California Environmental Protection Agency

Air Resources Board

Staff Report: Initial Statement of Reasons for Proposed Rulemaking

Proposed Amendments to the Emission Inventory Criteria and Guidelines Report Published in Accordance with the Air Toxics "Hot Spots" Information and Assessment Act of 1987

May 1996

Issue Date: June 7, 1996

State of California
California Environmental Protection Agency
AIR RESOURCES BOARD
Technical Support Division

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With the Participation of the
Air Toxics Hot Spots Technical Advisory Committee and Subcommittees
for the Emission Inventory Guidelines

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.

ACKNOWLEDGEMENTS

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Table of Contents

		Page
I.	SUMMARY AND RECOMMENDATION	
	A. Purpose of this Report	1
	B. Benefits of the Hot Spots Program	1
	C. Background	2
	D. Proposed Amendments to the Emission Inventory Guidelines	5
	E. Summary of Recommended Amendments	7
	F. Other Streamlining Activities	10
	G. Recommendation	10
II.	DISCUSSION OF RECOMMENDED AMENDMENTS	
	A. Restructure the Guidelines for Ease of Use	13
	B. Categories for Update and Exemptions From Updates	17
	C. Applicability Provisions	28
	D. Substances Subject to the Program	31
	E. Degree of Accuracy	33
	F. Use of Source-Test Derived Emission Factors	33
	G. Reporting Forms and Data	34
	H. Confidential Data Provisions	35
	I. Appendix C: Facility "Look-Up Table"	35
	J. Miscellaneous Revisions	35

III. PROGRAM BACKGROUND AND REQUIREMENTS

A. Air Toxics Hot Spots Program Overview 37

B. Emission Inventory Requirements 37

C. Emission Inventory Criteria and Guidelines Regulation 38

D. Facilities Subject to Inventory Requirements 38

E. Other Emission Inventory Requirements 39

F. Relationship to Other Regulations 41

IV. ECONOMIC AND ENVIRONMENTAL IMPACTS

A. Economic Impacts 42

B. Environmental Impacts 44

Figures

Figure 1 Proposed Exemption and Reporting Levels 11

Figure 2 Reporting Requirements 12

Tables

Table 1 Emission Inventory Criteria and Guidelines Format/Section Changes 14

Table 2 Key Dates Pertaining to Implementation of the Air Toxics Hot Spots Requirements 40

ATTACHMENTS

Attachment I Air Toxics "Hot Spots" Information and Assessment Act

Attachment II Proposed Emission Inventory Criteria and Guidelines Report

Attachment III Announcements of Public Consultation Meetings

Attachment IV Fiscal Impact Analysis

I.

SUMMARY AND RECOMMENDATION

A. PURPOSE OF THIS REPORT

The purpose of this report is to present the bases for the Air Resources Board (ARB or Board) staff's recommended amendments to the Emission Inventory Criteria and Guidelines Report for the Air Toxics Hot Spots Program. The Guidelines provide direction and criteria to facilities on how to compile and submit air toxics emission data required by the Hot Spots program. The objective of the proposed amendments is to focus the emission update requirements on the most significant facilities, to exempt the least significant facilities, and to streamline the emission reporting requirements for all facilities. The effect will be to substantially reduce costs and burdens to most facilities subject to the program while targeting the program on those facilities whose emissions could most likely result in risks to public health. These amendments will increase the efficiency of the Hot Spots program to identify and track the facilities of highest priority and concern.

The proposed amendments to the Emission Inventory Criteria and Guidelines reflect the second phase of a two-phased effort begun late last year by the ARB to streamline the Hot Spots Program. These streamlining efforts are appropriate now that many expectations of the Program and its goals are coming to fruition.

The Phase I effort culminated in approval by the Board in January 1996 of the Hot Spots Fee Regulation for fiscal year 1995-1996, which includes substantial reductions to the State costs associated with the Program and exempted from fees a large number of facilities identified as posing little or no risk to public health. This proposed Phase II effort would extend these exemptions from fees to the reporting and applicability provisions for facilities as well, and it would make additional streamlining improvements to the emission inventory requirements of the Program. The Phase II effort will also extend to the development of the Fee Regulation for fiscal year 1996-1997. The proposed, Phase II amendments to the Emission Inventory Guidelines are scheduled to be considered by the Board at its July 25, 1996, meeting. The Fee Regulation for fiscal year 1996-1997 is anticipated to follow within a few months, once the emission inventory criteria and guidelines amendments have established the applicability and requirements for facilities subject to the Hot Spots Program.

The proposed amendments were developed with the assistance of the Air Toxics Hot Spots Technical Advisory Committee and Subcommittees for the Emission Inventory Criteria and Guidelines, which include representatives of the air pollution control and air quality management districts and the Office of Environmental Health Hazard Assessment (OEHHA), and with the generous input of the general public, industry and industry associations, environmental organizations, health organizations, and the California Air Pollution Control Officers Association (CAPCOA).

B. BENEFITS OF THE HOT SPOTS PROGRAM

Both the public and industry have benefitted from the Hot Spots Program. The Program has resulted in the first and only comprehensive State inventory of its kind of air toxics emissions.

The emission inventory compiled under this program provides essential data for the risk assessment and public notification processes. It provides data for public requests for toxics information and provides an essential tool for development of cost-effective risk reduction audits and plans. The emission data collected under this program are used in the Toxic Air Contaminant Identification and Control Program to help prioritize the development of air toxic control measures. The reported data also serve as a baseline for quantifying our progress toward reducing toxic emissions. Since the amendment of the statute in 1992 by enactment of Senate Bill 1731, facilities that pose a potential significant health risk to the public are required to reduce their risks, thereby reducing the near-source exposure of Californians to toxic air pollutants.

The Air Resources Board is also working closely with the United States Environmental Protection Agency to use the Hot Spots Program to help demonstrate that California has a comprehensive and effective toxics program and can meet the requirements of the federal air toxics program mandated by the federal Clean Air Act. Businesses and State and local governments will save costs if California's approach is deemed equivalent to the federal program. The Hot Spots inventory has been valuable to businesses and State and local agencies to identify and notify sources that may be subject to federal requirements and to help focus control efforts on the sources which pose the most significant risk.

The program has also benefitted industry by improving facilities' awareness of the nature of the toxic emissions and helping to identify the most effective risk reduction measures to apply at a reasonable cost. Facilities can use the inventory information to identify and modify the processes or substances within the facility posing the greatest potential public health risk. As a result of the Program, many facilities have recognized their toxic emissions and have made voluntary changes to their processes to reduce these emissions. Based on available data, the staff estimates that California facilities subject to the Program have voluntarily reduced emissions of toxic substances by over 1.9 million pounds per year. This voluntary reduction has occurred for a broad spectrum of facility types and sizes. Now that facility operators are more knowledgeable of the toxicity of substances that are used at their facilities, the staff expects that facilities will continue to make strides to voluntarily reduce and avoid emissions of air toxics.

C. BACKGROUND

1. Statutory Requirements

The Air Toxics Hot Spots Program was created by the Air Toxics "Hot Spots" Information and Assessment Act of 1987 and its subsequent amendments (the Act; AB 2588; Stats. 1987, ch. 1252; Health and Safety Code Sections 44300 through 44394). The Act was established to inform and protect the California public from exposures to toxic air pollutants. The Act established a program to inventory routine emissions of toxic substances into the air and to assess the public health risk to those who are exposed. The Act requires that toxic air emissions from stationary sources (facilities) be quantified and compiled into an inventory according to criteria and guidelines developed by the Air Resources Board (ARB), that each facility be prioritized to determine whether a risk assessment must be conducted, that the risk assessments be conducted according to methods developed by the Office of Environmental Health Hazard Assessment (OEHHA), that the public be notified of significant risks posed by nearby facilities, and that emissions which result in a significant risk be reduced.

The Act required ARB to adopt criteria and guidelines for the preparation of site-specific emission inventory plans and emission inventory reports by specified facilities (Health and Safety Code Section 44342). The original Act set forth the minimum components of these criteria and guidelines and identified the classes of facilities for which inventories must be prepared. It also required ARB to identify classes of facilities that emit less than 10 tons per year of criteria pollutants (less-than-10-ton-per-year facilities) that must comply with emission inventory requirements. The Act (as amended in 1993) required that inventory information be updated every four years and that ARB develop procedures for preparing these updates. A copy of the Act is included as Attachment I to this staff report.

2. Emission Inventory Criteria and Guidelines Regulation

The original Emission Inventory Criteria and Guidelines Regulation was approved by the Office of Administrative Law (OAL) on October 30, 1989. Amendments to the regulation, adopted by the Board in June 1990, included procedures for preparing updates to the emission inventories and reporting requirements for specific classes of facilities whose emissions of all criteria pollutants did not exceed ten tons per year (less-than-10-ton-per-year facilities). Specific sections of the regulation were amended again in September 1990, and June 1991, to reflect additions to the list of substances that must be inventoried. Further amendments, which significantly streamlined the reporting requirements, were approved by the Board in June 1993, and became effective upon approval by OAL in January 1994. The regulation was set forth in Title 17, California Code of Regulations (CCR) Sections 93330 through 93355, including Appendices A through E. That version of the regulation, which is the version that is currently in effect, is referred to herein as the "1994 Regulation".

The 1994 Regulation specifies:

- types of facilities which must report airborne emissions of listed toxic substances;
- classes of facilities emitting less than 10 tons per year of any criteria pollutant that are subject to the Hot Spots program, and their emission inventory reporting requirements;
- the information a facility operator must include in a facility's air toxics emission inventory plan and inventory report;
- the information a facility operator must include in a facility's emission inventory update;
- the timetable for submitting initial inventories and updates;
- source testing requirements for emission estimation, other acceptable emission estimation methods, and the reporting forms to be used; and
- two groups of the substances to be inventoried, one for which emissions must be quantified and a second for which only information on production, use, or other presence of toxic substances must be reported.

3. Restructuring of the Guidelines through the Regulatory Improvement Initiative

On May 30, 1996, the Air Resources Board will consider a proposal to re-codify the Emission Inventory Criteria and Guidelines Regulation as part of a Regulatory Improvement Initiative. The goal of the re-codification through the Regulatory Improvement Initiative is to simplify the

California Code of Regulations by removing the lengthy and technically detailed content of the Guidelines from the numbered sections of the Code, and instead incorporating a report containing the requirements by reference in the Code. The re-codification **does not change the specific requirements** of the Guidelines. The proposed re-codification is summarized here to clarify its relationship with the proposed amendments described in this staff report; however, the re-codification is not the subject of this staff report.

