rates [approximate values or range of values for composition and rates].
(f) Fuel analysis and firing rates for combustion processes [approximate values or range of values for fuel composition and firing rates].
(g) Source test and analysis methods for all listed substances for which source testing is required [commitment to source test and analysis methods as required by Sections 336 and Appendix D].
(h) Equipment specifications and drawings as needed to plan and interpret source test results, including but not limited to stack dimensions (including diameter and height) and port configuration.
(i) ARB independent tester Executive Order, provided pursuant to Section 91207, Title 17, California Code of Regulations, if the tester has been certified by the ARB for the proposed source test method.
(j) Typical values and allowable ranges of operating parameters (including pressure, feed rate) of the process [approximate values or range of values for operating parameters].

(k) Process operating conditions during test [approximate values or range of values anticipated during test].
(l) Stack temperature [approximate value anticipated].
(m) Concentration of any listed substances in the exhaust stream [approximate values or range of values anticipated].
(n) Mass emission rate of any listed substances [approximate values or range of values anticipated].
(o) Composition and rate of waste streams, including scrubber effluent, ash, fly ash [approximate values or range of values anticipated].
(p) Oxygen, carbon dioxide and moisture content of exhaust gas [approximate values or range of values anticipated].
(q) Exhaust gas velocity and volumetric flow rate at the point where testing is conducted [approximate values or range of values anticipated].
(r) Sampling points and number of samples [proposed points and number].
(s) Calibration data, including certification that the accuracy of calibration gases is traceable to the National Institute of Standards and Technology (NIST).
(t) Quality assurance and quality control data including analysis audit, zero and span drift, blank and spiked samples [proposed].
(u) Chain of custody document, where appropriate [proposal for provision of document].
(v) Applicable emission standards or other permit conditions affecting emissions of listed substances.
(w) The estimated limit of detection, the proposed number of test runs, and any other pretest calculations for the source test method that is used.

340. Converting Source Test Results to Emission Rates.

(a) Source testing shall be performed under representative operating conditions for the reporting year. Representative operating conditions shall be developed in consultation with the appropriate air pollution control district and specified in the inventory plan.

(b) In consultation with the district, and in accordance with the procedures set forth in the ARB-adopted source test methods where applicable, the facility operator shall calculate and report a site-specific emission factor for the listed substance based on the mass emission rate for the listed substance measured during the source test and expressed in terms of the most representative "usage unit". The usage unit shall be the measure of operating conditions which best characterizes the dependence of the emissions of the listed substance on operating conditions. The most appropriate usage unit shall be hours of operation only when the operation undergoes very limited variation over time during the reporting year.

(c) The facility operator shall calculate annual average emissions, in pounds per year, from the site-specific emission factor and the average value of the usage unit during the reporting year.

(d) The facility operator shall calculate maximum hourly emissions, in pounds per hour, from the site-specific emission factor and the maximum value of the usage unit that can reasonably be expected in a one hour period. The maximum value shall be the best possible representation of the process conditions that produce the maximum emissions within the range of allowable conditions, under routine operation or predictable upset, but not including conditions reflecting atypical shut-down of control equipment.

345. Specifications for Acceptable Estimation Methods and Emission Factors.

(a) Where emissions of substances are required to be quantified but where measurement is not required pursuant to Section 336, the inventory plan may propose an estimation method to quantify such emissions at all primary locations of release to the degree of accuracy required by Section 334. The district may approve a proposed method only if all of the following criteria are met:

(1) The district determines that the method is effective and reflects the best available methods and data, and will produce an accurate representation of the types and quantities of air releases at a facility;

(2) The proposed method accounts for all facets of the applicable emitting process and is based on sufficient data about the air toxics emission characteristics under the full range of relevant conditions to characterize the emissions to the degree of accuracy required by Section 334; and

(3) Standard calculations for mass balance, emission factor application, and engineering calculations comply with the following requirements:

(A) Mass balance calculations are acceptable when no adequate emission factors are available or when a more accurate estimate will be obtained by the use of a mass balance than by the use of available emission factors. All mass balance calculations must account for all routes of inflow and outflow and all accumulations sufficiently to characterize air releases to the degree required.

(B) Proposed emission factors must have been generated under substantially similar conditions for substantially similar facilities or equipment as those to which the emission factors will be applied, to the extent technologically feasible. For purposes of this Section, if the ARB has published, pursuant to Health and Safety Code Section 39650 et seq., an emission factor for a listed substance which is applicable to the emitting process at the facility, the most recent such emission factor shall be used to estimate emissions of the substance.

(C) Engineering calculations shall be based on sufficient data about the air toxics emission characterist$s at all relevant conditions to characterize the emissions to the degree of accuracy required by Section 334.

(b) The estimation method included in the inventory plan may include a proposal to use available data and data from substantially similar facilities or equipment. The district shall not approve the proposal unless the criteria set forth in subsections (a)(1) and (2) are met.

(c) The effects of all air pollution control equipment or process conditions which are adjusted to control air pollution shall be quantified for each listed substance affected by the equipment or process. The facility operator shall propose in the inventory plan a value for the effectiveness of each air pollution control device affecting the emissions of each listed substance and shall cite the justification for the value of control effectiveness for each listed substance under actual operating conditions.

346. Format for Reports and Presentation of Data.

(a) The operator of each facility subject to this regulation shall complete the core reporting forms and the S-UP form in accordance with the formats and instructions set forth in Appendix B, except that the required information shall be submitted in an alternative format if so required by the district.

(b) The core **Facility Description Form** shall be the first page of the required emission inventory report. Other core forms shall be in sequence by device number. The required source test report and other documentation supporting the emission calculations shall be attached after the core reporting forms and in an order corresponding to the core reporting forms for the applicable devices, stacks, or emitting processes.

347. Other Procedures.

Within 90 days of approval of the inventory report, the district shall transmit to the ARB staff all data required on the core and S-UP forms in a format approved by the ARB staff for transmittals via paper or electronic media.

Article 6. Updates

348. Update Requirements

(a) Facility operators required to report pursuant to Sections 304, 305, 306, or 308(b)(1) or (c) are subject to update requirements as specified by Sections 348-355. Every facility operator shall submit either an Update Summary Form or an update plan and report, as specified in subsections (b-g) below. Facility operators shall comply with these requirements pursuant to the schedule specified in Section 353. In the following subsections the terms "significant risk facility", "high priority facility", "intermediate priority facility", and "low priority facility" are used as specified in Health and Safety Code Sections 44360(a) and 44362(b). In addition, facility priority categorization, as used in Sections 348-353, shall reflect emissions from the most recent facility emission inventory approved by the district.

(b) **Significant Risk Facilities:** Every four years the operator of any facility whose health risk assessment indicates that there is a significant health risk associated with emissions from the facility, as determined by the district pursuant to Health and Safety Code Section 44362(b), shall submit to the district an update plan and report, as specified in Sections 350-353. Operators subject to this part shall identify and report all changes in emissions for those devices which constitute, at a minimum, the upper 80 percent of the facility's risk, such that the aggregated risk of devices not identified does not exceed either one cancer in a million or a noncancer hazard index of one, in the judgment of the district. Devices shall be identified with the concurrence of the district. Alternatively, facility operators subject to this part may, at their option, submit update plans and reports which show all changes to all devices at the facility.

(c) **High Priority, Not Significant Risk Facilities:** Every four years the operator of any facility which is categorized by a district as high priority pursuant to Health and Safety Code Section 44360(a), and whose emissions do not present a significant health risk as determined by the district, shall complete and submit to the district for review the Update Summary Form as specified in Section 349. Based on data reported on Part C of the Update Summary Form, any facility that experienced a significant increase in facility activity since the facility's previous emission inventory report was submitted shall submit an update plan and report, as specified in Sections 350-353. The update plan and report shall include updated information for those devices which experience significant increases in activity.

(1) **Significant Increases.** For facility operators subject to this subsection, significant increases in facility activity shall be defined as a 10 percent or greater increase in device activity. Devices may be identified as described in either (i) or (ii) below:

(i) **Any Devices.** Any device whose activity (as measured by increases in throughput, fuel usage or type, feed rates, emissions, or process rates) has increased by 10 percent or greater since the facility's previous emission inventory report was submitted; or

(ii) **Substantial Risk Devices.** Those devices which constitute, at a minimum, the upper 80 percent of the facility's risk, such that the aggregated risk of devices not identified does not exceed either one cancer in a million or a noncancer hazard index of one, in the judgment of the district. Devices shall be identified with the concurrence with the district. Facility operators shall provide updated data in an update plan and report for any of the identified devices with activity increases of 10 percent or more (as measured by increases in throughput, fuel usage or type, feed rates, emissions, or process rates).

(2) **Consolidated Device Data:** At their option, facility operators may consolidate devices for the purpose of quantifying increases in device activity when reporting on the Update Summary Form. All devices, so consolidated, must be within the same Source Classification Code (SCC). Increases shall be in comparison to the activity for comparable devices as reported in the facility's most recently submitted and approved emission inventory report. When the sum of the changes in activity for all consolidated devices within an SCC exceeds a 10 percent increase, an updated Process and Emittents (PRO) Form must be submitted by the facility operator for any individual device or grouped devices (reported on the same PRO Form) whose activity increases by 10 percent or more.

(3) **Other Criteria:** Based upon data reported in Part B of the Update Summary Form or other information required by the district, districts may require a facility operator to submit an emission inventory update plan and report for the facility as specified in Sections 350-353.

(d) **Low or Intermediate Priority Facilities:** Every four years the operator of any facility which was categorized by a district as low or intermediate priority pursuant to Health and Safety Code Section 44360(a) and which is not subject to Section 348(b), shall complete and submit to the district for review Parts A and B of the Update Summary Form as specified in Section 349. The Update Summary Form shall meet the update requirements for facilities subject to this subsection unless, based upon data reported on the Update Summary Form or other information required by the district, the district requires the facility operator to submit an emission inventory update plan and report for the facility as specified in Sections 350-353.

(e) **Facilities Not Yet Prioritized:** Every four years, the operator of any facility that has not been prioritized by a district pursuant to Health and Safety Code Section 44360(a) shall complete and submit to the district Part A of the Update Summary Form as specified in Section 349. The Update Summary Form shall meet the update requirements of facilities subject to this subsection. For any facility prioritized by December 1 of a given year, this part no longer applies to the facility for that year or for any subsequent year.

(f) **Voluntary Updates:** Any facility operator may voluntarily submit an update plan and report, following approval and scheduling by the district.

(g) **Data Revised for Prioritizations or Risk Assessments:** If a facility operator requests, and a district allows a facility operator to use revised inventory data for prioritization or risk assessment, the facility operator shall submit an update report to the district which reflects any changes from the previously submitted and approved emission inventory report. The district shall submit this updated inventory to the ARB.

349. Update Summary Form

(a) Operators of facilities identified in Sections 348(c-e) shall complete and submit the Update Summary Form for the applicable update reporting year based on the schedule specified in Section 353.

(b) Districts shall review the Update Summary Form and respond to the facility operator as specified in Section 354. The Update Summary Form shall satisfy a facility's update requirements for facilities specified in Sections 348(d-e) unless the operator is notified by the district that an update plan and report is required as specified in Sections 350-353.

(c) In reviewing Update Summary Forms to determine whether to require the facility to submit an update plan and report, districts may take into account factors including, but not necessarily limited to:

(1) increases in throughput, fuel usage, process rate changes, or emissions;
(2) changes in types of fuels or substances used at the facility;
(3) determinations that previous source test data are inadequate;
(4) addition of new processes or equipment to the facility which cause increases in emissions;
(5) issuance of new permits or changes in permit conditions;
(6) emissions of any listed substances not previously reported, including newly listed substances;
(7) emissions of listed substances whose potency values have increased or whose acceptable exposure levels have decreased;

(8) facility status as it pertains to current or future air pollution control measures;
(9) reductions in the distance from the facility to the nearest receptor;
(10) changes in emission factors.

350. Update Plans and Update Reports.

(a) The operator of any facility which is subject to this subchapter shall submit to the appropriate district an update plan and update report according to the schedules specified in Section 353. The update plan and report need only update changes in information contained in the previously submitted emission inventory plan and emission inventory report for the facility in order to represent the most current values of the information required pursuant to Sections 310 through 347 and Appendices A through E. Such information includes but is not limited to any applicable substances added to Appendix A pursuant to Section 307, which have not previously been addressed in the plan or report.

(b) Except as provided in Section 351, at least the following updated information shall be submitted as part of the update plan and report:

(1) For those facilities subject to this section pursuant to Section 348(b), updated information shall be submitted for all components of the plan and report as may be necessary to reflect any change in any parameter which affects the nature or quantity of emissions of a listed substance from the facility for all devices identified pursuant to Section 348(b).

(2) For those facilities subject to this section pursuant to Section 348(c), updated information shall be submitted for those components of the plan and report which may be necessary to describe emission increases (including emissions of previously unreported listed substances) for all devices identified pursuant to Section 348(c).

(3) For those facilities subject to this section pursuant to Section 348(d), updated information shall be submitted only if required by the district following district review of the Update Summary Form or other information.

(c) Updated information, when required, may include but is not limited to: the effects of changes in the emission controls affecting the process, changes in input materials used, changes in the nature or quantity of any emitting process, and changes in the proposed method of quantifying emissions. A revised process flow diagram and facility diagram shall only be submitted when new components or processes not reflected in the prior diagrams have been added at the facility. Each such change shall be clearly marked.

(d) As required, updated information shall be provided for each applicable component of a plan and report to address any new operation, process, or listed substance at the facility, and to account for any revised or additional requirements pursuant to this subchapter which apply to the facility, including but not limited to any applicable substances added to Appendix A pursuant to Section 307.

(e) For any revision proposed in an update plan which reflects a reduction in emissions, the facility operator shall include in the update plan adequate documentation to demonstrate to the district the basis and magnitude of the reduction.

(f) An update report shall include all applicable report components as required pursuant to Article 4, beginning with Section 320, except that only the reporting forms which reflect revised information shall be submitted, with each addition, deletion, and change indicated as specified in Appendix B. The report shall include the results of any additional source test(s) and any other supporting documentation for updates, as specified in Section 323, including any new or updated source test results pursuant to Section 323(b) where such tests have been performed prior to the date of submittal of the update report.

351. Use of Previously Submitted Information.

(a) Except as specified for previous source test results in subsections (b), (c), and (d), below, the facility operator may propose in an update plan to use an applicable component of a previously submitted plan or report to satisfy the update requirement for that component, and the district may approve the proposal, if the facility operator provides adequate documentation to demonstrate to the district that:

(1) no change has occurred since the last update which would affect the accuracy of the previously reported information; or

(2) the previously reported information characterizes the current emissions to within the required degree of accuracy.

(b) Except as specified in subsection (c), below, the facility operator may propose in the update plan to use the results of a previous source test conducted pursuant to Sections 336, 337 or 338, to fulfill the update requirements for a source test required pursuant to Section 336 and Appendix D provided that:

(1) the test meets the requirements for use of previous source tests specified in Section 336(d); and

(2) the test meets all other applicable requirements specified in Sections 336, 337, and 338.

Such a proposal to use the "results of a previous source test" may include a proposal to apply the site-specific emission factor developed pursuant to Section 340, together with current values of the applicable "usage units", to calculate a revised emission result, provided that the current values of the relevant process parameters do not exceed the range of values characterized by the previous source test and that all applicable provisions in subsections (b) and (c) are met.

(c) Unless exempted by the district, the results of a previous source test shall not be used to fulfill update requirements for a source test required pursuant to Section 336 and Appendix D if:

(1) a major change, including but not limited to: shutdown or startup of equipment, change in air pollution control equipment, or change in the input materials affecting listed substances, has occurred in the operation of the facility which affects the emitting process for which testing is required; or,

(2) the facility has been cited by the district for a violation of any rule limiting or controlling a listed toxic substance associated with the emitting process for which testing is required; or

(3) the previous source test data submitted by the facility has been determined by the district or the Executive Officer of the Air Resources Board to be invalid or inadequate to accurately assess emissions for the tested process(es).

(d) The district may approve a proposal to use the results of a previous source test to fulfill an update of a required source test if the district determines that the requirements specified in subsections (b) and (c), above, are met. The district may require a new test to update a previous source test if the district has reason to believe that conditions affecting the emissions of listed substances have changed or if the district determines that significantly improved emission quantification is technologically feasible and appropriate for the particular facility.

352. Update Reporting Year.

(a) Information required on the Update Summary Form shall reflect facility operations for the calendar year (the update year) prior to the year the Update Summary Form is due. Information required on the Update Summary Form which describes changes at a facility shall be referenced to either the previously submitted emissions inventory report or to the previous update year, as specified for individual questions on the form.

(b) Emissions data in any update plan and update report shall reflect facility operations during the calendar year prior to the year in which the plan is due (the update year).

353. Schedule for Update Submittal.

(a) Update submittals shall be due according to the following schedule unless the district specifies in writing in advance an alternative schedule within the same year.

(1) For any facility which is subject to the requirements of this subchapter pursuant to Section 304(a) and to Section 348(b), the update plan shall be due by August 1, 1994, and every four years thereafter.

(2) For any facility which is subject to the requirements of this subchapter pursuant to Section 304(a) and to Section 348(c), (d), or (e), the Update Summary Form shall be due by February 1, 1994, and every four years thereafter. If the district requires that the facility prepare an update plan, such plan shall be due August 1 of the year the Update Summary Form is due.

(3) For any facility which is subject to the requirements of this subchapter pursuant to Section 304(b) and to Section 348(b), the update plan shall be due by August 1, 1995, and every four years thereafter.

(4) For any facility which is subject to the requirements of this subchapter pursuant to Section 304(b) and to Section 348(c), (d), or (e), the Update Summary Form shall be due by February 1, 1995, and every four years thereafter. If the district requires that the facility prepare an update plan, such plan shall be due August 1 of the year the Update Summary Form is due.

(5) For any facility which is subject to the requirements of this subchapter pursuant to Section 305 or 306 and to Section 348(b), the update plan shall be due by August 1 of the year which is four years after the year the initial plan submittal was required, and every four years thereafter.

(6) For any facility which is subject to the requirements of this subchapter pursuant to Section 305 or 306 and to Section 348(c), (d), or (e), the Update Summary Form shall be due by February 1 of the year which is four years after the year the initial plan submittal was required and every four years thereafter. If the Update Summary Form indicates that the facility must prepare an update plan, such plan shall be due August 1 of the same year the Update Summary Form is due.

(7) For any facility which is subject to the requirements of this subchapter pursuant to Section 308(b)(1) or (c) and to Section 348(b), the update plan shall be due by August 1, 1994 and every four years thereafter.

(8) For any facility which is subject to the requirements of this subchapter pursuant to Section 308(b)(1) or (c) and to Section 348(c), (d), or (e), the Update Summary Form shall be due by February 1, 1994, and every four years thereafter. If the district requires that the facility prepare an update plan, such plan shall be due August 1 of the year the Update Summary Form is due.

(b) Except as provided in subsection (c), below, the schedule specified for the inventory plan and report in Health and Safety Code Sections 44340(b), 44341, and 44343, and in Sections 320 and 347 herein shall apply to the review, approval, and implementation of the update plan and update report.

(c) Nothing in subsection (b), above, shall preclude an operator from submitting a proposed update report at the same time as the update plan provided that all applicable revisions are included in the update report and that no new source testing was required for the facility. If upon review of the update plan, the district requires the operator to revise the update plan, the operator shall implement the revised plan and incorporate all applicable revisions to the update report.

354. Schedule for Update Summary Form Review.

(a) Districts shall review facility Update Summary Forms. Following review, districts shall notify facility operators in writing if the facility operator must submit an emissions inventory update plan and report as specified in Sections 348-353. Districts shall notify facilities of the requirement to perform an update by May 1 of the year the Update Summary Form was submitted, or within 90 days of receipt of the form if an alternative submittal schedule was specified by the district.

(b) If the district does not respond to the facility operator as specified in Section 354(a), the Update Summary Form shall meet the facility's update requirements for the update year. However, failure of the district to respond does not prevent the district from requiring updated information if the district determines that information provided on the Update Summary Form is erroneous, incomplete, or the existing facility emissions inventory does not adequately characterize facility emissions.

355. Change in Ownership or Company Name.

The update requirements in this subchapter shall apply to any facility which had been subject to this subchapter pursuant to the provisions of Health and Safety Code Sections 44320 and 44322, which subsequently changed ownership or company name.

APPENDIX A

SUBSTANCES TO BE INVENTORIED

A-I
LIST OF SUBSTANCES FOR WHICH EMISSIONS MUST BE QUANTIFIED

A-II
LIST OF SUBSTANCES FOR WHICH PRODUCTION, USE, OR OTHER PRESENCE MUST BE REPORTED

APPENDIX A-I

Substances For Which Emissions Must Be Quantified

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
75070	Acetaldehyde		c	100	1 2 3 4	
60355	Acetamide		c	100	1 2 3 4	
67641	Acetone	06/91		100	1	
75058	Acetonitrile	06/91		100	1 2	
98862	Acetophenone	06/91		100	1 2	
53963	2-Acetylaminofluorene [PAH-Derivative, POM]		c	100	1 2 4 5	
107028	Acrolein			10	1 2	
79061	Acrylamide		c	100	1 2 3 4	
79107	Acrylic acid	06/91		100	1 2	
107131	Acrylonitrile		c	100	1 2 3 4 5	
107051	Allyl chloride		c	100	1 2 4	
7429905	Aluminum	06/91		100	1	
1344281	Aluminum oxide (fibrous forms)	06/91		100	7	
117793	2-Aminoanthraquinone [PAH-Derivative, POM]		c	100	1 2 4 5	
92671	4-Aminobiphenyl [POM]		c	100	1 2 3 4 5	
61825	Amitrole		c	100	3 4 5	
7664417	Ammonia			100	1 2	
6484522	Ammonium nitrate	06/91		100	1	
7783202	Ammonium sulfate	06/91		100	1	
62533	Aniline	09/90	c	100	1 2 4	
90040	o-Anisidine		c	100	1 2 3 4 5	
-	Anthracene [PAH, POM], (see PAH)					
7440360	Antimony	06/91		100	7	
*	Antimony compounds	06/91		100	1 2	[7]
	including but not limited to:					
1309644	Antimony trioxide	09/90	c	100	1 2 3 4	[7]
7440382	Arsenic		c	1	1 2 3 4 5	
1016	Arsenic compounds (inorganic)		c	1	1 2 3 4 5	[7]
	including but not limited to:					
7784421	Arsine			10	1 2 7	[7]
1017	Arsenic compounds (other than inorganic)	06/91		100	1	[7]
7440393	Barium	06/91		100	7	
*	Barium compounds	06/91		100	1	[7]
-	Benz[a]anthracene [PAH, POM], (see PAH)					
71432	Benzene		c	10	1 2 3 4 5	
92875	Benzidine (and its salts) [POM]		c	10	1 2 3 4 5	
1020	Benzidine-based dyes [POM]		c	10	1 2 3	
	including but not limited to:					
1937377	Direct Black 38 [PAH-Derivative, POM]		c	10	1 2 4 5	
2602462	Direct Blue 6 [PAH-Derivative, POM]		c	10	1 2 4 5	
16071866	Direct Brown 95 (technical grade) [POM]	09/89	c	10	1 2 4	
-	Benzo[a]pyrene [PAH, POM], (see PAH)					
-	Benzo[b]fluoranthene [PAH, POM], (see PAH)					
271896	Benzofuran	06/91	c	100	4	
98077	Benzoic trichloride {Benzotrichloride}		c	10	1 2 4 5	

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
-	Benzo[j]fluoranthene [PAH, POM], (see PAH)					
-	Benzo[k]fluoranthene [PAH, POM], (see PAH)					
98884	Benzoyl chloride	06/91		100	1	
94360	Benzoyl peroxide	06/91		100	7	
100447	Benzyl chloride		c	10	1 2 4	
7440417	Beryllium		c	1	1 2 3 4 5	
*	Beryllium compounds	09/89	c	1	1 2 3 4 5	[7]
92524	Biphenyl [POM]	06/91		100	1 2	
111444	Bis(2-chloroethyl) ether {DCEE}	09/89	c	100	1 2 4	
542881	Bis(chloromethyl) ether		c	10	1 2 3 4 5	
103231	Bis(2-ethylhexyl) adipate	06/91		100	1	
7726956	Bromine			100	2	
*	Bromine compounds (inorganic) including but not limited to:			100	1 2	[7]
7758012	Potassium bromate			100	1 3 4	[7]
75252	Bromoform	06/91		100	1 2 4	
106990	1,3-Butadiene		c	10	1 2 3 4 5	
141322	Butyl acrylate	06/91		100	1	
71363	n-Butyl alcohol	06/91		100	1	
78922	sec-Butyl alcohol	06/91		100	1	
75650	tert-Butyl alcohol	06/91		100	1	
85687	Butyl benzyl phthalate	06/91		100	1	
7440439	Cadmium		c	1	1 2 3 4 5	
*	Cadmium compounds		c	1	1 2 3 4 5	[7]
156627	Calcium cyanamide	06/91		100	1 2	
105602	Caprolactam	06/91		100	1 2	
2425061	Captafol	09/89	c	100	4	
133062	Captan	09/90	c	100	1 2	
63252	Carbaryl [PAH-Derivative, POM]	06/91		100	1 2 4	
1050	Carbon black extracts		c	100	1 3 4	
75150	Carbon disulfide	09/89		100	1 2 4	
56235	Carbon tetrachloride		c	10	1 2 3 4 5	
463581	Carbonyl sulfide	06/91		100	1 2	
1055	Carrageenan (degraded)		c	100	3 4	
120809	Catechol	06/91		100	1 2	
133904	Chloramben	06/91		100	1 2	
56757	Chloramphenicol		c	100	3 4	
57749	Chlordane	09/89	c	10	1 2 4	
108171262	Chlorinated paraffins (average chain length, C12; approximately 60% chlorine by weight)	09/89	c	100	3 4 5	
7782505	Chlorine			10	1 2	
10049044	Chlorine dioxide	06/91		100	1	
79118	Chloroacetic acid	06/91		100	1 2	
532274	2-Chloroacetophenone	06/91		100	1 2	

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
1058	Chlorobenzenes	06/91		100	1	
	including but not limited to:					
108907	Chlorobenzene			100	1 2	
25321226	Dichlorobenzenes (mixed isomers)	06/91		100	1 7	
	including:					
95501	1,2-Dichlorobenzene	06/91		100	1 7	
541731	1,3-Dichlorobenzene	06/91		100	1 7	
106467	p-Dichlorobenzene {1,4-Dichlorobenzene}		c	100	1 2 3 5	
120821	1,2,4-Trichlorobenzene	06/91		100	1 2	
510156	Chlorobenzilate [POM] {Ethyl-4,4'-dichlorobenzilate}	09/90	c	100	1 2 4	
13909096	1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea {Methyl CCNU}		c	100	3	
67663	Chloroform		c	10	1 2 3 4 5	
107302	Chloromethyl methyl ether (technical grade)		c	100	1 2 4 5	
1060	Chlorophenols		c	100	1 3	
	including but not limited to:					
120832	2,4-Dichlorophenol	06/91	c	100	1 7	
87865	Pentachlorophenol	09/90	c	100	1 2 4	
95954	2,4,5-Trichlorophenol	06/91	c	100	1 2	
88062	2,4,6-Trichlorophenol		c	100	1 2 4	
95830	4-Chloro-o-phenylenediamine		c	100	3 4 5	
76062	Chloropicrin			10	7	
126998	Chloroprene			100	1 2	
95692	p-Chloro-o-toluidine		c	100	3 4	
7440473	Chromium	06/91		100	7	
*	Chromium compounds (other than hexavalent)	06/91		100	1 2	[7]
18540299	Chromium, hexavalent (and compounds)		c	.1	1 2 3 4 5	[7]
	including but not limited to:					
10294403	Barium chromate	06/91	c	.1	1 2 5	[7]
13765190	Calcium chromate	06/91	c	.1	1 2 5	[7]
1333820	Chromium trioxide	06/91	c	.1	1 2 5	[7]
7758976	Lead chromate	06/91	c	.1	1 2 5	[7]
10588019	Sodium dichromate	06/91	c	.1	1 2 5	[7]
7789062	Strontium chromate	06/91	c	.1	1 2 5	[7]
-	Chrysene [PAH, POM], (see PAH)					
7440484	Cobalt	06/91		100	7	
*	Cobalt compounds	06/91		100	1	[7]
1066	Coke oven emissions		c	100	1 2 3 4 5	
7440508	Copper			100	2	
*	Copper compounds	09/89		100	1 2	[7]
1070	Creosotes		c	100	1 3 4	
120718	p-Cresidine		c	100	3 4 5	

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
1319773	Cresols (mixtures of) {Cresylic acid}			100	1 2	
	including:					
108394	m-Cresol	06/91		100	1 2	
95487	o-Cresol	06/91		100	1 2	
106445	p-Cresol	06/91		100	1 2	
98828	Cumene	06/91		100	1	
80159	Cumene hydroperoxide		c	100	4 5	
135206	Cupferron	06/91		100	1 2	[8]
1073	Cyanide compounds					
	including but not limited to:			10	2	
74908	Hydrocyanic acid	06/91		100	1	
110827	Cyclohexane			100	6	
66819	Cycloheximide	06/91		100	1 2	
1163195	Decabromodiphenyl oxide [POM]			100	1	
1075	Dialkylnitrosamines					
	including but not limited to:		c	1	1 3 4 5	
924163	N-Nitrosodi-n-butylamine		c	100	1 3 4 5	
1116547	N-Nitrosodiethanolamine		c	1	1 3 4 5	
55185	N-Nitrosodiethylamine		c	1	1 2 3 4 5	
62759	N-Nitrosodimethylamine		c	100	1 3 4 5	
621647	N-Nitrosodi-n-propylamine		c	100	1 3 4	
10595956	N-Nitrosomethylethylamine		c	100	3 4	
615054	2,4-Diaminoanisole	09/90	c	100	1 4	
1078	Diaminotoluenes (mixed isomers)					
	including but not limited to:		c	100	1 2 3 4 5	
95807	2,4-Diaminotoluene {2,4-Toluenediamine}	06/91	c	100	1 2	
334883	Diazomethane		c	100	1 2 3 4 5	
226368	Dibenz[a,h]acridine [POM]		c	100	1 2 3 4 5	
224420	Dibenz[a,j]acridine [POM]					
-	Dibenz[a,h]anthracene [PAH, POM], (see PAH)		c	100	1 2 3 4 5	
194592	7H-Dibenzo[c,g]carbazole					
-	Dibenzo[a,e]pyrene [PAH, POM], (see PAH)					
-	Dibenzo[a,h]pyrene [PAH, POM], (see PAH)					
-	Dibenzo[a,i]pyrene [PAH, POM], (see PAH)					
-	Dibenzo[a,l]pyrene [PAH, POM], (see PAH)					
132649	Dibenzofuran [POM]	06/91		100	1 2	
-	Dibenzofurans (chlorinated) (see Polychlorinated dibenzofurans) [POM]					
96128	1,2-Dibromo-3-chloropropane {DBCP}		c	100	1 2 3 4 5	
84742	Dibutyl phthalate	06/91		100	1 2	
-	p-Dichlorobenzene {1,4-Dichlorobenzene} (see Chlorobenzenes)					
91941	3,3'-Dichlorobenzidine [POM]		c	10	1 2 3 4 5	
72559	Dichlorodiphenyldichloroethylene {DDE} [POM]	09/89	c	100	1 2 4	
75343	1,1-Dichloroethane {Ethylidene dichloride}	09/90	c	100	1 2 4	

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
94757	Dichlorophenoxyacetic acid, salts and esters {2,4-D}	06/91		100	1 2	
78875	1,2-Dichloropropane {Propylene dichloride}	09/90	c	100	1 2 4	
542756	1,3-Dichloropropene		c	10	1 2 3 4 5	
62737	Dichlorovos {DDVP}	09/89	c	100	1 2 4	
115322	Dicofol [POM]	06/91		100	1 2	
- -	Diesel engine exhaust	09/90	c		1 3 4	[9]
9901	Diesel engine exhaust, particulate matter	09/90	c	100	1 3 4	[9]
9902	Diesel engine exhaust, total organic gas	09/90	c	100	1 3 4	[9]
#	Diesel fuel (marine)	06/91	c		3	
111422	Diethanolamine	06/91		100	1 2	
117817	Di(2-ethylhexyl) phthalate {DEHP}		c	100	1 2 3 4 5	
64675	Diethyl sulfate		c	100	1 2 3 4 5	
119904	3,3'-Dimethoxybenzidine [POM]		c	100	1 2 3 4 5	
60117	4-Dimethylaminoazobenzene [POM]		c	100	1 2 3 4 5	
121697	N,N-Dimethylaniline	06/91		100	1 2	
57976	7,12-Dimethylbenz[a]anthracene [PAH-Derivative, POM]	09/90	c	1	1 2 4	
119937	3,3'-Dimethylbenzidine {o-Tolidine} [POM]		c	10	1 2 3 4 5	
79447	Dimethyl carbamoyl chloride		c	100	1 2 3 4 5	
68122	Dimethyl formamide	09/90	c	100	1 2 3	
57147	1,1-Dimethylhydrazine		c	100	1 2 3 4 5	
131113	Dimethyl phthalate	06/91		100	1 2	
77781	Dimethyl sulfate		c	100	1 2 3 4 5	
534521	4,6-Dinitro-o-cresol (and salts)	06/91		100	1 2	
51285	2,4-Dinitrophenol	06/91		100	1 2	
42397648	1,6-Dinitropyrene [PAH-Derivative, POM]	06/91	c	100	1 2 3 4	
42397659	1,8-Dinitropyrene [PAH-Derivative, POM]	06/91	c	100	1 2 3 4	
25321146	Dinitrotoluenes (mixed isomers) including but not limited to:	06/91		100	7	
121142	2,4-Dinitrotoluene	09/89	c	100	1 2 4	
606202	2,6-Dinitrotoluene	06/91		100	7	
123911	1,4-Dioxane		c	100	1 2 3 4 5	
-	Dioxins (Chlorinated dibenzodioxins) (see Polychlorinated dibenzo-p-dioxins) [POM]					
630933	Diphenylhydantoin [POM]		c	100	1 2 4	
122667	1,2-Diphenylhydrazine {Hydrazobenzene} [POM]		c	100	1 2 4 5	
1090	Environmental Tobacco Smoke		c	100	1 3 4	
106898	Epichlorohydrin		c	100	1 2 3 4 5	
106887	1,2-Epoxybutane	06/91		100	1 2	
1091	Epoxy resins	09/89		100	6	
140885	Ethyl acrylate		c	100	1 2 3 4 5	
100414	Ethyl benzene	06/91		100	1 2	
75003	Ethyl chloride {Chloroethane}			100	1 2 4	
-	Ethyl-4,4'-dichlorobenzilate (see Chlorobenzilate)					
74851	Ethylene	06/91		100	7	

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
106934	Ethylene dibromide {1,2-Dibromoethane}		c	1	1 3 4 5 6	
107062	Ethylene dichloride {1,2-Dichloroethane}		c	10	1 2 3 4 5	
107211	Ethylene glycol	06/91		100	1 2	
151564	Ethyleneimine {Aziridine}	06/91		100	1 2	
75218	Ethylene oxide		c	10	1 2 3 4 5 6	
96457	Ethylene thiourea		c	100	1 2 3 4 5	
1101	Fluorides and compounds including but not limited to:	09/89		100	2	
7664393	Hydrogen fluoride			10	1 2 7	
1103	Fluorocarbons (brominated)			100	6	[10]
1104	Fluorocarbons (chlorinated) including but not limited to:			100	1 6	[10]
76131	Chlorinated fluorocarbon {CFC-113}			100	2 6	
50000	Formaldehyde		c	100	1 2 3 4 5 6	
- -	Gasoline engine exhaust including but not limited to:	09/90	c		3	[9]
- - -	Gasoline engine exhaust (condensates & extracts)	06/91	c		4	[9]
9910	Gasoline engine exhaust, particulate matter	09/90	c	100	3 4	[9]
9911	Gasoline engine exhaust, total organic gas	09/90	c	100	3 4	[9]
1110	Gasoline vapors		c	100	1 2 3 4	[11]
111308	Glutaraldehyde			100	1 6	
1115	Glycol ethers and their acetates including but not limited to:			100	1 2 6	
111466	Diethylene glycol	09/90		100	1 6	
111966	Diethylene glycol dimethyl ether	09/90		100	1 2 6	
112345	Diethylene glycol monobutyl ether	09/90		100	1 2 6	
111900	Diethylene glycol monoethyl ether	09/90		100	1 2 6	
111773	Diethylene glycol monomethyl ether	09/90		100	1 2 6	
25265718	Dipropylene glycol	09/90		100	1 6	
34590948	Dipropylene glycol monomethyl ether	09/90		100	1 6	
629141	Ethylene glycol diethyl ether	09/90		100	1 2 6	
110714	Ethylene glycol dimethyl ether	09/90		100	1 2 6	
111762	Ethylene glycol monobutyl ether	09/90		100	1 2 6	
110805	Ethylene glycol monoethyl ether	09/89		100	1 2 6	
111159	Ethylene glycol monoethyl ether acetate	09/90		100	1 2 6	
109864	Ethylene glycol monomethyl ether	09/89		100	1 2 6	
110496	Ethylene glycol monomethyl ether acetate	09/90		100	1 2 6	
2807309	Ethylene glycol monopropyl ether	09/90		100	1 2 6	
107982	Propylene glycol monomethyl ether	09/90		100	1 6	
108656	Propylene glycol monomethyl ether acetate	09/90		100	1 6	
112492	Triethylene glycol dimethyl ether	09/90		100	1 2 6	
126078	Griseofulvin		c	100	3 4	
76448	Heptachlor	09/89	c	100	1 2 4	
118741	Hexachlorobenzene		c	1	1 2 3 5	
87683	Hexachlorobutadiene	06/91		100	1 2	

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
1120	Hexachlorocyclohexanes including but not limited to:		c	1	1 3 4 5	
58899	Lindane	09/90	c	1	1 2 4	
77474	Hexachlorocyclopentadiene			100	1 2	
67721	Hexachloroethane	09/90	c	100	1 2 4	
680319	Hexamethylphosphoramide		c	100	1 2 3 4 5	
110543	Hexane	06/91		100	1 2	
302012	Hydrazine		c	100	1 2 3 4 5	
7647010	Hydrochloric acid			100	1 2	
-	Hydrocyanic acid (see Cyanide compounds)					
7783064	Hydrogen sulfide			100	1 2	
123319	Hydroquinone	06/91		100	1 2	
-	Indeno[1,2,3-cd]pyrene [PAH, POM], (see PAH)					
1125	Isocyanates including but not limited to:			100	6	
822060	Hexamethylene-1,6-diisocyanate	06/91		100	1 2	
101688	Methylene diphenyl diisocyanate {MDI} [POM]	06/91		100	1 2	
624839	Methyl isocyanate			100	1 2	
-	Toluene-2,4-diisocyanate (see Toluene diisocyanates)					
-	Toluene-2,6-diisocyanate (see Toluene diisocyanates)					
78591	Isophorone	06/91		100	1 2	
67630	Isopropyl alcohol	06/91		100	1	
80057	4,4'-Isopropylidenediphenol [POM]	06/91		100	1 2	
7439921	Lead		c	10	1 4 6	
1128	Lead compounds (inorganic) including but not limited to:		c	10	1 3	[7]
301042	Lead acetate		c	10	1 2 4 5	[7] [12]
-	Lead chromate (see Chromium, hexavalent)					
7446277	Lead phosphate		c	10	1 4 5	[7]
1335326	Lead subacetate	09/90	c	10	1 2 4	[7] [12]
1129	Lead compounds (other than inorganic)	06/91		10	1 2	[7]
108316	Maleic anhydride			100	1 2	
7439965	Manganese			100	1 2	
*	Manganese compounds	09/89		100	1 2	[7]
7439976	Mercury			10	1 2 4 6	
*	Mercury compounds including but not limited to:	09/89		10	1 2 4	[7]
7487947	Mercuric chloride			10	2	[7]
593748	Methyl mercury {Dimethylmercury}			10	2	[7]
67561	Methanol			100	1 2	

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
72435	Methoxychlor [POM]	06/91		100	1 2	
75558	2-Methylaziridine {1,2-Propyleneimine}		c	100	1 2 3 4	
74839	Methyl bromide {Bromomethane}			100	1 2 6	
74873	Methyl chloride {Chloromethane}	06/91		100	1 2	
71556	Methyl chloroform {1,1,1-Trichloroethane}			100	1 2 6	
56495	3-Methylcholanthrene [PAH-Derivative, POM]	09/90	c	1	1 2 4	
3697243	5-Methylchrysene [PAH-Derivative, POM]		c	100	1 2 3 4 5	
101144	4,4'-Methylene bis(2-chloroaniline) {MOCA} [POM]		c	100	1 2 3 4 5	
75092	Methylene chloride {Dichloromethane}		c	100	1 2 3 4 5 6	
101779	4,4'-Methylenedianiline (and its dichloride) [POM]		c	100	1 2 3 4 5	
78933	Methyl ethyl ketone {2-Butanone}	06/91		100	1 2	
60344	Methyl hydrazine	06/91		100	1 2	
74884	Methyl iodide {Iodomethane}		c	100	1 2 4 5	
108101	Methyl isobutyl ketone {Hexone}	06/91		100	1 2	
80626	Methyl methacrylate			100	1 2 6	
1634044	Methyl tert-butyl ether	06/91		100	1 2	
443481	Metronidazole		c	100	3 4 5	
90948	Michler's ketone [POM]		c	100	1 2 4 5	
1136	Mineral fibers (fine, manmade) (fine mineral fibers which are manmade and are airborne particles of a respirable size greater than 5 microns in length, less than or equal to 3.5 microns in diameter, with a length to diameter ratio of 3:1)	06/91	c	100	1 2 7	
	including but not limited to:					
1056	Ceramic fibers	09/89	c	100	1 2 3 4	
1111	Glasswool fibers	09/89	c	100	1 2 3 4	
1168	Rockwool fibers	09/89	c	100	1 2 3	
1181	Slagwool fibers	09/89	c	100	1 2 3	
1135	Mineral fibers (other than manmade)			100	2 7	
	including but not limited to:					
1332214	Asbestos		c	100	1 2 3 4 5	
12510428	Erionite		c	100	2 3 4	
1190	Talc containing asbestiform fibers		c	100	2 3 4	
1313275	Molybdenum trioxide	06/91		100	1	
-	Naphthalene [PAH, POM], (see PAH)					
7440020	Nickel		c	1	1 2 3 4 5	
*	Nickel compounds		c	1	1 2 3 4 5	[7]
	including but not limited to:					
373024	Nickel acetate	06/91	c	1	1 2 5	[7]
3333393	Nickel carbonate	06/91	c	1	1 2 5	[7]
13463393	Nickel carbonyl		c	1	1 2 4 5	[7]
12054487	Nickel hydroxide	06/91	c	1	1 2 5	[7]
1271289	Nickelocene	06/91	c	1	1 2 5	[7]

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
1313991	Nickel oxide	06/91	c	1	1 2 5	[7]
12035722	Nickel subsulfide		c	1	1 2 4 5	[7]
1146	Nickel refinery dust from the pyrometallurgical process	09/89	c	1	4	
61574	Niridazole		c	100	3 4	
7697372	Nitric acid	06/91		100	1	
139139	Nitrilotriacetic acid		c	100	1 4 5	
98953	Nitrobenzene			100	1 2	
92933	4-Nitrobiphenyl [POM]	09/89	c	100	1 2 4	
7496028	6-Nitrochrysene [PAH-Derivative, POM]	06/91	c	100	1 2 3 4	
607578	2-Nitrofluorene [PAH-Derivative, POM]	06/91	c	100	1 2 3 4	
302705	Nitrogen mustard N-oxide		c	100	3 4	
100027	4-Nitrophenol	06/91		100	1 2	
79469	2-Nitropropane		c	100	1 2 3 4 5	
5522430	1-Nitropyrene [PAH-Derivative, POM]	06/91	c	100	1 2 3 4	
156105	p-Nitrosodiphenylamine [POM]		c	100	1 2 4 5	
684935	N-Nitroso-N-methylurea		c	100	1 2 4 5	
59892	N-Nitrosomorpholine		c	100	1 2 3 4 5	
100754	N-Nitrosopiperidine		c	100	3 4 5	
930552	N-Nitrosopyrrolidine		c	1	3 4 5	
- -	PAHs (Polycyclic aromatic hydrocarbons) [POM] including but not limited to:				1 2	[13]
1151	PAHs, total, w/o individ. components reported			100	1 2	
1150	PAHs, total, with individ. components also reported			100	1 2	
120127	Anthracene	06/91		100	1 2 7	
56553	Benz[a]anthracene		c	100	1 2 3 4 5	
50328	Benzo[a]pyrene		c	1	1 2 3 4 5	
205992	Benzo[b]fluoranthene		c	100	1 2 3 4 5	
205823	Benzo[j]fluoranthene		c	100	1 2 3 4 5	
207089	Benzo[k]fluoranthene		c	100	1 2 3 4 5	
218019	Chrysene	09/90	c	1	1 2 4	
53703	Dibenz[a,h]anthracene		c	100	1 2 3 4 5	
192654	Dibenzo[a,e]pyrene		c	100	1 2 3 4 5	
189640	Dibenzo[a,h]pyrene		c	100	1 2 3 4 5	
189559	Dibenzo[a,i]pyrene		c	100	1 2 3 4 5	
191300	Dibenzo[a,l]pyrene		c	100	1 2 3 4 5	
193395	Indeno[1,2,3 -cd]pyrene		c	100	1 2 3 4 5	
91203	Naphthalene			100	1 2	
#	PAH-Derivatives (Polycyclic aromatic hydrocarbon derivatives) [POM] (including but not limited to those substances listed in Appendix A with the bracketed designation [PAH-Derivative, POM])	06/91			1 2 7	[14]
56382	Parathion	06/91		100	1 2	
1336363	PCBs (Polychlorinated biphenyls) [POM]		c	1	1 2 3 4 5 6	

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
82688	Pentachloronitrobenzene {Quintobenzene}	06/91		100	1 2	
79210	Peracetic acid	06/91		100	1	
127184	Perchloroethylene {Tetrachloroethane}		c	100	1 2 3 4 5 6	
50066	Phenobarbital		c	100	3 4	
108952	Phenol			100	1 2	
106503	p-Phenylenediamine	06/91		100	1 2	
90437	2-Phenylphenol [POM]	06/91		100	1 2	
75445	Phosgene			100	1 2	
7723140	Phosphorus			100	1 2	
- -	Phosphorus compounds:	09/89			2	
7803512	Phosphine			10	1 2 7	
7664382	Phosphoric acid	09/89		100	1 2	
10025873	Phosphorus oxychloride	09/89		100	2	
10026138	Phosphorus pentachloride	09/89		100	2	
1314563	Phosphorus pentoxide	09/89		100	2	
7719122	Phosphorus trichloride	09/89		100	2	
126738	Tributyl phosphate	09/89		100	2	
78400	Triethyl phosphine	09/89		100	2	
512561	Trimethyl phosphate	09/89		100	2	
78308	Triorthocresyl phosphate [POM]	09/89		100	1 2	
115866	Triphenyl phosphate [POM]	09/89		100	1 2	
101020	Triphenyl phosphite [POM]	09/89		100	1 2	
85449	Phthalic anhydride			100	1 2	
- -	Polychlorinated dibenzo-p-dioxins {PCDDs or Dioxins} [POM] including but not limited to:		c		1 2	
1086	Dioxins, total, w/o individ. isomers reported {PCDDs}		c	.1	1 2	
1085	Dioxins, total, with individ. isomers also reported {PCDDs}		c	.1	1 2	
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin {TCDD} [POM]		c	.1	1 2 3 4 5	
40321764	1,2,3,7,8-Pentachlorodibenzo-p-dioxin [POM]		c	.1	1 2	
39227286	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [POM]		c	.1	1 2 4	
57653857	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [POM]		c	.1	1 2	
19408743	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [POM]		c	.1	1 2	
35822469	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [POM]		c	.1	1 2	
- -	Polychlorinated dibenzofurans {PCDFs or Dibenzofurans} [POM] including but not limited to:		c		1 2	
1080	Dibenzofurans (Polychlorinated dibenzofurans) {PCDFs} [POM]		c	.1	1 2	
51207319	2,3,7,8-Tetrachlorodibenzofuran [POM]		c	.1	1 2	
57117416	1,2,3,7,8-Pentachlorodibenzofuran [POM]		c	.1	1 2	
57117314	2,3,4,7,8-Pentachlorodibenzofuran [POM]		c	.1	1 2	
70648269	1,2,3,4,7,8-Hexachlorodibenzofuran [POM]		c	.1	1 2	
57117449	1,2,3,6,7,8-Hexachlorodibenzofuran [POM]		c	.1	1 2	

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
72918219	1,2,3,7,8,9-Hexachlorodibenzofuran [POM]		c	.1	1 2	
60851345	2,3,4,6,7,8-Hexachlorodibenzofuran [POM]		c	.1	1 2	
67562394	1,2,3,4,6,7,8-Heptachlorodibenzofuran [POM]		c	.1	1 2	
55673897	1,2,3,4,7,8,9-Heptachlorodibenzofuran [POM]		c	.1	1 2	
#	POM (Polycyclic organic matter) (including but not limited to those substances listed in Appendix A with the bracketed designation of [POM], [PAH, POM], or [PAH-Derivative, POM])	09/89			1 2	[15]
57830	Progesterone		c	100	3 4 5	
1120714	1,3-Propane sultone		c	100	1 2 3 4 5	
57578	beta-Propiolactone		c	10	1 2 3 4 5	
123386	Propionaldehyde	06/91		100	1 2	
114261	Propoxur {Baygon}	06/91		100	1 2	
115071	Propylene			100	1 2	
75569	Propylene oxide		c	100	1 2 3 4 5	
-	1,2-Propyleneimine (see 2-Methylaziridine)					
110861	Pyridine	06/91		100	7	
91225	Quinoline	06/91		100	1 2	
106514	Quinone	06/91		100	1 2	
1165	Radionuclides including but not limited to:		c	100	1 2 4	[16]
24267569	Iodine-131	09/89	c	100	1 2 4	
1166	Radon and its decay products	09/89	c	100	1 4	
50555	Reserpine [POM]		c	100	1 2 4 5	
#	Residual (heavy) fuel oils	06/91	c		3 4	
7782492	Selenium			100	2	
*	Selenium compounds including but not limited to:			100	1 2	[7]
7446346	Selenium sulfide	09/90	c	100	2 4 5	[7]
1175	Silica, crystalline		c	100	1 3 4	
7440224	Silver	06/91		100	7	
*	Silver compounds	06/91		100	1	[7]
1310732	Sodium hydroxide			100	1 2	
100425	Styrene		c	100	1 2 3 6	
96093	Styrene oxide		c	100	1 2 3 4	
7664939	Sulfuric acid	06/91		100	1	
100210	Terephthalic acid	06/91		100	1	
79345	1,1,2,2-Tetrachloroethane	09/90	c	10	1 2 4	
7440280	Thallium	06/91		100	7	
*	Thallium compounds	06/91		100	7	[7]
62555	Thioacetamide		c	100	3 4 5	
62566	Thiourea		c	100	1 3 4 5	
7550450	Titanium tetrachloride	06/91		100	1 2	
108883	Toluene			100	1 2 4 6	
-	2,4-Toluenediamine (see 2,4-Diaminotoluene)					

Substances For Which Emissions Must Be Quantified (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Applicable Degree of Accuracy (lbs/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
1204	Toluene diisocyanates including but not limited to:	06/91	c	10	1 3	
584849	Toluene-2,4-diisocyanate		c	10	1 2 3 5	
91087	Toluene-2,6-diisocyanate		c	10	1 2 3 5	
95534	o-Toluidine		c	10	1 2 3 4 5	
8001352	Toxaphene {Polychlorinated camphenes}		c	100	1 2 3 4 5	
79005	1,1,2-Trichloroethane {Vinyl trichloride}	06/91	c	100	1 2 4	
-	1,1,1-Trichloroethane (see Methyl chloroform)					
79016	Trichloroethylene		c	100	1 2 4	
-	2,4,6-Trichlorophenol (see Chlorophenols)					
121448	Triethylamine	06/91		100	1 2	
1582098	Trifluralin	06/91		100	1 2	
95636	1,2,4-Trimethylbenzene	06/91		100	1	
540841	2,2,4-Trimethylpentane	06/91		100	1 2	
51796	Urethane {Ethyl carbamate}		c	100	1 2 3 4 5	
7440622	Vanadium (fume or dust)	06/91		100	7	[17]
108054	Vinyl acetate	06/91		100	1 2	
593602	Vinyl bromide		c	10	1 2 3 4	
75014	Vinyl chloride		c	100	1 2 3 4 5	
75354	Vinylidene chloride			100	1 2	
1206	Wood preservatives (containing arsenic and chromate)	09/89		100	6	
1210	Xylenes (mixed xylenes) including:			100	1 2 6	
108383	m-Xylene	06/91		100	1 2	
95476	o-Xylene	06/91		100	1 2	
106423	p-Xylene	06/91		100	1 2	
7440666	Zinc			100	2	
*	Zinc compounds including but not limited to:	09/89		100	1 2	[7]
1314132	Zinc oxide			100	2	[7]

APPENDIX A-II

Substances For Which Production, Use, Or Other Presence Must Be Reported

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
26148685	A-alpha-C {2-Amino-9H-pyrido[2,3-b]indole}	09/89	c	3 4	[18]
34256821	Acetochlor	09/89	c	4	
546883	Acetohydroxamic acid	09/90		4	
62476599	Acifluorfen [POM]	09/90	c	1 2 4	
50760	Actinomycin D	09/90	c	4	
23214928	Adriamycin [PAH-Derivative, POM]		c	1 2 3 4 5	
3688537	AF-2		c	3 4	
1000	Aflatoxins		c	3 4 5	
15972608	Alachlor	09/89	c	4	
309002	Aldrin	09/89	c	4	
107186	Allyl alcohol	06/91		7	
28981977	Alprazolam [POM]	09/90		1 2 4	
39831555	Amikacin sulfate	09/90		4	
60093	p-Aminoazobenzene {4-Aminoazobenzene} [POM]		c	1 2 3 4	
97563	o-Aminoazotoluene [POM]		c	1 2 3 4 5	
6109973	3-Amino-9-ethylcarbazole hydrochloride [POM]	09/89	c	1 2 4 5	
125848	Aminoglutethimide	09/90		4	
82280	1-Amino-2-methylanthraquinone [PAH-Derivative, POM]		c	1 2 4 5	
68006837	2-Amino-3-methyl-9H-pyrido(2,3-b) indole {MeA-alpha-C}	09/89	c	3 4	
712685	2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole		c	3 4	
54626	Aminopterin			4	
-	2-Amino-9H-pyrido(2,3-b)indole (see A-alpha-C)				
1005	Analgesic mixtures containing phenacetin		c	3 4 5	
1010	Androgenic (anabolic) steriods including but not limited to:		c	3 4	
58184	Methyltestosterone	09/90		4	
434071	Oxymetholone		c	4 5	
58220	Testosterone and its esters including but not limited to:	09/89		4	
315377	Testosterone enanthate	09/90		4	
134292	o-Anisidine hydrochloride		c	4 5	
104949	p-Anisidine	06/91		7	
140578	Aramite		c	3 4	
50782	Aspirin	06/91		4	
492808	Auramine [POM]		c	1 2 3 4 5	
115026	Azaserine		c	3 4	
446866	Azathioprine		c	3 4 5	
103333	Azobenzene [POM]	09/90	c	1 2 4	
98873	Benzal chloride	06/91		7	
55210	Benzamide	06/91		7	
5411223	Benzphetamine hydrochloride [POM]	09/90		1 2 4	
1694093	Benzyl violet 4B [POM]		c	1 2 3 4	
1025	Betel quid with tobacco		c	3 4	

Substances For Which Production, Use, Or Other Presence Must Be Reported (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
494031	N-N-Bis(2-chloroethyl)-2-naphthylamine {Chlornaphazine} [PAH-Derivative, POM]		c	1 2 3 4 5	
154938	Bischloroethyl nitrosourea		c	3 4	
108601	Bis(2-chloro-1-methylethyl) ether	06/91		7	
1030	Bitumens, extracts of steam-refined and air-refined bitumens		c	3 4	
1035	Bleomycins		c	3	
75274	Bromodichloromethane	09/90	c	4	
1689845	Bromoxynil	06/91		4	
55981	1,4-Butanediol dimethanesulfonate {Busulfen Myleran}		c	3 4 5	
25013165	Butylated hydroxyanisole {BHA}		c	3 4	
123728	Butyraldehyde	06/91		7	
3068880	beta-Butyrolactone		c	3 4	
630080	Carbon monoxide	09/89		4	
41575944	Carboplatin	09/90		4	
474259	Chenodiol	09/90		4	
305033	Chlorambucil		c	3 4 5	
1620219	Chlorcyclizine hydrochloride [POM]			1 2 4	
143500	Chlordecone {Kepone}		c	3 4	
6164983	Chlordimeform	09/89	c	4	
115286	Chlorendic acid	09/89	c	3 4 5	
124481	Chlorodibromomethane	09/90	c	4	
13010474	1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea {CCNU}		c	3 4 5	
563473	3-Chloro-2-methylpropene	09/89	c	4 5	
1065	Chlorophenoxy herbicides		c	3	
1897456	Chlorothalonil	09/89	c	4	
1059	p-Chloro-o-toluidine (strong acid salts)	06/91	c	3	
4680788	C. I. Acid Green 3 [POM]	06/91		1 2 7	
569642	C. I. Basic Green 4 [POM]	06/91		1 2 7	
989388	C. I. Basic Red 1 [POM]	06/91		1 2 7	
569619	C. I. Basic Red 9 monohydrochloride [POM]	09/89	c	1 2 4 5	
2832408	C. I. Disperse Yellow 3 [POM] (NOTE: "C. I." means "color index")	06/91		1 2 7	
87296	Cinnamyl anthranilate [POM]	09/89	c	1 2 4 5	
15663271	Cisplatin		c	3 4	
6358538	Citrus Red No. 2 [POM]		c	1 2 3 4	
50419	Clomiphene citrate [POM]	09/90		1 2 4	
8007452	Coal tars	09/89	c	3 4 5	
21725462	Cyanazine	09/90		4	
14901087	Cycasin		c	3 4	
50180	Cyclophosphamide		c	3 4	
13121705	Cyhexatin	09/89		4	
147944	Cytarabine	09/89		4	

Substances For Which Production, Use, Or Other Presence Must Be Reported (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
3468631	D and C Orange No. 17 [PAH-Derivative, POM]	09/90	c	1 2 4	
81889	D and C Red No. 19 [POM]	09/90	c	1 2 4	
2092560	D and C Red No. 8 [PAH-Derivative, POM]	06/91	c	1 2 4	
5160021	D and C Red No. 9 [PAH-Derivative, POM]	09/90	c	1 2 4	
4342034	Dacarbazine		c	3 4 5	
1596845	Daminozide	09/90	c	4	
17230885	Danazol	09/90		4	
20830813	Daunomycin [PAH-Derivative, POM]		c	1 2 3 4	
23541506	Daunorubicin hydrochloride [PAH-Derivative, POM]	09/90		1 2 4	
50293	DDT {1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane} [POM]		c	1 2 3 4 5	
613354	N,N'-Diacetylbenzidine [POM]		c	1 2 3 4	
2303164	Diallate	06/91		7	
39156417	2,4-Diaminoanisole sulfate		c	4 5	
101804	4,4'-Diaminodiphenyl ether [POM]		c	1 2 3 4 5	
764410	1,4-Dichloro-2-butene	09/90	c	4	
28434868	3,3'-Dichloro-4,4'-diaminodiphenyl ether [POM]	09/89	c	1 2 3 4	
72548	Dichlorodiphenyldichloroethane {DDD} [POM]	09/89	c	1 2 4	
540590	1,2-Dichloroethylene	06/91		7	
78886	2,3-Dichloropropene	06/91		7	
60571	Dieldrin	09/89	c	4	
84173	Dienestrol [POM]	09/90	c	1 2 4	
1464535	Diepoxybutane		c	3 4 5	
1615801	1,2-Diethylhydrazine		c	3 4	
84662	Diethyl phthalate	06/91		7	
101906	Diglycidyl resorcinol ether {DGRE}		c	3 4 5	
94586	Dihydrosafrole		c	3 4	
20325400	3,3'-Dimethoxybenzidine dihydrochloride [POM]	06/91	c	1 2 4	
55738540	trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl-1,3,4-oxadiazol		c	3 4	
540738	1,2-Dimethylhydrazine		c	3 4	
105679	2,4-Dimethylphenol {2,4-Xylenol}	06/91		7	
513371	Dimethylvinylchloride {DMVC}	09/89	c	4 5	
25154545	Dinitrobenzenes (mixtures of)	09/90		4 7	
	including:				
99650	m-Dinitrobenzene	06/91		7	
528290	o-Dinitrobenzene	06/91		7	
100254	p-Dinitrobenzene	06/91		7	
39300453	Dinocap	09/90		4	
88857	Dinoseb	09/89		4	
117840	n-Dioctyl phthalate	06/91		7	
2475458	Disperse Blue 1 [PAH-Derivative, POM]	06/91	c	1 2 3 4	
564250	Doxycycline	09/90		4	
379793	Ergotamine tartrate [POM]	09/90		1 2 4	

Substances For Which Production, Use, Or Other Presence Must Be Reported (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
1095	Estrogens, non-steroidal including but not limited to:		c	3 5	
56531	Diethylstilbestrol [POM]		c	1 2 3 4 5	
1100	Estrogens, steroidal including but not limited to:		c	3 5	
1068	Conjugated estrogens	09/90	c	4	
50282	Estradiol 17 beta		c	4 5	
53167	Estrone		c	4 5	
57636	Ethinyl estradiol		c	4 5	
72333	Mestranol		c	3 4 5	
541413	Ethyl chloroformate	06/91		7	
62500	Ethyl methanesulfonate		c	3 4	
33419420	Etoposide [POM]	09/90		2	
54350480	Etretinate			4	
2164172	Fluometuron	06/91		7	
51218	Fluorouracil	09/89		4	
76437	Fluoxymesterone	09/90		4	
13311847	Flutamide	09/90		4	
133073	Folpet	09/89	c	4	
3570750	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole		c	3 4	
67458	Furazolidone	09/90	c	4	
60568050	Furmecyclox	09/90	c	4	
67730114	Glu-P-1 {2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole}		c	3 4	
67730103	Glu-P-2 {2-Aminodipyrido[1,2-a:3',2'-d]imidazole}		c	3 4	
765344	Glycidaldehyde		c	3 4	
556525	Glycidol	09/90	c	4	
16568028	Gyromitrin {Acetaldehyde methylformylhydrazone}		c	4	
2784943	HC Blue 1	09/89	c	4 5	
23092173	Halazepam [POM]	09/90		1 2 4	
1024573	Heptachlor epoxide	09/89	c	4	
1335871	Hexachloronaphthalene [PAH-Derivative, POM]	06/91		1 2 7	
10034932	Hydrazine sulfate		c	4 5	
3778732	Ifosfamide	09/90		4	
76180966	IQ {2-Amino-3-methylimidazo[4,5-f]quinoline}		c	3 4	
9004664	Iron dextran complex		c	3 4 5	
78842	Isobutyraldehyde	06/91		7	
120581	Isosafrole	09/90	c	4	
4759482	Isotretinoin			4	
77501634	Lactofen [POM]	09/89	c	1 2 4	
303344	Lasiocarpine	09/89	c	3 4	
554132	Lithium carbonate	06/91		4	
919164	Lithium citrate	06/91		4	
846491	Lorazepam [POM]	09/90		1 2 4	

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
1131	Lubricant base oils and derived products, specifically vacuum distillates, acid treated oils, aromatic oils, mildly solvent-refined oils, mildly hydrotreated-oils and used engine oils.	09/89	c	3 4 5	
8018017	Mancozeb	09/90	c	4	
12427382	Maneb	09/90	c	4	
595335	Megestrol acetate	06/91		4	
148823	Melphalan		c	3 4 5	
9002680	Menotropins	09/90		4	
6112761	Mercaptopurine	09/90		4	
531760	Merphalan	09/89	c	4	
3963959	Methacycline hydrochloride	06/91		4	
60560	Methimazole	09/90		4	
59052	Methotrexate	09/89		4	
15475566	Methotrexate sodium	09/90		4	
484208	5-Methoxypsoralen		c	3	
96333	Methyl acrylate	06/91		7	
590965	Methylazoxymethanol	09/90	c	4	
592621	Methylazoxymethanol acetate	09/89	c	3 4	
101611	4,4'-Methylene bis (N,N-dimethyl) benzenamine [POM]		c	1 2 4 5	
838880	4,4'-Methylene bis(2-methylaniline) [POM]	09/89	c	1 2 3 4	
74953	Methylene bromide	06/91		7	
66273	Methyl methanesulfonate		c	3 4	
129157	2-Methyl-1-nitroanthraquinone (uncertain purity) [PAH-Derivative, POM]		c	1 2 3 4	
-	N-Methyl-N-nitrosourethane {see N-Nitroso-N-methylurethane}				
70257	N-Methyl-N'-nitro-N-nitrosoguanidine		c	3 4	
924425	N-Methyloacrylamide	09/90	c	4	
56042	Methylthiouracil		c	3 4	
9006422	Metiram	09/90		4	
59467968	Midazolam hydrochloride [POM]	09/90		1 2 4	
1140	Mineral oils (untreated and mildly treated oils; and those used in occupations such as mulespinning, metal machining, and jute processing).		c	3 4 5	
2385855	Mirex		c	3 4 5	
62015398	Misoprostol	09/90		4	
50077	Mitomycin C		c	3 4	
70476823	Mitoxantrone hydrochloride [PAH-Derivative, POM]	09/90		1 2 4	
315220	Monocrotaline		c	3 4	
139913	5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone		c	3 4	
505602	Mustard gas {Sulfur mustard}		c	3 4 5	
86220420	Nafarelin acetate [PAH-Derivative, POM]	09/90		1 2 4	
3771195	Nafenopin [POM]		c	1 2 3 4	

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
134327	1-Naphthylamine [PAH-Derivative, POM]	09/90	c	1 2 4	
91598	2-Naphthylamine [PAH-Derivative, POM]		c	1 2 3 4 5	
1405103	Neomycin sulfate	09/90		4	
56391572	Netilmicin sulfate	09/90		4	
54115	Nicotine	09/90		4	
1148	Nitrilotriacetic acid (salts) including but not limited to:	06/91	c	3	
18662538	Nitrilotriacetic acid, trisodium salt monohydrate	06/91	c	4	
602879	5-Nitroacenaphthene [PAH-Derivative, POM]		c	1 2 3 4	
99592	5-Nitro-o-anisidine		c	4 5	
1836755	Nitrofen (technical grade)		c	3 4 5	
67209	Nitrofurantoin	06/91	c	4	
59870	Nitrofurazone	09/90	c	4	
555840	1-[(5-Nitrofurfurylidene)amino]-2-imidazolidinone		c	3 4	
531828	N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide		c	3 4	
51752	Nitrogen mustard {Mechlorethamine}		c	3 4 5	
55867	Nitrogen mustard hydrochloride	09/89	c	4 5	
55630	Nitroglycerin	06/91		7	
88755	2-Nitrophenol	06/91		7	
57835924	4-Nitropyrene [PAH-Derivative, POM]	06/91	c	1 2 3 4	
86306	N-Nitrosodiphenylamine [POM]	09/89	c	1 2 4	
759739	N-Nitroso-N-ethylurea		c	4 5	
60153493	3-(N-Nitrosomethylamino)propionitrile		c	3 4	
64091914	4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone {NNK}		c	3 4	
615532	N-Nitroso-N-methylurethane {N-Methyl-N-nitrosourethane}		c	3 4	
4549400	N-Nitrosomethylvinylamine		c	3 4 5	
16543558	N-Nitrosonornicotine		c	3 4 5	
13256229	N-Nitrososarcosine		c	3 4 5	
6533002	Norgestrel	09/90		4	
303479	Ochratoxin A [POM]	09/90	c	1 2 4	
2234131	Octachloronaphthalene [PAH-Derivative, POM]	06/91		1 2 7	
2646175	Oil Orange SS [PAH-Derivative, POM]		c	1 2 3 4	
20816120	Osmium tetroxide	06/91		7	
79572	Oxytetracycline	06/91		4	
794934	Panfuran S {Dihydroxymethylfuratrizine}		c	3 4	
115673	Paramethadione	09/90		4	
52675	Penicillamine	06/91		4	
57330	Pentobarbital sodium	09/90		4	
63989	Phenacemide	09/90		4	
62442	Phenacetin		c	3 4 5	
94780	Phenazopyridine hydrochloride		c	3 4 5	
3546109	Phenesterin	09/89	c	4 5	
59961	Phenoxybenzamine [POM]	09/89	c	1 2 4	

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
63923	Phenoxybenzamine hydrochloride [POM]	09/90	c	1 2 3 4 5	
122601	Phenyl glycidyl ether	09/90	c	3 4	
57410	Phenytoin [POM]		c	1 2 3 4 5	
88891	Picric acid	06/91		7	
54911	Pipobroman	09/90		4	
18378897	Plicamycin [PAH-Derivative, POM]	09/90		1 2 4	
1155	Polybrominated biphenyls {PBBs} [POM]		c	1 2 3 4 5	
53973981	Polygeenan	09/89	c	4	
3761533	Ponceau MX [PAH-Derivative, POM]		c	1 2 3 4	
3564098	Ponceau 3R [PAH-Derivative, POM]		c	1 2 3 4	
366701	Procarbazine hydrochloride		c	3 4 5	
1160	Progestins		c	3	
	including but not limited to:				
71589	Medroxyprogesterone acetate		c	3 4	
68224	Norethisterone		c	4 5	
51525	Propylthiouracil		c	3 4 5	
302794	all-trans-Retinoic acid	09/89		4	
1167	Retinol/retinyl esters	09/89	c	4	
36791045	Ribavirin	09/90		4	
81072	Saccharin		c	3 4 5	
94597	Safrole		c	3 4 5	
1180	Shale oils		c	3 4	
132274	Sodium o-phenylphenate [POM]		c	1 2 3 4	
128449	Sodium saccharin	09/89	c	4	
1185	Soots		c	3 4	
10048132	Sterigmatocystin [POM]		c	1 2 3 4	
3810740	Streptomycin sulfate	06/91		4	
18883664	Streptozotocin		c	3 4 5	
95067	Sulfallate		c	3 4 5	
54965241	Tamoxifen citrate [POM]	09/90		1 2 4	
846504	Temazepam [POM]	09/90		1 2 4	
5216251	p-alpha,alpha,alpha-Tetrachlorotoluene	09/90	c	4	
961115	Tetrachlorvinphos	06/91		7	
64755	Tetracycline hydrochloride	06/91		4	
509148	Tetranitromethane	09/90	c	4	
50351	Thalidomide			4	
139651	4,4'-Thiodianiline [POM]		c	1 2 3 4	
154427	Thioguanine	09/90		4	
1314201	Thorium dioxide		c	4 5	
1200	Tobacco products, smokeless		c	3 4	
49842071	Tobramycin sulfate	09/90		4	
1205	alpha-chlorinated Toluenes		c	3	
636215	o-Toluidine hydrochloride		c	4 5	
106490	p-Toluidine	09/90	c	4	
299752	Treosulfan		c	3 4	

Substances For Which Production, Use, Or Other Presence Must Be Reported (cont.)