On April 12, 1996, a notice of public hearing was issued for the Board to consider a proposal to reduce regulatory burden by simplifying and streamlining a number of state regulations. The proposal was part of the California Environmental Protection Agency's Regulatory Improvement Initiative, undertaken in response to the Governor's Executive Order No W-127-95 regarding "regulatory relief" efforts to reduce the regulatory burden on California businesses and the economy. Included in the Regulatory Improvement Initiative is the proposed re-codification of the Emission Inventory Criteria and Guidelines Regulation. The proposed re-codification under the Regulatory Improvement Initiative is being handled as a separate regulatory item, and the staff report and proposed regulation text are available from the Board's Public Information Office. The public hearing on the Regulatory Improvement Initiative (including the re-codification) is scheduled for May 30, 1996.

The re-codification for regulatory relief would restructure the Guidelines so that only one numbered section in the California Code of Regulations (CCR Section 93330.5) would incorporate by reference the entire content of the 1994 Emission Inventory Criteria and Guidelines (unchanged in content) as a document published under separate cover and entitled the "Emission Inventory Criteria and Guidelines Report, Published in Accordance with the Air Toxics 'Hot Spots' Information and Assessment Act of 1987". This proposed report under the Regulatory Improvement Initiative is referred to herein as the proposed "April 1996 Guidelines Report."

The proposed April 1996 Guidelines Report, which would be incorporated into the California Code of Regulations by reference in Section 93330.5, contains the content of the 1994 Regulation. Only the section numbering differs, the first two digits of each section number are dropped. For example, CCR section "93301" in the 1994 Regulation becomes section "301" in the proposed April 1996 Guidelines Report.

The goal of the re-codification through the Regulatory Improvement Initiative is to simplify the California Code of Regulations by removing the lengthy and technically detailed content of the Guidelines from the numbered sections of the Code itself, while still maintaining the regulatory enforceability of the Guidelines by incorporating them by reference. The re-codification does not change the specific requirements of the Guidelines. The re-codification proposal will be considered by the Air Resources Board at its public meeting on May 30, 1996, as a part of the overall Regulatory Improvement Initiative item.

D. PROPOSED AMENDMENTS TO THE EMISSION INVENTORY GUIDELINES

1. Regulatory Objectives

The proposed amendments which are the subject of this staff report include revisions to the content as well as the format of the Emission Inventory Criteria and Guidelines. The revisions include changes to the technical and regulatory requirements of the April 1996 Guidelines Report.

The goal of the proposed amendments described in this staff report is to utilize the knowledge and experience gained from operating the Hot Spots program to date to further streamline the reporting and update requirements for affected facilities. The amendments proposed in this staff report are based on the structure established by the re-codification proposal, which is anticipated to be approved by the Board in May 1996.

The amendments proposed in this staff report are scheduled to be considered by the Air Resources Board at a public hearing during its July 25, 1996, meeting.

The amendments proposed in this staff report would amend the content of the emission inventory requirements in the April 1996 Guidelines Report. The staff proposes that the April 1996 Guidelines Report be replaced in its entirety with the proposed document entitled "Air Toxics Hot Spots Emission Inventory Criteria and Guidelines Report," dated May 1996, which is included as Attachment II to this staff report. This proposed amended Guidelines document will be referred to in this staff report as the proposed "May 1996 Guidelines" or "May 1996 Guidelines Report". The staff proposes that CCR Section 93330.5 be amended by the Board at its July hearing to incorporate by reference the proposed May 1996 Guidelines Report replacing the April 1996 Guidelines Report.

The proposed, streamlining amendments, which are described in more detail in the following section, would exempt specified facilities which pose a low level of health risks, from further emission inventory update reporting (and, it is anticipated, from future fees when the Fee Regulation is amended), and the proposed amendments would streamline the requirements for remaining facilities. The proposed exemptions and other streamlining measures represent the second of a two-phased effort by ARB staff to substantially streamline the Hot Spots program. Phase I of the effort, which culminated in the approval by the ARB in January 1996 of amendments to the Hot Spots Fee Regulation for 1995-96, reduced the State costs for the Hot Spots program by over 50 percent from two years before, and exempted specified facilities from paying fees. The proposed amendments to the emission inventory guidelines, contained in this staff report, represent one component of Phase II of the staff's streamlining effort, by proposing exemptions from inventory reporting which are patterned after the exemptions from fees approved in the 1995-96 Fee Regulation. The Phase II streamlining effort also includes additional inventory streamlining measures, as described in the following sections. The Phase II effort will also include subsequent measures pertaining to program costs and facility fees, which will be addressed in the Hot Spots Fee Regulation for 1996-97; it is anticipated that this matter will be considered by the Board later this year.

2. What the Proposed Amendments Would Do

The staff recommends amendments to the emission inventory guidelines that will: (1) exempt from update reporting, specified facilities identified as posing a low level of concern; (2) streamline

the inventory reporting process for other facilities; (3) focus the program's efforts on the most significant facilities and substances; and (4) reduce the costs and burdens on facilities and districts. If adopted by the Board at its July 1996, public hearing, these amendments will affect the inventory update requirements for nearly all facilities. The changes will focus the inventory efforts on the most significant risk facilities, improve the effectiveness of the Hot Spots program, and move the program toward a "maintenance level" of effort. The staff has received and considered many comments and suggestions in developing these proposed amendments. The recommendations for amending the Emission Inventory Criteria and Guidelines are summarized in section D, below. A more detailed discussion is presented in Chapter II.

3. Development of the Amendments

The ARB staff developed the proposed amendments with the assistance of the Air Toxics Hot Spots Technical Advisory Committee and Subcommittees for the Emission Inventory Guidelines, and with the assistance of many representatives of industry, industry associations, environmental organizations, other government agencies, the California Air Pollution Control Officers Association (CAPCOA), and the public. The Technical Advisory Committee consists of representatives of the air pollution control and air quality management districts and the Office of Environmental Health Hazard Assessment. The Committee met or held teleconferences seven times in December 1995, and January, February, March, and May 1996. Subcommittees of this committee held four additional teleconferences. The staff also met with the California Air Pollution Control Officers Association in November 1995, and January and February 1996.

The staff held five teleconferences with an on-going task force consisting of members of industry and environmental groups in January, February, March, and May 1996. The staff held additional meetings with specific industry and environmental group representatives at their request during the development of the proposed amendments.

The staff also conducted seven public consultation meetings between December 1995 and April 1996, in northern, central, and southern California, to discuss and receive public input on the proposed amendments to the regulation. Over 8,000 facility operators and members of the public were notified of the consultation meetings. Copies of the announcements of the public consultation meetings are contained in Attachment III to this report.

4. Evaluation of Options

Government Code Sections 11346.9(a)(4) and 11346.14 require, in part, that the agency determine whether or not there are alternatives to the proposed amendments to the regulation that would make it as effective and less burdensome to those affected. The staff did not find any such alternatives. The regulation, including the requirements for inventory update procedures, is mandated by the Act. The purpose for the proposed amendments is to streamline the emission inventory provisions in the Act, and the proposed amendments were designed to reduce, to the greatest extent possible, the burden associated with preparing and reviewing updates on affected private persons and the districts, while retaining the capability to continue to identify potential air toxic "hot spots."

The existing regulation provides alternatives to some requirements such as required source testing, including provisions for pooled source testing and alternative measurement methods for small businesses, that reduce costs to affected facilities yet support effective characterization of emissions as required by the Act. These provisions are maintained in the proposed, amended regulation.

E. SUMMARY OF RECOMMENDED AMENDMENTS

The proposed amendments would do the following:

- o **Restructure the Guidelines for Ease of Use:** Re-format the section numbering scheme, group the requirements into logical chapters, re-order the chapters for greater ease of use, and move detailed and specialized technical requirements to later sections or to appendices published under separate cover. Amend section 93330.5 in the California Code of Regulations to incorporate by reference the amended, May 1996 Emission Inventory Criteria and Guidelines Report.

  Table 1 shows the translation from (1) the codified section numbering in the original Regulation to (2) the section numbering in the April 1996 Guidelines Report under the Regulatory Improvement Initiative, to (3) the section numbering in the proposed, May 1996 Guidelines Report.

- o **Categories for Update:** Define criteria to classify facilities into three levels or tiers for update reporting purposes. The proposed criteria are based on: (1) the facility's prioritization score if a risk assessment was not required; (2) the results of a health risk assessment or screening risk assessment if one was conducted; or (3) *de minimis* thresholds for several classes of facilities, adopted by the Board in January 1996 to exempt facilities from paying fees; these *de minimis* thresholds would be extended to exempt facilities from reporting requirements.

  - "Low level" facilities would be exempt from further update reporting.
  - "Intermediate level" facilities would be tracked, using minimal update procedures.
  - "High level" facilities would continue to utilize the already streamlined update reporting procedures from the 1994 Regulation which focus Hot Spots updates on the significant emission points (devices) within the facility.

  Figures 1 and 2 summarize these three levels and the proposed update provisions.

  Allow integration of Hot Spots reporting requirements with other reporting programs where possible, such as through combined toxics and criteria pollutant emission inventory reporting and through district permit evaluation programs for new and modified sources, if specified criteria are met, to avoid duplicate reporting. Allow tracking of changes to a facility's activity level as a substitute for full emission reporting for many facilities, while ensuring that public health is protected.

Include provisions to ensure that sources emitting federal Hazardous Air Pollutants (HAPs) in specified quantities, which are related to requirements promulgated by the United States Environmental Protection Agency for federal "major sources" and potentially major sources under Title III of the federal Clean Air Act Amendments of 1990, will continue to be tracked through the Hot Spots program. These provisions would help ensure that large-volume emitters of toxic chemicals would continue to be tracked. These provisions would also help ensure that equivalency can be demonstrated for the California toxics program with upcoming federal mandates so as to avoid costly and duplicative, additional federal requirements for facilities in California.

Specify criteria by which districts may reinstate an exempted facility if changes occur which warrant re-evaluation of the emissions to protect public health.

Specify in a new Appendix F to the guidelines, the criteria for inputs to screening air dispersion modeling if a screening risk assessment is conducted.

Specify timeframes for the designation of the categories and completion of screening risk assessments by certain dates, to affect a given year's reporting requirements.

The proposed amendments would become effective upon approval by ARB and the Office of Administrative Law.

o **Applicability:** Revise and consolidate Appendix E-I and E-II, the applicability provisions for facilities emitting less than 10 tons per year of criteria pollutants.

Specify a lower threshold, below which the applicability requirements for facilities included in Appendix E would exempt facilities posing little or no risk from program requirements (similar to the criteria for exempting low level facilities from update reporting).

Add language to allow districts to identify "unique" facilities that emit less than 10 tons per year of criteria pollutants and that meet specified criteria indicating they may pose concern to public health. Provide a mechanism to require emission reporting for specific facilities which pose concern without requiring the entire class of facilities statewide (not of concern) to comply.

Modify the provisions for new facilities to allow use of district permit evaluations for new sources under certain conditions as an alternative way to evaluate whether a new facility must comply with Hot Spots reporting requirements.

o **Substances Subject to Program:** Revise and re-structure the list of substances in Appendix A, the list of substances subject to the Hot Spots program reporting. Focus on the substances which are of greatest concern as airborne toxics. Move a large number of substances which are not of concern as airborne emissions, (such as substances used for medicinal purposes), out of Appendices A-I and A-II to a new Appendix A-III, "Substances Which Need Not Be Reported Unless Manufactured By the Facility".