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
28911015	Triazolam [POM]	09/90		1 2 4	
52686	Trichlorfon	06/91		7	
13647353	Trilostane	09/90		4	
127480	Trimethadione	06/91		4	
68768	Tris(aziridinyl)-p-benzoquinone {Triaziquone}	09/90	c	4	
52244	Tris(1-aziridinyl) phosphine sulfide {Thiotepa}		c	3 4 5	
126727	Tris(2,3-dibromopropyl)phosphate	09/89	c	4	
62450060	Trp-P-1 {3-Amino-1,4-dimethyl-5H-pyrido[4,3-b]indole}		c	3 4	
62450071	Trp-P-2 {3-Amino-1-methyl-5H-pyrido[4,3-b]indole}		c	3 4	
72571	Trypan blue [PAH-Derivative, POM]		c	1 2 3 4	
66751	Uracil mustard		c	3 4	
26995915	Urofollitropin	09/90		4	
99661	Valproate			4	
143679	Vinblastine sulfate [POM]	09/90		1 2 4	
2068782	Vincristine sulfate [POM]	09/90		1 2 4	
106876	4-Vinyl-1-cyclohexene diepoxide {Vinyl cyclohexene dioxide}	09/90	c	4	
81812	Warfarin [POM]			1 2 4	
87627	2,6-Xylidene	06/91		4	
12122677	Zineb	09/90	c	4	

NOTES TO APPENDIX A:

Note	Text of Note
[1]	Emittent ID (the emittent identification number) is the Chemical Abstract Service (CAS) number where available, or an ARB-assigned 4-digit emittent ID code. A dash ("-") is shown for the Emittent ID for substances which are alphabetized under a group header or synonym elsewhere on the list. Refer to the cross reference indicated in parenthesis, "( )". 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. An asterisk ("*") is shown for the Emittent ID to indicate that the emissions of unspecified metal compounds shall be reported as the metal atom equivalent. See Note [7]. A pound sign ("#") is shown for the Emittent ID to indicate that the individual, component listed substances must be reported for this mixture or group.
[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]	The date the Board approved addition of the substance to the original list. The original list was approved by the Board in July 1988.
[4]	The letter "c" indicates that for purposes of this section the substance shall be treated as a human carcinogen or potential human carcinogen.
[5]	Applicable degree of accuracy (in lbs/year except where noted). Radionuclides must be reported in Curie units, and the accuracy must be considered accordingly. Refer to Section 93334.
[6]	Substances are required to be included on the AB 2588 list based on the following lists cited in Health & Safety Code Section 44321: 1=California Air Resources Board; 2=Environmental Protection Agency; 3=International Agency for Research on Cancer; 4=Governor's List of Carcinogens and Reproductive Toxicants (HSC Section 25249.8); 5=National Toxicology Program; 6=Hazard Evaluation System and Information Service; 7=Added pursuant to HSC Section 44321 (f). Substances from lists 1, 2, 6, or 7 may not be removed from the AB 2588 list. Refer to H&SC Section 44321.

Note	Text of Note
[7]	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 the emittent identification number indicated on the table, such as for reporting inorganic versus other-than-inorganic arsenic 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), emissions shall be reported for the compound (as pounds of whole compound), using the emittent identification number for that compound.
[8]	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.
[9]	Emissions of these mixtures shall be reported as emissions of total particulate matter and total organic gas, using the following emittent identification numbers: 9901 Diesel exhaust, particulate matter — 9910 Gasoline exhaust, particulate matter 9902 Diesel exhaust, total organic gas — 9911 Gasoline exhaust, total organic gas Individually listed substances from diesel and gasoline exhaust must also be reported.
[10]	The emittent identification number 1105 has been discontinued for all facilities reporting for the first time and for all biennial updates. Use the listed replacement emittent identification codes 1103 and 1104.
[11]	Emissions of the individual, component listed substances must be reported in addition to the total gasoline vapors emissions.
[12]	These lead compounds are listed here so that the inorganic lead fraction will be quantified and reported if these individual compounds cannot be quantified.
[13]	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.
[14]	PAH-DERIVATIVE: (Polycyclic Aromatic Hydrocarbon Derivative) - 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 fused ring structure does not contain heteroatoms. The structure does contain one or more substituent groups. PAH-Derivatives are a subgroup of POM and have a boiling point of greater than or equal to 100°C.
[15]	POM: (Polycyclic Organic Matter) - Includes organic compounds with more than one benzene ring, and which have a boiling point of greater than or equal to 100°C.

Note	Text of Note
[16]	Radionuclides and other radioactive substances shall be reported in units of Curies per year (for annual average emissions) and in units of milliCuries per hour (for maximum hourly emissions).
[17]	Emissions of Vanadium (fume or dust) shall be reported as the amount of the vanadium atom equivalent, using the identification number 7440622.
[18]	The emittent identification number 1001 has been replaced with the CAS number 26148685.

APPENDIX B

REPORTING FORMS AND INSTRUCTIONS

Appendix B
Instructions for Completing Reporting Forms

The following instructions are for completing core reporting forms, the S-UP form, and the Update Summary Form as explained in Article 4:

The operator of each facility subject to the regulation shall complete one **Facility Description Form (FAC Form)**, an entry on a **Stack Data Form (STK Form)** for each stack or vent from which a listed substance may be released, an entry on a **Device Description and Device-Stack Relations Form (DEV Form)** for each device associated with a release of a listed substance, and a **Process and Emittents Data Form (PRO Form)** for each emitting process within each device. A Process and Emittents Data Form and an entry on a Device Description and Device-Stack Relations Form shall be completed for each general location of fugitive emissions.

Form S-UP shall be completed and submitted with the inventory report for all substances set forth in Appendix A-II which are 1) manufactured or produced as the result of any activity or process at the facility; 2) used as ingredients in any activity or process at the facility; or 3) otherwise associated with an activity or process, including but not limited to presence in a formulation operation or presence as a by-product or a reaction intermediate which appears temporarily during processing.

Form S-UP shall also be completed for all substances set forth in Appendix A-I which are used, manufactured, formulated, or released but for which emissions are below the applicable limit for degree of accuracy required by Section 334, unless a numeric estimate of such emissions is reported on a Process and Emittents Data Form for the appropriate emitting process. See the instructions for the Process and Emittents Data Form (Item (30)) for information on using the degree of accuracy values for reporting purposes.

Form S-UP shall also be completed for all substances set forth in Appendix A-I and Appendix A-II which are used, manufactured, formulated, or released from any facility subject to the requirements set forth in Section 308(c).

The facility operator shall also complete and submit to the district an Update Summary Form (US Form) as required to comply with the applicable update requirements specified in Sections 348-355.

The district may, but need not, provide to the facility operator, forms which are partially filled out. The district may, but need not, provide to the facility operator, the stack and device information that presently exists for the criteria pollutant inventory. If not known or provided, consult the district. If any of the provided information needs to be updated or corrected, the facility operator shall delete, add, or change the data according to the instructions provided for each form.

The following are specific instructions for completing each required core reporting form:

INVENTORY YEAR 19__	AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT FACILITY DESCRIPTION	FORM FAC

FACILITY DATA

COMPANY NAME

ADDRESS

CITY

ZIP CODE

CONTACT PERSON

TELEPHONE

FACILITY SIC:

NUMBER OF EMPLOYEES:

MAILING ADDRESS DATA

COMPANY NAME

ADDRESS

CITY

STATE:

ZIP CODE

ATTENTION

COUNTY ID:

FACILITY ID:

ACTION CODE:

DISTRICT:

AIR BASIN CODE:

CITY CODE (OPTIONAL)

AQCR (OPTIONAL)

SUBCOUNTY ID (OPT.)

FACD1 (OPTIONAL)

FACD2 (OPTIONAL)

UTM ZONE

UTM EAST

UTM NORTH

ARB/FAC/930305

*NAME:*_____ *DATE:*_____

Facility Description Form (FAC Form)

Fill in the inventory year for which you are reporting in the space provided at the top of the form.

(1) County ID, District, and Air Basin Codes: Using values provided in Table B-I, enter the appropriate County, District, and Air Basin codes that correspond to the facility location.

(2) Facility ID: Enter the district-assigned facility identification code. If the Facility ID is unknown, contact the district.

(3) Action Code: Enter the appropriate Action Code: A, C, or D.
'A' indicates Add--This is a new facility that has not previously reported. Add the facility to the database.
'C' indicates Change--Previously reported data on the form have been changed.
'D' indicates Delete--The form is to be deleted. CAUTION!! Deletion of a FAC form will cause ALL data for the facility to be deleted. This should only be used if the facility is no longer subject to reporting requirements.

(4) Company Name: The company name and the plant, station, or subsidiary company or division name, if necessary to clearly identify the establishment.

(5) Address (location): Street address where facility is located.

(6) City: City or nearby city or town where facility is located.

(7) ZIP: ZIP code for the facility location.

(8) Contact Person: The person responsible for the information on these forms.

(9) Telephone: Area code and telephone number for the contact person.

(10) Facility SIC: The Standard Industrial Classification (SIC) number best describing the entire plant or facility. The SIC should be a full four-digit code. Do not use abbreviated two or three digit codes with trailing zeroes, such as "2600" or "2620". If not known, consult the air pollution control district.

(11) Number of Employees: Total number of employees working at the facility, including part-time and intermittent.

(12) Mailing Address: Name, address, city, state, zip code, and contact person (Attention) where correspondence regarding the facility should be mailed. If this information is the same as the facility address, write "same as above" diagonally across this section.

(13) UTM Zone, UTM East, UTM North: These codes are used to describe the facility location in Universal Transverse Mercator (UTM) coordinates. Enter the coordinates which most closely correspond to the facility location. For large facilities or if facility coordinates are unknown, contact the district, who will provide guidance on assigning facility coordinates.

(14) Optional Fields: The fields CITY CODE, AQCR, SUBCOUNTY ID, FACD1 and FACD2 are optional fields for district use and do not need to be filled in by the facility.

INVENTORY YEAR 19__	AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT STACK DATA	FORM STK

AIR BASIN: ____ COUNTY ID: ____ FACILITY ID: ____

DO NOT DELETE STACK IF IT SERVES OTHER DEVICES. SEE INSTRUCTIONS

DESC CODE	STACK/VENT CATEGORY	REQUIRED INFORMATION
	AMBIENT TEMP & LOW-VELOCITY EXHAUST (T W/IN 25 F OF AMBIENT & V LT 750 FPM)	
1	RELEASE POINT(RP) AT GROUND-LEVEL	STACK ID & CODE ONLY
2	RELEASE FROM BLDG HVAC ONLY	STACK ID, CODE, & STACK HEIGHT
3	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	STACK ID, CODE & STACK HEIGHT
4	OTHER STACK/VENT (LOW T,V)	STACK ID, CODE & STACK HEIGHT
	OTHER TEMP & FLOW CONDITIONS	
5	RP W/IN (2.5 X HB) ABOVE GROUND AND W/IN (5 X HB) SIDEWAYS TO NEAREST BLDG	ALL STACK INFORMATION
6	OTHER STACK/VENT (OTHER T,V)	ALL STACK INFORMATION

WHERE HB = HEIGHT OF NEAREST BUILDING AND HVAC = HEATING, VENTILATING AND AIR CONDITIONING

ACTION CODE	STACK ID	DESC CODE	HEIGHT ABOVE GROUND (FEET)	DIAMETER (FEET)	********* EXHAUST ********* GAS TEMP (F)	GAS FLOW RATE (CFM)	GAS VELOCITY (FPM)	UTM EAST (KILOMETER)	UTM NORTH (KILOMETER)

ARB/STK/930401

NAME _____ DATE _____

Stack Data Form (STK Form)

This form can be copied as many times as needed.

Fill in the inventory year for which you are reporting in the space provided at the top of the form.

The district may, but need not, provide information on the facility's Stack ID's and corresponding parameters that exist in the criteria pollutant inventory. If not known or provided, consult the district.

Report on the Stack Data Form, with a unique Stack ID number, every stack, vent, ducted building exhaust site, and other site of exhaust release of a listed substance. "Exhaust" shall refer to a release where the listed substance is entrained in air and where the direction of the release is determined or influenced by a duct, louver, or similar construction. Do not report on the Stack Data Form a non-ducted, non-directional release. Instead, specify "fugitive", if applicable, in the process description field on the Process and Emittents Data Form.

(1) Air Basin and County ID: Using values provided in Table B-I, enter the Air Basin and County ID codes that correspond to the facility location.

(2) Facility ID: Enter the district-assigned facility identification code. If the Facility ID is unknown, contact the district.

(3) Action Code: Enter the appropriate Action Code: A, C, or D.
'A' indicates Add--A new stack ID and the corresponding stack parameters have been added.
'C' indicates Change--Previously reported data for the stack have been changed.
'D' indicates Delete--The stack and its associated data are to be deleted. If deleting a stack, provided a brief explanation for the deletion. If a stack is being deleted because a device it serves is no longer in use, ensure the stack does not serve other devices.

(4) **Stack ID: The Stack ID is a key numbering field used to link the information from these forms among stacks and to data in existing inventories. If a facility is adding a stack, a new stack ID needs to be created by the operator consistent with the existing number convention.**

(5) **Description of Stack or Vent (Desc. Code): Select the listed code number of the category which best describes the nature of the release point. To determine if codes 3 or 5 are appropriate, first determine the quantity HB, which is the height of the building closest to the release point. If there is no building within 500 horizontal feet of the release point, codes 3 and 5 do not apply. If there is a building within 500 horizontal feet of the release point, determine whether the actual point of release is BOTH less than a vertical distance from the ground of two-and-one-half times the value of HB AND less than a**

horizontal distance from the nearest building of five times the value of HB.

For stacks or vents in category 1, only the stack ID number and stack description code number are required. Other stack data are optional. For stacks or vents in categories 2, 3 or 4 described on the form, the stack height is also required. See item (6) below. For stacks or vents in categories 5 or 6 described on the form, all stack parameters are required. See items (6) through (10) below.

(6) Stack Height Above Ground: The vertical distance in feet, from ground to the point of emission.

(7) Inside Diameter: Inside diameter of the stack in feet. If the stack is not round, list the equivalent diameter (diameter of a circle of the same cross-sectional area as the stack).

(8) Exhaust Gas Temperature: Temperature, estimated to the nearest 50 degrees Fahrenheit, of the gas coming out of the stack under normal operating conditions.

(9) Exhaust Gas Flow Rate: The actual flow rate, measured in cubic feet per minute, of the gas exiting the stack at the reported gas temperature and atmospheric pressure. Ideally, the flow rate represents a measured value. If no measured data are available, a design rate may be used. Design rate or other available data may be expressed in standard cubic feet per minute (scfm) or any other reference cubic feet per minute (rcfm). The rate should be converted to actual cubic feet per minute (acfm) as follows:

$$\text{flow rate (acfm)} = \text{flow rate (rcfm)} \times \frac{Ta + 460}{Tr + 460}$$

where: Ta = actual exhaust gas temperature in degrees F, and
Tr = temperature at reference conditions (for standard conditions these would be one atmosphere pressure and 70 degree F)

(10) Exhaust Gas velocity: Exhaust velocity in feet per minute corresponding to exhaust flow rate. This field is optional if Exhaust Gas Flow Rate has been completed.

(11) Initial and date the form in the space provided at the bottom.

(12) UTM East, UTM North: These codes are used to describe the stack location in UTM (Universal Transverse Mercator) coordinates. Enter the coordinates which most closely correspond to the stack location. If the coordinates are not known, contact the district, who will provide guidance on assigning stack coordinates.

INVENTORY YEAR 19__	AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT DEVICE DESCRIPTION AND DEVICE-STACK RELATIONS	FORM DEV

AIR BASIN: COUNTY ID:

FACILITY ID

*** ITEMS BELOW ARE OPTIONAL ***

ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	DEVD1	DEVICE GROUP	DEVD2
	STACK ID	PERMIT ID (IF AVAILABLE)				
ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	DEVD1	DEVICE GROUP	DEVD2
	STACK ID	PERMIT ID (IF AVAILABLE)				
ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	DEVD1	DEVICE GROUP	DEVD2
	STACK ID	PERMIT ID (IF AVAILABLE)				
ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	DEVD1	DEVICE GROUP	DEVD2
	STACK ID	PERMIT ID (IF AVAILABLE)				
ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	DEVD1	DEVICE GROUP	DEVD2
	STACK ID	PERMIT ID (IF AVAILABLE)				
ACTION CODE	DEVICE ID	DEVICE NAME	NBR OF DEV.	DEVD1	DEVICE GROUP	DEVD2
	STACK ID	PERMIT ID (IF AVAILABLE)				

ARB/CEV/930401

NAME_____ DATE_____

Device Description and Device-Stack Relations Form (DEV Form)

This form can be copied as many times as needed.

Fill in the inventory year for which you are reporting in the space provided at the top of the form.

The district may, but need not, provide information on the facility's device ID's and corresponding parameters that exists in the criteria pollutant inventory. If not known or provided, consult the district.

(1) Air Basin and County ID: Using values provided in Table B-I, enter the Air Basin and County ID codes that correspond to the facility location.

(2) Facility ID: Enter the district assigned facility identification code. If the Facility ID is unknown, contact the district.

(3) Action Code: Enter the appropriate Action Code: A, C, or D.
'A' indicates Add--A new device has been added to the facility. Include corresponding device parameters.
'C' indicates Change--Previously reported data for an existing device have been changed.
'D' indicates Delete--The device and its associated data are to be deleted. CAUTION!! Deletion of a device will cause deletion of ALL process and emissions data (PRO Form data) associated with the device.

(4) Device ID: The Device ID is a key numbering field used to link the information from these forms among devices and to data in existing inventories. To add a device, create a new device ID consistent with the existing numbering convention.

(5) Device Name: A common name used to identify the equipment or device.

(6) Number of Devices: This is the number of similar small devices that are aggregated together and considered for reporting purposes as one device. If this field is left blank it is assumed that there is only one device represented by the device ID.

(7) Stack ID: The number of the stack associated with the device. If you are deleting a device and a stack which serves that device only, then it is appropriate to delete the stack ID from the stack data form, but DO NOT DELETE THE STACK if it serves any other reported device at the facility. Also, if a single device is served by more than one stack, enter the individual stack ID numbers on the appropriate PRO forms, rather than on the DEV form (see the PRO form stack ID instructions for more information).

(8) Permit ID: The district permit number for the device.

(9) Initial and date the form in the space provided at the bottom.

INVENTORY YEAR 19__

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
PROCESS AND EMITTENTS DATA

FORM **PRO** SIDE A

PROCESS DESCRIPTION C | SCC NO | COUNTY ID: | AIR BASIN

ACTION CODE | PROD1 (OPTIONAL) | PROD2 (OPTIONAL) | FACILITY ID:

STOP - FILL OUT ANY SUPPLEMENTAL PROCESS FORM(S) FOR THIS PROCESS FIRST. THEN FILL OUT THIS PAGE, SUBMITTING ONE FOR EACH EMITTING PROCESS IN YOUR FACILITY.

SECTION 1
PROCESS DATA

DEVICE I.D. | SIC | CONFIDENTIAL (Y/N) IF Y CHECK SMALL BOXES AS APPROPRIATE

PROCESS EQUIPMENT DESCRIPTION C | FUEL TYPE /OTHER PROCESS INFO C | YR. OF EST./PRO

NOTE USE 1 SPACE FOR EACH DECIMAL POINT

STACK ID

TOTAL YEARLY PROCESS RATE (UNITS/YR) C | MAXIMUM HOURLY PROCESS RATE (UNITS/HR) C | PROCESS UNITS C (P T) | HRS/ DAY C | DAYS/ WEEK C | WKS/ YEAR C

RELATIVE MONTHLY ACTIVITY (%) C

JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC

SECTION 2

EMITTENT DATA | EMISSIONS

ACTION CODE | YR. OF EST./EMS | SUBSTANCE NAME: | EMITTENT ID | EST METH C | ACTUAL EMISSIONS FACTOR(LBS/UNIT) C | ANNUAL AVERAGE EMISSIONS (LBS/YR)

ALLOWABLE EMIS LBS/YR(OPTIONAL) | *CONTROL EQPT CODES* PRIMARY C | SECONDARY C | OVERALL CONTROL EFF(%) C | FULL/ PART C | HOURLY MAX EMISSIONS (LBS/HOUR)

ACTION CODE | YR. OF EST./EMS | SUBSTANCE NAME: | EMITTENT ID | EST METH C | ACTUAL EMISSIONS FACTOR(LBS/UNIT) C | ANNUAL AVERAGE EMISSIONS (LBS/YR)

ALLOWABLE EMIS LBS/YR(OPTIONAL) | *CONTROL EQPT CODES* PRIMARY C | SECONDARY C | OVERALL CONTROL EFF(%) C | FULL/ PART C | HOURLY MAX EMISSIONS (LBS/HOUR)

ARB/PROA/930312

NAME_____ DATE_____

INVENTORY YEAR 19__

AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT
PROCESS AND EMITTENTS DATA
(ADDITIONAL EMITTENTS)

FORM **PRO** SIDE B

page

CO: _____
FACID: _____
DEVICE: _____
SCC: _____

EMITTENT DATA | EMISSIONS

SUBSTANCE NAME: _____

ACTION CODE	YR. OF EST./EMS	EMITTENT ID	EST METH	C	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	C	ANNUAL AVERAGE EMISSIONS (LBS/YR)

ALLOWABLE EMIS LBS/YR (OPTIONAL)	*CONTROL EQPT CODES* PRIMARY	C	SECONDARY	C	OVERALL CONTROL EFF(%)	C	FULL/ PART	C	HOURLY MAX EMISSIONS (LBS/HOUR)

SUBSTANCE NAME: _____

ACTION CODE	YR. OF EST./EMS	EMITTENT ID	EST METH	C	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	C	ANNUAL AVERAGE EMISSIONS (LBS/YR)

ALLOWABLE EMIS LBS/YR (OPTIONAL)	*CONTROL EQPT CODES* PRIMARY	C	SECONDARY	C	OVERALL CONTROL EFF(%)	C	FULL/ PART	C	HOURLY MAX EMISSIONS (LBS/HOUR)

SUBSTANCE NAME: _____

ACTION CODE	YR. OF EST./EMS	EMITTENT ID	EST METH	C	ACTUAL EMISSIONS FACTOR(LBS/UNIT)	C	ANNUAL AVERAGE EMISSIONS (LBS/YR)

ALLOWABLE EMIS LBS/YR (OPTIONAL)	*CONTROL EQPT CODES* PRIMARY	C	SECONDARY	C	OVERALL CONTROL EFF(%)	C	FULL/ PART	C	HOURLY MAX EMISSIONS (LBS/HOUR)

SUBSTANCE NAME: _____

ACTION CODE	YR. OF EST./EMS	EMITTENT ID	EST METH	C	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	C	ANNUAL AVERAGE EMISSIONS (LBS/YR)

ALLOWABLE EMIS LBS/YR (OPTIONAL)	*CONTROL EQPT CODES* PRIMARY	C	SECONDARY	C	OVERALL CONTROL EFF(%)	C	FULL/ PART	C	HOURLY MAX EMISSIONS (LBS/HOUR)

SUBSTANCE NAME: _____

ACTION CODE	YR. OF EST./EMS	EMITTENT ID	EST METH	C	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	C	ANNUAL AVERAGE EMISSIONS (LBS/YR)

ALLOWABLE EMIS LBS/YR (OPTIONAL)	*CONTROL EQPT CODES* PRIMARY	C	SECONDARY	C	OVERALL CONTROL EFF(%)	C	FULL/ PART	C	HOURLY MAX EMISSIONS (LBS/HOUR)

SUBSTANCE NAME: _____

ACTION CODE	YR. OF EST./EMS	EMITTENT ID	EST METH	C	ACTUAL EMISSIONS FACTOR (LBS/UNIT)	C	ANNUAL AVERAGE EMISSIONS (LBS/YR)

ALLOWABLE EMIS LBS/YR (OPTIONAL)	*CONTROL EQPT CODES* PRIMARY	C	SECONDARY	C	OVERALL CONTROL EFF(%)	C	FULL/ PART	C	HOURLY MAX EMISSIONS (LBS/HOUR)

NAME _____ DATE _____

ARB/PROB/930312

Process and Emittents Data Form (PRO Form)

Fill out the Process and Emittents Data Form, submitting one for each emitting process in your facility. If more space is needed to report emittent data for additional substances from the process, use Side B of the form. Fill out Side A of the PRO Form only once per process. Copy the blank original as needed.

Fill in the inventory year for which you are reporting in the space provided at the top of the form.

Process Data

The district may, but need not, provide information on the facility's process and corresponding emittent data that exists in the criteria pollutant inventory. If not known or provided, consult the district.

(1) Process Description: Enter a short description of the process.

(2) SCC Number: Enter the SCC (Source Classification Code) which most closely corresponds to the process. Contact the district if assistance is needed in assigning codes.

(3) County ID and Air Basin Codes: Using values provided in Table B-I, enter the appropriate County and Air Basin codes that correspond to the facility location.

(4) Facility ID: Enter the district assigned facility identification code. If the Facility ID is unknown, contact the district.

(5) Action Code/PRO: Enter the appropriate Action Code: A, C, or D. The Process Action Code should only be used for information reported on the top section of the PRO Form.
'A' indicates Add--A new process has been added to the facility. Include all corresponding data on a PRO form.
'C' indicates Change--Previously reported process data have been changed.
'D' indicates Delete--The process and its associated data are to be deleted. CAUTION!! Deletion of a process will cause deletion of ALL process and emissions data (PRO Form data) associated with the process.

(6) Device ID: The number of the device associated with the process. This device ID should be included on the Device Description and Device-Stack Relations Form.

(7) SIC: The Standard Industrial Classification number best describing the industrial activity associated with the process. If unknown, consult the district. The SIC data field has been added to the process data to describe activity at a portion of the facility when it is not the same as that of the overall facility activity. The SIC that is

reported should be a full four-digit code. Do not use abbreviated two or three digit codes with trailing zeros such as "2600" or "2620".

(8) Trade secret data: Indicate if any of the data items required on the facility diagram and designated on the facility diagram as instructed under Article 4 are trade secrets by placing a "Y" in the confidential box and a check mark in the smaller box labelled with a "C" to the right of each data item or group of items on the reporting form.

If there has been a request for the release of information to the public which has been designated as trade secret by the facility operator, additional codes are used to designate trade secret data. The following codes should be inserted as appropriate into the small boxes labelled with a "C" to the right of each data item or group of items on the reporting form.

1 - Confidentiality not claimed
2 - Confidentiality claimed--Denied: Following a public request for data, the facility operator did not obtain an action in an appropriate court for a declaratory judgement that the information is subject to protection
3 - Confidentiality claimed
4 - Confidentiality claimed--Granted: Following a public request for data, the facility operator obtained an action in an appropriate court for a declaratory judgement that the information is subject to protection.

Refer to Section 44346 of the Health and Safety Code for additional information about trade secret data.

(9) Process Equipment Description: A common name to describe the equipment used in the process. If any of the following are represented, the description field shall so indicate: boiler, internal combustion engine, kiln, flare, incinerator, oven, furnace, dryer, or heater. Include the rated capacity of any boiler or other combustion device in either the process equipment description field or the fuel type/other process information field described in item (5) below.

(10) Fuel Type/Other Process Information: Describe the type of fuel used in the process or any other information needed to describe the process.

(11) Stack ID: Enter the number of the stack associated with the process. The stack ID entered should correspond to a stack entered on the STK Form. By entering the stack ID on the PRO form, it is possible to assign more than one stack to a single device. For example, a boiler may burn two fuels, natural gas and fuel oil, which are reported on separate PRO forms with distinct SCC numbers (to indicate two processes). If different control devices are used based upon the fuel usage, stack parameters may be different between the processes. Therefore, in this case, although the same device is performing the combustion, it is appropriate to assign the emissions to different stacks on the individual PRO forms.

(12) Year of Estimate/PRO: Enter the year that the data in Section 1 (Process Data) of the PRO Form corresponds to. For example, if the original submittal was for the 1989 inventory year, but in 1991, the value for the Total Yearly Process Rate was updated, the Year of Estimate/PRO field should be set to 1991.

(13) Total Yearly Process Rate: The actual annual process rate during the reporting year.

(14) Maximum Hourly Process Rate: The greatest operating rate that would be expected for the source in a one hour period.

(15) Process Units: The units for the total yearly and maximum hourly process rate. Refer to Table B-II to determine the correct code. When assigning Process Units, ensure that they are identical to the units of the associated SCC number.

(16) Hours/Day: The number of hours per day the process is in operation during the reporting year.

(17) Days/Week: The number of days per week the process is in operation during the reporting year.

(18) Weeks/Year: The number of weeks per year the process is in operation during the reporting year.

(19) Relative Monthly Activity: The relative percentage of annual activity for the process that occurred during the month, reported to no more than three significant figures. For example, 12.3 in January would mean 12.3% of the yearly activity occurred in January.

Emittent Data and Emissions

(20) Action Code/EMS: Enter the appropriate Action Code: A, C, or D. The Emissions Action Code should be used for each substance reported on Section 2 of the PRO Form.
'A' indicates Add--A substance not previously reported is being emitted by the process. Include all corresponding emissions data.
'C' indicates Change--Previously reported emissions related data for the process data have been changed.
'D' indicates Delete--The substance identified is no longer emitted from the process.

(21) Year of Estimate/EMS: Enter the year that the reported data in Section 2 (Emittent Data) for each reported substance corresponds to. For example, if the original submittal was for the 1989 inventory year, but in 1991, emissions of some substances were updated based upon new source test results, the Year of Estimate/EMS field should be set to 1991 for the substances updated.

(22) Substance Name: Write the name of the substance emitted. Use the substance names as shown in Appendix A. Because of space limitations, it is acceptable to abbreviate or truncate the substance names entered into this field.

(23) Emittent ID: Enter the Chemical Abstracts Service Registry number (CAS number) or Emittent ID code created by the ARB for substances in Appendix A-I or A-II.

Mixtures: In accordance with Section 335, emissions of any individually listed substances shall be reported individually (except as specified in parts (a), (b), (c), and (d) below) even if the substances in Appendix A-I are included as part of a mixture or they are included in a group heading for a class of substances. Any unspecified (not individually listed) substances that are included in a mixture or group shall be summed and reported under the emittent identification number for the mixture or group heading. If there is not an emittent ID number in Appendix A-I for a mixture or group heading for a class of substances, only those component substances which are individually listed shall be reported.

(a) 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 the emittent identification number indicated in Appendix A, such as for reporting inorganic versus other-than-inorganic arsenic 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), emissions shall be reported for the compound (as pounds of the compound), using the emittent identification number for that compound.

(b) Emissions of diesel exhaust and gasoline exhaust shall be reported as emissions of total particulate matter and total organic gas using the emittent identification numbers specified in Appendix A. Individually listed substances from diesel and gasoline combustion must also be reported using the applicable emittent identification numbers.

(c) For gasoline vapors, total gasoline vapor emissions shall be reported using the applicable emittent identification number. Emissions of individual components of gasoline vapors which are listed substances shall also be reported.

(d) To avoid double counting of emissions in the cases listed in Sections 335(f) and (g), pertaining to PAHs and dioxins, respectively, the following instructions apply:

(1) Where the emissions of the individual substances are required to be quantified by source testing or other methods, the emissions shall be reported for each individual substance using the corresponding CAS number or Emittent ID code. Also, emissions of all substances source tested (even if not individually listed) for the substance group (PAHs or dioxins) shall be summed and reported using the Emittent ID code indicating "Total, with individual substances also reported."

(2) Where the emissions of the individual substances are not required to be quantified by source testing or other methods, and information is not available to estimate emissions of individually listed substances, only the aggregate substance shall be reported, using the Emittent ID code indicating "Total, with individual substances not reported."

(24) Estimation Method: Enter a code from Table B-III that describes the method used to collect or calculate the emissions of this substance.

(25) Actual Emission Factor: The average rate at which the pollutant is actually being emitted to the atmosphere in lbs per process unit. The emission factor should include the effect of any pollution control equipment which reduces emissions of the listed emittent.

(26) Control Equipment Codes (Primary and Secondary), Overall Control Efficiency, and Control Schedule Code: Primary control equipment is any installed equipment whose main purpose is to reduce emissions of the emittent listed. When more than one piece of control equipment is used, the equipment that is most effective in reducing the emissions of the listed emittent is the primary equipment; other equipment may be listed as secondary for that emittent. Control equipment which is primarily designed to remove another emittent and is not typically considered effective in controlling the listed emittent, but is demonstrated to affect the removal of the listed emittent, is considered secondary. Thus, secondary control equipment may be the only equipment controlling the listed emittent or may be used in conjunction with the primary control equipment which has a greater effect in reducing the listed emittent.

Enter the 3 digit code number from Table B-IV that best describes the control equipment used for a listed emittent, if applicable.

Table B-IV also shows the various emittents (PM, TOG, and SO_2) that are affected by each control equipment listed. An "x" in an emittent's column means the control equipment is known to reduce the particular emittent. Report the control efficiency approved by the district in the inventory plan for each affected substance.

Enter an F or P, respectively, in the Control Schedule Code field if control equipment was fully or only partially operational during the reporting period. If control equipment did not operate for part of the time that the source being controlled was in operation, adjust the control efficiency to account for downtime of the control equipment, and provide an explanation with the inventory report.

On the far right-hand side of the Table B-IV are listed substances that may be reduced by the specific control equipment. The column is not exhaustive but provides guidance in determining for what substances emissions may be reduced by different control devices.

For consistency with state and federal emission inventory practices, do not report a device as a control equipment that is used as a normal part of a process. For example, the recovery system for by-product gases from a coke oven should not be reported as VOC control equipment; a baghouse used to separate carbon particles from the main process vent gas stream at carbon black plants should not be reported as a particulate control. The effect of these devices on resultant emissions should be accounted for within the basic emission calculation.

There are several gaseous control methods which are unique in that they function both as control devices while also producing emissions separate from the process(es) they are controlling. Examples are afterburners, CO-boilers, and flares. For consistency with state and federal emission inventory practices, the emissions produced by these control devices should be reported as a separate device.

(27) Annual Average Emissions: The actual annual emissions of the emittent under typical (average) operating conditions, expressed in pounds per year, except for radionuclides and other radioactive substances, which shall be expressed in Curies per year. For instructions on how to use degree of accuracy values (Section 334) in reporting facility emissions, refer to item (30). For reporting emissions derived from below Limit of Detection (LOD) source test data, refer to the Below Limit of Detection Emissions instructions in item (31).

(28) Hourly Maximum Emission: The maximum hourly emissions of the emittent, expressed in pounds per hour, except for radionuclides and other radioactive substances, which shall be expressed in milliCuries per hour.

(29) Initial and date the form in the space provided at the bottom.

Using Degree of Accuracy Values in Reporting Facility Emissions

(30) **Degree of Accuracy.** The general use of the degree of accuracy values is described in Section 334 of the regulation. The actual degree of accuracy values for each substance are listed in Appendix A. This item 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 facilitywide 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 on PRO forms. In other words, if facility emissions of a substance exceed one-half of the applicable degree of accuracy for the substance, then the substance emissions shall be reported on PRO forms. For example, assume that the total emissions of benzene from a facility are 7 lbs/year. The degree of accuracy value for benzene is 10 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 4 lbs/yr, the emissions (to the nearest ten) would round down to zero and would not need to be reported on any PRO Form. However, the presence of benzene would be required to be reported on the S-UP form.

The foregoing degree of accuracy discussion pertains only to reporting emissions that are calculated from estimation methods (such as mass balance or emission factors). Emissions from processes for which source testing is required must be reported to within the detection limit of the applicable source test method (see item (31) below).

Reporting Emissions Derived from Below the Limit of Detection Source Test Results

(31) **Below Limit of Detection Emissions.** This section provides instructions for reporting required "Hot Spots" source test data where some or all of the individual source test runs for a substance produce values which are below the limit of detection ("below LOD"). These instructions are intended to provide a uniform convention which ensures that the manner of reporting the data on the "Hot Spots" reporting forms conveys the available information most completely and consistently.

The below LOD instructions can be applied to the handling of "non-detected" test data from all types of source testing and measurement methods conducted under the "Hot Spots" program. These methods may include stack testing, fuel analysis, laboratory analysis of materials, and other monitoring and measurement methods.

In the following instructions, two cases are discussed separately:
(a) a case for which some (but not all) runs are below the LOD, and
(b) a case for which all runs are below the LOD.

(a) Some (But Not All) Test Runs Below LOD:

In situations where several test runs are performed for a given substance from a specific source, and one or more of the runs produced values below the LOD, while at least one run produced a value above the LOD, assign one-half of the corresponding LOD for each run which is below the LOD. Average the one-half LOD values together with the other runs that were above detetectable limits for use in emissions computations.

The resultant Annual Average Emissions (in pounds per year) and the Hourly Maximum Emissions (in pounds per hour) shall be reported on the "Process and Emittents Data Form" (the PRO Form). In addition, a value of "98" must be recorded in the "Estimation Method Code" ("EST METH") field on the PRO Form to identify that the emissions have been computed from some detection-limited data. The "98" code indicates that a source test was conducted, but that some runs were above and some below the LOD. If all runs had been above the detection limits, the "normal" estimation method code for the applicable type of source test would have been used; for example, an EST METH code of "1" for stack testing, "2" for fuel analysis, etc.

(b) All Runs Below LOD:

In situations where several test runs are performed for a given substance from a particular source, and all of these runs resulted in values below the detection limits ("below the LOD"), facility operators shall report Annual Average Emissions and the Hourly Maximum Emissions on the "Process and Emittents Data Form" (the PRO Form) as "ND" (for non-detect). In addition, a value of "99" must be recorded in the "Estimation Method Code" ("EST METH") field on the PRO Form. The code of "99" indicates that a source test was conducted, but that all runs were below detectable limits.

When "ND" values are reported, the actual analytical limit of detection for all runs and the number of sample runs shall be reported in the source test report with other required source test results. Also, all tests shall be performed using appropriate sampling times, methods, and protocols as specified in the district approved source test protocol, and there must be no site specific data which could indicate the presence of the tested substance.

INVENTORY YEAR 19___	AIR TOXICS EMISSION DATA SYSTEM REVIEW AND UPDATE REPORT UPDATE SUMMARY FORM	FORM US Page 1

Part A To be completed by all facility operators subject to Sections 348 (c-e).

COMPANY NAME

FACILITY ID

ADDRESS

COUNTY ID

CITY

ZIP CODE

AIR BASIN

TELEPHONE

CONTACT PERSON

SIGNATURE _____ DATE _____

Failure to submit required information or knowingly supplying false information is punishable to the extent defined in Health and Safety Code Sections 44381(a) and 44381(b), which includes minimum fines of not less than five hundred dollars.

Part B To be completed by facility operators subject to Sections 348 (c-d).

(1) Is any new or updated source testing required because previous source test data were determined to be invalid by the district or the Executive Officer of the ARB?

Answer: Yes ☐ No ☐

Specify: _____

(2) Have any new permits been issued or existing permits been modified since the last update year which allow the facility to change the nature or quantity of air emissions of any substances listed in Appendix A-I or A-II?

Answer: Yes ☐ No ☐

Specify: _____

(3) Have processes or equipment been added or modified at the facility since the last update year which change the nature or quantity of facility emissions of any listed substances?

Answer: Yes ☐ No ☐

Specify: _____

(4) Are there any substances listed in Appendix A-I or A-II that are now being emitted by the facility that were not reported during the last inventory period? (Consider changes due to new processes, fuel usage, fuel type, material usage at the facility, and new substances added to the list of substances.)

Answer: Yes ☐ No ☐

Specify: _____

UPDATE SUMMARY FORM

Part B (continued) To be completed by facility operators subject to Sections 348 (c-d).

(5) Has the distance to the nearest receptor (as defined by the district prioritization and risk assessment procedures) decreased since the previous update year?

Answer: Yes ☐ No ☐ If Yes, provide the following:

Previous Value _____ meters Current Value _____ meters

(6) Using sound engineering judgment, estimate increases in overall facility activity since the last inventory year (consider cumulative changes in throughput, process rates, known emissions increases, or other activity indicators).

Overall Activity Increase (check one)

<10%	10-50%	51-100%	>100%
☐	☐	☐	☐

Part C To be completed by facility operators subject to Section 348 (c).

(7) Has there been a net increase of 10% or more in the activity (e.g. throughput, fuel usage or type, process rates, feed rates, or emissions) of any facility device during the current update year in comparison to the last inventory period? [Facility operators may choose to identify devices that contribute to facility risk in accordance with Section 348 (c).

Answer: Yes ☐ No ☐ If yes, update all required information via an update plan and report.

Specify: _____

_____

_____

Update Summary Form (US Form)

Note: All information provided on the Update Summary Form is subject to verification by the district staff.

For the purposes of completing the Update Summary Form (the form), "update year" is defined as the calendar year prior to the year the form is due. The "last inventory period" is defined as the most recent reporting year for which an approved facility emission inventory report was submitted.

Fill in the update year in the space provided at the top of the form for the inventory year.

PART A

Fill in the Company Name. Enter the Address, City, and Zip Code for the facility location. Enter the name of a contact person for the facility and the phone number. Enter the district assigned facility identification code. If the Facility ID is unknown, contact the district. Using Table B-I locate the appropriate County and Air Basin codes which correspond to the facility location.

PART B

Part B of the form is to be filled out by all facility operators subject to Sections 348(c-d). The information provided in this section will be reviewed by the district to determine if there have been significant changes at the facility which could increase the facility risk.

(1) Updated Source Tests. If any new or updated source testing is required, check "Yes". Also, if conditions specified in Section 351(c) are met (regarding when previous source test data cannot be used), check "Yes", and specify the affected sources and the condition(s) met. Answering yes to this question does not necessarily require re-source testing. It is provided to assist the districts in determining if the changes and substances affected are substantial enough to warrant retesting.

(2) New or Modified Permits. Check "Yes" for this question if ANY new permits or modifications to existing permits have been issued to the facility which affect the nature or quantity of emissions of substances listed in Appendix A-I or A-II. Specify the new permits. For example: "Permit #394-453 issued on 8-28-90 to add XXX BTU Natural Gas Fired Boiler". Also, answer yes and specify any changes to existing permits which increase, or have the potential to increase emissions. Modifications to permits may include but are not limited to changes in fuel types, feed rates, production rates, or other parameters. For example: "Permit #887-124 modified to allow use of fuel oil in boiler".

(3) New Processes or Equipment. If any new processes or equipment have been added or modified at the facility since the last update year which affects the nature or quantity of the emissions of any listed substance, check "Yes" and describe the changes. This question should address new sources of emissions which result from new processes or equipment, or are due to changes in solvent types, fuel types, control equipment, or other process modifications.

(4) New Substances. If there are any substances listed in Appendix A-I or A-II that were not reported during the last inventory period, answer yes to the question and write the substance name. Consider substances resulting from new processes or material usage, and any new substances added to the list of substances that were not previously addressed.

(5) Receptor Proximity Changes. If, since the last update year, the distance to the nearest receptor has decreased as defined by the district's prioritization and risk assessment procedures, answer yes and enter the previous and current values in meters. In answering the question consider changes at the facility which may have moved emission sources closer to property boundaries, changes which may have placed receptors closer to facility property boundaries, and changes in proximity to residential and nonresidential receptors. Distance estimates should be accurate to within 50 meters.

(6) Increases in Facility Activity. Check the box which most accurately describes the changes in facility activity since the last update year. For this question estimate overall facility activity increases using fuel usage, process rates, throughput, economic, or other applicable indicators of facilitywide activity.

PART C

Part C shall be completed by facility operators subject to 348(c).

(7) Increases in Device Activity. If the activity for any identified device at the facility has increased by 10 percent or more since the last inventory period, answer "Yes" to question (7). Facility operators shall identify devices as specified in Section 348(c). Device activity increases can be measured as increases in either the throughput, fuel usage, process rates, emissions of any listed substances, or other activity indicators.

For facility operators subject to Section 348(c) which answer "Yes" to question (7), updated process and emissions data for the identified devices with increases shall be reported via an update plan and report as specified in Sections 350-353.

For those facilities with no device activity increases (question (7) is "No"), the Update Summary Form shall meet their update requirements unless, based upon data reported on the Update Summary Form or other information required by the district, the district requires an update plan and report.

For the purposes of answering question (7) devices may be consolidated. Consolidated devices must be within the same Source Classification Code (SCC). When the sum of the changes in activity for all consolidated devices within an SCC exceeds a 10 percent increase, an updated Process and Emittents (PRO) Form must be submitted by the facility operator for any individual device or groups of devices (reported on the same PRO Form) whose activity increases by 10 percent or more.

INVENTORY YEAR 19__	AIR TOXICS EMISSION DATA SYSTEM REVIEW AND UPDATE REPORT SUPPLEMENTAL PROCESS PARAMETER FORM SUBSTANCES USED, PRODUCED, OR OTHERWISE PRESENT	FORM S-UP

COUNTY ID: | AIR BASIN: | FACILITY ID:

ACTION CODE | EMITTENT ID | USED | PRODUCED | OTHERWISE PRESENT (SPECIFY)

SUBSTANCE NAME

ACTION CODE | EMITTENT ID | USED | PRODUCED | OTHERWISE PRESENT (SPECIFY)

SUBSTANCE NAME

ACTION CODE | EMITTENT ID | USED | PRODUCED | OTHERWISE PRESENT (SPECIFY)

SUBSTANCE NAME

ACTION CODE | EMITTENT ID | USED | PRODUCED | OTHERWISE PRESENT (SPECIFY)

SUBSTANCE NAME

ACTION CODE | EMITTENT ID | USED | PRODUCED | OTHERWISE PRESENT (SPECIFY)

SUBSTANCE NAME

ACTION CODE | EMITTENT ID | USED | PRODUCED | OTHERWISE PRESENT (SPECIFY)

SUBSTANCE NAME

php /sup/9-27-93

Supplemental Process Parameter Form
Substances Used, Produced, or Otherwise Present (S-UP Form)

Copy the form as many times as necessary for your facility.

The Supplemental Process Parameter Form (S-UP Form) is used to satisfy three separate reporting requirements.

(a) Any substances listed in Appendix A-I (list of substances to be inventoried) which are emitted in quantities below the applicable degree of accuracy for the facility are to be reported on the S-UP form unless the emissions are based on source test results or reported on PRO forms. The quantities used, produced, or present (and their units) are not required to be reported.

(b) Substances listed in Appendix A-II (list of substances to be inventoried) that are used, produced, or otherwise present at the facility are to be reported on the S-UP form. The quantities used, produced, or present (and their units) are not required to be reported.

(c) Facilities subject to Section 308(d) shall use the S-UP form to report substances in Appendix A-I and A-II which are used, produced, or otherwise present. Quantities of substances used, produced, or present, and their units, must be reported.

(1) Fill in the inventory year for which you are reporting in the space provided at the top of the form.

(2) County ID and Air Basin Codes: Using values provided in Table B-I, enter the appropriate County and Air Basin codes that correspond to the facility location.

(3) Facility ID: Enter the district assigned facility identification code. If the Facility ID is unknown, contact the district.

(4) Action Code: Enter the appropriate Action Code: A, C, or D.
'A' indicates Add--A new substance is being reported for the facility on the S-UP Form.
'C' indicates Change--Previously reported data for a substance has been changed.
'D' indicates Delete--The substance is no longer used, produced, or otherwise present at the facility.

(5) Emittent ID: Enter the Chemical Abstracts Service Registry number (CAS number) or Emittent ID code where indicated for the substance in Appendix A-I or A-II. Refer to the PRO Form Emittent ID instructions for instructions on reporting listed substances which are mixtures or classes of substances.

(6) Substance Name: Write the name of the substance emitted. Use the substance names as shown in Appendix A. Because of space limitations, it is acceptable to abbreviate or truncate the substance names entered into this field.

(7) Substance Used Fields - "Used" refers to substances which are ingredients in any activity or process at the facility.
- -Used: Enter an "X" in the space provided if the reported substance is used at the facility.
- -Quantity: If required, approximate the quantity of the substance used and write in the value. Also provide the units corresponding to the quantity used (such as gallons, tons, etc.).

(8) Substance Produced Fields - "Produced" refers to substances which are the result of any activity or process taking place at the facility.
- -Produced: Enter an "X" in the space provided if the reported substance is produced at the facility.
- -Quantity: If required, approximate the quantity of the substance produced and write in the value. Also provide the units corresponding to the quantity produced (such as barrels, pounds, etc.).

(9) Substance Present Fields - "Otherwise Present" refers to substances present in any other way in an activity or process, such as by-products or reaction intermediates which appear temporarily during processing. Please specify the nature of the presence of the substance.
- -Otherwise Present: Enter an "X" in ths space provided if the reported substance is present at the facility.
- -Quantity: If appropriate, write in the approximate quantity of the substance present at the facility and the units (such as gallons, pounds, etc.). Provide a brief description of how the substance is present.

TABLE B-I

COUNTY, AIR BASIN, AND DISTRICT CODES

CO #	County Name	AB	Air Basin Name	DIS	District Name
1	ALAMEDA	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
2	ALPINE	GBV	GREAT BASIN VALLEYS	GBU	GREAT BASIN UNIFIED APCD
3	AMADOR	MC	MOUNTAIN COUNTIES	AMA	AMADOR COUNTY APCD
4	BUTTE	SV	SACRAMENTO VALLEY	BUT	BUTTE COUNTY APCD
5	CALAVERAS	MC	MOUNTAIN COUNTIES	CAL	CALAVERAS COUNTY APCD
6	COLUSA	SV	SACRAMENTO VALLEY	COL	COLUSA COUNTY APCD
7	CONTRA COSTA	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
8	DEL NORTE	NC	NORTH COAST	NCU	NORTH COAST UNIFIED AQMD
9	EL DORADO	MC	MOUNTAIN COUNTIES	ED	EL DORADO COUNTY APCD
9	EL DORADO	LT	LAKE TAHOE	ED	EL DORADO COUNTY APCD
10	FRESNO	SJV	SAN JOAQUIN VALLEY	SJU	SAN JOAQUIN VALLEY UNIFIED APCD
11	GLENN	SV	SACRAMENTO VALLEY	GLE	GLENN COUNTY APCD
12	HUMBOLDT	NC	NORTH COAST	NCU	NORTH COAST UNIFIED AQMD
13	IMPERIAL	SED	SOUTHEAST DESERT	IMP	IMPERIAL COUNTY APCD
14	INYO	GBV	GREAT BASIN VALLEYS	GBU	GREAT BASIN UNIFIED APCD
15	KERN	SED	SOUTHEAST DESERT	KER	KERN COUNTY APCD
15	KERN	SJV	SAN JOAQUIN VALLEY	SJU	SAN JOAQUIN VALLEY UNIFIED APCD
16	KINGS	SJV	SAN JOAQUIN VALLEY	SJU	SAN JOAQUIN VALLEY UNIFIED APCD
17	LAKE	LC	LAKE COUNTY	LAK	LAKE COUNTY APCD
18	LASSEN	NEP	NORTHEAST PLATEAU	LAS	LASSEN COUNTY APCD
19	LOS ANGELES	SC	SOUTH COAST	SC	SOUTH COAST AQMD
19	LOS ANGELES	SED	SOUTHEAST DESERT	SC	SOUTH COAST AQMD
20	MADERA	SJV	SAN JOAQUIN VALLEY	SJU	SAN JOAQUIN VALLEY UNIFIED APCD
21	MARIN	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
22	MARIPOSA	MC	MOUNTAIN COUNTIES	MPA	MARIPOSA COUNTY APCD
23	MENDOCINO	NC	NORTH COAST	MEN	MENDOCINO COUNTY APCD
24	MERCED	SJV	SAN JOAQUIN VALLEY	SJU	SAN JOAQUIN VALLEY UNIFIED APCD
25	MODOC	NEP	NORTHEAST PLATEAU	MOD	MODOC COUNTY APCD
26	MONO	GBV	GREAT BASIN VALLEYS	GBU	GREAT BASIN UNIFIED APCD
27	MONTEREY	NCC	NORTH CENTRAL COAST	MBU	MONTEREY BAY UNIFIED APCD
28	NAPA	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
29	NEVADA	MC	MOUNTAIN COUNTIES	NSI	NORTHERN SIERRA AQMD
30	ORANGE	SC	SOUTH COAST	SC	SOUTH COAST AQMD
31	PLACER	MC	MOUNTAIN COUNTIES	PLA	PLACER COUNTY APCD
31	PLACER	LT	LAKE TAHOE	PLA	PLACER COUNTY APCD
31	PLACER	SV	SACRAMENTO VALLEY	PLA	PLACER COUNTY APCD
32	PLUMAS	MC	MOUNTAIN COUNTIES	NSI	NORTHERN SIERRA AQMD
33	RIVERSIDE	SC	SOUTH COAST	SC	SOUTH COAST AQMD
33	RIVERSIDE	SED	SOUTHEAST DESERT	SC	SOUTH COAST AQMD

TABLE B-I (continued)

COUNTY, AIR BASIN, AND DISTRICT CODES

CO #	County Name	AB	Air Basin Name	DIS	District Name
34	SACRAMENTO	SV	SACRAMENTO VALLEY	SAC	SACRAMENTO METROPOLITAN AQMD
35	SAN BENITO	NCC	NORTH CENTRAL COAST	MBU	MONTEREY BAY UNIFIED APCD
36	SAN BERNARDINO	SC	SOUTH COAST	SC	SOUTH COAST AQMD
36	SAN BERNARDINO	SED	SOUTHEAST DESERT	MOJ	MOJAVE DESERT AQMD
				SBD	SAN BERNARDINO COUNTY APCD
37	SAN DIEGO	SD	SAN DIEGO	SD	SAN DIEGO COUNTY APCD
38	SAN FRANCISCO	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
39	SAN JOAQUIN	SJV	SAN JOAQUIN VALLEY	SJU	SAN JOAQUIN VALLEY UNIFIED APCD
40	SAN LUIS OBISPO	SCC	SOUTH CENTRAL COAST	SLO	SAN LUIS OBISPO COUNTY APCD
41	SAN MATEO	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
42	SANTA BARBARA	OCS	OUTER CONTINENTAL SHELF	SB	SANTA BARBARA COUNTY APCD
42	SANTA BARBARA	SCC	SOUTH CENTRAL COAST	SB	SANTA BARBARA COUNTY APCD
43	SANTA CLARA	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
44	SANTA CRUZ	NCC	NORTH CENTRAL COAST	MBU	MONTEREY BAY UNIFIED APCD
45	SHASTA	SV	SACRAMENTO VALLEY	SHA	SHASTA COUNTY APCD
46	SIERRA	MC	MOUNTAIN COUNTIES	NSI	NORTHERN SIERRA AQMD
47	SISKIYOU	NEP	NORTHEAST PLATEAU	SIS	SISKIYOU COUNTY APCD
48	SOLANO	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
48	SOLANO	SV	SACRAMENTO VALLEY	YS	YOLO SOLANO APCD
49	SONOMA	NC	NORTH COAST	NS	NORTH SONOMA APCD
49	SONOMA	SF	SAN FRANCISCO BAY AREA	BA	BAY AREA AQMD
50	STANISLAUS	SJV	SAN JOAQUIN VALLEY	SJU	SAN JOAQUIN VALLEY UNIFIED APCD
51	SUTTER	SV	SACRAMENTO VALLEY	FR	FEATHER RIVER AQMD
52	TEHAMA	SV	SACRAMENTO VALLEY	TEH	TEHAMA COUNTY APCD
53	TRINITY	NC	NORTH COAST	NCU	NORTH COAST UNIFIED AQMD
54	TULARE	SJV	SAN JOAQUIN VALLEY	SJU	SAN JOAQUIN VALLEY UNIFIED APCD
55	TUOLUMNE	MC	MOUNTAIN COUNTIES	TUO	TUOLUMNE COUNTY APCD
56	VENTURA	SCC	SOUTH CENTRAL COAST	VEN	VENTURA COUNTY APCD
57	YOLO	SV	SACRAMENTO VALLEY	YS	YOLO SOLANO APCD
58	YUBA	SV	SACRAMENTO VALLEY	FR	FEATHER RIVER AQMD

TABLE B-II

PROCESS (PT) UNIT CODES AND DESCRIPTIONS

CODE	DESCRIPTION
PT001	# HOLES DRILLED
PT002	# ITEMS CAPACITY
PT003	# ITEMS IN OPERATION
PT004	# ITEMS MANUFACTURED
PT005	# ITEMS PROCESSED
PT006	# ITEMS PRODUCED
PT007	# ITEMS THROUGHPUT
PT008	# ITEMS USED
PT009	# OF AVG. SIZE GAS LEAKS
PT010	# OF ITEMS BURNED
PT011	# OF TIMES USED
PT012	100 TONS LIQUIFIED
PT013	100 TONS MINED
PT014	100 TONS PRODUCED
PT015	1000 BARRELS
PT016	1000 BARRELS BURNED
PT017	1000 BARRELS OF WASTEWATER
PT018	1000 BARRELS PROCESSED
PT019	1000 BARRELS PRODUCED
PT020	1000 BBLS
PT021	1000 BOARD FEET
PT022	1000 CUBIC FEET BURNED
PT023	1000 GALLONS
PT024	1000 GALLONS BURNED
PT025	1000 GALLONS CAPACITY
PT026	1000 GALLONS PROCESSED
PT027	1000 GALLONS PRODUCED
PT028	1000 GALLONS PUMPED
PT029	1000 GALLONS STORAGE CAPACITY
PT030	1000 GALLONS STORED
PT031	1000 GALLONS THROUGHPUT
PT032	1000 GALLONS TRANSFERRED
PT033	1000 GALLONS TRANSPORTED
PT034	1000 GALLONS WASTEWATER
PT035	1000 HORSEPOWER-HOUR
PT036	1000 HOURS OF OPERATION
PT037	1000 POUNDS
PT038	1000 POUNDS PRODUCED
PT039	1000 SQ FT BOARD SAWED
PT040	1000 SQ FT PRODUCT SURFACE
PT041	1000 TONS SHIPPED
PT042	10000 SQ FT OF 3/8 IN. PLYWOOD
PT043	100000 BRAKE HORSEPOWER
PT044	ACRES
PT045	AMPERE-HOURS
PT046	BALES PROCESSED
PT047	BALES PRODUCED
PT048	BARREL YEAR
PT049	BARRELS
PT050	BARRELS OF OIL SEEPING
PT051	BARRELS PROCESSED
PT052	BBL-YEAR OF STORED ITEM
PT053	BOARD FEET
PT054	COATING LINE
PT055	CUBIC YARDS PILE
PT056	CUBIC YARDS PRODUCED
PT057	CYCLES
PT058	EACH
PT059	FEET DRILLED
PT060	GALLONS
PT061	GALLONS BURNED
PT062	GALLONS CONSUMED
PT063	GALLONS HEATED
PT064	GALLONS OF COATING
PT065	GALLONS PROCESSED
PT066	GALLONS PRODUCED
PT067	GALLONS STORED
PT068	GALLONS USED
PT069	HOT OIL TEST STATIONS
PT070	HOURS OF OPERATION
PT071	MEGAWATT-HOURS
PT072	MILLION BTU HEAT INPUT
PT073	MILLION CUBIC FEET
PT074	MILLION CUBIC FEET BURNED
PT075	MILLION CUBIC FT PROCESSED
PT076	MILLION GALLONS THROUGHPUT
PT077	MILLION GALLS OF WASTEWATER
PT078	PERSONS
PT079	POUNDS
PT080	POUNDS STORED
PT081	PRINTING LINE
PT082	SCFM AVERAGE AIR FLOW
PT083	SQ FT AREA
PT084	TONS
PT085	TONS BURNED
PT086	TONS CAPACITY
PT087	TONS CAST
PT088	TONS CATALYST REMOVED
PT089	TONS CHARGED
PT090	TONS CLEANED

TABLE B-II (cont.)

PROCESS (PT) UNIT CODES AND DESCRIPTIONS

CODE	DESCRIPTION
PT091	TONS COATED
PT092	TONS CONSUMED
PT093	TONS DRIED
PT094	TONS HANDLED
PT095	TONS IN OPERATION
PT096	TONS IN PILE
PT097	TONS INOCULATED
PT098	TONS MELTED
PT099	TONS MINED
PT100	TONS OF COATING
PT101	TONS OF COATING APPLIED
PT102	TONS OF MATERIAL
PT103	TONS OF MATERIAL LOADED
PT104	TONS OF MATERIAL UNLOADED
PT105	TONS OF PRODUCT
PT106	TONS OF RECLAIMED SOLVENT
PT107	TONS OF REFUSE IN-PLACE
PT108	TONS OF SOLVENT ADDED
PT109	TONS OF SOLVENT CONSUMED
PT110	TONS OF SOLVENT IN COATING
PT111	TONS OF SOLVENT IN INK
PT112	TONS OF SOLVENT USED
PT113	TONS OF STEAM PRODUCED
PT114	TONS OF WASTE DISPOSED
PT115	TONS OF WASTE REMOVED
PT116	TONS OVERBURDEN
PT117	TONS PROCESSED
PT118	TONS PRODUCED
PT119	TONS RECEIVED
PT120	TONS REMOVED
PT121	TONS SHIPPED
PT122	TONS SHREDDED
PT123	TONS SPRAYED
PT124	TONS STORED
PT125	TONS THROUGHPUT
PT126	TONS TRANSFERRED
PT127	TONS TRANSPORTED
PT128	TONS TREATED
PT129	TONS USED
PT130	WELLS IN OPERATION
PT131	100 POUNDS OF PRODUCT
PT132	100 TONS PROCESSED
PT133	VEHICLE MILES
PT134	1000 PIECES PROCESSED
PT135	# OF X-RAYS TAKEN
PT136	1000 CONTAINERS STORED
PT137	TONS SOLVENT STRIPPED
PT138	TONS OF FUEL
PT139	1000 CUBIC FEET
PT140	POUNDS PROCESSED

Table B-III

EMISSION ESTIMATION METHOD CODES

0 Not applicable or emissions are known to be zero (e.g., intermittent process).

MEASUREMENT-DERIVED METHODS

1 Emissions based on source testing (primarily stack testing).

2 Emissions based on fuel analysis.

3 Emissions based on fence-line monitoring.

4 Emission based on laboratory analysis of composition.

ESTIMATION/CALCULATION METHODS

5 Emissions calculated using ARB emission factors.

6 Emissions calculated using other factors.

7 Emissions based on material balance using engineering expertise and knowledge of process.

8 Emissions based on Material Safety Data Sheets or Technical Data Sheets.

9 Emissions calculated from an emission estimation technique developed by the ARB.

10 Emissions calculated from other emission estimation techniques.

11 Emissions based on other engineering calculations.

12 Best estimate.

OTHER

13 New construction, not yet in operation.

14 Operation ceased.

LIMITED BY DETECTION LIMIT OF TEST METHOD

98 Source test or other measurement conducted; however emissions from some (but not all) test runs were below detection limit.