Remove acetone from the list of substances. In a separate action, the staff will propose removal of acetone from the Toxic Air Contaminant (AB 1807) list of substances, in response to a petition. If acetone is removed from the AB 1807 list, the staff recommends it also be removed from the Hot Spots list.

Health and Safety Code section 44321 requires the Air Resources Board to compile and maintain the list of substances from designated reference lists of substances. Add to Appendix A-I several new substances that have been added to the lists of other federal and state regulatory programs, for which there is information indicating adverse health effects and the potential to become airborne. Add ten additional PAH compounds which are included in the ARB's source test method for PAHs to the list of individual polycyclic aromatic hydrocarbon (PAH) compounds. Add ten additional dioxin and furan compounds which are included in the ARB's source test method for dioxins and furans.

- **Degree of Accuracy:** Revise the requirements pertaining to the degree of accuracy for reporting purposes for some substances to be more consistent with the current understanding of the toxicities. This change would help ensure that emissions will be reported to appropriate levels (depending on the toxicity of the substance) to adequately characterize the public health impacts of the emissions, particularly for very potent substances for which very small quantities can pose a substantial threat.

- **Source-Test Derived Emission Factors:** Modify the provisions which require certain facilities to conduct source testing to allow the use of ARB-approved emission factors (to substitute for costly testing), when specified criteria are met.

- **Reporting Forms and Data:** Re-structure Appendix B to make it easier to use by specifying general data reporting formats and moving the lengthy and detailed reporting forms, instructions, and data codes to a separate document, incorporated by reference. These forms provide just one option for reporting the required data, especially for those districts using ARB's merged toxics and criteria pollutant emission inventory data system; the districts may allow other forms which provide equivalent information.

- **Confidential Data Provisions**: Specify revised procedures by which data may be designated as confidential to conform with recent court rulings regarding designation of confidential or trade secret data, and provide a more standardized mechanism for maintaining confidentiality of data in the statewide database.

- **Appendix C: Facility "Look-Up Table":** Move Appendix C (the Facility "Look-Up Table"), which includes lengthy and detailed technical guidance on which substances may be associated with various source types, to a separate document, incorporated by reference.

- **Miscellaneous Revisions:** Provide other clarifications and minor revisions that clarify the intent of the regulation.

F. OTHER STREAMLINING ACTIVITIES

The proposed amendments are intended to work in conjunction with other streamlining activities the ARB staff is also implementing. These include:

(1) continuing and expanding the capability to allow facilities to electronically submit air toxics emission data via floppy disk or other media ;

(2) expanding the capability to allow facilities to report updates through a combined toxics and criteria pollutant emission inventory system; and

(3) developing additional air toxics emission factors derived from the source test data collected under this program.

These additional streamlining efforts will also improve the efficiency of the emission inventory process. Many facilities maintain their emission data on electronic media. Providing these facilities with the capability to submit data electronically to the districts will reduce costs to both districts and facilities while reducing both data entry errors and the time required for data entry. Also, data will be available for district and ARB use in much shorter time frames.

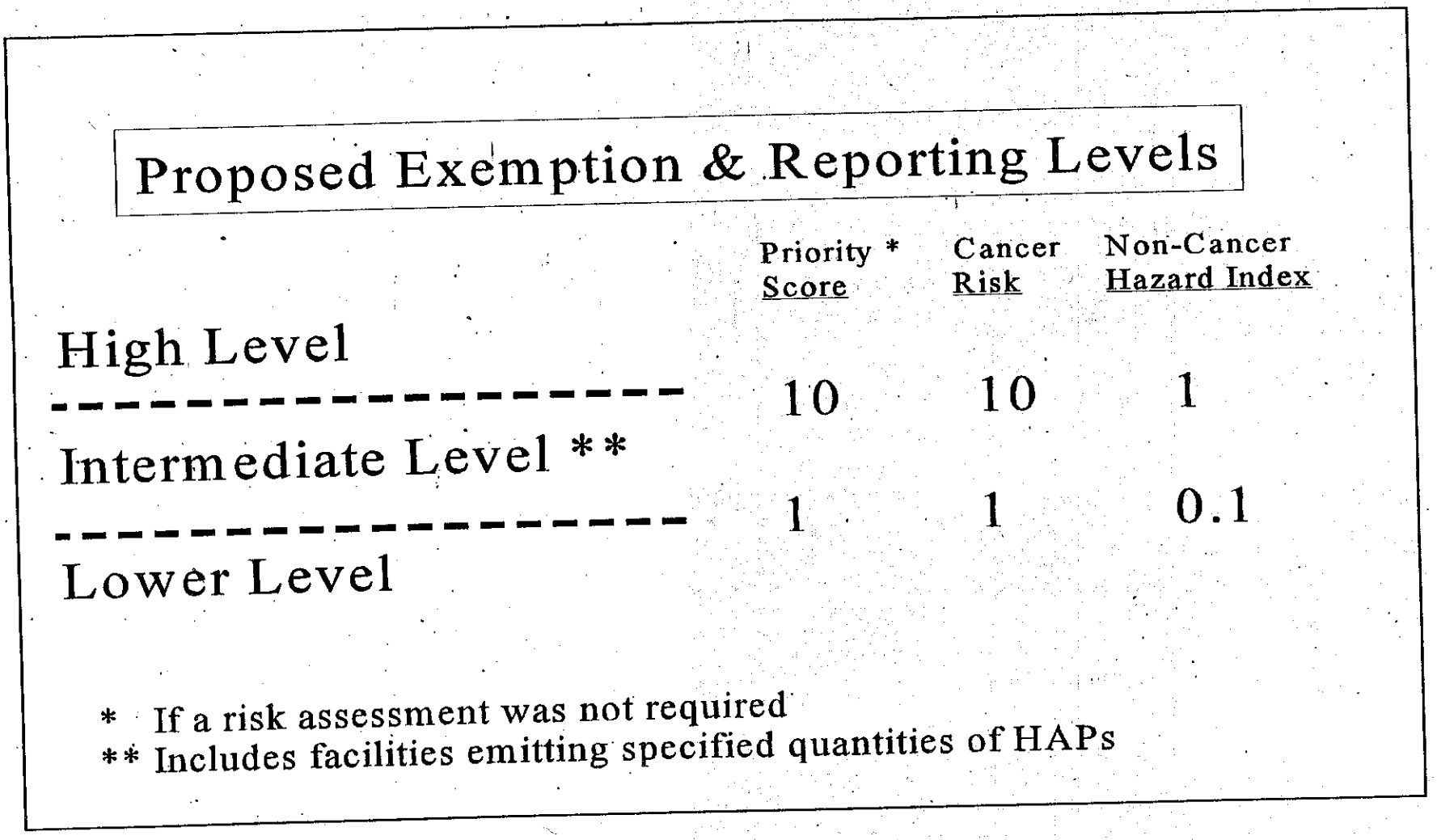
Emission inventories for both the traditional criteria pollutants and toxics are often developed for the same facilities. Several districts have already merged these reporting activities into a combined toxics and criteria pollutant emission inventory system. ARB has developed a data system to accommodate combined data, and is continuing to enhance its capabilities. Once facility data have been merged, combined reporting reduces costs and duplicate reporting to both districts and facilities.

ARB recently completed a research contract to develop air toxics emission factors from source test data collected under the Hot Spots program. These emission factors will be made available to facilities. This should reduce the need for further source testing considerably. The emission factors will also improve the quality and consistency of reported emissions data. The proposed amendments include provisions for the use of these emissions factors. In addition, the ARB is pursuing a follow-on research contract to develop additional emission factors from more source test data which could not be completed within the first contract.

G. RECOMMENDATION

The staff recommends that the Board adopt the proposed amendments to the Emission Inventory Criteria and Guidelines Report described in this staff report, and amend Section 93330.5 of Title 17 of the California Code of Regulations to incorporate the May 1996 Guidelines Report by reference. These proposed amendments are summarized in Chapter II and are shown in Attachment II to this staff report.

Figure 1

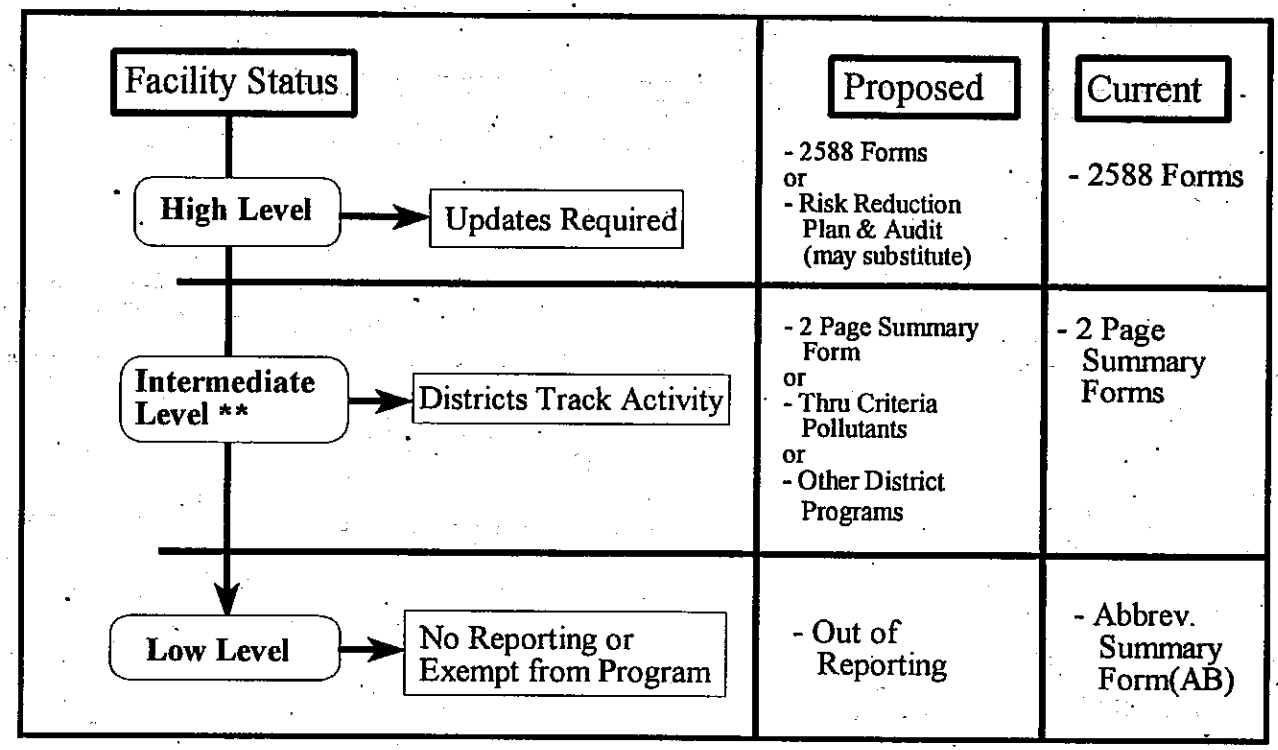


Note: If there is any inconsistency between this figure and the text of this report, text language takes precedence.