99 Source test or other measurement conducted; however emissions from all test runs were below detection limit.

TABLE B-IV

CONTROL EQUIPMENT IDENTIFICATION CODE NUMBERS AND VARIOUS EMITTENTS AFFECTED

EQUIPMENT CODE	CONTROL DEVICE/METHOD	VARIOUS EMITTENTS AFFECTED			TOXIC SUBSTANCES THAT MAY BE CONTROLLED
		PM[a]	TOG[b]	SOx[c]	
000	No equipment				
001	Wet Scrubber	x	x	x	Cadmium, Chlorobenzene, Chromium Nickel, Toluene diisocyanate
002	Impingement Plate Scrubber	x	x	x	
003	Venturi Scrubber	x	x	x	
004	Fluid Bed Dry Scrubber	x	x		
005	Other Scrubbers (Includes magnesium oxide, dual alkali, citrate process, ammonia, Wellman-Lord/ sodium sulfite, wet lime slurry, alkaline fly ash, sodium carbonate, sodium-alkali, sulfur oxides, hydrogen chloride, tray scrubber)		x	x	
006	Gravity Collector	x			
007	Centrifugal Collector	x			
008	Electrostatic Precipitator (wet and dry)	x			Arsenic, Beryllium, Cadmium, Chromium, Copper, Manganese, Nickel, Lead, Zinc, and other trace metals
009	Gas Scrubber		x	x	
010	Mist/ Vapor Suppressant in Solution	x		x	

EQUIPMENT CODE	CONTROL DEVICE/METHOD	VARIOUS EMITTENTS AFFECTED			TOXIC SUBSTANCES THAT MAY BE CONTROLLED
		PM	TOG	SOx	
011	Drift Eliminator for Cooling Towers	x			Chromium
012	Fabric Filter (Baghouse)	x			Arsenic, Beryllium, Cadmium, Chromium, Copper, Manganese, Nickel, Lead, Zinc, and other trace metals
013	Catalytic Afterburner	x	x		
014	Direct Flame Afterburner	x	x		
015	Catalytic Incineration		x		Acrylonitrile, Benzene, 1,3 Butadiene, Ethylene dichloride Ethylene oxide, Phenol
016	Incineration		x		Acrolein, Acrylonitrile, Benzene, Benzyl chloride, 1,3 Butadiene, Epichlorohydrin, Ethylene dichloride, Formaldehyde, Methyl chloroform, Perchloroethylene/ trichloroethylene, Toluene, Toluene diisocyanate, Vinylidene chloride
017	Flaring	x	x		Acetaldehyde, Acrolein Acrylonitrile, Allyl chloride, 1;3 Butadiene, Chloromethanes[d], Chloroprene, Ethylbenzene/styrene Ethylene oxide, Formaldehyde, Methyl methacrylate, Propylene oxide
018	Foam Blanket on plating solution	x			Chromium
019	Plastic/Styrofoam Balls or Plastic Bead Covering for Plating Solution	x			Chromium
020	Catalytic Oxidation- Flue Gas desulfurization			x	

EQUIPMENT CODE	CONTROL DEVICE/METHOD	VARIOUS EMITTENTS AFFECTED			TOXIC SUBSTANCES THAT MAY BE CONTROLLED
		PM	TOG	SOx	
021	Alkalized Alumina			x	
022	Dry Limestone Injection			x	
023	Wet Limestone Injection			x	
024	Sulfuric Acid Plant-Contact Process			x	
025	Sulfuric Acid Plant- Double Contact Process			x	
026	Sulfur plant			x	
027	Vapor Recovery System (includes condensers, hooding, and other enclosures)		x		
028	Adsorption (includes use of activated carbon, activated clay, molecular sieve, and resins)		x		Acrylonitrile, Benzene, Carbon Tetrachloride/Perchloroethylene, Chlorobenzene, Chloroform, Ethylene dichloride, Methyl chloroform, Methyl methacrylate, Methylene chloride, Phenol, Naphthalene, Phosgene, Styrene, Toluene, Toluene diisocyanate, Trichloroethylene, Vinyl chloride, Vinylidene chloride, Xylene
029	Liquid Filtration System	x			
030	Absorption Column	x	x	x	Acetaldehyde, Acrylonitrile, Allyl chloride, Benzene, Benzyl chloride, 1,3 Butadiene, Carbon tetrachloride, Chlorobenzene, Chloromethanes[d], Chloroprene, Epichlorohydrin, Ethylbenzene/ Styrene, Ethylene dichloride, Ethylene oxide, Methyl chloroform, Perchloroethylene/Trichloroethylene Phenol, Phosgene, Propylene/oxide, Vinylidene chloride, Xylene
031	Spray Tower	x	x	x	
032	Dynamic Separator	x			

EQUIPMENT CODE	CONTROL DEVICE/METHOD	VARIOUS EMITTENTS AFFECTED			TOXIC SUBSTANCES THAT MAY BE CONTROLLED
		PM	TOG	SOx	
033	Mat or Panel Filter	x			
034	Metal Fabric Filter	x			
035	Process Gas Recovery		x		
036	Dust Suppression by Water Sprays, Chemical Stabilizers, or Wetting Agents	x			
037	Gravel Bed Filter	x			
038	Annular Ring Filter	x			
039	Condensers		x		Acetaldehyde, Acrylonitrile, Allyl chloride, Benzene, Benzyl chloride, Butadiene, Carbon tetrachloride, Chlorobenzene, Chloromethanes[d], Chloroprene, Ethylbenzene/Styrene, Ethylene dichloride, Ethylene oxide, Formaldehyde, Methyl chloroform Methyl methacrylate, Perchloroethylene/Trichloroethylen Phenol, Toluene, Toluene diisocyanate, Vinylidene chloride, Xylene
040	Cyclones	x			Cadmium, Copper, Nickel
041	Chemical Oxidation	x	x		
042	Chemical Reduction		x		
043	Ozonation		x		
044	Chemical Neutralization		x	x	
045	Water Curtain	x	x		
046	Nitrogen Blanket		x		
047	Conservation Vent		x		
048	Bottom Filling		x		
049	Submerged Filling		x		

EQUIPMENT CODE	CONTROL DEVICE/METHOD	VARIOUS EMITTENTS AFFECTED			
		PM	TOG	SOx	TOXIC SUBSTANCES THAT MAY BE CONTROLLED
050	Other Fugitive Emissions Controls (includes tank covers, collection hoods, and closed containers)	x	x		Methyl Chloroform, Methylene Chloride, Perchloroethylene, Trichloroethylene, Trichloroethane
051	Miscellaneous Control Devices				

[a] Particulate Matter

[b] Total Organic Gases

[c] Sulfuric Oxides

[d] Chloromethanes include Methylene chloride, Chloroform, and Carbon tetrachloride.

APPENDIX C

FACILITY GUIDELINE INDEX
("FACILITY LOOK-UP TABLE")

C-I
RESPONSIBILITIES OF ALL FACILITIES

C-II
FURTHER RESPONSIBILITIES FOR SPECIFIC FACILITY CLASSES

APPENDIX C-I
RESPONSIBILITIES OF ALL FACILITIES

NOTHING IN THIS APPENDIX SHALL BE CONSTRUED AS REQUIRING THAT SOURCE TESTING BE CONDUCTED FOR SUBSTANCES SET FORTH IN THIS APPENDIX. FURTHER, IN CASES WHERE A SUBSTANCE SET FORTH HEREIN IS NOT PRESENT AT A PARTICULAR FACILITY, THE FACILITY OPERATOR SHALL NOT ATTEMPT TO QUANTIFY THE EMISSIONS OF SUCH SUBSTANCE, BUT SHALL PROVIDE ADEQUATE DOCUMENTATION TO DEMONSTRATE TO THE DISTRICT THAT THE POSSIBLE PRESENCE OF THE SUBSTANCE AT THE FACILITY HAS BEEN ADDRESSED AND THAT THERE ARE NO EMISSIONS OF THE SUBSTANCE FOR SPECIFIED REASONS.

Notes For Appendix C-I

(1) The following substance abbreviations are used throughout the Index:

BaP	= Benzo[a]Pyrene
CFC-113	= Chlorinated fluorocarbon
EDB	= Ethylene dibromide
EDC	= Ethylene dichloride
ETO	= Ethylene oxide
Perc	= Perchloroethylene, Tetrachloroethylene
PCBs	= Polychlorinated biphenyls
PAHs	= Polycyclic aromatic hydrocarbons
POM	= Polycyclic organic matter (other than PAHs)
TCA	= 1,1,1-Trichloroethane, Methyl chloroform
TCE	= Trichloroethylene

(2) The following Supplemental Process Parameter Reporting Form abbreviations are used throughout the Index:

S-CMB	= Supplemental Combustion Form
S-CT	= Supplemental Cooling Tower Form
S-ETO	= Supplemental ETO Sterilizers Form
S-MP	= Supplemental Metal Plating Form
S-UP	= Supplemental Use/Production Form

(3) PAHs are composed of the following substances:

Acenaphthene	
Acenaphthylene	
Anthracene	
Benz[a]anthracene	**
Benzo[b]fluoranthene	**
Benzo[k]fluoranthene	**
Benzo[a]pyrene	**
Benzo[g,h,i]perylene	
Chrysene	
Dibenzo[a,h]anthracene	**
Fluoranthene	
Fluorene	
Indeno[1,2,3,-cd]pyrene	**
Naphthalene	**
Phenanthrene	
Pyrene	

** listed substances

(4) Substances emitted by a particular device or process may not be limited to those listed in Facility Guideline Index. ALL FACILITIES ARE RESPONSIBLE FOR IDENTIFYING AND ACCOUNTING FOR ANY LISTED SUBSTANCE USED, MANUFACTURED, FORMULATED, OR RELEASED; THIS APPENDIX IS NOT AN EXHAUSTIVE LIST.

(5) Nitrosamines refer to the following listed substances:

Dialkylnitrosamines
4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone (NNK)
N-Methyl N'-nitro-N-nitrosoguanidine
p-Nitrosodiphenylamine
N-Nitrosodi-n-butylamine
N-Nitrosodiethanolamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitrosodi-n-propylamine
N-Nitroso-N-ethylurea
N-Nitrosomethylethylamine
N-Nitroso-N-methylurethane
N-Nitrosomethylvinylamine
N-Nitroso-N-methylurea
N-Nitrosonornicotine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
N-Nitrososarcosine

(6) This Facility Guideline Index is arranged in alphabetical order. The first part of the index, Appendix C-I, lists devices common to many industries and the second part of the index, Appendix C-II, lists industry types. Extensive cross-referencing has been incorporated into the index, particularly in Appendix C-II, to identify industries and processes known by alternative names. It may be necessary to consult alternate names to locate a given industry type. Furthermore, more than one industry type may apply to a given facility. Column four of the index summarizes the Supplemental Process Parameter reporting forms that are likely to be necessary for reporting emissions from a particular industry type. (If the Device/Process category is extensive some of the forms listed with a main category heading may not be necessary for all processes listed under the main category heading.)

APPENDIX C-I
RESPONSIBILITIES OF ALL FACILITIES

ALL FACILITIES ARE RESPONSIBLE FOR IDENTIFYING AND ACCOUNTING FOR ANY LISTED SUBSTANCE USED, MANUFACTURED, FORMULATED, OR RELEASED; THIS APPENDIX IS NOT AN EXHAUSTIVE LIST.

All Facilities shall account for the following devices and emitting processes and associated emissions, and shall account for ANY OTHER PROCESS EQUIPMENT THAT MAY BE A SOURCE OF RELEASE OF ANY LISTED SUBSTANCE:

Device/Process	Types of Emissions	Specific Substances (see note 4)	Supplemental Process Parameter Reporting Form(s) to Use
FUEL/WASTE COMBUSTION			
Boilers, Heaters, Kilns IC Engines, Furnaces			S-CMB
Coal-fired	Particulate metals including but not limited to:	Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Manganese, Mercury, Nickel, Radionuclides, Selenium, Zinc And any other listed metals	
	Other particulate-phase substances including but not limited to:	BaP & other PAHs*, Dibenzofurans, Dioxins, Phosphorus, POM	
	Gaseous products including but not limited to:	Acetaldehyde, Benzene, Dichlorobenzenes, EDC, EDB, Formaldehyde, Hydrogen chloride, Hydrogen fluoride, Phenols	
Oil-fired Residual Distillate	Gaseous and particulate substances including but not limited to:	Arsenic, BaP & other PAHs*, Benzene, Beryllium, Cadmium, Chromium, Copper, Dioxins, Formaldehyde, Lead, Manganese, Mercury, Nickel, POM, Radionuclides, Selenium, Zinc, Any other listed metals	
Waste		Arsenic, Benzene, BaP & other PAHs*, Beryllium, Cadmium, Chloroform, Chromium, Copper, Dibenzofurans, Dioxins, EDB, EDC, Manganese, Mercury, Methylene chloride, Nickel, Perc, PCBs, POM, Toluene, TCA, TCE, Xylenes, Any other listed metals	
Natural gas-fired	Gaseous and particulate substances including but not limited to:	Acetaldehyde, Acrolein, Benzene, Formaldehyde, POM, BaP & other PAHs*, Propylene, Toluene, Xylenes, Any other listed metal (due to contamination or other means)	

* See Note 3 (Notes appear at the beginning of this index.)

Device/Process	Types of Emissions	Specific Substances (see Note 4)	Supplemental Process Parameter Reporting Form(s) to Use
FUEL/WASTE COMBUSTION continued			
Process gas-fired	Gaseous and particulate substances including but not limited to:	Benzene, Formaldehyde, Phenol, Any other listed metal	
Solid Waste-fired	Gaseous and particulate substances including but not limited to:	Formaldehyde, Manganese, Nickel, Phenol	
Wood-fired	Gaseous and particulate substances including but not limited to:	Acetaldehyde, Arsenic, Benzene, BaP & other PAHs*, Chromium, Copper, Dioxins, PCBs, POM, And any pesticides used on wood	
Other Liquid-fired	From boiler corrosion inhibitor	Nitrosomorpholine, Any other listed metals	
Coke Ovens		Benzene, BaP & other PAHs*, Benzyl chloride, Coke oven emissions, Cresols, Dibenzofurans, Dioxins, Nitrosamines, POM	S-CMB
Flares	Particulate metals including but not limited to:	Arsenic, Beryllium, Chromium, Lead, Mercury, Nickel Any other listed metal	S-CMB
	Other particulate-phase substances including but not limited to:	BaP, Dibenzofurans, Dioxins	
	Gaseous products including but not limited to:	Aldehydes, Benzene, Dichlorobenzenes, EDB, EDC	
Landfill Gas Also see Boilers, Heaters, IC Engines, etc, Appendix C-I			
Incinerators - see ALL other combustion releases, but pay particular attention to the following:			S-CMB
	Particulate metals including but not limited to:	Arsenic, BaP & other PAHs*, Beryllium, Cadmium, Chromium, Copper, Manganese, Mercury, Nickel, POM, Selenium, Zinc, Any other listed metal	
	Other particulate-phase substances including but not limited to:	BaP & other PAHs*, Dibenzofurans, Dioxins, PCBs, POM	
	Gaseous products including but not limited to:	Benzene, Dichlorobenzenes, EDB, EDC, Hydrogen chloride, Hydrogen fluoride, Vinyl chloride	

Device/Process	Types of Emissions	Specific Substances (see Note 4)	Supplemental Process Parameter Reporting Form(s) to Use
Incinerators continued			
Cotton Gin Waste		Arsenic	
Hazardous Waste		Dioxins, Any other listed metals	
Hospital Waste		Dioxins, Radionuclides, Any listed metals	
Municipal Refuse		BaP & other PAHs*, Beryllium, Cadmium, Chromium, Manganese, Mercury, Nickel, POM	
Pathological		Dioxins	
Scrap Wood		BaP & other PAHs*, POM	
Sludge		Acrolein, Arsenic, Asbestos, Beryllium, Cadmium, Chromium, Dioxins, Manganese, Mercury, Nickel, POM, PAHs*, Any other listed metals	
Solid/Biomass Waste		Any listed metals	
Waste-To-Energy		Acrolein, Dibenzofurans, Dioxins, Manganese, Nickel, POM, PAHs*, Any other listed metals	
SOLVENT USE			
Miscellaneous Use		Acetaldehyde, Acrolein, Benzene, Carbon tetrachloride, CFC-113, Chlorobenzene, Chloroform, Cresols, Dimethyl sulfate, Dioxane, EDC, Mercury, Methanol, Methylene chloride, Nitrobenzene, Perc, Toluene, TCA, TCE, Xylenes, Any other listed chlorinated solvents	
Degreasing Operations	Gaseous and aerosol organic compounds including but not limited to:	Benzene, Carbon tetrachloride, Chlorinated fluorocarbon, Chlorobenzene, 1,4-Dioxane, Freons, Methylene chloride, Perc, Toluene, TCA, TCE, Any other listed substances	
Cleaning & Drying		Chlorinated fluorocarbons	
Metal D'grs		Methylene chloride, 1,4-Dioxane, TCA, TCE	
Oil, Wax, Fat Extracting		Carbon tetrachloride, Dichloroethane, Methylene Chloride	
Photoresist Stripping		Glycol ethers, Methylene chloride, Xylenes	
Vapor Degreasing		Perc, TCE	
Fabric Finishing (Woven)		1,4-Dichlorobenzene	
Floor Wax		Carbon tetrachloride	
Paint & Varnish Removal		Dioxane, Methylene chloride	
Polish (Shoe, Furniture)		Carbon tetrachloride	

Device/Process	Types of Emissions	Specific Substances (see Note 4)	Supplemental Process Parameter Reporting Form(s) to Use
SOLVENT USE continued			
Rubber Cement		Carbon tetrachloride	
Surface Coating	Gaseous and aerosol organic compounds including but not limited to:	Acetaldehyde, Benzene, Carbon tetrachloride, Chlorobenzenes, Chloroform, Cresols, Dioxane, Methanol, Methylene chloride, Michler's ketone, Nitrobenzenes, 2-Nitropropane, Perc, Phenol, Phthalic anhydride, Styrene, Toluene, TCA, TCE, Xylenes	
	From adhesives	Carbon tetrachloride, Chloroform, Methylene chloride, Toluene, TCE	
	From wood finishing	Dioxane, Methylene chloride, Perc, Toluene	
	From metal finishing	Perc, Toluene, TCA	
Resin Application		Formaldehyde	
Coating Application			
Flashoff			
Baking/Curing			
Quenching			
Storage & Handling – see Liquid Storage & Transfer, Appendix C-I			
LIQUID STORAGE & TRANSFER (Fugitive Emissions)			
Pipelines			
Petroleum	Gaseous and aerosol fugitives From: joints, valves	Benzene, Gasoline vapors, Toluene, Xylenes	
		Transported listed substances	
Process Vents			
Tanks			
Petroleum Products Tank Breathing	Gaseous and liquid petroleum products including but not limited to:	Benzene, EDC, Gasoline vapors, Toluene, Xylenes, Stored listed substances	
Tank Cars and Trucks			
Filling	Gaseous, liquid and volatile solids		
Tank Breathing	including but not limited to:	Each pure organic stored or transferred that is a listed substance	
		Each component of a mixture that is a listed substance	
Fugitives	Gaseous and aerosol organic compounds	Emissions vary according to substances	
Equipment Leaks	From: vents, tanks, condensors pumps, valves, compressors	involved in specific process	

Device/Process	Types of Emissions	Specific Substances (see Note 4)	Supplemental Process Parameter Reporting Form(s) to Use
OTHER PROCESSES			
Contaminated Soil/Water Remediation	Chlorinated organics including:	Carbon tetrachloride, Chloroform, EDC, Methyl chloroform, Perc, TCA, TCE	
	Other organics including	Benzene, Chlorobenzene, Toluene, Xylenes	
Cooling Towers Comfort Cooling	Gaseous and aerosol releases possibly containing additives and including but not limited to: In part due to drift loss	Chloroform, Chromium, Manganese, Nickel, Any other additives	S-CT
Process Cooling	Gaseous and aerosol releases possibly containing additives and including but not limited to: In part due to drift loss	Chloroform, Chromium, Manganese, Nickel, Any other additives	
Drinking Water Trtment		Chloroform	
Industrial Wastewater Treatment	Chlorinated organics including:	Carbon tetrachloride, Chloroform, EDC, Methylene chloride, Perc, TCA, TCE	
	Other organics including:	Benzene, Chlorobenzene, Toluene, Xylenes	
On-site Fuel Dispensing	Gaseous and aerosol releases including but not limited to:	Benzene, Dibromoethane, Dichloroethane, EDB, EDC, Gasoline vapors, Toluene, Xylenes	
Pesticide Use		Arsenic, Carbon tetrachloride, Dibromoethane, 1,4-Dichlorobenzene, Dioxins, EDB, EDC, Lead, Nickel titanate, Zinc oxide	
Printing - see Solvent Use, Appendix C-I Also see Printing & Publishing, Appendix C-II			
Sterilizers		ETO, Formaldehyde, Lead, Toluene, Propylene oxide	S-ETO
Surface Coating	Pigments	Arsenic, Chromium oxide, Lead oxide, Mercury, Zinc oxide	
	Polymer & Resin Precursors Residues/Impurities	Acrylonitrile, 1,3-Butadiene, Ethyl acrylate, Formaldehyde, Phenol, Styrene, Vinyl chloride, Vinylidene chloride, Any other listed substances	

Device/Process	Types of Emissions	Specific Substances (see Note 4)	Supplemental Process Parameter Reporting Form(s) to Use
OTHER PROCESSES, Surface Coating, continued			
	Additives - Curing agents, Surfactants, Defoamers, Thickeners, Film-control agents Plasticizers	Ammonia	
Wastewater Treatment		Benzene, Chloroform, EDC, Methylene chloride, TCE, Vinyl chloride, Any other listed substances	
CONTROL EQUIPMENT	Emission reductions must be quantified: For each listed subst. & device		

APPENDIX C-II
FURTHER RESPONSIBILITIES FOR SPECIFIC FACILITY CLASSES

NOTHING IN THIS APPENDIX SHALL BE CONSTRUED AS REQUIRING THAT SOURCE TESTING BE CONDUCTED FOR SUBSTANCES SET FORTH IN THIS APPENDIX. FURTHER, IN CASES WHERE A SUBSTANCE SET FORTH HEREIN IS NOT PRESENT AT A PARTICULAR FACILITY, THE FACILITY OPERATOR SHALL NOT ATTEMPT TO QUANTIFY THE EMISSIONS OF SUCH SUBSTANCE, BUT SHALL PROVIDE ADEQUATE DOCUMENTATION TO DEMONSTRATE TO THE DISTRICT THAT THE POSSIBLE PRESENCE OF THE SUBSTANCE AT THE FACILITY HAS BEEN ADDRESSED AND THAT THERE ARE NO EMISSIONS OF THE SUBSTANCE FOR SPECIFIED REASONS.

Notes For APPENDIX C-II

(1) The following substance abbreviations are used throughout the Index:

BaP	= Benzo[a]Pyrene
CFC-113	= Chlorinated fluorocarbon
EDB	= Ethylene dibromide
EDC	= Ethylene dichloride
ETO	= Ethylene oxide
PCBs	= Polychlorinated biphenyls
PAHs	= Polynuclear aromatic hydrocarbons
Perc	= Perchloroethylene, Tetrachloroethene
POM	= Polycyclic organic matter (other than PAHs)
TCA	= 1,1,1-Trichloroethane, Methyl chloroform
TCE	= Trichloroethylene

(2) The following Supplemental Process Parameter Reporting Form abbreviations are used throughout the Index:

S-CMB	= Supplemental Combustion Form
S-CT	= Supplemental Cooling Tower Form
S-ETO	= Supplemental ETO Sterilizers Form
S-MP	= Supplemental Metal Plating Form
S-UP	= Supplemental Use/Production Form

(3) PAHs are composed of the following substances:

Acenaphthene	
Acenaphthylene	
Anthracene	
Benz[a]anthracene	**
Benzo[b]fluoranthene	**
Benzo[k]fluoranthene	**
Benzo[a]pyrene	**
Benzo[g,h,i]perylene	
Chrysene	
Dibenzo[a,h]anthracene	**
Fluoranthene	
Fluorene	
Indeno[1,2,3,-cd]pyrene	**
Naphthalene	**
Phenanthrene	
Pyrene	

** listed substances

(4) Substances emitted by a particular device or process may not be limited to those listed in Facility Guideline Index. ALL FACILITIES ARE RESPONSIBLE FOR IDENTIFYING AND ACCOUNTING FOR ANY LISTED SUBSTANCE USED, MANUFACTURED, FORMULATED, OR RELEASED; THIS APPENDIX IS NOT AN EXHAUSTIVE LIST.

(5) Nitrosamines refer to the following listed substances:

Dialkylnitrosamines
4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone (NNK)
N-Methyl N'-nitro-N-nitrosoguanidine
p-Nitrosodiphenylamine
N-Nitrosodi-n-butylamine
N-Nitrosodiethanolamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitrosodi-n-propylamine
N-Nitroso-N-ethylurea
N-Nitrosomethylethylamine
N-Nitroso-N-methylurethane
N-Nitrosomethylvinylamine
N-Nitroso-N-methylurea
N-Nitrosonornicotine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
N-Nitrososarcosine

(6) This Facility Guideline Index is arranged in alphabetical order. The first part of the index, Appendix C-I, lists devices common to many industries and the second part of the index, Appendix C-II, lists industry types. Extensive cross-referencing has been incorporated into the index, particularly in Appendix C-II, to identify industries and processes known by alternative names. It may be necessary to consult alternate names to locate a given industry type. Furthermore, more than one industry type may apply to a given facility. Column four of the index summarizes the Supplemental Process Parameter reporting forms that are likely to be necessary for reporting emissions from a particular industry type. (If the Industry/Emitting Process category is extensive some of the forms listed with a main category heading may not be necessary for all processes listed under the main category heading.)

APPENDIX C-II
FURTHER RESPONSIBILITIES FOR SPECIFIC FACILITY CLASSES

ALL FACILITIES ARE RESPONSIBLE FOR IDENTIFYING AND ACCOUNTING FOR ANY LISTED SUBSTANCE USED, MANUFACTURED, FORMULATED, OR RELEASED; THIS APPENDIX IS NOT AN EXHAUSTIVE LIST.

If a facility falls within one or more of the following specific industry types, the facility operator shall account for the following devices and emitting processes, fugitive releases, and their associated emissions, and shall account for ANY OTHER PROCESS EQUIPMENT THAT MAY BE A SOURCE OF RELEASE OF ANY LISTED SUBSTANCE:

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Specific Substances (see Note 4)	Supplemental Processes Parameter Reporting Form(s) to Use
Adhesives Application - see Solvent Use and Other Processes, Appendix C-I			
Adhesives Mfg - see Chemical Mfg, Appendix C-II			
Aerospace Products Mfg.			
Research - see Chemical Mfg and Research & Development, Appendix C-II			
Surface Coating - see Solvent Use & Other Processes, Appendix C-I			
Agricultural Production		Ammonia, Chlorine, EDB, Hydrogen Sulfide, Lead, Silica, All listed metals	S-CMB
Agricul Chem Mfg - see Chemical Mfg, Appendix C-II			
Cotton Ginning		Ammonia, Arsenic	
Pesticide Use - see Other Processes, Appendix C-I			
Waste Burning - see Combustion, Appendix C-I			
Aircraft Mfg - see Transportation Equipment Mfg, Appendix C-II			
Airports - see Transportation Stations, Appendix C-II			
Air Stripping - see Contaminated Soil/Water Remediation, Appendix C-I			
Almond Processing		Arsenic	S-CMB
Combustion Processes - see Combustion, Appendix C-I			
Apparel Mfg - see Textile Mill, Appendix C-II			
Arsenic Mining - see Mining Non-Metals, Appendix C-II			
Artificial Flower Mfg		Toluene	
Asbestos Milling/Processing - see Clay, Glass, & Stone Prod, Appendix C-II			
Asbestos - see Mining Non-Metals, Appendix C-II			

* See Note 3 (Notes appear at the beginning of this index.)

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Asphalt Mat'ls Mfg			
Asphalt Felts & Ctgs – see Petroleum & Coal Products, Appendix C-II			
Asphaltic Concrete Prod (Including Asphalt Paving Mat'ls Mfg)			S-CMB
Processes Including: Batch Plants and Continuous Plants	Particulate Phases Substances	Asbestos, Benzene, Formaldehyde, Organics, POM, PAHs*, Toluene, TCA, Xylenes, All listed metals	
Paving Operations			
Combustion Processes – see Combustion, Appendix C-I			
Surface Coating – see Solvent Use & Other Processes, Appendix C-I			
Storage & Handling – see Liquid Storage & Transfer, Appendix C-I			
Auto Repair, Svc's & Garages – see Transportation Equipment, Appendix C-II			
Auto Parts Mfg – see Transportation Equipment, Appendix C-II			
Battery Production – see Metal Smelters, Appendix C-II			
Beryllium Mining – see Metal Smelters, Appendix C-II			
Bicycle Mfg/Rpr – see Transportation Equipment, Appendix C-II			
Boat Bldg/Rpr – see Transportation Equipment (Ship & Boat Bldg), Appendix C-II			
Box Mfg (folding paperboard type) – see Wood Product Mfg, Paper, Paperboard Containers & Boxes, Appendix C-II			
Bulk Plants and Terminals	Gaseous and aerosol releases including but not limited to:	Benzene, Gasoline vapors, Specific Stored Substances listed in Appendix A-I or A-II	
Barrel Breathing	From fixed roof tanks		
Barrel Filling	From var. vapor sp. tanks		
Barrel Standing	From floating roof tanks		
Barrel Withdraw	From floating roof tanks		
Valves, Vapor Collect/Control	From flanges, pumps, and tank trucks		
Burial Caskets Mfg		Toluene	
Burning of Solid Waste (Open) – see Combustion, Appendix C-I			
Bus Mfg/Rpr – see Transportation Equipment, Appendix C-II			
Button Mfg		Formaldehyde, Styrene, Toluene, TCE	
Cadmium Plating – see Metal Plating, Appendix C-II			
Camper & Trailer Mfg – see Transportation Equipment, Appendix C-II			
Can Mfg – see Metal Product Fabrication, Appendix C-II			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Canned Food Product Mfg.			S-CMB, S-ETO
Can Fabrication - see Metal Product Fabrication, Metal Cans, Appendix C-II			
Combustion Processes - see Combustion, Appendix C-I			
Food Processing - see Food Product Mfg, Appendix C-II			
Paper Labeling - see Wood Product Mfg, Appendix C-II			
Printing - see Printing & Publishing, Appendix C-II			
Sterilization - see Other Processes, Appendix C-I			
Surface Coating - see Solvent Use And Other Processes, Appendix C-I			
Car Mfg/Rpr - see Transportation Equipment, Appendix C-II			
Carbon Black & Charcoal Mfg - see Chemical Mfg, Carbon, Appendix C-II			
Cement Mfg - see Clay, Glass, & Stone Prod Mfg, Appendix C-II			
Ceramic Plants		Beryllium	S-CMB
Combustion Processes - see Combustion, Appendix C-I			
Charcoal Mfg - see Carbon, Appendix C-II			
Chemical Mfg	Gaseous and aerosol releases including but not limited to: From process reactor vessel fugitive, storage, handling, ducted building exhaust	Any of the following types of chemicals, listed in Appendix A-I or A-II: FEEDSTOCK CHEMICAL(S) MANUFACTURED CHEMICAL(S) BY-PRODUCT CHEMICALS	S-CMB, S-CT, S-ETO, S-UP
Also see Combustion, Other Processes, Solvent Use, and Storage & Handling, Appendix C-I			
Miscellaneous		Ammonia, Bis(chloromethyl) ether, Carbon tetrachloride, Chlorine, Chloroform, Copper, Cresol, ETO, Formaldehyde, Hydrogen chloride, Lead, Methylene chloride, Naphthalene, Phenol, Toluene, Toluene diisocyanate, TCA	
Acids Mfg		Acetaldehyde, Acrolein, Copper, Cresols, Hydrochloric acid, Phenol, Toluene, Xylenes	
Adhesives & Sealants Mfg		Ammonia, Arsenic, Asbestos, Benzene, 1,4-Dioxane, EDC, Lead, Methylene chloride, Nitrosomorpholine, Toluene, TCA, TCE, Xylenes	
Aerospace Chem Mfg		Chloroform, EDC, Phosgene, Toluene	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Chemical Mfg continued			
Agricultural Chem Mfg			
Miscellaneous		Acetaldehyde, Acrolein, Acrylonitrile, Ammonia, Arsenic, Benzene, 1,3-Butadiene, Cadmium, Carbon tetrachloride, Chlorine, Chlorobenzene, Chloroform, Copper, Cresol, 1,4-Dichlorobenzene, Dimethyl sulfate, EDC, EDB, ETO, Formaldehyde, Hexachlorobenzene, Hexachlorocyclopentadiene, Hydrazine, Hydrogen chloride, Hydrogen sulfide, Lead, Maleic anhydride, Mercury, Methyl bromide, Methyl isocyanate, Methylene chloride, Naphthalene, Phenol, Phosgene, Phthalic anhydride, Vinyl chloride, Xylenes, Zinc, Zinc oxide	
Alkali Mfg – see Chemical Mfg, Industrial Inorganics, Appendix C-II			
Fertilizers		Ammonia, Hydrogen sulfide, Mercury, Metal compounds, Methanol, Phosphorus, Sodium hydroxide	
Nitrogenous		Ammonia, Cadmium, Hydrogen sulfide, Lead Nickel	
Phosphatic		Ammonia, Arsenic, Cadmium, Hydrogen sulfide	
Mixing Only		Ammonia	
Sodium Arsenate		Arsenic	
Aldehyde Mfg		Aldehydes, Toluene	
Anti corrosives Mfg		Cresols, Hydrazine	
Bases Mfg		Ammonia, Hydrazine, Sodium hydroxide	
Carbon Black & Charcoal Mfg		Ammonia, BaP & other PAHs*, Formaldehyde, Hydrogen sulfide, POM Any other listed metals	S-CMB
Combustion Processes – see Combustion, Appendix C-I			
Chemical Preparations		Ammonia, Arsenic, Benzene, Cadmium, Chlorine, Chromium, Copper, Formaldehyde, Hexachlorocyclopentadiene, Hydrazine, Hydrogen chloride, Hydrogen sulfide, Lead, Maleic anhydride, Methyl isocyanate, Methyl methacrylate, Perc, Radionuclides, Styrene, Toluene, TCE, Vinyl chloride, Xylenes, Zinc, Zinc oxide	
Chlorine (Electrolytic) Production	From: hydrogen stream	Mercury	
Also see Chem Mfg, Indust Inorg, Alkalies & Chlorine, Appendix C-II			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Chemical Mfg continued			
Drug/Pharmaceutical Mfg			
Miscellaneous		Acrylonitrile, Allyl chloride, Ammonia, Arsenic, Benzene, Benzyl chloride, Carbon tetrachloride, Chlorine, Chlorobenzene, Chloroform, Chromium, 1,4-Dichlorobenzene, Dimethyl sulfate, 1,4-Dioxane, Epichlorohydrin, EDB, EDC, Formaldehyde, Hydrazine, Hydrogen chloride, Lead, Mercury, Methanol, Methyl methacrylate, Methylene chloride, Perc, Phenol, Phosgene, Styrene, Toluene, TCA, TCE, Vinylidene chloride, Xylenes, Zinc, Zinc oxide	
Biological Products		Arsenic, Benzene, EDC, Lead, TCA	
Medicinals & Botanicals		Acrylonitrile, Ammonia, Arsenic, Benzene, Carbon tetrachloride, Chloroprene, Chlorine, EDC, Formaldehyde, Hydrogen chloride, Lead, Mercury, Methyl bromide, Methyl methacrylate, Methylene chloride, Phenol, Styrene, Toluene, Vinylidene chloride	
Blender			
Combustion Processes - see Combustion, Appendix C-I			
Drying Ovens			
Formulator			
Other Process Reactors			
Solvents - see Solvent Use, Appendix C-I			
Sterilizers - see Sterilizers, Appendix C-I			
Tanks - see Liquid Storage & Transfer, Appendix C-I			
Dyes Mfg		Benzene, Benzidine, Benzyl chloride, Chlorobenzenes, Chloroform, Cresols, Dichloromethane, Dimethyl sulfate, Dioxane, C.I. Direct Black 38, Hydrazine, POM, PAHs*, TCE, Vinyl chloride, Vinylidene chloride	
Elastomer & Surfactant Mfg			
Batch Processes		Epichlorohydrin	
Ethers Mfg		Dimethyl sulfate, Nitrobenzene, Propylene oxide	
Ethylene dichloride Pro			
Oxychlorination	From: vents, storage	Carbon tetrachloride, Chloroform, ethylene dichloride	
Air & Oxygen Proc			
Explosives		Acetaldehyde, Ammonia, Arsenic, Formaldehyde, Lead, Mercury, Nitrobenzene, Phenol, Toluene	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Chemical Mfg continued			
Fertilizers – see Chemical Mfg (Agricultural), Appendix C-II			
Flame Retardants Mfg		Hexachlorocyclopentadiene	
Fluorocarbon Mfg		Carbon Tetrachloride, Chloroform	
Reactor Venting	From: vents, storage		
Distillation			
Storage			
Indust Inorg Chem Mfg			
Miscellaneous		Acetaldehyde, Acrolein, Acrylonitrile, Allyl chloride, Ammonia, Arsenic, Asbestos, Benzene, Benzidine, Benzyl chloride, 1,3-Butadiene, Cadmium, Carbon tetrachloride, CFC 113, Chlorine, Chlorobenzene, Chloroform, Chromium, Copper, 1,4-Dichlorobenzene, Epichlorohydrin, EDB, EDC, ETO, Formaldehyde, Freon 113, Gasoline vapors, Hexachlorobenzene, Hexachloropentadiene, Hydrogen chloride, Hydrogen sulfide, Lead, Maleic anhydride, Manganese, Mercury, Methyl isocyanate, Methyl methacrylate, Methylene chloride, Naphthalene, Nickel, Nitrobenzene, Nitrosomorpholine, Perc, Phenol, Phosgene, Phosphorus, Phthalic anhydride, PCBs, Propylene oxide, Radionuclides, Styrene, Toluene, Toluene diisocyanate, TCA, TCE, Vinyl chloride, Vinylidene chloride, Xylenes, Zinc, Zinc oxide	
Alkalies & Chlorine		Ammonia, Arsenic, Asbestos, Benzene, 1,3-Butidiene, Carbon tetrachloride, Chlorine, Chlorobenzene, Chloroform, Formaldehyde, Hydrogen chloride, Mercury, Phosgene, Toluene, TCE, Vinyl chloride, Vinylidene chloride	
Cyclic Crudes & Intermediates		Acetaldehyde, Acrolein, Acrylonitrile, Ammonia, Arsenic, Benzene, Benzidine, Benzyl chloride, 1,3-Butadiene, Carbon tetrachloride, Chlorine, Chlorobenzene, Chloroform, Chromium, Cresol, Dibenzofurans, ans, 1,4-Dichlorobenzene, 3,3'-Dichlorobenzidene, Dimethyl sulfate, 1,4-Dioxane, EDC, Formaldehyde, Gasoline vapors, Hexachlorobenzene, Hydrazine, Hydrogen chloride, Hydrogen sulfide, Maleic anhydride, Methyl bromide, Methyl isocyanate, Methylene chloride, Naphthalene, Nitrobenzene,	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Chemical Mfg, Cyclic Crudes, continued			
		Nitrosomorpholine, Pentachlorophenol (Chlorophenols), Phenol, Phosgene, Phthalic anhydride, POM, PAHs*, Styrene, Toluene, Toluene diisocyanate, TCE Xylenes, Vinyl chloride	
Gum & Wood Chems		Arsenic, Benzene, BaP & other PAHs*, Chromium, Formaldehyde, Naphthalene, POM, Toluene diisocyanate	
Wood Chem Mfg Cresol Cresylic Acid Phenol		Cresols, Phenol, Xylenes	
Industrial Gases		Arsenic, Beryllium, Carbon tetrachloride, ETO, Hydrogen chloride, Mercury	
Pigments, Inorgan		Ammonia, Arsenic, Cadmium, Chloroform, Chromium, Copper, Dimethyl sulfate, 1,4-dioxane, Hydrazine, Hydrogen chloride, Lead, Zinc, Zinc oxide	
Inks Miscellaneous Printing		Dioxane, Toluene Ammonia, Arsenic, Benzene, Cadmium, Copper, Formaldehyde, Lead, Perc, Toluene, Vinyl chloride, Xylenes, Zinc	
Metal Chelating Agent Mfg Corrosion Inhib, Metal Treatment Chems		Cupferron, Thiourea	
Methionide Analogs Prod (poultry feed supp.)		Acrolein	
Methyl Chloroform Prod	From: hydrochlorinated vent condenser, steam stripper vent condenser	Ethylene dichloride	
Military Chem Prod		Chloroform, EDC, Phosgene, Toluene	
Monomers Miscellaneous		Acetaldehyde, Acrylonitrile, Ammonia, Benzene, 1,3-Butadiene, Carbon tetrachloride, Chlorine, Chlorofluorocarbons, Dioxane, Epichlorohydrin, Ethyl chloride, EDB, EDC, ETO, Formaldehyde, Glycol ethers, Hydrochloric acid, Isocylnates, Maleic anhydride, Methyl bromide, Methyl methacrylate, Methylene chloride, Naphthalene, Nitrobenzene, Perc, Phenol, Phthalic anhydride,	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Chemical Mfg, Monomers, continued			
		PCBs, Propylene, Propylene oxide, Sodium hydroxide, Styrene, Toluene, TCA, TCE, Trichlorophenol, Urethane, Vinyl chloride, Vinylidene chloride, Xylenes, Zinc	
Vinyl Chloride	From: heavy ends stream	EDC	
Nuclear Fuel Fabricat'n		Radionuclides	
Organic Chem Mfg		Acrylamide, Acrylonitrile, Carbon tetrachloride, Chlorobenzene, Chloroform, Methylene chloride, Perc, Toluene	
Paints & Allied Prod's		Acetaldehyde, Ammonia, Arsenic, Asbestos, Benzene, Butadiene, Carbon tetrachloride, Chloroform, Chlorophenols, Chromium, Copper, Cresol, 1,4-Dioxane, Epichlorohydrin, Formaldehyde, Glycol ethers, Lead, Mercury, Methyl methacrylate, Methylene chloride, Naphthalene, Nickel, Nitrobenzene, Perc, Phenol, Phthalic anhydride, Styrene, Toluene, Toluene diisocyanate, TCA, TCE, Zinc, Zinc oxide	
Pigment		Benzyl chloride, Cadmium, Toluene	
Perfume		Dimethyl sulfate	
Pesticides, Herbicides, Fungicides Mfg		Arsenic, Benzene, Carbon tetrachloride, Chlorine, Chlorobenzene, Chloroform, Chloropicrin, Cresols, 1,4-Dichlorobenzene, Dimethyl sulfate, Dioxins, EDB, Hexachlorocyclopentadiene, Hydrazine, Hydrocyanic acid, Isocyanates, Lead arsenate, Methyl bromide, Naphthalene, N-Nitrosodimethylamine, Phenol, Phosphorus	
Photographic Chemicals Mfg		Methylene chloride	
Pigment (metal containing) Mfg Also see Chem Mfg, Inks and Paints, Appendix C-II		Cadmium, Chromium, Copper, Lead, Nickel, Zinc	
Plastics Materials & Synthetics		Acrylamide, Acrylonitrile, Acrolein, Ammonia, Arsenic, Benzene, Benzidine, Cadmium, Carbon tetrachloride, Chlorine, Chlorobenzene, Chloroform, Chromium, Cresols, Dichloromethane, Dioxins, Formaldehyde, Hydrazine, Hydrocyanic acid, Hydrochloric acid, Hydrogen fluoride, Hydrogen sulfide, Isocyanates, Mercury, Methylene chloride, Nickel, Perc, Phenol, Phosgene, POM, PAHs*, Sodium hydroxide, Toluene, TCE, Vinyl chloride, Vinylidene chloride, Zinc	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Chemical Mfg, Plastics, continued			
Cellulosic Man-Made Fibers		Ammonia, Arsenic, Benzene, Chlorine, EDC, Hydrogen chloride	
Organic Fibers, noncellulosic		Acrylonitrile, Copper, Dimethyl sulfate, EDC, Toluene diisocyanate, Vinylidene chloride	
Plastics/Resins		Acetaldehyde, Acrolein, Acrylonitrile, Allyl chloride, Ammonia, Arsenic, Asbestos, Benzene, 1,3-Butadiene, Cadmium, Carbon tetrachloride, Chlorine, Chloroethane, Cresol, Epichlorohydrin, EDC, ETO, Formaldehyde, Gasoline vapors, Hydrogen chloride, Hydrogen sulfide, Lead, Maleic anhydride, Mercury, Methyl methacrylate, Methylene chloride, Nitrobenzene, Perc, Phenol, Phosgene, PCB, Propylene oxide, Styrene, Toluene, Toluene diisocyanate, TCE, Vinyl chloride, Vinylidene chloride, Xylenes, Zinc oxide	
Resin Mfg.		Acrylamide, Acrylonitrile, Ammonia, Benzene, Bis(chloromethyl) ether, Cresols, Dioxins, Epichlorohydrin, Formaldehyde, Hexachlorocyclopentadiene, Maleic anhydride, Phenol, Vinylidene chloride, Xylenes	
Rubber Product'n & Compounding	Gaseous, Aerosol, & Particulate releases including but not limited to:		
Synthetic Monomers		Acrylonitrile, 1,3-Butadiene, Chloropyrene, Epichlorohydrin, Ethyl acrylate, EDC, ETO, Propylene, Styrene	
Retardants		n-Nitrosodiphenylamine, Phthalic anhydride	
Catalysts		Nickel	
Solvents		Toluene	
Miscellaneous		Acetaldehyde, Acrylonitrile, Allyl chloride Ammonia, Benzene, Benzidine, 1,3-Butadiene, Carbon tetrachloride, Chlorine, Chloroform, Chloroprene, 3,3-Dichlorobenzidine, Epichlorohydrin, EDC, Hydrogen chloride, Lead, Maleic anhydride, Methylene chloride, Nitrosomorpholine, Perc, Sodium hydroxide, Styrene, Toluene, Toluene diisocyanate, Vinylidene chloride	
Also see Chem Mfg, Monomers, Appendix C-II			
Synthetic Fibers		Hydrogen sulfide	
Polish & Wax Mfg		Chloroform, Dioxane, Nitrosomorpholine	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Chemical Mfg continued			
Preservatives, disinfectants, biocides -		Cresols, Formaldehyde, Mercury, Phenol, 2,4,5-Trichlorophenol, Zinc Oxide	
Rubber, Non-Vulcanized, Mfg		Dioxins, Formaldehyde, Phenols	
Rubber Compounding	Processing Aids	Zinc	
	Accelerators	Ethylene thiourea, n-Nitrosodimethylamine, Zinc	
	Age Restorers	Nickel, Phenol	
	Vulcanizing Agents	Lead, Selenium, Zinc	
	Accelerator Activators	Zinc, Lead, Ammonia	
Solvents Mfg		Chloroform, Dioxins, Formaldehyde	
Soap, Cleaners, & Toilet Goods		Glycol ethers, Methanol, Dioxane	
Soap & Detergent Mfg		Ammonia, Chlorine, Hydrogen chloride	
Miscellaneous		Benzene, EDC, ETO, Formaldehyde, Hydrogen sulfide, Methyl methacrylate, Toluene	
Optical Brightners		Nitrosomorpholine	
Polishes & Sanitation Goods		Ammonia, Arsenic, Benzene, Carbon tetrachloride, Chlorine, Chloroform, Cresol, 1,4-Dichlorobenzene, 1,4-Dioxane, Epichlorohydrin, Formaldehyde, Hydrogen chloride, Methylene chloride, Nitrobenzene, Perc, Toluene, TCA, TCE, Zinc, Zinc oxide	
Surface Active Agts		Benzene, Benzyl chloride, 1,4-Dioxane, Propylene oxide, Toluene, Zinc, Zinc oxide	
Toilet Preparations		Acetaldehyde, Acrolein, Ammonia, Arsenic, Benzene, Benzyl chloride, CFC-113, Dimethyl sulfate, 1,4-Dioxane, Formaldehyde, Methylene chloride, Perc, Toluene, TCA, TCE, Zinc, Zinc oxide	
Textile Chemical Mfg		Acetamide, 2,4-Diaminoanisole, 2,4-Diaminoanisole sulfate, Urethane	
Varnish Mfg		Benzene, Dioxane	
(High)-Vinylidene Chloride Copolymer Fabric Process		Vinylidene Chloride	
Wax Mfg - see Polish Mfg, Appendix C-II			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Chemical Mfg continued			
Wood Chem Mfg – see Chem Mfg, Indus Inorgan, Gum & Wood, Appendix C-II			
Chemicals, Sales		Ammonia, Benzene, 1,3-Butadiene, Hydrogen chloride, Methylene chloride, Styrene, Toluene, TCA, Vinyl chloride	
Storage & Handling – see Liquid Storage & Transfer, Appendix C-I			
Chrome Plating – see Metal Plating, Appendix C-II			
Clay, Glass & Stone Pro			S-CMB, S-CT
Miscellaneous		Ammonia, Arsenic, Cadmium, Chlorine, Chromium, Hydrogen chloride, Lead, Mercury, Nickel, Silica, Toluene, TCA, TCE	
Abrasive Products		Ammonia, Cadmium, Chlorine, Chromium, Formaldehyde, Hydrogen chloride, Lead, Manganese, Methylene chloride, Perc, Phenol, Styrene, Toluene, TCA, Xylenes, Zinc	
Asbestos Mill/Processing		Asbestos, Benzene, Chromium, Copper, Nickel, Silica Formaldehyde, Hydrogen sulfide, Naphthalene, TCA, Xylenes	
Cement Products			
Floor Tile			
Friction Material			
Textiles			
Cement Mfg	Particulate, Gaseous, Aero Emis Including but not limited to: From stacks, feed to mill & air separator, kiln, dryers, grinders	Asbestos, BaP, Benzene, Beryllium, Cadmium, Chromium, Copper, Formaldehyde, Hydrogen chloride, Lead, Manganese, Nickel, PCBs, POM, PAHs*, Zinc, All listed metals	S-CMB
Clinker Cooler			
Combustion Processes		Benzene, Formaldehyde, Hydrogen chloride, PCBs, POM, PAHs*, All listed metals	
Also see Combustion, Appendix C-I			
Dry Processes			
Hydraulic		Arsenic, Cadmium, Chlorine, Chromium, Copper, Hydrogen chloride, Lead, Mercury, Nickel, Toluene, Zinc	
Wet Process			
Clay Products, Structrl			
Brick & Structrl Clay Tile		Arsenic, Beryllium, Lead	
Ceramic Wall & Floor Tile		Arsenic, Beryllium, Lead	
Clay Refractories		Beryllium, Chromium, Mineral fibers	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Clay, Glass & Stone Pro continued			
Concrete, Gypsum, & Plaster Products			
Concrete Block & Brick		Chromium, Styrene	
Concrete Products		Ammonia, Chromium, Gasoline vapors, Toluene, Zinc	
Ready-mixed Concrete		Asbestos, Hydrogen sulfide	
Lime		Mercury	
Cut Stone & Stone Prod		TCE	
Flat Glass		Ammonia, Arsenic, Cadmium, Chlorine, Chromium, Hydrogen, Nickel, Toluene	
Gaskets, Packing, & Sealing Devices		Ammonia, Asbestos, Chlorobenzene, Gasoline vapors, Hydrogen chloride, Lead, Toluene, TCE, Zinc	
Glass & Glassware, Pressed & Blown		Ammonia, Arsenic, Cadmium, Chlorine, Chromium, Formaldehyde, Hydrogen chloride, Lead, Mercury, Methylene chloride, Nickel, Perc, Styrene, Toluene, TCA	
Glass Container Mfg	From glass furnace	Arsenic	
Minerals, Ground or Treated		Arsenic, Chlorine, Hydrogen chloride, Methylene chloride	
Mineral Wool Prod		Chlorine, Chromium, Copper, Gasoline vapors, Hydrogen chloride	
Nonclay Refractories		Ammonia, Carbon tetrachloride, Formaldehyde, Mineral fibers, Phenol	
Nonmetallic Mineral Prod		Ammonia, Beryllium, Chromium, Formaldehyde, Hydrogen chloride, Mineral fibers, Phenol, Zinc, Zinc oxide	
Pottery & Related Prod		Chlorine, Copper, Hydrogen chloride, Mineral fibers, Styrene, Toluene	
Vitreous Plumbing Fixtures		Lead, TCA	
Fine Earthen Food Utensils		Styrene, Toluene	
Purchased Glass Products		Ammonia, Beryllium, Copper, Hydrogen sulfide, Lead, Methyl bromide, Naphthalene, Perc, Toluene, TCE, Zinc	
Combustion Processes - see Combustion, Appendix C-I		Ammonia, Toluene, TCE, Xylenes	
Other Processes - see Other Processes, Appendix C-I			
Coal Combustion - see Combustion, Appendix C-I			
Coal, Wholesaling		Zinc, Zinc oxide	
Coke Combustion - see Combustion, Appendix C-I			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Coke Production Also see Metal Smelters, Appendix C-II		POM, PAHs*, Toluene	S-CMB
Colleges & Universities Miscellaneous		Benzene, Carbon tetrachloride, Chloroform, Methylene chloride, Dioxane, Formaldehyde, Mercury, Nitrobenzene, Phenol, Toluene, TCA, Xylenes, Any other listed substance	S-CMB, S-CT, S-ETO, S-UP
Also see Chem Mfg, Appendix C-II Combustion, Appendix C-I Research & Development, Appendix C-II Solvent Use, Appendix C-I			
Combustion Processes - see Combustion, Appendix C-I			
Commercial/Institutional Combustion - see Combustion, Appendix C-I			
Cooling Towers - see Other Processes, Appendix C-I			
Correctional Institutions - see Combustion, Appendix C-I			
Cotton Ginning - see Agricultural Prod, Appendix C-II			
Crop Production - see Agricultural Prod, Appendix C-II			
Dry Cleaning Operations		Chlorinated Fluorocarbon, EDC, Perc, Toluene, TCA, TCE	
Dyeing of Textiles	Gaseous, aerosol, and particulate releases, including but not limited to: Due to toxics in the solutions Fixatives Oxidizing Agents Dyeing Aids	Dyes - Auramine, Direct Black 38, Copper, Chromium Copper, Chromium Chromium Formaldehyde, Perc, Sodium hydroxide (caustic soda)	S-CMB
Combustion Processes - see Combustion, Appendix C-I			
Elec. or Nat'l Gas Service Combustion Processes - see Combustion, Appendix C-I Cooling Towers - see Other Processes, Appendix C-I		TCA	S-CMB, S-CT
Electrical Assembly Cleaning - see Degreasing, Appendix C-I			
Electrical & Electronic Equip Miscellaneous		Freon 113, Methylene chloride, Perc, TCA, TCE	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Electric & Electronic Equip continued			
Communication Equipment			
Radio & TV Communication Equipment		Ammonia, Benzene, Chlorine, Copper, Formaldehyde, Hydrogen chloride, Hydrogen sulfide, Lead, Methylene chloride, Perc, Toluene, Toluene diisocyanate, TCA, TCE, Xylenes, Zinc	S-CMB
Telephone & Telegraph Apparatus		Ammonia, Copper, Formaldehyde, Hydrogen chloride, Methylene chloride, Perc, Styrene, Toluene, TCA, TCE, Xylenes	
Electric Distrib Equip		Ammonia, Naphthalene, Toluene, TCA, TCE	
Transformers		Ammonia, Beryllium, Hydrogen chloride, Lead, Methylene chloride, Naphthalene, Perc, PCB, Toluene, TCA, TCE, Vinyl chloride, Xylenes, Zinc oxide	
Switchgear & Switchboard Apparatus		Ammonia, Formaldehyde, Hydrogen chloride, Perc, Toluene, TCA, TCE	
Electrical Industrial Apparatus		Ammonia, Arsenic, BaP, Copper, Hydrogen chloride, Lead, Mercury, Perc, PCB, Toluene, TCA, TCE	
Motors & Generators		Ammonia, Formaldehyde, Hydrogen chloride, Lead, Naphthalene, Phenol, Styrene, Toluene, TCA, TCE	
Industrial Controls		Ammonia, Styrene, Toluene, TCA, TCE	
Welding Apparatus, Electric		Nickel, Toluene	
Carbon & Graphite Products		BaP, Chlorine, Hydrogen chloride, Hydrogen sulfide, Styrene	
Electronic Components & Accessories		Acetaldehyde, Ammonia, Arsenic, Benzene, Benzyl chloride, Beryllium, Cadmium, Chlorine, Chloroform, Chromium, Copper, Epichlorohydrin, EDC, Formaldehyde, Gasoline vapors, Hydrazine, Hydrogen chloride, Hydrogen sulfide, Lead, Manganese, Mercury, Methylene chloride, Naphthalene, Nickel, Perc, Phenol, Phosgene, PCB, Styrene, Toluene, Toluene diisocyanate, TCA, TCE, Xylenes, Zinc, Zinc oxide	
Batteries			
Primary, Dry & Wet		Cadmium, Lead, Naphthalene, Nickel, Zinc, Zinc Oxide	
Storage		Beryllium, Cadmium, Lead, Manganese, Nickel, TCA, Zinc, Zinc oxide	
Cat'd Ray Pict'r Tubes		Beryllium, Lead	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Electric & Electronic Equipment Prod continued			
Electron Tubes, Transmitting		Ammonia, Benzene, Beryllium, Cadmium, Chromium, Copper, Hydrogen chloride, Lead, Nickel, Styrene, Toluene, TCE, Xylenes	
Electron Capacitors		Allyl chloride, Chromium, Epichlorohydrin, Lead, Methylene chloride, TCA, TCE	
Integrated Circuit Board Mfg	From: developer, stripper screening-hardener	Butyl cellosolve (a Glycol ether)	
		Formaldehyde, Methylene chloride	
Semiconductors & Related Devices		Acetone, Ammonia, Arsene, Arsenic, Beryllium, Chlorine, Chlorobenzene, Ethylene glycol, Hydrazine, Hydrochloric acid, Hydrogen chloride, Hydrogen fluoride, Lead, Mercury, Methanol, Methylene chloride, Nickel, Perc, Phenol, Phosphene, Styrene, Toluene, Toluene diisocyanate, TCA, TCE, Xylenes, Zinc	
Solvent Stations - see Liquid Storage & Transfer, Appendix C-I			
Wet Chemical Stations			
Mfg Process Reactors (Siliconizing)			
Chemical Vapor Deposition			
Diffusion Furnaces - see Combustion, Appendix C-I			
Photoresist Lines			
Surface Coating/Cleaning - see Solvent Use, Appendix C-I			
Household Appliances			
Elec Housewares/Fans		Beryllium, Toluene	
Household Cooking Equipment		TCA, TCE	
Household Laundry Equipment		Perc, Toluene	
Household Refrigerators & Freezers		Toluene	
Sewing Machines		Toluene, TCA	
Electric Lighting & Wiring Equipment		Toluene, TCE	
Electric Lamps		Ammonia, Cadmium, Mercury, Toluene, TCA, TCE	
Lighting Fixtures			
Commercial		Toluene, TCA	
Residential		Ammonia, Hydrazine, Toluene, TCA, TCE	
Wiring Devices			
Current-Carrying		Ammonia, Copper, Formaldehyde, Hydrogen chloride, Manganese, Methylene chloride, Nickel, Perc, Phenol, Toluene, Toluene diisocyanate, TCA, TCE, Zinc	
Noncurrent-Carry		Copper, Hydrogen chloride, Styrene, Toluene, TCE, Vinyl chloride, Zinc	
Radio & TV Rec'ving Sets		Ammonia, Toluene, TCA, TCE, Xylenes	
Semiconductor Production - see Electric & Electronic Equip, Integrated Circuit, Appendix C-II			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Electric & Electronic Equip continued			
X-Ray Apparatus & Tubes		Beryllium, Hydrogen chloride, Perc, Toluene, TCA	
Elec, Gas, & Sanitary Svc's			
Electric Services		Acetaldehyde, Arsenic, Benzene, BaP, Beryllium, Cadmium, Chromium, Copper, Formaldehyde, Lead, Manganese, Mercury, Nickel, POM, PAHs*, PCBs, TCA	
Gas & Other Svc's		Hydrogen sulfde	
Water Supply		Arsenic, Chromium, Hydrogen chloride, Hydrogen sulfide, Mercury, Perc, TCA, TCE	
Sanitary Services		Benzene, Chloroform, EDC, Methylene chloride, Perc, TCA, TCE, Vinyl chloride	
Refuse Systems		Ammonia, Arsenic, Beryllium, Cadmium, Chlorine, Chromium, Copper, Hydrogen chloride, Lead, Manganese, Mercury, Nickel, POM, PAHs*, PCBs, Toluene, Vinyl chloride, Zinc	
Sewerage Systems		Ammonia, Arsenic, Cadmium, Chromium, Copper, Hydrogen chloride, Lead, Mercury, Nickel, Zinc	
Steam Supply		Benzene, Formaldehyde, Toluene	
Electroplating – see Metal Plating, Appendix C-II			
Extermination – see Other Processes, Pesticide Use, Appendix C-I			
Felt Mfg		Asbestos	
Fiberboard Mfg – see Wood Product Mfg, Appendix C-II			
Floor Cover Mfg, Hard Surface		Benzene	
Floor Tile Mfg.		Asbestos	
Food Prod Mfg			
Miscellaneous		Perc, Toluene	S-CMB, S-CT, S-ETO
Bakery Products		Benzene, Formaldehyde, Toluene	
Beverages		Ammonia, Formaldehyde,	
Milk (Condens & Evap)		Ammonia, Benzene, Formaldehyde, Toluene	
Soft Drinks		Arsenic, Toluene	
Canned Foods		Arsenic, Benzene, Formaldehyde, Toluene	
Fats & Oils		EDC, Methylene chloride	
Shorten & Cook Oils		Nickel, Toluene	
Soybean Oil Mills		EDC	
Food Preparation, Misc		Acetaldehyde, Benzene, Benzidene, Carbon Tetrachloride, Chloroform, Dimethyl sulfate, Epichlorohydrin, ETO, Formaldehyde, Maleic Anhydride	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Food Prod Mfg continued			
Grain Mill Products			
Prepared Feeds		Acrolein, Methyl bromide	
Wet Corn Milling		Chlorine, Hydrochloric Acid	
Manufactured Ice		Arsenic	
Meat Packing Plants		Arsenic, Formaldehyde, Hydrochloric Acid	
Sausages & Other Prepared Meats		Acetaldehyde, Ammonia, Arsenic, Chloroform, Formaldehyde, Phenol, Toluene, TCA	
Roasted Coffee		Acetaldehyde, Acrolein, Methylene chloride, TCE	
Seafood, Canned & Cured		Arsenic, Hydrogen sulfide	
Sugar & Confec Prods			
Beet Sugar		Beryllium	
Confectionary Prod		Benzene, Toluene, Formaldehyde	
Canning – see Canned Food Prod, Appendix C-II			
Combustion Processes – see Combustion, Appendix C-I			
Solvents – see Solvent Use, Appendix C-I			
Sterilization – see Other Processes, Appendix C-I			
Food Prod Machinery Mfg		Methylene chloride, Perc, TCA, TCE	
Foundries – see Metal Smelters & Foundries, Appendix C-II			
Forestry Services		Naphthalene	
Also see Wood, Appendix C-II			
Furniture & Fixture Mfg		Methylene chloride, Perc, TCE	S-CMB
Miscellaneous		Methylene chloride, Phthalic anhydride, Toluene, TCE	
Drapery Hardware and Blinds & Shades		Benzene, TCA	
Household Furniture			
Metal		Cresol, Toluene, TCE, Xylenes	
Upholstered		Cadmium, Copper, Lead, Toluene	
Wood		Ammonia, Methylene chloride, Naphthalene, Styrene, Toluene, TCA, TCE, Xylenes	
TV & Radio Cabinets		Toluene	
Office Furniture			
Metal		Ammonia, Formaldehyde, Methylene chloride, Perc, Styrene, Toluene, TCA, TCE, Xylenes, Zinc Oxide	
Wood		Formaldehyde, Methylene chloride, Naphthalene, Toluene, Toluene diisocyanate, TCA, TCE, Xylenes	
Partitions & Fixtures			
Metal		Methylene chloride, Perc, Toluene, TCA, TCE	
Wood		Ammonia, Toluene, Toluene diisocyanate, TCE	
Public Bldg & Related Furn		Ammonia, Toluene, Xylenes	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Furniture & Fixture Mfg, continued			
	Combustion Process - see Combustion, Appendix C-I		
	Degreasing - see Solvent Use, Appendix C-I		
	Metal Working - see Metal, Appendix C-II		
	Surface Coating - see Solvent Use and Other Processes, Appendix C-I		
	Upholstery Mfg - see Textiles, Appendix C-II		
	Wood Working - see Wood, Appendix C-II		
Furniture Stores		Ammonia, Methylene chloride, Toluene, TCA	
	Furniture Rpr/Reupholstr	Ammonia, Lead, Methylene chloride, Toluene, Xylenes	
	Cleaning - see Dry Cleaning, Appendix C-II		
Gas Combustion - see Combustion, Appendix C-I			
Gas Stations		Benzene, EDB, EDC, Gasoline vapors, Toluene, Xylenes	
	Liquid Storage & Transfer - see Liquid Storage & Transfer, Appendix C-I		
	Vehicle Refueling - see Other Processes, Appendix C-I		
Glass Products - see Clay, Glass & Stone Products, Appendix C-II			
Grain Production - see Agricultural Prod and Food Prod, Appendix C-II			
Grain Wholesaling		Ammonia	
Grey Iron Foundries - see Metal Smelters & Foundries, Appendix C-II			
Hospitals			
	Gen'l Medical & Surgical	ETO, Hydrogen chloride, Hydrogen sulfide, Phenol, Styrene	S-CMB, S-ETO
	Medical Labs	ETO	
	Combustion Processes - see Combustion, Appendix C-I		
	Medical Instrument Mfg - see Instrument Mfg, Appendix C-II		
	Research - see Reasearch & Development, Appendix C-II		
	Sterilizers - see Other Processes, Appendix C-I		
Incineration - see Combustion, Appendix C-I			
Industrial Combustion - see Combustion, Appendix C-I			
Industrial Wastewater Treatment - see Other Processes, Appendix C-I			
Inorganic Chemical Mfg - see Chemical Mfg, Inorganic, Appendix C-II			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Instruments & Related Prod's			
Engin'ring & Science Instr		Freon 113, Toluene, TCA	S-ETO
		Ammonia, Arsenic, Asbestos, Beryllium, Cadmium, Chromium, Copper, Formaldehyde, Hydrogen chloride, Lead, Methylene chloride, Perc, Phenol, Toluene, TCA, TCE, Zinc	
Meas & Controlling Devices		Ammonia, ETO, Mercury, Toluene	
Environmental Contls		Beryllium, Chlorine, Hydrogen chloride, Mercury, TCE	
Process Control Inst		Beryllium, Cadmium, Hydrogen chloride, Toluene, Zinc, Zinc oxide	
Electricity Measuring Instruments		Beryllium, Toluene, TCA	
Medical Instr & Supplies		Ammonia, Hydrogen chloride, Toluene, TCE	
Dental Equip & Supp		Ammonia, Cadmium, Chlorine, ETO, Formaldehyde, Phenol, Toluene, TCA, Zinc, Zinc oxide	
Opthalmic Goods		Ammonia, TCA, TCE	
Photographic Equip & Supplies		Acetaldehyde, Acrylonitrile, Ammonia, Arsenic, Asbestos, Benzene, Benzidine, Benzyl chloride, Bis(chloromethyl) ether, Cadmium, Carbon tetrachloride, Chlorine, Chlorobenzene, Chloroform, Chromium, Dimethyl sulfate, 1,4-Dioxane, Epichlorohydrin, EDC, Formaldehyde, Hydrazine, Hydrogen chloride, Lead, Mercury, Methylene chloride, Naphthalene, Nickel, Perc, Phenol, Phosgene, Propylene oxide, Styrene, Toluene, Toluene diisocyanate, TCA, TCE, Vinyl chloride, Vinylidene chloride, Xylenes, Zinc, Zinc oxide	
Surgical & Med Instr		ETO, Formaldehyde, Perc, Toluene, TCA, TCE, Zinc	
Srg Appliances & Sup		Ammonia, Chromium, ETO, Formaldehyde, Hydrogen chloride, Lead, Nickel, Toluene, TCA, Vinylidene chloride	
Optical Instr & Lenses		Acetaldehyde, Formaldehyde, Methylene chloride, Toluene, TCA, TCE	
Watches/Clocks/Watchcases		Hydrogen chloride, Toluene, TCE	
Plating - see Metal Plating, Appendix C-II			
Also see - Combustion, Other Processes, and Solvent Use Appendix C-I Metal, Plastic, and Rubber, Appendix C-II			
Jewelry, Silverware, & Plated Ware			
Jewelry, Costume		Ammonia, Chlorine, Hydrogen chloride, Lead, Perc, Toluene, TCE	
Jewelry, Precious Metal		Ammonia, Freon 113, Hydrogen chloride, Lead, Toluene, TCA, TCE	
Jewlrs Matls & Lapidary Wrk		Ammonia, Hydrogen chloride, Lead	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Jewelry, Silver & Plated Ware continued			
Silverware & Plated Ware		Ammonia, Beryllium, Hydrogen chloride, Lead, TCE	
Degreasing - see Solvent Use, Appendix C-I			
Landfills			
Gas Recovery		Benzene, Methylene chloride, Perc, TCE, Vinyl chloride, Vinylidene chloride	S-CMB
Refuse Landfills		Asbestos	
Combustion Processes - see Combustion, Appendix C-I			
Fugitives - see Liquid Storage & Transfer, Appendix C-I			
Laundry, Cleaning, & Garment Svc's - see Dry Cleaning, Appendix C-II			
Leather & Leather Products			
Leather Tanning & Finishing		Arsenic, Chromium Copper, Formaldehyde, Lead, Naphthalene, Toluene	S-CMB
Footwear, not rubber		Toluene	
Personal Leather Goods		Toluene, TCE	
Tanning Processes	Tanning agents	Chromium, Cresols, Formaldehyde, Phenol Cresols, Formaldehyde, Phenol	
	Dyes, pigments, & coloring agents	Cadmium, Chromium, Copper, Direct Black 38, Lead, Nickel, Zinc compounds	
	Miscellaneous	Ammonia, Chlorine, Chloroform, 1,2-Dichloro-benzene, Glycol ethers, Hydrochloric acid, Methylene chloride, Perc, Sodium hydroxide, Toluene, TCA, TCE, Xylenes	
Combustion Processes - see Combustion, Appendix C-I			
Liquid Storage and Transfer - see Liquid Storage & Transfer, Appendix C-I			
Surface Coating - see Solvent Use and Other Processes, Appendix C-I			
Lumber Prod Mfg - see Wood Product Mfg, Appendix C-II			
Machinery Mfg, Except Electrical		Ammonia, Formaldehyde, Freon 113, Methylene chloride, Nickel, Phenol, Toluene, TCA, TCE	S-CMB
Construction & Related Machinery			
Construct'n Machin		Carbon tetrachloride, Hydrogen chloride, Perc, Toluene	
Conveyors & Conveying Equipment		Ammonia, Toluene, TCE	
Elevators & Moving Stairways		Toluene	
Hoists, Cranes, & Monorails		Ammonia, Cadmium, Copper, Lead, Zinc	
Indstl Trucks/Tractors		Perc, Toluene	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Machinery, Construction Related continued			
Oil Field Machinery			
Engines & Turbines			
Internal Combust'n Engines		Chromium, Lead, Nickel, TCA, Xylenes	
Farm Machinery & Equip			
Turbines & Turbine Generator Sets		Ammonia, Benzene, EDB, EDC, Gasoline vapors, Hydrazine, TCA Toluene	
General Industrial Machinery		Ammonia, Formaldehyde, Hydrogen chloride, Maleic anyhydride, Perc, Phenol, Styrene, Toluene, Toluene diisocyanate, TCA, Xylenes	
Ball & Roller Bearings		Ammonia, Chromium, Copper, Cresol, Epichlorohydrin, Formaldehyde, Hydrogen chloride, Lead, Nickel, Phenol, Toluene, TCA, TCE, Zinc oxide	
Blowers & Fans		Copper, Naphthalene, Toluene, TCA	
Comprsrs, Air & Gas		Copper, Gasoline vapors, Lead, Toluene, TCA, TCE	
Industrial Furnaces & Ovens		Toluene	
Industrial Patterns		Arsenic, Copper, Hydrogen chloride, Lead, Toluene, TCE, Zinc	
Power Transmission Equipment		Formaldehyde, Phenol	
Pumps & Pumping Equipment		Ammonia, Copper, Hydrogen chloride	
Speed Changers, Drives & Gears		Ammonia, Formaldehyde, Hydrogen chloride, Lead, Perc, Phenol, Toluene, TCA, Xylenes	
Metalworking Machinery		Perc, Toluene, TCA	
Machine Tool Accessories		Arsenic, Perc	
Machine Tools, Metal Cutting Types		Ammonia, Beryllium, Chromium, Hydrogen chloride, Toluene, TCA, TCE	
Machine Tools, Metal Forming Types		Ammonia, Lead, Toluene, TCE	
Rolling Mill Machinery		Ammonia, Benzene, Lead, Perc, Toluene, TCA, TCE	
Special Dyes, Tools, Jigs, & Fixtures		Cadmium, Chromium, Zinc, Zinc oxide	
Office & Computing Machines		1,4-Dichlorobenzene, Formaldehyde, Hydrogen chloride, Methylene chloride, Naphthalene, Toluene, TCE, TCA, Zinc	
Miscellaneous		CFC-113, Hydrogen chloride, Toluene, TCA	
Calculating & Accounting Machines		Arsenic, Hydrogen chloride, TCA	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Machinery, Office & Computing, continued			
Electronic & Computing Equipment		Ammonia, Arsenic, Asbestos, Benzene, Benzidine, BaP, Bis(chloromethyl)ether, Chlorine, Chloroform, Chromium, Copper, Freon 113, Hydrogen chloride, Hydrogen sulfide, Lead, Methylene chloride, Naphthalene, Nickel, Nitrobenzene, Perc, Phenol, Toluene, TCA, TCE, Vinyl chloride, Zinc	
Also see - Electric & Electronic, Appendix C-II			
Typewriters		Ammonia, Benzene, Beryllium, Cadmium, Formaldehyde, Hydrogen chloride, Lead, Nickel, Toluene, Xylenes	
Refrigrat'n & Svc Machin			
Automatic Merchandising Machines		Toluene	
Commercial Laundry Equipment		Arsenic, Perc, Toluene	
Measur & Dispens Pumps		Toluene	
Refrig & Htg Equip		Ammonia, Copper, Formaldehyde, Freon 113, Hydrogen sulfide, Lead, Methylene chloride, Phthalic anhydride, Toluene, TCA, TCE, Xylenes, Zinc	
Misc Svc Indus Mach		Toluene	
Special Industry Machinery		Ammonia, Arsenic, Benzene, Chromium, Copper, Lead, Methylene chloride, Perc, Toluene, TCA, TCE	
Food Prods Machinery		Arsenic	
Paper Indus Machin		Ammonia, Perc, Toluene, TCE	
Printing Trades Mach		Ammonia, Chromium, Lead, Methylene chloride, Toluene, Toluene diisocyanate, TCA, Zinc oxide	
Textile Machinery		Toluene, TCE, Xylenes	
Woodworking Machin		Chlorine, Hydrogen chloride, Toluene	
Combustion Processes - see Combustion, Appendix C-I			
Metal Forming - see Machining Mfg and Metal Forming, Appendix C-II			
Surface Coating/Degreasing - see Solvent Use and Other Processes, Appendix C-I			
Machining - see Metal Forming, Metal Prod Fabrication, and Metal Smelting, Appendix C-II			
Magazine (Periodical) Publishing - see Printing & Publishing, Appendix C-II			
Mechanical Assembly Cleaning - see Solvent Use, Degreasing, Appendix C-I			
Metal Forming			
Aluminum Forming		Chloroform, Methylene chloride, TCE	S-CMB
Machining		TCA	
Also see - Metal Product Fab and Metal Smelters, Appendix C-II			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Metal Furniture Mfg – see Furniture Mfg, Appendix C-II			
Metal Plating	Particulate metals including but not limited to: From electrocleaning, and plating	Cadmium, Chromium (VI), Nickel, TCA	S-CMB S-MP
	Gaseous and aerosol releases including but not limited to:		
Electrocleaning	Alkaline cleaning agents	Sodium hydroxide	
Cleaning/Pickling	Acid cleaning, pickling agents	Chromic acid, Hydrochloric acid	
Cleaning/Plating	Chelating agents, solvents	Nitrilotriacetic acid, Theourea	
Storage/Handling	Plating/other process bath compon.	Ammonia, Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Sodium hydroxide, Zinc	
	Plating tank, Electric arc furnace		
Combustion Processes – see Combustion, Appendix C-I Degreasing Processes – see Solvent Use, Appendix C-I Storage and Handling – see Liquid Storage & Transfer, Appendix C-I			
Metal Product Fabrication		Acrylonitrile, Ammonia, 1,3-Butadiene, Cadmium, Chlorine, Copper, Formaldehyde, Freon 113, Hydrazine, Hydrogen chloride, Lead, Mercury, Methylene chloride, Perc, Styrene, Toluene, TCA, TCE, Zinc	S-CMB, S-ETO, S-UP
Metal Cans & Shipping Containers			
Metal Cans		Benzene, Lead, Perc, Toluene, TCA, TCE, Xylenes	
Metal Barrels, Drums & Pails		Ammonia, Naphthalene, Toluene, TCA	
Metal Cutlery, Handtools & Hardware			
Cutlery		Chromium, Lead, Toluene, TCE	
Hand & Edge Tools		Ammonia, Chlorine, Chromium, Hydrogen chloride, Methylene chloride, Styrene, Toluene, TCA, TCE, Zinc	
Hand Saws & Saw Blades		Copper, Lead, Nickel, Toluene, TCE, Zinc	
Misc Hardware		Ammonia, Chlorine, Chromium, Copper, Hydrogen chloride, Hydrogen sulfide, Lead, Methylene chloride, Naphthalene, Perc, Phenol, Toluene, TCA, TCE, Zinc, Zinc oxide	
Metal Foil & Leaf		Ammonia, Copper, Hydrogen chloride, Lead, Perc, Zinc, Zinc oxide	
Metal Forgings & Stamp'gs			
Iron & Steel Forgings		Hydrogen sulfide	
Auto Stampings		Ammonia, Perc, Toluene	
Crowns & Closures		Lead	
Misc Metal Stampings		Copper, Perc, Toluene, TCA, TCE	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Metal Prod Fabric continued			
Misc Metal Services			
Plating & Polishing		Toluene Acrolein, Ammonia, Arsenic, Benzene, Cadmium, Chloride, Chlorine, Chloroform, Chromium, Copper, Formaldehyde, Hydrogen chloride, Lead, Methylene chloride, Nickel, Nitrobenzene, Perc, Toluene, TCA, TCE, Zinc, Zinc oxide	
Metal Coating & Allied Services		Acetaldehyde, Arsenic, Benzene, Cadmium, Chlorine, Chromium, Copper, Formaldehyde, Hydrogen chloride, Lead, Methylene chloride, Nickel, Perc, Toluene, TCA, TCE, Xylenes, Zinc, Zinc oxide	
Ordnance & Accessories		Lead Hydrogen sulfide, Toluene, TCE	
Small Arms Ammunit'n		Ammonia, Arsenic, Formaldehyde, Freon 113, Hydrogen chloride, Lead, Phenol, Toluene, Zinc oxide	
Ammun, exc sml arms			
Small Arms		Methylene chloride, Toluene	
Plumbing & Heating, except electric			
Metal Sanitary Ware		Ammonia, Cadmium, Formaldehyde, Hydrogen chloride, Phenol, Toluene, TCE, Zinc oxide	
Plumbing Fittings & Brass Goods		Ammonia, Benzene, Chromium, Formaldehyde, Perc, Phenol, Toluene	
Heating Equipment, except electric		TCA, TCE	
Screw Machine Products, Bolts, etc.			
Screw Machine Prod		Cadmium, Hydrogen chloride, Methylene chloride, TCA, TCE, Zinc Hydrogen chloride, Toluene, TCA	
Bolts, Nuts, Rivets, & Washers		Toluene	
Steel Springs, exc wire		Copper, Toluene, Xylenes, Zinc oxide	
Structural Metal Product Fabrication		Ammonia, Cadmium, Formaldehyde, Perc, Toluene, TCA, Xylenes, Zinc	
Structural Metal Fabrication		Copper, Gasoline vapors, Hydrogen chloride, Lead, Perc, Styrene, Toluene, TCA, TCE Ammonia, Perc, Toluene, Toluene diisocyanate, TCA, TCE	
Metal Doors, Sash, & Trim		Ammonia, Copper, Perc, Toluene, TCA, TCE	
Fabricated Plate Work, boiler shops			
Sheet Metal Work			
Architectural Metal Work			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Metal Prod Fabric, Structural Metal, continued			
Prefabric Metal Bldgs		Toluene, Xylenes	
Misc Metal Work		Ammonia, Benzene, Toluene	
Valves & Pipefittings		Copper, Phenol, Toluene, TCA, TCE, Zinc	
Wire Product Fabricat'n		Ammonia, Hydrogen chloride, Nickel, Perc, Toluene, TCA, Vinyl chloride	
Combustion Processes – see Combustion, Appendix C-I			
Degreasing – see Solvent Use, Appendix C-I			
Forming – see Metal Forming and Metal Smelters, Appendix C-II			
Surface Coating – see Solvent Use, Appendix C-I			
Metal Smelters & Foundries – (for non-metals mining see Mining, Appendix C-II)			S-CMB
For any type of metal smelter – see Combustion and Liquid Storage & Transfer, Appendix C-I			
For any type of metal smelter		Hydrogen sulfide, All listed metals	
Primary Aluminum Pro	Gaseous, aerosol, partic releases including but not limited to:		
Furnace Tapping	From the calciner, furnace, mat'l crusher/mill, storage & handling, service road, prebake/reduction/ soderberg stud cell	Benzene, Chloroform, Cresols, [Fluorides], Methylene chloride, POM, PAHs*, TCE	
Coke Quenching			
Furnace Charging			
Metal Forming			
	Anode bake furnace	Benzene, Cresols, POM, PAHs*	
Secondary Aluminum	Gaseous, aerosol, partic releases		
Furnace Tapping	including but not limited to:	Nickel	
Furnace Charging	From the furnace, and the service road		
Metal Casting		Chloroform, Methylene chloride, TCE	
Metal Forming			
Beryllium Alloys	Gaseous, aerosol, partic releases		
Molding	including but not limited to:	Beryllium	
Primary Cadmium Pro	Gaseous, aerosol partic releases		
Material Prep	including but not limited to:	Cadmium	
Metal Casting	From the furnace, condenser, material storage and handling		
Mining Operations			
Cadmium-Nickel Battery	Gaseous, aerosol, partic releases		
Material Prep	including but not limited to:	Cadmium, Lead, Nickel	
	From the sintering machine, and material storage and handling		
Chromite Ore Refining	Gaseous, aerosol, partic releases		
	including but not limited to:	Chromium	
	From dryer, mill, cyclone, storage		
Metallurgical Coke	Gaseous, aerosol partic releases		
Coke Oven Charging/ Pushing	including but not limited to:	Acetaldehyde, Benzene, Cresols, Formaldehyde, Phenol, Toluene, Xylenes	
Material Prep	From the coke oven, vessels, matr'l storage and handling, and outdoor storage pile	Ammonia, Arsenic, Beryllium, Cadmium, Hydrogen sulfide, Lead, Manganese, Mercury, Nickel, POM, PAHs*	
Coke Quenching			
Coke Production		POM, PAHs*, Toluene	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Metal Smelters & Foundries continued			
Primary Copper Smelt	Gaseous, aerosol, partic releases		
Converter Charging	including but not limited to:	Arsenic, Cadmium, Copper, Lead, Mercury,	
Furnace Tapping	From the converter, furnace, roaster	POM, PAHs*, Selenium, Zinc	
Furnace Charging	vessel, material storage and		
Material Prep	handling, outdoor storage pile,		
Metal Casting	service road		
Slag Dumping			
Mining Operations		Arsenic, Mercury, Cadmium, Copper	
Copper Forming		Perchloroethylene	
Secondary Copper Oper	Gaseous, aerosol, partic releases		
(Brass and Bronze Pro)	including but not limited to:	Cadmium, Copper, Lead, Manganese,	
Furnace Tapping	From the furnace, and service road	Mercury, POM, PAHs*, Selenium, Zinc	
Furnace Charging			
Metal Casting			
Electrometallurgical Products		Arsenic, Cadmium, Chromium, Copper, Manganese, Nickel	
Ferroalloy Production	Gaseous, aerosol, partic releases		
Furnace Tapping	including but not limited to:	Cadmium, Chromium, Copper, Lead,	
Furnace Charging	From material storage & handling,	Manganese, Nickel, POM, PAHs*, Zinc	
Material Prep	storage pile, furnace, decarbur-		
Metal Casting	izing vessels		
Mining, except V		Nickel	
Slag Dumping			
Iron & Steel Foundries			
Iron and Steel Pro	Gaseous, aerosol, partic releases		
Coke Oven Charging/ Pushing	including but not limited to:	Ammonia, Arsenic, Benzene, Beryllium, Cad-	
Furnace Tapping	From the coke oven, cupola, furnace,	mium, Chlorine, Chromium, Coke oven emis,	
Furnace Charging	sintering machine, storage	Copper, Formaldehyde, Hydrogen chloride,	
Material Preperation	& handling, storage pile,	Hydrogen sulfide, Lead, Manganese, Mer-	
Coke Quenching	service road	cury, Naphthalene, Nickel, POM, PAHs*,	
Slag Dumping		Phenol, Toluene, TCE, Xylenes, Zinc	
Mining Operations			
Drying			
Crushing			
Sizing			
Weighing			
Feeding Furnace			
Also see Combustion (Blast Furnace), Appendix C-I			
Gray Iron Foundries	Gaseous, aerosol, partic releases		
Furnace Tapping	including but not limited to:	Acetaldehyde, Acrolein, Ammonia, Arsenic,	
Furnace Charging	From the furnace, foundary mold &	Benzene, Beryllium, Cadmium, Chromium,	
Converter Charging	core decomposition, & service road	Copper, Formaldehyde, Hydrogen sulfide,	
Metal Casting		Iron, Lead, Manganese, Mercury,	
Cupola		Naphthalene, Nickel, Phenol, POM, PAHs*,	
		Styrene, Toluene, TCA, Xylenes, Zinc	
Malleable Iron Foundries		Ammonia, Formaldehyde, Zinc	
Steel Investment Fndrs		Cadmium, Chromium	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Metal Smelters & Foundries continued			
Steel Foundries	Gaseous, aerosol, partic releases		
Converter Charging	including but not limited to:	Arsenic, Beryllium, Cadmium, Chromium,	
Furnace Tapping	From furnace, foundry mold & core	Manganese, Nickel, Zinc	
Furnace Charging	decomposition, and service		
Metal Casting	road		
Basic Oxygen Proc	From argon oxygen decarburization		
	vessels, coke ovens		
Miscellaneous		Ammonia, Arsenic, Cadmium, Chromium, Copper, Hydrogen chloride, Lead, Naphthalene, Nickel, Perc, Phenol, Styrene, Toluene, TCA, Xylenes, Zinc	
Cold Finish Steel Shapes		Methylene chloride, Toluene	
Steel Pipe & Tubes		Ammonia, Perc	
Steel Wire & Related Products		Ammonia, Chlorine, Hydrogen chloride, Lead, PCB, Toluene, Zinc	
Primary Lead Smelting	Gaseous, aerosol, partic releases		
Furnace Tapping	including but not limited to:	Arsenic, Cadmium, Copper, Lead,	
Furnace Charging	From the furnace, sintering machine,	POM, PAHs*, Mercury, Selenium	
Material Prep	material storage and handling,		
Metal Casting	outdoor storage pile, and service		
Slag Dumping	road		
Mining Operations			
Secondary Lead Smelt	Gaseous, aerosol, partic releases		
Furnace Tapping	including but not limited to:	Arsenic, Lead, Manganese, POM, PAHs*,	
Furnace Charging	From the furnace, service road, and	Selenium	
Metal Casting	outdoor storage pile		
Lead Acid Battery Pro	Gaseous, aerosol, partic releases		
Material Prep	including but not limited to:	Arsenic, Cadmium, Lead, Manganese	
Metal Casting		Mercury	
Screening			
Storage & Handling			
Miscellaneous Lead Pro	Gaseous, aerosol, partic releases		
Converter Charging	including but not limited to:	Arsenic, Cadmium, Lead	
Material Preparation			
Metal Casting			
Manganese Production	Gaseous, aerosol, partic releases		
Furnace Charging	including but not limited to:	Manganese, POM, PAHs*	
Furnace Tapping	From the furnace, mat'l storage &		
Material Crusher/ Mill	handling, storage pile, slips, casthouse, sinter discharge,		
Metal Casting	windbox & discharge		
Slagging			
Synthetic Mang Pro			
Roasting			
Drying			
Grinding			
Packaging/Handling			
Melting			
Refining			
Hot Metal Transfr			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Metal Smelters & Foundries continued			
Dry Battery Production Material Prep Screening Storage & Handling Also see Electrical & Electronic Equipment, Appendix C-II	Particulate substance releases including but not limited to: From the material crusher/mill and material storage	Manganese, Mercury	
Mercury Production Mining Prim. Ore Process Secondary Prod	Particulate releases including but not limited to: From smelter, hoeing, retort	Mercury	
Nickel Production Metal Casting Mining Operations Refining Melting/Roasting Crushing Drying	Gaseous, aerosol, partic releases including but not limited to: From the calciner, furnace, material crusher/mill, roaster, material storage & handling, rotary dryers, storage pile, day bin, skip hoists	Arsenic, Cadmium, Lead, Nickel, POM, PAHs*, Selenium, Zinc	
Nonferrous Metal Prod Super Alloys Permanent Magnet Alloys Electrical Alloys	Gaseous, aerosol, partic releases including but not limited to:	Nickel	
Secondary Processing of Nickel Scrap	Gaseous, aerosol, partic releases including but not limited to:	Nickel	
Radium, Uranium, & Vanadium Mining	Gaseous, aerosol, partic releases including but not limited to:	Ammonia, Gasoline vapors, Hydrogen Sulfide, Radionuclides	
Steel Foundries – see Metal Smelters, Iron & Steel, Appendix C-II			
Uranium Prod – see Metal Smelters, Radium, Appendix C-II			
Vanadium Prod – see Metal Smelters, Radium, Appendix C-II			
Primary Zinc Smelting Material Prep Slag Dumping Mining Operations	Gaseous, aerosol, partic releases including but not limited to: From the condenser, furnace, roastr, retart, material storage and handling, outdoor storage pile, and service road	Arsenic, Cadmium, Copper, Mercury, POM, PAHs*, Selenium, Zinc	
Secondary Zinc Proces Furnace Tapping Furnace Charging Metal Casting	Gaseous, aerosol, partic releases including but not limited to: From the furnace, condenser, retart service road, and galvanizing vessel	Cadmium, Mercury, Nickel, Selenium, Zinc	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Military Bases			
Chemical Prod - see Chemical Mfg, Military Chem Mfg, Appendix C-II			
Combustion Process - see Combustion, Appendix C-I			
Degreasing - see Solvent Use, Appendix C-I			
Research - see Research & Development, Appendix C-II			
Surface Coating - see Solvent Use and Other Processes, Appendix C-I			
Vehicle Refueling - see Other Processes, Appendix C-I			
Millworks - see Wood Product Mfg, Appendix C-II			
Mining of Non-Metals (for Metals Mining see Metal Smelters, Appendix C-II)			S-CMB
Arsenic Mining		Arsenic	
Anthracite Mining		Arsenic, POM, PAHs*, Toluene diisocyanate	
Asbestos		Asbestos, Silica	
Clay		Arsenic, Beryllium, Lead, Toluene diisocyanate	
Coal (Bituminous) & Lignite		Arsenic, Hydrogen sulfide, Toluene diisocyanate	
Limestone		Nickel	
Minerals, Nonmetallic		Arsenic, Asbestos, Beryllium, Cadmium, Chromium, Lead, Toluene diisocyanate	
Phosphate Rock		Radionuclides	
Sand & Gravel		Asbestos, Crystalline silica	
Construction		Vinyl Chloride	
Industrial		Arsenic, Beryllium, Lead, Phenol, Toluene diisocyanate	
Sulfur		Arsenic, Hydrogen sulfide	
Monofilament Fiber Mfg	Gaseous and particulate releases		S-CMB
Wet Spin	including but not limited to:	Polymer constituentes - Acrylonitrile, Propylene, Vinyl chloride	
Dry Spin	From: polymer and solvent storage		
Filter-tow Dry Spin	dope preparation (blending),		
Filament Yarn Dry Spin	filtration, spin cell, lubrication, drawing, finish application, and drying	Solvents/precipitants - Sodium hydroxide, Toluene, Zinc chloride	
		Flame retardants - Vinyl bromide	
		Promoters/activators - Hydrazine	
		Lubricants - Ammonium salts	
Combustion Processes - see Combustion, Appendix C-I			
Storage - see Liquid Storage & Transfer, Appendix C-I			
Surface Coating - see Solvent Use and Other Processes, Appendix C-I			
Motor Vehicle Production - see Transportation Equipment, Appendix C-II			
Motorcycle Mfg - see Tranportation Equipment, Appendix C-II			
Musical Insrument Mfg		Lead, Toluene, TCE	
Also see - Combustion, Other Processes, and Solvent Use, Appendix C-I Wood Product Mfg, Appendix C-II			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
National Defense		Carbon tetrachloride, CFC 113, Chromium, Dioxin, Hydrazine, Mercury, Methylene chloride, Perc, Phenol, PCBs, TCA, Xylenes	S-CMB, S-CT, S-UP
Also see Military Bases, Appendix C-II			
National Security		Ammonia, Benzene, Beryllium, Cadmium, Chlorinated phenols, Chromium, ETO, Formaldehyde, Gasoline vapors, Hydrogen chloride, Hydrogen sulfide, Lead, Manganese, Methylene chloride, Nickel, Perc, Phenol, POM, PAHs*, Radionuclides, TCA, TCE, Xylenes	
Natural Gas Combustion - see Combustion, Appendix C-I			
Needle, Pin, & Fastener Mfg		Formaldehyde, Hydrogen chloride, Lead, Toluene, TCE, Zinc	
Also see Metal Prod Fabrication, Appendix C-II			
Newspaper Publishing - see Printing & Publishing, Appendix C-II			
Nickel Plating - see Metal Plating, Appendix C-II			
Office Machine Mfg - see Machinery Mfg, Appendix C-II			
Office Supplies Mfg			
Carbon Paper & Inked Ribbons		Toluene	
Lead Pencils & Art Goods		Copper, Formaldehyde, Toluene	
Marking Devices		Lead, Toluene, TCE, Zinc	
Pens & Mech Pencils		Chlorine, Methylene chloride, Perc, Toluene, TCE	
Ink/Dye Mfg - see Chemical Mfg, Appendix C-II			
Oil Combustion - see Combustion, Appendix C-I			
Oil and Gas Extraction		Benzene, Phenols, POM, PAHs*, Sulfur compounds, Toluene, Xylenes	S-CMB, S-CT
Drilling Wells		Hydrogen sulfide	
Exploration		Benzene, Carbon tetrachloride, Chlorobenzene, 1,4-Dichlorobenzene, EDC, Hydrogen sulfide, Toluene, TCA, Xylenes	
Extraction			
Natural Gas & Crude Petroleum		Ammonia, Formaldehyde, Gasoline vapors, Hydrogen sulfide	
Nat'l Gas Liquids		Ammonia, Hydrogen sulfide	
Field Services		Hydrogen sulfide, Gasoline vapors	
Gas Stripping	Gaseous and aerosol releases		
Fugitive Losses	From field separator	EDC	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Oil Production Fugitive Losses	Gaseous and aerosol releases from: sumps, wells, well heads, well cellars, pumps, fittings, oil pits, compressors, oil/ water separators,		
Tertiary Oil Production	Gaseous and aerosol releases from: steam drive wells, cyclic wells, pseudo cyclic wells		
Heavy Oil Test Stations	Gaseous and aerosol releases From test stations		
Combustion Processes - see Combustion, Appendix C-I			
Oil Storage - see Liquid Storage and Transfer, Appendix C-I			
Other Processes - see Other Processes & Fugitives, Appendix C-I			
Solvent Use - see Solvent Use, Appendix C-I			
Storage & Handling - see Liquid Storage & Transfer, Appendix C-I			
Organic Chemical Mfg - see Chemical Mfg, Appendix C-II			
Paint & Allied Products Mfg - see Chemical Mfg, Appendix C-II			
Paper & Paper Prod. Mfg/Treating - see Wood, Appendix C-II			
Pens & Pencils - see Office Supplies, Appendix C-II			
Petroleum Bulk Stations & Terminals		Benzene, Benzyl chloride, Carbon Tetrachloride Chlorine, EDB, EDC, Formaldehyde, Gasoline vapors, Hydrogen chloride, Hydrogen sulfide, Methyl methacrylate, Styrene, Toluene, Xylenes	
Also see - Bulk Plants & Terminals, Appendix C-II			
Petroleum & Coal Products			
Miscellaneous		Chromium, Gasoline vapors, Naphthalene	S-CMB, S-CT
Asphalt Felts & Ctgs		Asbestos, Carbon tetrachloride, Chromium, Formaldehyde, POM, PAHs*	
Lubricating Oils & Greases		Asbestos, Benzene, Epichlorohydrin, Formaldehyde, Hydrogen sulfide, Toluene, TCA, TCE, Xylenes	
Paving & Roofing Mat'ls Pav'g Mixt'rs & Blocks		Ammonia, Asbestos, Benzene, BaP & other PAHs*, Chloroform, Chromium, Formaldehyde, Mercury, Methyl Isocyanate, POM, Toluene, TCA	
Petroleum Refineries			
(1)Most Refinery Operations	Gaseous, aerosol, partic releases Including but not limited to: From: boiler, cat cracker, flare, incinerator, process heater	Acetaldehyde, Ammonia, Arsenic, Benzene, BaP & other PAHs*, Beryllium, Cadmium, Carbon disulfide, Chlorine, Chromium, Cresol, Dimethyl sulfate, EDB, EDC, Formaldehyde, Gasoline vapors, Hydrogen chloride, Hydrogen sulfide, Lead, Maleic anhydride, Mercury, Naphthalene, Nickel, Phenol, POM, Toluene, Xylenes, Zinc, Zinc oxide	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Petroleum & Coal continued			
(2)Crude Separation Gas Product'n	In addition to item (1) absorber, distillation/fractionation	In addition to item (1)-Ammonia, Chlorides, Cresols, EDC, Maleic anhydride, Michler's Ketone, Phenols, POM, PAHs*, Sulfur Cmpds, Zinc	
(3)Light Hydrocarbon Processing	In addition to item (1): catalyst regeneration	In addition to item (1)-Nickel Carbonyl	
(4)Middle and Heavy Distillate Process	In addition to items (1) and (2): evaporation, stripper	In addition to item (1)-Acetaldehyde, Ammonia, Copper, Cresols, Formaldehyde, Maleic anhydride, Michler's ketone, Nickel, Phenols, POM, PAHs*, Sulfur Compounds, Xylenes, Zinc, Any other listed Aromatic amine	
(5)Residual Hydrocarbon Processing	In addition to items (1) and (2): visbreaker furnace, process vent, stripper	In addition to item (1)-Acetaldehyde, Ammonia, Chromates, Cresol, Formaldehyde, Lead, Maleic anhydride, Michler's Ketone, Lead, Nickel, Nickel carbonyl, Phenols, POM, PAHs*, Sulfur Cmpds, Zinc, Any other listed Aromatic amine	
Also see Combustion, Liquid Storage & Transfer, and Other Processes, Appendix C-I Chemical Mfg, and Oil & Gas Extraction, Appendix C-II			
Pharmaceutical Industries - see Chemical Mfg, Drugs, Appendix C-II			
Photocopying & Blueprinting		Ammonia	
Photographic Chemicals Mfg - see Chemical Mfg, Appendix C-II			
Photographic Studios		Ammonia	
Photofinishing Labs		Methylene chloride, TCA	
Pipelines - see Other Processes and Liquid Storage & Transfer, Appendix C-I			
Plastic & Synthetics Mfg - see Chemical Manufacturing, Appendix C-II			
Plastic Products Mfg			
Plastics Forming		TCA	S-CMB
Printing & Publishing			
Miscellaneous		Toluene	S-CMB
Blankbooks & Bookbind'g			
Blankbooks & Loose-leaf Binders		Ammonia, Toluene, TCA, TCE	
Bookbinding etc		Toluene	
Books			
Printing		Lead, TCA	
Publishing		Arsenic, Lead	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Printing & Publishing continued			
Newspapers		TCE	
Printing (Commercial)		Toluene, TCA	
Engraving & Plate		Benzene	
Gravure		Ammonia, Benzene, Cadmium, Formaldehyde, Gasoline vapors, Methylene chloride, Nickel, Perc, Toluene, TCA, TCE, Xylenes	
Letterpress		Ammonia, Benzene, Chromium, Methylene chloride, Naphthalene, Perc, Toluene, TCE	
Lithographic		Ammonia, Benzene, Toluene, TCE	
Printing Trade Svcs			
Typesetting		Ammonia	
Electrotyping & Stereotyping		Lead	
Publishing (Misc)		Toluene	
Combustion Processes - see Combustion, Appendix C-I			
Ink Mfg - see Chemical Mfg, Appendix C-II			
Printing - see Solvent Use, Appendix C-I			
Surface Coating - see Solvent Use, Appendix C-I			
Process Gas Combustion - see Combustion, Appendix C-I			
Publicly Owned Treatment Works (POTWs)	Miscellaneous	Acrylonitrile, Benzene, Carbon tetrachloride, CFC-113, Chlorine, Chlorobenzene, Chloroform, EDC, Fluorocarbons, Hydrogen sulfide, Methylene chloride, Perc, Toluene, TCA, TCE, Vinyl chloride, Vinylidene chloride, Xylenes	S-CMB
	Gaseous products including but not limited to:		
	From raw sewage offgases	Carbon tetrachloride, Chlorobenzene, p-Dichlorobenzene, EDC	
Combustion	From exhaust gases of digester gas burning engines modified to lower NOx emissions	Acrolein, 1,3-Butadiene	
Sludge Composting		Ammonia, Dimethylamine	
	From sawdust used as bulking agent (sawdust from lumber obtained at structural demolition projects)	Asbestos	
Sludge Dewatering (using an aminomethylated polyacrylamide having a dimethylamine group in the polymer)		Dimethylamine	
Sludge Treatment		Chloroform	
Aeration Tanks - see Liquid Storage & Transfer, Appendix C-I			
Chlorinator Discharge			
Digesters			
Headworks			
Sludge Incinerators - see Combustion, Appendix C-I			
Water Treatment - see Other Processes, Appendix C-I			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Pulp Mills – see Wood Product Mfg, Appendix C-II			
Quarries	Particulate-phase substances including but not limited to:	Asbestos, Arsenic, Silica	
Railroad Equip Mfg – see Transportation Equip, Appendix C-II			
Refractory Production		Chromium	
Research & Devel. Labs		Ammonia, Cadmium, Chloride, Chromium, Copper, Formaldehyde, Hydrogen chloride, Hydrogen sulfide, Lead, Manganese, Mercury, Methylene chloride, Nickel, Perc, Phosgene, Phthalic anhydride, Styrene, Toluene, TCA, TCE, Zinc, Zinc oxide	S-CMB, S-UP
Commercial Testing Labs		Epichlorohydrin, Hydrogen sulfide	
Chemical Mfg – see Chemical Mfg, Appendix C-II Combustion Processes – see Combustion, Appendix C-I Other Processes – see Other Processes, Appendix C-I Solvents – see Solvent Use, Appendix C-I Storage and Handling – see Liquid Storage & Transfer, Appendix C-I			
Roadway Surfacing		Asbestos, Benzene	
Rubber Mfg – see Chemical Mfg, Appendix C-II			
Rubber & Misc Plastics Prod			
Fabricated Rubber Prod		Ammonia, Benzene, Chlorine, ETO, Formaldehyde, Hydrogen chloride, Lead, Methylene chloride, Naphthalene, Perc, Styrene, Toluene, Toluene diisocyanate, TCA, Vinyl chloride, Zinc, Zinc oxide	S-CMB
Plastics Prod, Misc		Acetaldehyde, Acrylonitrile, Ammonia, Benzene, Benzyl chloride, Beryllium, Chlorine, EDC, ETO, Formaldehyde, Freon 113, Gasoline vapors, Hydrogen chloride, Hydrogen sulfide, Lead, Mercury, Methyl methacrylate, Methylene chloride, Naphthalene, Phenol, Phthalic anhydride, Styrene, Toluene, Toluene diisocyanate, TCA, TCE, Vinyl chloride, Zinc oxide	
Reclaimed Rubber		Benzene, Cadmium, Lead, Naphthalene, Toluene	
Rubber & Plastic Footwear		Naphthalene, Toluene, TCA	
Rubber & Plastic Hose/Belting		Perc, Toluene	
Tires & Inner Tubes		Ammonia, Benzene, Methylene chloride, Styrene, Toluene, TCA, Zinc oxide	
Rubber Mfg – see Chemical Mfg, Appendix C-II Surface Coating – see Solvent Use, Appendix C-I			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Rubber Cement Application/Manufacture Application - see Solvent Use, Appendix C-I Manufacture - see Solvent Use, Appendix C-I and Chemical Mfg, Appendix C-II			
Saw Mills - see Wood Product Mfg, Appendix C-II			
Semiconductor Mfg - see Electronic Equipment Mfg, Integraged Circuits, Appendix C-II			
Sewage Plants - see Combustion (Incineration), Appendix C-I			
Shingle & Siding Mfg Also see Plastics, Appendix C-II		Asbestos	S-CMB
Sign & Advert. Display Mfg		Ammonia, Beryllium, Hydrogen chloride, Naphthalene, Perc, Toluene, TCA, TCE, Zinc	
Smelters - see Metal Smelters, Appendix C-II			
Solvent Recycling Also see - Solvent Use, Appendix C-I		Benzene, Chlorinated organics	
Space Research & Technology Combustion Processes - see Combustion, Appendix C-I Degreasing - see Solvent Use, Appendix C-I Research - see Research & Development, Appendix C-II Surface Coating - see Solvent Use and Other Processes, Appendix C-I Vehicle Refueling - see Other Processes, Appendix C-I			S-CMB, S-UP
Sporting & Athletic Goods Mfg Also see Combustion, Solvent Use, and Surface Coating, Appendix C-I Chemical Mfg, Metal Product Mfg, Rubber Product Mfg, and Textiles Mfg, Appendix C-II		Methylene chloride, TCA	S-CMB
Stone Products Mfg - see Clay, Glass & Stone Products, Appendix C-II			
Surface Coating Application/Manufacture Application - see Solvent Use and Surface Coating, Appendix C-I Manufacture - see Chemical Mfg, Appendix C-II			
Surgical & Med Supp Mfg Combustion Processes - see Combustion, Appendix C-I Degreasing - see Solvent Use, Appendix C-I Instruments - see Instrument Mfg, Appendix C-II Other Processes - see Other Processes, Appendix C-I Pharmaceuticals Mfg - see Chemical Mfg, Appendix C-II Sterilization - see Sterilizers, Appendix C-I Surface Coating - see Solvent Use, Appendix C-1			
TSDFs - see Transfer, Storage, & Disposal Facilities, Appendix C-II			