May 28, 1996

Figure 2

Reporting Requirements



**** Includes facilities emitting specified quantities of HAPs**

Note: If there is any inconsistency between this figure and the text of this report, text language takes precedence.

May 28, 1996

II.

DISCUSSION OF RECOMMENDED AMENDMENTS

The staff proposes that the Board approve at its July 25, 1996, hearing, the revised and re-structured Air Toxics Hot Spots Emission Inventory Criteria and Guidelines, dated May 1996 (referred to as the May 1996 Guidelines Report) to be incorporated by reference into Section 93330.5 of the California Code of Regulations. The May 1996 Guidelines Report would replace the April 1996 Guidelines Report which is expected to be approved by the Board as a part of the Regulatory Improvement Initiative that it will consider on May 30, 1996. The proposed Regulatory Improvement Initiative would re-codify the Emission Inventory Guidelines and incorporate by reference the April 1996 Guidelines Report. However, the April 1996 Guidelines Report **would not change the content** of the regulatory reporting requirements compared to the 1994 Regulation.

This chapter discusses the bases for the staff's recommended amendments to the emission inventory reporting and update requirements in the proposed May 1996 Guidelines Report. Proposed language changes in the May 1996 Guidelines Report are included as Attachment II to this staff report.

A. RESTRUCTURE THE GUIDELINES FOR EASE OF USE

The proposed, May 1996 Guidelines Report contains a new section numbering system compared to the April 1996 Guidelines Report developed under the Regulatory Improvement Initiative. The new format follows a more standard report presentation scheme. The requirements have been grouped into logical chapters for ease of use of the document by facility operators and districts. The chapters have been re-ordered to position the most important information (such as applicability provisions) early in the document and to move lengthy, technically detailed, and specialized requirements to later sections or to appendices. These changes will streamline the use of the Guidelines document for the majority of facilities at this stage in the program's maturity.

The three columns of Table 1 show, respectively, (1) the codified section numbering in the current Regulation, (2) the section numbering in the April 1996 Guidelines Report the Board will consider in May under the Regulatory Improvement Initiative, and (3) the section numbering in the proposed, May 1996 Guidelines Report.

The staff proposes that the Board amend Section 93300.5 in the California Code of Regulations (CCR), Title 17, to incorporate by reference the proposed, May 1996 Guidelines Report, replacing the incorporated, April 1996 Guidelines Report. These proposed amendments to further streamline the substance of the regulatory reporting requirements, as discussed in this staff report, are contained in the May 1996 Guidelines Report. Therefore, the staff proposes that the Board replace the April 1996 Guidelines Report (assuming the Board approves it under the Regulatory Improvement Initiative) with the proposed May 1996 Guidelines Report.

Table 1
Emission Inventory Criteria and Guidelines
Format/Section Changes

EIC & G Regulation (1993)	Regulatory Improvement Initiative (April 1996)	EIC & G Report (May 1996)
	93300.5 (CCR)	93300.5 (CCR)
Article 1	Article 1	Section I
93300	300	I (A)
		I (B) (new)
93301	301	Section X
Article 2	Article 2	Section II
93303 (a) - (b)	303 (a) - (b)	II (A) - (B)
93303 (c)	303 (c)	II (F)
93304 (a)	304 (a)	II (A)
93304 (b)	304 (b)	II (B)
93305 (a) - (b)	305 (a) - (b)	II (C) (1)
		II (C) (2) (new)
93305.5 (a) - (c)	305.5 (a) - (c)	III (A) (1) - (2)
93306	306	II (D)
93306.5 (a) - (c)	306.5 (a) - (c)	III (B) (1) - (2)
93307	307	II (H)
93308 (a) -(c), (e)	308 (a) - (c), (e)	II (E) (1), (2)
93308 (d)	308 (d)	deleted
93309 (a) - (c)	309 (a) - (c)	III (C) (1) - (2)
		II (I) (new)
See 93305.5, 93306.5, 93309	See 305.5, 306.6, 309	Section III

Table 1
Emission Inventory Criteria and Guidelines
Format/Section Changes

EIC & G Regulation (1993)	Regulatory Improvement Initiative (April 1996)	EIC & G Report (May 1996)
		Section IV (new)
See Article 6	See Article 6	Section V
Article 3	Article 3	Section VI
93310	310	VI (A)
93311 (a) - (f)	311 (a) -(f)	VI (B) (1) - (6)
93312	312	VI (C)
93313	313	VI (D)
93314	314	VI (E)
93315	315	VI (F)
Article 4	Article 4	Section VII
93320	320	VII (A)
93321 (a) - (c)	321 (a) - (c)	VII (B) (1) - (3)
93322 (a) - (e)	322 (a) -(e)	VII (C) (1) - (5)
93323 (a) - (d)	323 (a) - (d)	VII (D) (1) - (4)
93324	324	VII (F)
Article 5	Article 5	Section VIII
93330 (a) - (g)	330 (a) - (g)	VIII (A) (1) - (7)
93331 (a) - (b)	331 (a) - (b)	VIII (B) (1) - (2)
93332 (a) - (d)	332 (a) -(d)	VIII (C) (1) - (4)
93333 (a) - (h)	333 (a) - (h)	VIII (D) (1) - (8)
93334 (a) - (e)	334 (a) - (e)	VIII (E) (1) - (6)
93335 (a) - (j)	335 (a) - (j)	VIII (F) (1) - (10)

Table 1
Emission Inventory Criteria and Guidelines
Format/Section Changes

EIC & G Regulation (1993)	Regulatory Improvement Initiative (April 1996)	EIC & G Report (May 1996)
See 93336 - 93347	See 336 - 347	Section IX
93336 (a) - (d)	336 (a) - (d)	IX (A) (1) - (4)
93337 (a) - (d)	337 (a) -(d)	IX (B) (1) - (4)
93338 (a) - (d)	338 (a) - (d)	IX (C) (1) - (4)
		IX (D) (new)
93339 (a) - (w)	339 (a) - (w)	IX (E) (1) - (23)
93340 (a) - (d)	340 (a) - (d)	IX (F) (1) - (4)
93345 (a) - (c)	345 (a) - (c)	IX (G) (1) - (3)
93346	346	VII (E)
93347	347	VII (G)
Article 6	Article 6	Section V
93348 (a) - (g)	348 (a) - (g)	V (A) - (G)
93349 (a) - (c)	349 (a) - (c)	V (H) (1) - (3)
93350 (a) - (f)	350 (a) - (f)	V (I) (1) - (6)
93351 (a) - (d)	351 (a) - (d)	V (J) (1) - (4)
93352 (a) - (b)	352 (a) - (b)	V (K) (1) - (2)
93353 (a) - (c)	353 (a) - (c)	V (L) (1) - (3)
93354 (a) - (b)	354 (a) - (b)	V (M) (1) - (2)
93355	355	II (G)
See 93336 - 93347	See 336 - 347	Section IX
See 93301	See 301	Section X

B. CATEGORIES FOR UPDATES AND EXEMPTIONS FROM UPDATES

The staff proposes criteria for three tiers designating facilities as "low level", "intermediate level", or "high level" for purposes of further update reporting. These designations would apply to facilities that have completed all other applicable requirements of the Hot Spots program. The proposed criteria are based on the facility's prioritization score, the results of a health risk assessment or screening risk assessment if one was conducted, or for some categories of facilities, *de minimis* threshold levels. Some exceptions also pertain. The emission inventory update reporting requirements would be different, with the update reporting effort being commensurate with the facility's level. "Low level" facilities would be exempted from further update reporting. "High level" facilities would continue Hot Spots emission update reporting every four years (using the already streamlined provisions approved by the Board in 1994). "Intermediate level" facilities would be tracked through minimal update reporting of changes in the facility's activity levels every four years. Options are also included for "intermediate level" facilities to be tracked by other district reporting programs such as combined toxics and criteria pollutant emission inventory reporting.

The proposed criteria for designating a facility as "low level", "intermediate level", or "high level" are for purposes of update reporting only. Designation for update purposes does not alter a district's authority to set significance levels for purposes of public notification or for requiring facilities to prepare risk reduction audits and plans, in accordance with Health and Safety Code sections 44362 and 44391, respectively.

The purpose of these designations and associated update requirements is to focus the Hot Spots reporting efforts on the facilities which pose the greatest "hot spot" concern to public health, and to exempt from further update reporting those facilities which have been identified as posing little or no risk to public health. The Hot Spots program has provided valuable and comprehensive information to date, making it now possible to identify the relative public health concerns posed by facilities in the program. The lowest risk facilities can now be identified and exempted from updates, and reporting energies can focus on true "hot spots".

The proposed amendments include provisions for ARB and district review of facility designations and exemptions, for reinstatement of exempted facilities if changes occur which could result in public health concerns, and for re-designation of categories if the facility is re-prioritized.

The proposed levels and associated requirements are discussed in the following sections.

1. <u>"Low Level" Facilities -- Exempted From Update Reporting.</u>

(a) <u>Criteria</u>: The proposed amendments would exempt a facility from further inventory update reporting if the facility meets specified criteria for designation by the district as a "low level" facility. To qualify as a "low level" facility, the staff proposes that the facility would have to meet one of the following criteria, subject to certain exceptions (discussed in section b).

- o <u>Prioritization Score</u>: if the facility was not required to conduct a risk assessment under Health and Safety Code section 44360(b), and the facility has been prioritized by a district in accordance with Health and Safety Code section 44360(a) using procedures that

have undergone public review, then the prioritization score may be used by the district to designate the update category of the facility as follows.

Under the proposed amendments, if, the facility's prioritization score, based on the most recent district-approved toxics emission inventory, is less than 1.0 both for cancer and non-cancer health effects, then the facility could be designated by the district as a "low level" facility which would be exempt from update reporting, subject to certain exceptions as discussed later.

Prioritization scores and the basis for selecting the "low level" cutpoint are discussed further in section 5 of this chapter of the staff report.

- Risk Assessment Results: if the facility was required by the district to conduct a risk assessment under Health and Safety Code section 44360(b), and has had the risk assessment approved by the district in accordance with Health and Safety Code section 44362, then the results of the risk assessment may be used by the district to designate the update category of the facility. If the facility has been notified in writing by the district that the risk assessment results for the facility show a total potential cancer risk at an actual receptor, summed across all pathways of exposure and all compounds, of less than one (1.0) case per one million persons and a total hazard index (H.I.) for each toxicological endpoint of less than 0.1, then the facility could be designated by the district as a "low level" facility which would be exempt from update reporting, with certain exceptions as discussed below.

  Further discussion of risk assessment results and the basis for selecting the "low level" risk cutpoint is included in section 5, later in this chapter.

- Screening Risk Assessment Results: if the facility was not required by the district to prepare a health risk assessment under Health and Safety Code section 44360(b), the district, or the facility with district concurrence, may conduct a health-conservative, "screening" risk assessment which satisfies criteria specified in a proposed, new Appendix F to the Guidelines for the inputs for risk assessment using screening air dispersion modeling. If this "screening" risk assessment shows a total potential cancer risk at the point of maximum impact of less than one case per one million persons and a total hazard index (H.I.) of less than 0.1 for each toxicological endpoint, then the facility could be designated by the district as a "low level" facility which would be exempt from update reporting, subject to certain exceptions.

  The provision to allow "screening" risk assessments was added in response to comments from CAPCOA and others requesting a mechanism for facilities with prioritization scores higher than 1.0, but which would likely have risks of less than one case per million, to demonstrate through a screening risk assessment, using health-conservative assumptions, that the facility poses low levels of risk and warrants exemption from further update reporting. The criteria included in Appendix F for inputs for risk assessments using screening air dispersion modeling, such as using worst case, default meteorological data and the requirement that the results be evaluated at the point of maximum impact (whether or not there is an actual receptor at that maximum point), are intentionally more health-protective than the criteria for full, refined health risk assessments which are

specified in the CAPCOA "Air Toxics 'Hot Spots' Program Revised 1992 Risk Assessment Guidelines, October 1993". The purpose for defining more health-protective criteria is to allow districts, or facilities with district concurrence, to conduct "screening" risk assessments which are more standardized and more straightforward for the districts and the Office of Environmental Health Hazard Assessment (OEHHA) to review, than full risk assessments which utilize many site-specific parameters and which require detailed reviews. The "screening" risk assessments are designed to use health-conservative assumptions to allow for expedient and less costly development of the assessment by facilities and review by the districts and OEHHA, while building in a margin of safety to ensure that public health will be protected.

o *De Minimis* Throughput Thresholds: if the facility was not required to conduct a risk assessment under Health and Safety Code section 44360(b), and the facility's primary activity is defined as either a printing shop, wastewater treatment plant, crematorium, boat or ship building or repair facility, or hospital or veterinary clinic with an ethylene oxide sterilizer, and if the facility's throughput falls below *de minimis* throughput levels specified by the proposal for that type of facility, then the facility could be designated by the district as a "low level" facility exempt from update reporting, subject to certain exceptions. The proposed *de minimis* levels are the same as those adopted for purposes of exempting facilities from paying state fees under the Hot Spots Fee Regulation for 1995-96, which the Board approved in January 1996. The staff proposes that these *de minimis* provisions be extended to exempt facilities from inventory update requirements.

Specifically, the proposed *de minimis* levels apply to facilities whose primary activities fall into one of the following classes if the facility meets the following specified criteria:

- the facility performs primarily printing as described by Standard Industrial Classification (SIC) Codes 2711 through 2771 or 2782, and the facility uses an annual average of two gallons per day or less (or 17 pounds per day or less) of all graphic arts materials (deducting the amount of any water or acetone);

- the facility is a wastewater treatment plant as described by SIC Code 4952 which does not have a sludge incinerator, and the facility's maximum throughput does not exceed 10,000,000 gallons per day;

- the facility is a crematorium for humans or animals, as described by SIC Code 7261 or any SIC Code that describes a facility using an incinerator to burn biomedical waste (animals), the facility uses only propane or natural gas as fuel, and the facility annually cremates no more than 300 human bodies or 43,200 pounds of remains (human or animal). Facilities using incinerators that burn biomedical waste other than cremating humans or animals do not qualify for this exemption;

- the facility is primarily a boat building and repair facility or is primarily a ship building and repair facility, as described by SIC Codes 3731 or 3732, respectively, and the facility uses 20 gallons per year or less of coatings or is a coating operation using hand-held nonrefillable aerosol cans only; or

- the facility is a hospital or veterinary clinic building that is in compliance with the control requirements specified in the Ethylene Oxide Control Measure for Sterilizers and Aerators, section 93108 of Title 17, California Code of Regulations, and has an annual usage of ethylene oxide of less than 100 pounds per year if it is housed in a single story building, or has an annual usage of ethylene oxide of less than 600 pounds per year if it is housed in a multi-story building.

(b) Exceptions: The staff proposes that a facility not be exempted as a "low level" facility under the foregoing conditions if:

(1) Facilities Emitting Federal HAPs: A facility which emits federally designated Hazardous Air Pollutants (HAPs) and meets criteria in the proposed Emission Inventory Criteria and Guidelines for specified quantities of emissions, which are related to provisions in Title III of the federal Clean Air Act Amendments (CAAA) of 1990, may not be designated as a "low level" facility under the foregoing criteria. HAPs are those toxic substances listed by the United States Environmental Protection Agency (U.S. EPA) in accordance with the Title III, Section 112 of the federal Clean Air Act Amendments of 1990. If the facility emits five tons per year or more of any single HAP or a combined total of 12.5 tons of HAPs, the proposed amendments would preclude designation of the facility as a "low level" facility for Hot Spots reporting purposes. These amounts of HAP emissions correspond to the amounts specified by the U.S. EPA for facilities to be considered to have the potential to be federal "major sources" of HAPs under rules implementing the federal Clean Air Act Amendments. Therefore it is reasonable that facilities which may be recognized as "major sources" of air toxics under federal requirements would be precluded from being exempted as "low level" facilities under the proposed amendments. This provision would protect the public by helping to ensure that large-volume emitters of toxic chemicals would continue to be tracked.

In addition, the Air Resources Board is working closely with the United States Environmental Protection Agency (U.S. EPA) to coordinate California's toxics program with requirements of the federal Clean Air Act. The Hot Spots Program is a key component of the California program. The Air Resources Board is using the Hot Spots Program to help demonstrate that California has a comprehensive and effective toxics program and can meet the requirements of the federal air toxics program mandated by the Clean Air Act. Businesses and state and local governments will save costs if California's approach is deemed equivalent to the federal program.

(2) District Determination to Deny an Exemption: The proposed amendments include provisions which would allow a district to require additional information regarding a proposed exemption request from a facility and to deny the exemption request if the district does not find that the source contributes to a small public health impact.

The proposed amendments specify factors which the district may take into account in making this determination. For example, the close proximity of receptors, the close proximity of multiple facilities which impact the same receptors, or the presence of

substances without a specific, approved health value but for which health data indicate possible adverse health effects, are among the factors the district may consider in determining that a prioritization score or *de minimis* throughput value may not be sufficiently health-protective to warrant exempting a facility from further reporting. While it is anticipated that in most cases the proposed criteria involving the prioritization score, risk assessment results, and *de minimis* throughput levels will be sufficiently health-protective, the inclusion of a mechanism that allows districts to further evaluate and deny an exemption for good reason provides an added measure of assurance that public health will be protected in the event of unusual or unfavorable site-specific circumstances, without unduly burdening other facilities for which the proposed criteria are adequately health-conservative.

(3) ARB Review and Concurrence: The proposed amendments provide for concurrence by the Air Resources Board of the designation of facilities as "low level" facilities. The Board will review the designations to the extent practicable. The proposed amendments provide that the Board's concurrence would be presumed if the Board does not comment within 45 days after receipt of a proposed designation. This ensures that the state Board has an opportunity to comment on any facilities for which it may have information regarding public health concerns while also ensuring that facilities will be designated into update categories on a timely basis.

(c) Reinstatement of Exempted Facilities If Circumstances Change: The staff proposes to include provisions for reinstating update reporting requirements for an exempted facility if changes occur which warrant such action. The proposed criteria for reinstatement are grouped by (i) those circumstances that are the result of the facility's actions and (ii) those that are the result of changes other than the facility's actions.

The staff proposes that a facility would be required to continue update reporting upon receipt of a notice from the district regarding the following circumstances:

(1) a new substance is added to the Hot Spots list for which there is a health effects value approved by OEHHA. If the facility emits the substance, the facility must submit an emission inventory update.

(2) the district determines that the receptor distance for the facility has changed since the facility was last prioritized to such an extent that the facility no longer meets the conditions for a "low level" facility.

(3) a new or revised (more toxic) health effects value for a listed substance has been established by OEHHA for a substance emitted by the facility.

(4) the district determines that the source test or emission estimation method used to calculate the facility's emissions has changed since the facility was prioritized to such an extent that the facility no longer meets the conditions for a "low level" facility using the new method.

These provisions ensure that the district has the authority to notify facilities and require

update reporting in the event of these circumstances which could result in an increase in the potential public health impact from a facility, but about which the facility could not be expected to keep informed solely on its own.

For changes which are the result of actions by the facility, the staff proposes that a facility be responsible for notifying the district of any physical change affecting the facility or any change in the facility's activities or operations that might cause the facility to longer meet the conditions for a "low level" facility. If the facility no longer meets the "low level" conditions, the facility would be required to continue update reporting. This proposal provides the authority to reinstate update reporting, and puts the responsibility on the facility to notify the district regarding changes the facility has undertaken which would be substantial enough to exceed the "low level" criteria. It is reasonable to expect the facility operator to track such changes at the facility because the operator should be aware of what specific criteria (such as score, risk assessment result, or throughput level) resulted in being granted a "low level" exemption previously, and what emissions, operations, and substances at the facility were the driving factors.

The staff proposes one circumstance with overlapping district and facility responsibility: receptor distance. Even if a facility has not received a notice from the district, the facility operator is responsible for notifying the district if a substantial decrease in receptor distance has occurred which the facility operator could reasonably be expected to be aware of that may cause the facility to no longer meet the conditions for a "low level" facility. Based on public comments, the staff believes it is essential to include provisions that make tracking of changes in the receptor distance the responsibility of both the district and the facility operator, because it is difficult for a district to track land use changes and encroachment of receptors, and either the district or the facility operator could become aware of the changes.

(d) Alternative Permit Evaluation for Modified Sources Subject to Permit: the proposal includes an optional alternative process that can be used by districts to evaluate whether changes to an exempted, "low level" facility are substantial enough to warrant reinstatement of update reporting requirements. In those districts which have district permitting programs for new or modified sources of toxic air pollutants, the proposed option would allow districts and facilities to utilize the district evaluations conducted for sources subject to permitting requirements. The proposal would avoid possible duplication of reporting by facilities under Hot Spots requirements and under permit program requirements by allowing a permit evaluation to be used to determine that a facility's changes do not warrant reinstatement of Hot Spots update reporting if the permit evaluation meets specified criteria.

The proposed criteria are designed to ensure that, if this alternative is used, a district permit evaluation takes into account all listed toxic substances, the most current health effects values, any decreases in receptor distance, any significant improvements in emission quantification methods, the aggregate effect of all sources within the facility (including changes made to other sources and the aggregate effect over time of multiple changes), and the full potential to emit up to the enforceable level of the permit. These criteria would ensure that the key factors affecting the potential public health risk from the facility are taken into account in determining whether or not the facility warrants further

reporting requirements under the Hot Spots program. Special provisions are included to simplify the evaluation if it only involves replacement of existing equipment with identical newer equipment.