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Textile Mill Product'n Mfg.			
Miscellaneous		Asbestos, Benzene, Benzidine, Bis(chloromethyl) ether, 1,4-Dichlorobenzene, Dichloroethane, Dioxane, Ethyleneimine, Formaldehyde, Hydrazine, Methyl Bromide, Perc, Phenol, TCE	S-CMB
Apparel/Other Text'l Prod		Ammonia, Arsenic, Chlorine, EDC, Toluene, TCA	
Fur Goods		Ammonia, Perc	
Apparel Belts		Ammonia, Cadmium, Copper, Toluene, Zinc Toluene	
House Furnishings		Napthalene, Toluene	
Auto/Apparel Trimings		Ammonia, Arsenic, Benzene, Toluene, Vinyl chloride	
Floor Covering Mills			
Miscellaneous		Arsenic	
Woven Carpets & Rugs		Arsenic	
Tufted Carpets & Rugs		Benzene, Formaldehyde	
Knitting Mills		Benzene, Benzidine	
Hosiery		Acrylonitrile, Benzene	
Knit Outerwear Mills		Ammonia, Arsenic, Benzene, Perc	
Narrow Fabric Mills		Benzene, 1,4-Dioxane, Mineral fibers	
Nonwoven Industry		Bis(chloromethyl) ether	S-CMB
Textile Finishing			
Miscellaneous		Acrylonitrile, Benzene, Benzidene, 1,3-Butadiene, Formaldehyde, Hydrazine, Perc, Toluene, Vinyl chloride, Vinylidene chloride, Xylenes	
Finish Plants			
Cotton		Acrylonitrile, Benzene, Chromium, 1,4-Dichlorobenzene, Toluene	
Synthetic		Benzene, Copper, 1,4-Dioxane, Formaldehyde, Hydrazine, Perc, Xylenes.	
Weaving Mills			
Cotton		Acrylonitrile, Benzene, 1,4-Dioxane, EDC, Toluene	
Synthetics		Acrylonitrile, Benzene, Chloroform, 1,4-Dioxane, EDC, Formaldehyde, Mineral fibers, Perc, Styrene, Toluene diisocyanate	
Wool		Benzene, 1,4-Dioxane, Formaldehyde, Perc	
Woven Fabric Finishing		1,4-Dichlorobenzene	
Yarn & Thread Mills			
Yarn Mills,not wool		Toluene diisocyanate	
Throwing & Winding		Ammonia, Lead, Toluene diisocyanate	
Wool Yarn Mills		Arsenic	
Misc Textile Goods			
Coated Fabrics, not rubberized		Arsenic, Benzene, Cresol, Formaldehyde, Hydrogen chloride, Lead, Perc, Styrene, Toluene, Xylenes	
Cordage & Twine		TCA	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Textile Mill Product'n Mfg (Misc) continued			
	Felt goods	Arsenic, TCA	
	Paddings & Upholstery Filling	Benzene	
	Processes Textile Waste	Formaldehyde	
	Tire Cord & Fabric	Ammonia, Asbestos, Benzene, Formaldehyde, Perc	
Cleaning - see Degreasing, Appendix C-I and Dry Cleaning, Appendix C-II			
Combustion Processes - see Combustion, Appendix C-I			
Dyeing - see Chemical Mfg and Dyeing of Textiles, Appendix C-II			
Surface Coating/Solvent Use - see Solvent Use, Appendix C-I			
Tobacco Mfg			
	Cigarette Mfg	Benzene, Chloroform, Formaldehyde, Methylene chloride, Perc, Toluene	
	Tobacco Stemming & Redrying	Benzene	
Toy & Sporting Good Mfg			S-CMB
	Dolls	Acrylonitrile, Toluene	
	Games, Toys, & Children's Vehicles	Styrene, Toluene	
	Sport & Athletic Goods	Perc, Styrene, Toluene	
Combustion Processes - see Combustion, Appendix C-I			
Degreasing/Surface Coating - see Solvent Use and Other Processes, Appendix C-I			
Labeling/Packaging - see Printing and Wood (Paper) Products, Appendix C-II			
Also see - Metal, Rubber, and Wood Products, Appendix C-II			
Train Mfg/Rpf - see Transportation Equipment, Appendix C-II			
Transfer, Storage, & Disposal Facil's (TSDFs)			
Combustion Processes - see Combustion, Appendix C-I			
Other Processes - see Other Processes, Appendix C-I			
Solvent Recycling - see Solvent Use, Appendix C-I			
Storage - see Liquid Storage & Transfer, Appendix C-I			
Transportation Equip Mfg/Rpr		Hydrogen chloride, Methylene chloride, Perc, Toluene, TCE	S-CMB
	Auto Repair/Auto Body Repair Gen'l Auto Repair	Ammonia, Asbestos, Formaldehyde, Toluene, TCA	
	Tire Retreading & Rpr	Toluene	
	Paint Shops	Benzene, Naphthalene, Toluene, Xylenes Zinc Oxide	
	Top & Body Rpr Shops	Naphthalene, Toluene	
	Motor Vehicles & Car Bodies	Ammonia, Cadmium, Chromium, Formaldehyde, Hydrogen chloride, Lead, Methylene chloride, Phenol, Toluene	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Transportation Equip, Auto Mfg/Rpr, continued			
Motor Vehicle Parts & Accessories		Ammonia, Asbestos, Benzene, Cadmium, Chlorine, Chloroform, Chromium, Copper, Formaldehyde, Hydrogen chloride, Hydrogen sulfide, Lead, Manganese, Methylene chloride, Naphthalene, Perc, Toluene, Toluene diisocyanate, TCA, TCE, Zinc, Zinc oxide	
Truck, Camper, Trailer, & Bus Bodies		Chromium, Methylene chloride, Nickel, Styrene, Toluene	
Auto Parts Mfg		Asbestos	
Brake lining Mfg		Ammonia, Chromium, Hydrogen chloride, Hydrogen fluoride, Hydrogen sulfide, Lead, Methylene chloride, Nickel, Perc, Styrene, Toluene, TCA, TCE, Xylenes, Zinc, Zinc oxide	
Aircraft & Parts			
Guided Missiles, Space Vehicles, & Parts		Formaldehyde, Hydrazine, Perc, Toluene, TCE, Xylenes	
Guid Mis'ls Spc Vehs			
Spc Propulsion Units & Parts		Hydrazine, TCE	
Spc Veh Equipment		Ammonia, Hydrazine, Hydrogen chloride, Lead, Methylene chloride, Toluene	
Motorcycles, Bicycles & Parts		Toluene	
Railroad Equipment		Ammonia, Chromium, Hydrogen chloride, Methylene chloride, Nickel, Toluene, Toluene diisocyanate, TCA	
Ship & Boat Bld & Rpr		Asbestos, Hydrazine, Methylene chloride, Phenol, PCBs, Styrene, TCE	
Combustion Processes - see Combustion, Appendix C-I			
Degreasing - see Solvent Use, Appendix C-I			
Metal Forming - see Machining and Metal Smelters, Appendix C-II			
Military Transport - see Military, Appendix C-II			
Paint Preparation - see Chemical Mfg, Appendix C-II			
Research - see Research & Development, Appendix C-II			
Space Transport - see Space Research & Technology, Appendix C-II			
Storage & Handling - see Liquid Storage & Transfer, Appendix C-I			
Surface Coating/Touch-up - see Solvent Use and Other Processes, Appendix C-I			
Upholstery Mfg - see Textile Mill Prod Mfg, Appendix C-II			
Transportation Equip Sales			
Boat Dealers		Toluene	
Used Car Dealers		Toluene	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Transportation Ports/Stations			
Airports & Flying Fields		Benzene, Dioxins, POM, PAHs*, Radionuclides, Toluene	
Inspection & Weighing		EDC, Lead, Methylene chloride, Perc, Toluene, Toluene diisocyanate, TCA, TCE, Xylenes	
Marine Cargo Handling			
Combustion Processes - see Combustion, Appendix C-I			
Degreasing/Paint Stripping - see Solvent Use, Appendix C-I			
Electroplating - see Metal Plating, Appendix C-II			
Refueling - see Other Processes, Appendix C-I			
Truck Mfg - see Transportation Equipment, Appendix C-II			
Universities - see Colleges, Appendix C-II			
Varnish Mfg - see Chemical Mfg, Appendix C-II			
Water Treatment - see Other Processes, Appendix C-I			
Wood Combustion - see Combustion, Appendix C-I			
Wood Preservation	Gaseous and aerosol releases		S-CMB
Cellon Process	from: wood preserving agents	Arsenic, Benzene, Chloroform, Chromium, Copper, Cresols, Dibenzofuran, Dioxins, Hydrogen chloride, Phenol, Naphthalene, Toluene, Zinc, Zinc Oxide	
Chromated Copper Arsenate Process			
Dricon Process			
Diluent/Creosote Process			
Oil/Penta Process			
	vapor drying agents	various solvents	
	preserving carriers	various solvents	
	fire retardents	Formaldehyde, Zinc chloride	
Combustion Processes - see Combustion, Appendix C-I			
Wood Chemicals Mfg - see Chemical Mfg, Appendix C-II			
Wood Products Mfg.	Miscellaneous	Cresols, Formaldehyde, Dioxins, TCE	S-CMB
Fiberboard Mfg.		Chloroform	
Lumber		Cresols, Formaldehyde, Dioxins, TCE, Toluene	
Millwork, Plywood, & Structural Members			
Millwork		Asbestos, Carbon tetrachloride, Chlorophenols, Formaldehyde, Methylene chloride, Toluene, Xylenes	
Wood Kitchen Cabinets		Methylene chloride, Naphthalene, Styrene, Toluene, TCA, Xylenes	
Hardwd Veneer/Plywd		Formaldhyde, Perc	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Wood Product Mfg continued Paper & Allied Prod Mfg			
	Gaseous/aerosol/particulate releases including but not limited to:		
	From: Sizing agents	Acrylamide, Styrene	
	Wet & dry-strength agents	Epichlorohydrin, Formaldehyde	
	Adhesives	Acrylamide, Ammonia	
	Dyes & pigments	Binzidine, Direct Black 38, Direct Blue 6 Lead, o-Tolidine	
	Binders	Styrene	
	Pigment fillers/coatings	Asbestos, Styrene, Zinc, Zinc Oxide	
	Humectants	Formaldehyde	
	Coatings	Ammonia, Sodium hydroxide	
	Oil-resistant additives	Fluorochemical chrome complex	
	Machine operating aids		
	Retention aids	Asbestos, Epichlorohydrin	
	Biocides & slime cont'l	Acrolein, TCA, Trichlorophenol	
	Deinking agents	Sodium hydroxide	
	Bleaching chemicals	Ammonia, Chlorine, Chloroform, Chromic sulfate, Methanol, Sodium hydroxide, Zinc	
	From chemicals imported in waste paper: Ink pigments, coating agents, binders, adhesives -	Chloroform, Phenol, Toluene	
Bldg Paper & Board Mills		Ammonia, Asbestos	
Deink Fine & Tissue Paper, Secondary Fiber Mills		Chloroform	
Paper Mills Misc		Arsenic, Cadmium, Chlorine, Chloroform, Hydrogen sulfide, Toluene, TCE	
Paperboard Containers & Boxes Mfg			
Corrug. & Solid Fiber Box		Ammonia, TCE	
Folding Box		Formaldehyde	
Sanitary Food Containers		Acetaldehyde, Ammonia, Toluene	
Fiber Cans, Drums, etc		Ammonia, Toluene	
Set-Up Box		Toluene	
Paperboard Mills		Cadmium, Chloroform, Formaldehyde, Toluene	
Converted Paper Prod			
Die-Cut Paper & Board		Toluene, TCE	
Paper Bags		Acetaldehyde, Ammonia, Formaldehyde, Hydrogen chloride, Methylene chloride, Naphthalene, Perc, Toluene, TCA	
Pressed & Molded Pulp Goods		Zinc	
Miscellaneous		Ammonia, Formaldehyde, Toluene	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)	Supplemental Process Parameter Reporting Form(s) to Use
Wood Prod Mfg continued			
Pulp Mill Mfg			
Groundwood/Mechanical Pulp Mfg			
Chemical Pulp Mfg		Ammonia, Calcium, Carbon, Caustic soda, Sodium sulfate, Sulfur dioxide	
Dissolving Pulp Kraft or Sulfite		Chloroform	
Sulfite Papergrade Pulp		Chloroform	
Deink Fine & Tissue Paper		Chloroform	
Pressed & Molded Pulp Goods		Zinc	
Miscellaneous		Chlorine, Chloroform, Hydrogen sulfide	
Also see - Paperboard, Coarse Paper, Tissue Paper, Appendix C-II			
Plywood Mfg		Cresols, Dioxins	
Presswood & Laminated Wood Products Mfg		Phenol-formaldehyde resins - Formaldehyde, Phenol Melamine-formaldehyde resins - Formaldehyde Dispersion agent (during glue formulation) - Sodium hydroxide Formaldehyde scavengers - Ammonia	
Sawmills & Planing Mills		Acetaldehyde, Formaldehyde, Lead, POM, PAHs*, Toluene	
Hardwood Dimension & Flooring		Toluene	
Softwood Veneer Mfg		Cresols, Dioxins	
Wood Containers		Toluene	
Wood Furniture Mfg			
Wood Finishing		Chromium, Methylene chloride, TCA	
Combustion Processes - see Combustion, Appendix C-I			
Surface Coating - see Solvent Use and Other Processes, Appendix C-I			
Wool Fabric Mills - see Textile Mfg			
All Other Industries	Gaseous releases from combustion, storage, handling, process vessels, etc	feedstocks that are on list of substances or may contain listed substances as substances.	
	Particulate and aerosol releases from combustion, storage, handling, process vessels, etc	Check all materials manufactured for components that on listed substances	
	Process loss and fugitive releases anywhere along the process train		