The district must issue an enforceable permit covering the evaluated levels, and the facility operator must comply with all other applicable Hot Spots requirements. For example, if the facility were permitted to operate, but the emissions were at levels that required a health risk assessment, public notification, or risk reduction audit and plan under the Hot Spots requirements, the facility must comply with those requirements.

To ensure that the state Air Resources Board can continue to meet its Hot Spots mandate to compile the statewide emissions data and make the data available to the public, the proposal would include a provision requiring that if the permit evaluation shows that the facility meets the criteria for a "high level" facility or for a higher level category than it did previously, the facility must submit a Hot Spots update.

2. "High Level" Facilities for Purposes of Update Reporting.

The staff proposes to further modify the update procedures to designate remaining facilities as either "intermediate level" or "high level" for update reporting purposes, and streamline the update requirements for these facilities wherever possible. The staff proposes that a facility would qualify as a "high level" facility if the facility's prioritization score is ten (10.0) or greater and the facility was not required to conduct a risk assessment, or if the facility has an approved health risk assessment or screening risk assessment which shows a total potential cancer risk of ten (10) or more cancer cases per one million persons or a total hazard index for any toxicological endpoint of 1.0 or greater.

The staff proposes that these facilities be required to continue to submit emission updates every four years, because these facilities pose the highest levels of concern to public health and warrant more complete evaluation. The updates would continue to use the already streamlined procedures adopted for the 1994 Regulation, which allow a facility operator to update only those devices which constitute 80 percent of the facility's risk, as long as the aggregated risk of devices not updated does not exceed a specified low level of risk. The proposed amendments would define this low level to be either one cancer in a million or a non-cancer hazard index of 0.1 in the judgement of the district. This proposed change to the hazard index would ensure consistency with the proposed criteria for "low level" facilities.

The staff proposes an additional streamlining option that would apply to those facilities which are already required to prepare risk reduction audits and plans under Health and Safety Code section 44391, and which submit emission inventory updates as a part of the risk reduction process in accordance with Health and Safety Code section 44391(h). These facilities may use their risk reduction emission updates to comply with the update requirement for "high level" facilities if the district determines that these updates contain the information required by update reporting for "high level" facilities. This proposal does not require any "high level" facilities to prepare risk reduction audits and plans if they were not otherwise required to do so by the district; rather, it allows an option that may be available to some facilities which have been required to prepare risk reduction plans.

3. "Intermediate Level" Facilities for Purposes of Update Reporting.

The staff proposes to designate the remaining facilities as "intermediate level" for update reporting purposes, and streamline the update requirements for these facilities wherever possible. For "intermediate level" facilities, this includes a minimal tracking effort, based on the facility's activity levels as a surrogate for full emission reporting, , while ensuring that public health is protected by tracking facilities that have the potential to become or contribute to "hot spots".

The staff proposes that a facility would qualify as an "intermediate level" facility if it exceeded the "low level" criteria but did not exceed the "high level" threshold criteria: the facility's prioritization score is one or above but less than ten (10.0) and the facility was not required to conduct a risk assessment; or the facility has an approved health risk assessment or screening risk assessment which shows either (1) a total potential cancer risk of one or more cancer cases per million persons but less than ten (10) cases per million persons, or (2) a total hazard index for each toxicological endpoint of 0.1 or greater but less than 1.0.

Facilities which emit five or more tons per year of any individual HAP substance or a combined total of 12.5 tons per year of HAPs would also be designated as "intermediate level" if they did not otherwise exceed the score and risk thresholds that would cause them to be "high level" facilities. This provision ensures that sources emitting quantities of substances similar to those which would be considered by the United States Environmental Protection Agency (U.S. EPA) as federal "major sources" or potentially major sources of federal Hazardous Air Pollutants (HAPs) under Title III of the federal Clean Air Act Amendments of 1990 will continue to be tracked through the Hot Spots program. This provision would protect the public by ensuring that large-volume emitters of toxic chemicals will continue to be tracked. This provision would also help ensure that equivalency can be demonstrated for the California toxics program with upcoming federal mandates.

The staff proposes that the update reporting requirements for "intermediate level" facilities continue to utilize the two-page Update Summary Form (US Form) which was developed for the 1994 Regulation to streamline the update requirements for non-significant risk facilities. Facilities submit the Update Summary Form every four years to track changes to the facility's activity levels as a surrogate for full emission reporting. Using the Update Summary Form to track activity provides a mechanism for districts to identify any changes that could have significant public health effects with a very minimal level of effort by facilities. Emission reporting would only be required if the activity level changes exceeded the levels defined for significant increases in the 1994 Regulation. The updates would continue to use the already streamlined procedures adopted for the 1994 Regulation, which allow a facility operator to consolidate similar devices for quantifying increases and to update only the substantial risk devices (those devices which constitute 80 percent of the facility's risk), as long as the aggregated risk of devices not updated does not exceed a specified low level of risk. The proposed amendments would define this low level to be either one cancer in a million or a non-cancer hazard index of 0.1 in the judgement of the district. This proposed change to the hazard index would ensure consistency with the proposed criteria for "low level" facilities.

The staff proposes a further streamlining measure which would allow optional integration of Hot Spots reporting requirements with other reporting programs where possible, such as through combined toxics and criteria pollutant emission inventory reporting, if specified criteria are met, to avoid any possible duplication of reporting by facility operators. The staff proposes that facility operators would be exempt from the four-year US Form update requirement if the district notifies the

facility in advance in writing that the facility's toxics emissions will be included by the district in a combined district emission inventory program, including criteria pollutants and toxics, as long as the facility provides the district with the throughput and other data requested by the district in accordance with the combined program, The district would be required to report the updated emission inventory for the facility to the state Air Resources Board with its combined inventory updates.

The merging of toxics and criteria pollutant inventory reporting has proven to be very successful in several districts which have already integrated these two processes. The state Air Resources Board staff is already well along in a process to merge the toxics and criteria pollutant data systems into a single, integrated data system and to expand the capabilities for districts to calculate and submit combined toxics and criteria pollutant updates. Districts are not required to merge the two data submittals under the Hot Spots regulatory requirements; however, there are important benefits to both districts and facilities from utilizing this option to integrate the two reporting programs if a district chooses to do so. The integrated process avoids duplication of reporting and improves the efficiency and consistency of the data system and the update process for both toxics and criteria pollutants.

4. Update Requirements for Facilities Not Yet Prioritized.

If a facility has not yet been prioritized by a district, the proposal establishes a schedule to ensure the timely completion of the prioritization process and the designation of the facility as a "low level", "intermediate level", or "high level" update category, using default assignments if necessary. The proposal distinguishes between two cases depending on whether the facility's emission inventory has been approved or not.

If the facility's emission inventory has been approved by the district but the facility has not been prioritized within the timeframes set forth in Health and Safety Code section 44360(a), then the proposal would designate the facility as "intermediate level" as a default assignment, so that the facility would be tracked for update purposes with minimal burden to the facility. However, the proposal would allow the facility operator to request the district to prioritize the facility within a 90-day timeframe. Within 90 days, the district would then prioritize the facility as appropriate. If the district does not complete its prioritization within 90 days, the facility shall complete Part A of the Update Summary Form. This provision is in response to public concerns that there needs to be assurance of timely prioritization and designation of update categories for pending facilities. The proposed default category assignments are structured so as to provide incentives both to affected facilities and to the districts to move expeditiously toward appropriate prioritization assignments.

If the facility's emission inventory plan has been approved by the district and the facility has submitted a complete emission inventory report as required, but has not yet been prioritized or been notified of approval of the report or the need for corrections to it, then the proposal would designate the facility as "intermediate level" as a default assignment, so that the facility would be tracked for update purposes, with minimal burden to the facility. However, the proposal would allow the facility operator to request the district to approve the emission report or notify the facility of needed corrections within a 120-day timeframe. Within 120 days, the district would then approve the report or request revisions as appropriate. The facility operator must then make any needed revisions within the timeframe specified by the district, and the district will then prioritize the facility. If the district does not notify the facility of report approval or the need for revisions within 120 days, the facility shall complete Part A of the Update Summary Form. This provision helps provide assurance of timely

approval of pending emission reports and timely prioritization and designation of update categories. The proposed default category assignments are structured so as to provide incentives both to affected facilities and to the districts to move expeditiously toward appropriate prioritization assignments.

5. Discussion of the Basis for the Proposed Levels:

The proposed criteria for designating a facility as "low level", "intermediate level", or "high level" are for purposes of update reporting only. Designation for update purposes does not alter a district's authority to set significance levels for purposes of public notification or for requiring facilities to prepare risk reduction audits and plans, in accordance with Health and Safety Code sections 44362 and 44391, respectively. In general, the proposed criteria are intended to exempt from further update reporting those facilities that pose little or no risk to public health and are therefore of small concern for further tracking of their emissions.

The proposed criteria use available parameters to estimate the level of concern, including the prioritization score, risk assessment or screening risk assessment results (including cancer risk and non-cancer hazard index), and certain *de minimis* usage levels, as a reasonable basis for designating a facility's category for update reporting. The criteria for exempting "low level" facilities are patterned closely after the criteria approved by the Board in January 1996 for exempting facilities from fees under the Hot Spots Fee Regulation for fiscal year 1995-1996. However, the prioritization score level for exemption has been revised, as discussed below.

Prioritization scores are values calculated by the district under Health and Safety Code section 44360(a), both for cancer and non-cancer health effects, to set priorities for which facilities needed to conduct detailed risk assessments. Some appropriate prioritization procedures have been published in the CAPCOA' s Facility Prioritization Guidelines, July 1990. The prioritization procedures are based on the quantities and toxicities of emitted substances from the facility, and may address the proximity of receptors and other factors affecting the dispersion and impact of the emissions.

The prioritization procedures in the CAPCOA Guidelines are based on a health-conservative scenario for the air dispersion modeling used to derive the score formulas. The formulas are designed such that a facility with a prioritization score of 0.1 would not be expected to exceed a cancer risk of one case per million persons exposed, assuming that the facility's conditions matched all the health-conservative modeling assumptions in the CAPCOA Facility Prioritization Guidelines. However, for most facilities these modeling assumptions are expected to be very health-conservative. Review of actual reported facility data bore out this expectation as discussed below.

The staff proposes that the prioritization score level for exemptions would be increased, from a score of 0.1 in the 1995-96 Fee Regulation to 1.0 in the proposed amendments to the inventory guidelines. The staff's proposal to increase the cutpoint to 1.0 is based on public comment and further evaluation conducted by the staff in response to the Board's direction at the January 1996 Fee Regulation hearing. The staff evaluated the underlying assumptions and conservative modeling scenario for the prioritization score methodology in the CAPCOA Facility Prioritization Guidelines, July 1990, and analyzed the relationship of scores to actual risk assessment results. Based on the analysis, it appeared that over 86 percent of the time the risk per million is less than the prioritization score. Assuming that this relationship holds across the range of high and low scores, this analysis therefore implies that more than 86 percent of the time, a prioritization score of 1.0 would not be

expected to exceed a risk of one case per million.

Therefore, the staff concluded that there was sufficient health-protection built into the prioritization scores, such that the exemption cutpoint using the prioritization score could be increased from 0.1 to 1.0 for inventory purposes and still be health-protective for the vast majority of facilities, as long as provisions were also included in the inventory guidelines to deny exemptions for the relatively small number of possible exceptions. The exceptions include facilities for which a prioritization score of 1.0 may not be sufficiently conservative to protect against a potential risk of one cancer per million persons. For example, possible exceptions could include facilities with highly unfavorable site-specific meteorology or receptor proximities which are more unfavorable than even the health-conservative scenario used to develop the prioritization score methodology. Therefore, the staff proposes to include the "exception" provisions discussed previously, to address any such possible facilities with highly unfavorable site-specific circumstances. In summary:

(1) a facility would not be exempt based on its prioritization score or throughput levels if the results of a risk assessment or screening risk assessment were available which indicated risks greater than the specified risk thresholds;

(2) a district can deny an exemption if the district has good cause to believe that a facility may individually or in combination with other facilities pose a potential threat to public health and not qualify for an exemption. The district may request additional information and may deny the exemption if the documentation does not support an exemption;

(3) the state Air Resources Board has the opportunity to review the proposed designations to the extent practicable.

The proposed score cutpoints for "low level" and "high level" facilities are also consistent with the suggested cancer score levels in the CAPCOA Facility Prioritization Guidelines, July 1990, for designating facilities as low priority and high priority, respectively, for purposes of preparing health risk assessments.

In addition, the tiered approach proposed in this staff report for update reporting is consistent with the approaches and risk levels used in a number of other programs. As mentioned previously, the risk assessment levels for cancer and non-cancer effects and the *de minimis* thresholds are the same as those already approved for Hot Spots fee exemptions. The proposed amendments set as a "high level" for update purposes, a cancer risk of 10 cases per million persons (10^{-5} risk) and a non-cancer hazard index of 1.0. The proposed amendments set as a "low level" which can be exempted, a cancer risk of 1 case per million persons (10^{-6} risk) and a hazard index of 0.1 (which provides a safety factor of ten from the threshold of impact at an H.I. of 1.0). The tiered approach using these levels is consistent with that of several other agencies and regulatory programs in which less than one cancer case per million cancer risk (10^{-6} risk) is often treated as a level of trivial or *de minimis* risk, while ten cases per million risk (10^{-5} risk) is often treated as significant. For example, the federal Clean Air Act specifies that the U.S. EPA should re-evaluate the need for further controls if any source within a source category after the application of maximum achievable control technology (MACT) exceeds a risk of 10^{-6}. Draft recommendations of the Risk Management Commission established under the federal Clean Air Act suggest that facilities with risks less than 10^{-6} could be eliminated from further consideration. The Commission recommends that facilities with cancer risks of 10^{-5} or more, or a

non-cancer hazard index (H.I.) of 1.0 or more, should institute changes to reduce risks. The South Coast Air Quality Management District's Rule 1401 for New Source Review of Toxic Air Contaminants specifies the maximum allowable MEI (maximally-exposed individual) cancer risk at 10^{-5} risk, and a *de minimis* cancer risk of 10^{-6} risk (cited in the Journal of the Air and Waste Management Association, February 1994).

Another example of using 10^{-6} risk as a lower bound level is the ARB's proposed Risk Management Guidelines for New and Modified Sources, June 1993, which recommend 10^{-6} as the trigger level for Toxics Best Available Control Technology (T-BACT) for an individual source. The Guidelines also recommend that districts can approve a new source if the potential cancer risk is less than 10 per million (10^{-5}) and the total hazard index value is less than or equal to 1.

As a significance level, a level of 10^{-5} is used under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code sections 25249.5 - 25249.13; "Proposition 65") for implementing the no significant risk provisions requiring public warning.

The proposed tiered approach for update reporting is therefore consistent with several other program precedents and provides a useful tool to exempt facilities posing the lowest risks, continue updates for the facilities posing the highest risks, and track through minimal cost and burden the intermediate group of facilities which may be of potential concern.

C. APPLICABILITY PROVISIONS

1. Less-Than-10-Ton-Per-Year Facilities.

The Hot Spots statute required the Air Resources Board to establish the criteria for identifying classes of smaller facilities (those emitting less than 10 tons per year of criteria pollutants), to be included in the Hot Spots program. The Board approved two groups of these classes of smaller facilities. Appendix E-I in the 1994 Regulation listed the classes of facilities for which sufficient information was available to require full reporting requirements. Appendix E-II listed the classes of facilities for which there was some evidence of concern but more information was needed to evaluate the significance of the class and for which the facilities were required to submit one-time surveys regarding usage of listed toxics.

The staff proposes to consolidate and revise the requirements and applicability provisions affecting the classes of facilities emitting less than ten tons per year of criteria pollutants (the "less-than-10-tpy-facilities) identified in Appendix E to the Guidelines. The staff proposes to eliminate the former Appendix E-II, which contained requirements for a one-time survey of usage information for a number of classes. Based on analysis of the data which was reported for these classes of facilities, the staff now proposes to eliminate many of the Appendix E-II classes from further requirements, if few or no facilities were identified within the class as posing a potential threat to public health. The staff proposes to merge several classes which appear to be of concern to public health into a single, combined Appendix E list of classes subject to Hot Spots reporting. In analyzing the available data on the classes, the staff took into consideration the amounts and toxicity of the substances released from the facilities, the numbers of facilities in the class, and the numbers of facilities in the class that would exceed score levels similar to those proposed for "low level" facility designations. In some cases, only a specified portion of a class of facility is proposed to be included in Appendix E to reflect just the

portion that posed concern. For example, for the SIC class 1442-1446, Construction Sand and Gravel Mining, the class would include only facilities where asphalt products are also used or produced, because only these activities appeared to be associated with emissions of sufficient concern to exceed the "low level" criteria, based on the available data. In some cases, the available data indicated that a class of facilities would pose a public health concern only if a particular listed substance was emitted above a certain quantity, depending on its toxicity. For this reason, several "Any SIC" classes are proposed to be included in Appendix E for facilities using a particular substance (such as 1,4-Dioxane or Styrene) in specified amounts which are calculated to potentially exceed score levels similar to those proposed for the "low level" thresholds.

The staff proposes to specify a lower bound on the applicability requirements for all of the classes of facilities included in Appendix E, based on the "low level" criteria regarding prioritization score, health risk assessment or screening risk assessment results, or particular *de minimis* exemption levels. The staff proposes language allowing the district to use a health-conservative, preliminary emission assessment of the facility's emissions to expediently eliminate facilities which are below the "low level" criteria. The preliminary emission assessment can be based on facility-total emission estimates, provided all toxic substances are addressed and a health-conservative characterization of the facility is used.

The staff also proposes to clarify the applicability provisions for several classes of the less-than-10-tpy-facilities based on comments on the original classes. For example, the staff proposes to clarify that the former class called Gasoline stations, SIC 5541, should be defined more clearly as "Facilities where any retail sale of gasoline occurs", "5541 or Any SIC", in order to clarify the original intent to address all retail gasoline stations whether or not a food mart might be associated with the facility, which might cause a different SIC to be assigned. The intent was to address all such gasoline stations because the public health risks are similar for gasoline stations based on gasoline dispensing parameters, whether or not a food mart is also present.

The staff proposes to clarify the applicability provisions for dry cleaners to include any SIC performing dry cleaning, but to limit the applicability to only those dry cleaners using perchloroethylene. Based on available data under the Hot Spots Program and the Toxic Air Contaminant Identification and Control Program, only dry cleaners using perchloroethylene would be anticipated to pose a potential public health risk.

The staff proposes to identify as an additional class of less-than-10-tpy-facilities, those facilities which may be "unique" in the types or quantities of their emissions and which meet specified criteria indicating that they may pose concern to public health, but for which most other facilities of the same type do not pose concern. The staff proposes to provide a mechanism to require emission reporting for these specific facilities which pose concern, without requiring the entire class of facilities statewide (not of concern) to comply.

The staff proposes to add advisory notes to districts for several classes of facilities in Appendix E which are required to comply based on a described process and may occur in "Any SIC". These advisory notes would identify some possible SIC groups that may be particularly likely to contain facilities of the type described in the class. However, a facility in these SIC groups would not necessarily be required to comply, unless it includes the described activity. These advisory notes were developed by the staff based on available data for facilities in these SIC groups which indicated that the described process or emission occurred. Providing information regarding which SIC groups may

be particularly likely to include the described activity would assist facility operators and districts in evaluating which facility types may need to comply with the requirements.

2. New Facilities and Facilities Whose Criteria Pollutant Emissions Increase.

The staff proposes to include an optional, alternative process for evaluating new facilities and facilities whose criteria pollutant emissions increase above the levels subject to Hot Spots applicability criteria. Specifically, the proposed amendments would allow the use of district permit evaluations for new and modified sources under certain conditions to evaluate whether a facility must comply with full Hot Spots reporting requirements or whether the facility can be designated as a "low level" facility. In those districts which have district permitting programs for new or modified sources of toxic air pollutants, the proposed options would allow districts and facilities to utilize the district evaluations conducted for sources subject to permitting requirements. The proposal would avoid possible duplication of reporting by facilities under Hot Spots requirements and under permit program requirements by allowing a permit evaluation to be used under specified conditions to determine that a new facility, or modifications at a facility that result in increased emissions of criteria pollutants, meets the criteria to be designated as a "low level" facility and be exempted from further reporting requirements under the Hot Spots program.

The proposed criteria for allowing the alternative permit evaluation are designed to ensure that, if this alternative is used, a district permit evaluation takes into account all listed toxic substances, the most current health effects values, the current receptor distance, the aggregate effect of all sources within the facility (including changes made to other sources and the aggregate effect over time of multiple changes), and the full potential to emit up to the enforceable level of the permit. These criteria would ensure that the key factors affecting the potential public health risk from the facility are taken into account in determining whether or not the facility warrants further reporting requirements under the Hot Spots program.

The criteria would specify that the district must issue an enforceable permit covering the evaluated levels, and the facility operator must comply with any other applicable Hot Spots requirements. The evaluation would be required to meet provisions equivalent to the elements of an emission inventory plan under Health and Safety Code section 44340 and 44342 to ensure that statutory requirements for an initial plan are satisfied, before allowing exemption of the facility from further update reporting under ARB's authority regarding update requirements. It is anticipated that a thorough district permit evaluation process will generally satisfy these requirements for an inventory plan, even using facility-total emission summaries, as long as the device-specific emissions are all accounted for in the calculated totals and the emission points are described or displayed. A facility diagram must also be available with identifies the discrete emission points and general locations of fugitive emissions, as required under Health and Safety Code section 44342(b).