APPENDIX D

Summary of Requirements for Measurements and Alternatives

****** NOTES FOR FOLLOWING TABLE *******

(1) Each reference to a measurement requirement includes the following requirements for the substances to be tested and type of test to be performed:

(a) The test shall measure the quantities of all listed substances whose presence in detectable quantities can be determined using the ARB-adopted test method or other method specified in Section 336 for the substance indicated. Therefore the test indicated for "dioxins" shall include measurement of all the polychlorinated dibenzodioxins and dibenzofurans to which the ARB-adopted method for dioxins and furans applies. Specifically, the test results shall include the determination of total tetra-, penta-, hexa-, hepta-, and octa-PCDD/PCDF homologue groups and all the 2,3,7,8-substituted PCDD/PCDF isomers listed in the method; and

(b) ARB-adopted test methods which are necessary to characterize associated source conditions, including stack flow rate and moisture content, shall also be performed to ensure a proper source test for the material indicated. These associated tests shall be identified in the proposed source test protocol in the inventory plan.

(2) Reference to the "full set of metals" or "all metals" herein refers to the following listed substances which are required to be measured and reported: arsenic (As), beryllium (Be), cadmium (Cd), chromium (Cr) which includes total chromium and hexavalent chromium (Cr VI), copper (Cu), lead (Pb), manganese (Mn), mercury (Hg), nickel (Ni), selenium (Se), and zinc (Zn).

(3) Fuel analysis shall include analysis for the full set of metals referred to in Note (2), chlorine content, and sulfur content.

APPENDIX D

Summary of Requirements for Measurements and Alternatives*

Emitting Process, Device or Facility Activity	Substance and Type of Test	Alternative (if any)
--COMBUSTION--		
1. Incinerators		
(a) Incinerators burning hazardous, municipal, or biomedical waste, or burning tires. Does not include refuse incinerators at schools, prisons, restaurants, or hotels.	a. Full set metals/stack test	Small business:Fuel analysis
	b. Hydrogen chloride/stack test	Small business:Fuel analysis
	c. PAH/stack test	-
	d. Dioxins/stack test	-
	e. Formaldehyde/stack test	Small business:Not required
	f. Benzene/stack test	Small business:Not required
	g. Vinyl chloride/stack test	Small business:Not required
	h. PCBs/stack test:required any time that dioxins are tested	-
(b) Incinerators at schools, prisons, and restaurants, and hotels.	Full set metals/stack test	-
(c) Metal reclamation when surface is coated with plastic material	Same as 1(a) above	Same as 1(a) above

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* See notes preceding the table for further explanation of terms used in the table.

2. Coal and coke combustion including incineration*	a. Full set metals/stack test	Small business:Fuel analysis
	b. Hydrogen chloride/stack test	Small business:Fuel analysis
	c. PAH/stack test	-
	d. Dioxins/stack test	-
	e. Formaldehyde/stack test	-
		Requirements a-e shall not apply to universities, schools, colleges, hospitals, and correctional institutions where coal or coke combustion is used primarily for space heating.
3. Residual and crude oil combustion and incineration*	a. Full set metals/stack test	Small business:Fuel analysis
	b. Metals, chloride/fuel analy.	-
	c. Benzene/stack test	-
	d. PAH/stack test	-
	e. Formaldehyde/stack test	-
		Requirements a-e shall not apply to universities, schools, colleges, hospitals, and correctional institutions where residual or crude oil combustion is used primarily for space heating.
4. Distillate and diesel combustion and incineration*	a. Metals, chloride/fuel analy.	-
	b. PAH/stack test	-
	c. Formaldehyde/stack test	-
		Requirements a-c shall not apply to universities, schools, colleges, hospitals, and correctional institutions where distillate or diesel combustion is used primarily for space heating.
5. Waste oil combustion and incineration* (including oil containing used, recycled, reprocessed, or re-refined oil)	a. Full set metals/stack test	Small business:Fuel analysis
	b. Halogenated organics/stack test	-
	c. Benzene/stack test	-
	d. PAH/stack test	-
	e. Dioxins/stack test	-
	f. Formaldehyde/stack test	Small business:Not required
	g. PCBs/stack test: required any time that dioxins are tested	-

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* If co-fired with hazardous, municipal, or biomedical waste, or burning tires, then include all testing required under 1(a).

6. Wood, wood waste, and agricultural waste combustion and incineration* (includes untreated and treated wood)	a. Full set metals/stack test b. PAH/stack test c. Dioxins/stack test d. Formaldehyde/stack test	Small business:Fuel analysis - - - Requirements a-d shall not apply to universities, schools, colleges, hospitals, and correctional institutions where wood, wood waste, or agricultural waste combustion is used primarily for space heating.
7. Natural gas combustion	a. Formaldehyde/stack test for electric utilities only	-
--OTHER PROCESSES--		
8. Waste water treatment facilities - including Publicly Owned Treatment Works (POTWs)		
- Sludge incinerator	Same as Incinerators 1(a)	Same as Incinerators 1(a)
- Headworks	a. Halogenated organics/stack test if ducted, otherwise as applicable in method; sampling on a minimum of 15 days randomly distributed throughout the year, except that these days shall include at least two weekend days, and one day each quarter when NPDES ** liquid sampling is performed, if applicable. This sampling schedule shall be deemed to meet the sampling frequency requirements specified in subsection 334 (b).	-
- Chlorinator discharge	a. Halogenated organics/ducted or as applicable in method	-

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* If co-fired with hazardous, municipal, or biomedical waste, or burning tires, then include all testing required under 1(a).

** NPDES = National Pollution Discharge Elimination System

9. Agriculture-related facilities: dust	a. Metals/Lab analysis of dust representative of fugitive dust *	Small business:Not required
10. Pharmaceutical mfg.		
- Blender	a. Halogenated organics/ducted or as applicable in method	-
	b. Benzene/ducted or as applicable in method	-
- Drying oven	a. Halogenated organics/ ducted or as applicable in method	-
	b. Benzene/ducted or as applicable in method	-
11. Smelters and foundries		
(a) All	a. Full set metals/stack test	Small business:Metals test/ feed material analysis for As, Be, Cd, Cr(VI), Ni, Pb
	b. Hydrogen sulfide/stack test	Small business:Not required
(b) Secondary copper smelters	a. Same as 11(a) plus dioxins/stack test	-
12. Petroleum refineries		
- CO boilers	a. Benzene/as applicable in method	-
	b. Formaldehyde/as applicable in method	-
	c. All metals/ducted or as applicable in method	-
- Catalytic crackers	a. Benzene/as applicable in method	-
	b. Formaldehyde/as applicable in method	-
	c. All metals/ducted or as applicable in method	-
- Oil combustion	a. Same as appropriate oil combustion by fuel type	Same as oil combustion
13. Asphaltic concrete production	a. Full set of metals/ducted or as applicable in method	-
	b. Benzene/ducted or as applicable in method	-
	c. PAH/ducted or as applicable in method	Small business:Not required

* Preferably dust trapped by the particulate control equipment, if any.

14. Cement mfg.	a. Full set of metals/stack test	-
	b. Formaldehyde/stack test	-
	c. Benzene/stack test	-
	d. Dioxins/stack test *	-
	e. PAH/stack test *	Small business:Not required
	f. Hydrogen chloride/stack test*	Small business:Fuel analysis, Including total chloride
15. Pulp and Paper mfg.		
- Combustion	a. All combustion, as applicable by fuel type	Same as for Combustion
- Bleaching	a. Formaldehyde/ducted or as applicable in method	-
	b. Halogenated organics/ducted or as applicable in method	-
16. Textile mfg.		
- Combustion	a. All combustion, as applicable by fuel type	Same as for Combustion
- Other processes	a. Benzene/ducted or as applicable in method	-
	b. Formaldehyde/ducted or as applicable in method	-
	c. Halogenated organics/ducted or as applicable in method	-
17. Solvent recycling (re-refining)	a. Halogenated organics/ducted or as applicable in method	-
	b. Benzene/ducted or as applicable in method	-
18. Fiberboard mfg.	a. Formaldehyde/ducted or as applicable in method	-
19. Glass mfg.	a. Arsenic/stack test	-
	b. Cr(VI) and lead/stack test	Small business:Not required
20. Bulk plant/terminal	a. Gasoline vapors/existing compliance tests must be provided	-

* except when burning primarily natural gas; then not required

NOTES TO APPENDIX E

a Except facilities using less than four pounds of ethylene oxide per year.

b Except facilities using solvents for cold cleaning and vapor degreasing in the following quantities:

(1) less than 55-gallon (drum) quantities per year of a listed substance which is designated as a human carcinogen or potential human carcinogen; and

(2) less than 55-gallon (drum) quantities per month of a listed substance which is not designated as a human carcinogen or potential human carcinogen.

c Any facility at which asbestos removal occurs on a routine and predictable basis for a period of at least one year.

d Any treatment, storage, disposal, and recycling 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 66096) except:

(1) transfer stations (as defined in Title 22, CCR, Section 66212) 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.

e Only the described portions of the SIC are included.

f [ ] Indicates an SIC formerly used by the Executive Office of the President, Office of Management and Budget, which has been reassigned.

APPENDIX E-I

Classes of Facilities Emitting Less Than 10 tpy of Criteria Pollutants for Which the Facility Operators Must Prepare Complete Emission Inventory Plans and Reports

Standard Industrial Classification Code (SIC)	Description of Class
Any SIC	Metal platers using cadmium or chromium
Any SIC	Facilities using ethylene oxide for sterilization[a]
Any SIC	Facilities with cooling towers using hexavalent chromium
Any SIC	Facilities that perform degreasing[b]
Any SIC	Facilities using incinerators that burn hazardous, municipal, or biomedical waste, or burning tires
Any SIC	Long term asbestos removal (over one year)[c]
Any SIC	Treatment, storage, disposal, and recycling facilities (TSDFs; TSDR facilities)[d]
2221[e],3229[e]	Fiberglass and various fiberglass materials and products manufacturing facilities within SICs 2221 and 3229
2611,2621,[2631][f]	Pulp and paper mills
2711-2771, 2782	Printing and publishing including printshops and miscellaneous commercial printing
2812-2899	Chemicals and allied products manufacturing
2911-2999	Petroleum refining and related industries
3011-3089, [3293][f],[3555][f]	Rubber and miscellaneous plastics products manufacturing
3471-3479	Miscellaneous plating, polishing, coating, engraving, and allied services
3674	Semiconductors and related devices manufacturing
3731-3732	Boat and ship building and repair
4952	Wastewater treatment facilities (including publicly owned treatment works, POTWs)
5171-5172	Petroleum bulk stations and terminals and related
5511-5521, [7531][f],7532, [7535][f]	Auto body shops (including new and used car dealers where body work occurs)
5541	Gasoline stations
7216[e]	Dry cleaners
7261[e]	Funeral services with crematories

APPENDIX E-II

Classes of Facilities Emitting Less Than 10 tpy of Criteria Pollutants for Which the Facility Operators Must Complete a Survey of Production, Use, or Other Presence of Listed Substances

Standard Industrial Classification Code (SIC)	Description of Class
0723,[0729][f]	Crop preparation services for market
0724,[0729][f]	Cotton ginning
1311	Crude petroleum and natural gas extraction
1321	Natural gas liquids plants
1381	Drilling oil and gas wells
1422-1429	Miscellaneous crushed and broken stone mining
1442-1446	Construction sand and gravel mining
2033-2034	Canned and dehydrated fruits and vegetables
2041,2044,2046, 4221	Grain mill products manufacturing and warehousing
2434-2439	Veneer, plywood, structural wood members, and related manufacturing
2441-2499	Miscellaneous wood containers, buildings, and products manufacturing
2511-2599,7641	Furniture or cabinet manufacturing and repair
3241	Hydraulic cement manufacturing
3292-3296	Asbestos and miscellaneous nonmetallic mineral products manufacturing
3312-3325	Blast furnaces and steel mills
3341-3369	Primary metal industries and secondary smelting
3411-3469, 3482-3499	Miscellaneous fabricated metal products manufacturing
3511-3537	Various industrial machinery manufacturing
3612-3672, [3673][f], 3675-3699	Electronic and other electrical equipment and components, except computer equipment
3721-3728	Aircraft and parts
3761-3769	Guided missile and space vehicle propulsion units and propulsion unit parts
7218	Industrial launderers
7533-7534, 7537-7539	General automotive repair shops and related
8062	General medical and surgical hospitals
8731,8733-8734, [7391][f],[7397][f]; [8922][f]	Research, development, and testing services

APPENDIX D

Notice of Public Hearing to Consider the Repeal of Sections 2201 and 2202, Title 13, California Code of Regulations, Repeal of Sections 93301-93355 and Appendices A to E, Title 17, California Code of Regulations, and Addition of Section 93300.5, Title 17, California Code of Regulations

Proposed Regulation Order

Emission Inventory Criteria and Guidelines

Adopt Title 17, California Code of Regulations, Section 93300.5

TEXT OF PROPOSED AMENDMENT TO
TITLE 17, CALIFORNIA CODE OF REGULATIONS

Note: All of proposed regulation section 93300.5 is new language.

§ 93300.5. Incorporation by Reference. This subchapter shall apply to any facility subject to the Air Toxicities "Hot Spots" Information and Assessment Act of 1987, Health & Safety Code sections 44300-44394. Subject facilities shall comply with the provisions of the "Emission Inventory Criteria and Guidelines Report" published by the Air Resources Board on [insert date of ARB adoption of regulation], which is incorporated by reference herein.

Note: Authority cited: Sections 39600, 39601, 44320, 44322, 44323, 44340, 44342, 44360, and 44362, Health and Safety Code. Reference: Sections 41805.5, 44320, 44321, 44322, 44323, 44324, 44325, 44340, 44341, 44342, 44343, 44344, 44345, 44346, 44360, and 44365, Health and Safety Code; Section 6254.7, Government Code; and 17 CCR Sections 90700-90705, Appendices A, B, and E-I.

APPENDIX E

Notice of Public Hearing to Consider the Repeal of Sections 2201 and 2202, Title 13, California Code of Regulations, Repeal of Sections 93301-93355 and Appendices A to E, Title 17, California Code of Regulations, and Addition of Section 93300.5, Title 17, California Code of Regulations

Proposed Regulation Order

Emission Inventory Criteria and Guidelines

Repeal Title 17, California Code of Regulations, Sections 93301-93355 and Appendices A to E