Under the proposed amendments, if the conditions are satisfied, then a facility identified through the permit process as a "low level" facility would not be required to submit the full device and process-specific Hot Spots reporting forms in order to demonstrate the basis for exemption from further updates. This proposed alternative process would substantially reduce the costs and burdens to these new and modified facilities meeting the "low level" criteria, who would otherwise be required to prepare complete Hot Spots plans and reports.

D. Substances Subject to Program

The staff proposes to revise and re-structure the list of substances in Appendix A, the list of substances subject to the Hot Spots program reporting, to focus on the substances which are of greatest concern as airborne toxics. The proposed amendments would move a large number of substances, which are on the Hot Spots list due to medicinal uses and would not be of concern as airborne emissions, out of Appendix A-I and Appendix A-II, to a new Appendix A-III, "Substances Which Need Not Be Reported Unless Manufactured By the Facility". Appendix A-III substances would not be required to be reported unless a facility manufactures the substance. It is only during the manufacturing process itself that these substances would be expected to have any potential to become airborne, because when they are used for their medicinal and pharmaceutical purposes these substances would be administered in ways (such as oral doses) that would not be expected to create airborne emissions. If a facility manufactures a substance listed on Appendix A-III and the substance is released to the air, the operator would be required to indicate the production, use, or presence of the substance on the Supplemental Use and Production Information Form, similar to the reporting required for A-II substances. If there were an indication of public health concern, the state or district could follow up and evaluate such facilities further. At this time there is no indication that manufacturing of these substances would pose a public health concern in California. Substances which have been identified by the Air Resources Board as Toxic Air Contaminants or by the U.S. Environmental Protection Agency as Hazardous Air Pollutants would not be moved to Appendix A-III in order to ensure continued reporting of any such substances subject to state or federal regulation.

In a separate action, the staff will propose removal of acetone from the Toxic Air Contaminant (AB 1807) list of substances, in response to a petition. If acetone is removed from the AB 1807 list, which is the mandated list that caused acetone to be included on the Hot Spots list, the staff recommends that acetone be removed from the Hot Spots list for conformity and in response to the same petition.

Health and Safety Code section 44321 requires the Air Resources Board to compile and maintain the list of substances from designated lists of substances from other federal and state regulatory programs referenced in the statute. The statute also gives the Air Resources Board authority to include any additional substances recognized by the Board as presenting a chronic or acute threat to public health when present in the ambient air. The staff has reviewed the lists referenced in Health and Safety Code section 44321 and the list of substances subject to emission reporting under the federal Title III, Section 313 of the Superfund Amendments and Reauthorization Act (SARA 313), also known as the federal Toxics Release Inventory (TRI) substances. The staff has evaluated the substances which have been added to these lists since the Hot Spots list was last updated. A public request for information regarding these substances was issued by the staff at the April 1996 public consultation meetings. The staffs of the Air Resources Board and the Office of Environmental Health Hazard Assessment reviewed the available information regarding manufacturing, use, and health effects of the substances. Based on the review, 12 of the new substances are being proposed to be added to the Appendix A-I list of substances (substances for which emissions must be quantified). These include substances for which there is information indicating that the substances have adverse health effects and have the potential to become airborne in California. The proposed substances include the following: p-Chloroaniline, Crotonaldehyde, Cyclohexanol, 2,3-Dibromo-1-propanol, Furan, Iron pentacarbonyl, Isoprene (except from vegetative emission sources), 2-Methyllactonitrile (also known as Acetone cyanohydrin), 2-Methylpyridine, 1,2,3-Trichloropropane, Vinyl fluoride, and 4-Vinylcyclohexene.

The proposed amendments would also add to Appendix A-I, ten additional, individual polycyclic aromatic hydrocarbon (PAH) compounds. The existing Emission Inventory Criteria and Guidelines Regulation includes 14 individual PAH species, as well as total PAHs. Most of these individual species are included because they are specifically included in the ARB-adopted source test method for Polycyclic Aromatic Hydrocarbons, which is the method required to be used by facility operators for source testing PAHs. However, the current ARB-adopted source test method for PAHs includes seven additional PAH species which are not included in the existing Appendix A-I, and the Board will consider the additional of three more in a separate action scheduled for the Board's August 1996, meeting. All ten of the proposed additional species have been included in the draft ARB test method since August 1992, and have been included in testing conducted by the ARB staff and in district protocols reviewed by the ARB. The laboratories which have the capability to perform PAH analysis have been set up to handle the additional species for some time. These laboratories now routinely include the needed internal standards for the ten additional species in the mix for the analysis, so there is no extra cost to provide data on these ten species when an analysis is conducted. Therefore, because the quantitative data are automatically available for these additional species when the ARB's recommended test method is used, and because there is indication that these species may convert to highly toxic substances, the proposed amendments would add them to the list of PAHs for which emissions should be quantified.

The proposed amendments would also add to Appendix A-I, two additional, individual polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran compounds (dioxins and furans) and eight subtotal entries, all of which are included in the ARB-adopted source test method for dioxins and furans. The proposed additional compounds are the 2,3,7,8-octachlorinated dioxin and furan compounds and the subtotal entries for the total tetrachlorinated, total pentachlorinated, total hexachlorinated, and total heptachlorinated "homologue groups" of each ("homologue groups" are the compounds containing the same number of chlorines anywhere in the compound). All of these proposed additional compounds and totals are routinely included in any source tests conducted using the current ARB-adopted source test method for dioxins and furans, which is the method required by the Emission Inventory Criteria and Guidelines. Therefore, because the quantitative data are automatically available for these additional species when the ARB's test method is used, and to ensure completeness in evaluating the potential health risks, the proposed amendments would add them to the list of dioxins and furans for which emissions should be quantified.

If a facility manufactures, formulates, uses, or releases any of the new substances proposed to be added, the existing regulation specifies the timetable for reporting the substance. The regulation specifies that if a substance is added to the list by April 1 of given year, the facility operator shall include the substance in any emission inventory plan or its next required update. Therefore, if the proposed additions are approved and become effective by April 1, 1997, facility operators will be required to report the new substances in any plans or updates due thereafter.

Other, minor amendments are also proposed to the Appendix A list of substances, for clarification purposes and correction of typographical errors for a few substances.

E. Degree of Accuracy

The staff proposes to revise the requirements pertaining to the degree of accuracy for reporting purposes for the substances to be more consistent with the current understanding of the toxicities of each substance. This change would help ensure that emissions will be reported to appropriate levels (depending on the toxicity of the substance) to adequately characterize the public health impacts of the emissions, particularly for very potent substances for which very small quantities can pose a substantial threat.

Where a health effects value (a cancer potency or a Reference Exposure Level for chronic or acute effects) is available for a substance from federal or state regulatory programs, the proposed degree of accuracy value listed for the substance in Appendix A-I was derived by computing the annual emission amount (in pounds per year) that would yield a prioritization score of 0.1 using the emissions times potency procedure from the CAPCOA Facility Prioritization Guidelines, July 1990, without adjustment for receptor proximity. As discussed earlier in this chapter, a prioritization score of 0.1 is designed such that it is unlikely to exceed a cancer risk of one in a million or to exceed a margin of safety for the threshold level for non-cancer impacts. These amounts were then sorted and a number of "bins" were chosen to group the values into convenient intervals (for example, 0.1, 0.5, 1, 2, 5, 10). Each calculated amount was rounded to the nearest "bin". The degree of accuracy values based on this procedure would ensure that emissions will be reported to levels that will allow appropriate characterization of the health impacts.

Where an explicit health effects value is not available for a substance, the proposed degree of accuracy listed in Appendix A-I uses the value previously included in the 1994 Regulation, which was based on an order-of-magnitude interval developed by the staffs of the Air Resources Board, the Office of Environmental Health Hazard Assessment, and the districts, in consideration of any available health information and the available emission estimation techniques. The proposed degree of accuracy values for the new substances proposed to be added to Appendix A-I are based on consideration of available health effects data and the available quantification techniques, including the ARB's source test methods for the polycyclic aromatic hydrocarbons, dioxins and furans proposed to be added.

F. Use of Source-Test Derived Emission Factors

The staff proposes to modify the provisions which require certain facilities to conduct source testing to allow the use of ARB-approved emission factors, which have been derived from a research study of source test results from similar facilities, to substitute for costly testing, when specified criteria are met.

The proposed criteria and process are designed to ensure that there is sufficient similarity in all parameters affecting toxic emissions, between the facility proposing to use the emission factors and the facility or facilities from which the factors are derived, to determine that the emission factors will adequately characterize the facility's emissions. The approval process is more stringent for very potent substances to ensure adequate review to protect public health. Because of the wide variation and ranges of some of the ARB-approved emission factors, the staff proposes criteria for approval which consider the maximum as well as the average of the emission factor range. This ensures that if the facility proposing to use the emission factors might experience similar emissions as the maximum facility in the range that the public health implications would not be overlooked.

G. Reporting Forms and Data

The staff proposes to re-structure Appendix B of the Guidelines to make it easier to use. The proposed amendments would specifying general data reporting formats in a new table denoted as Appendix B-I and would move the bulk of the contents of Appendix B, including the detailed reporting forms, tables of data codes, and instructions for completing the forms, to Appendix B-II in a separate document of technical appendices, which is incorporated by reference. The Guidelines will be simpler to use and less cumbersome when these lengthy forms and instructions are separated out from the main text. The Guidelines do not mandate that only these exact reporting forms must be used. Rather, these forms provide just one option for reporting the required data, especially for those districts using ARB's merged toxics and criteria pollutant emission inventory data system. The districts may allow other formats which provide equivalent information. Therefore, specifying the general formats in Appendix B-I for use by all facilities and moving the specific reporting forms to a separate document will improve the clarity of the reporting requirements.

The proposed Appendix B-I would include a simple listing of the data elements (fields) and their formats equivalent to what is included on each of the reporting forms for facility, device, stack, process, emissions, and supplemental use and production information. This "data dictionary" provides a more flexible requirement for providing the required data in any acceptable format, without specifying that only a particular set of forms can be used. It also provides the common format needed for data submittals made electronically, as more and more facilities and districts move to an efficient electronic submittal process.

The acceptable set of alternative reporting forms, included in the Appendix B-II portion of the document, reflect the data fields in the ARB's merged toxics and criteria pollutant emission inventory data system. These forms are included to allow facilities and districts to integrate Hot Spots reporting with other district inventory reporting programs in those districts which either already do or will in the future accommodate combined toxics and criteria pollutant inventory reporting. This option is included in the Guidelines to facilitate integration of Hot Spots reporting requirements with other reporting programs to avoid duplication of reporting by affected facilities.

Minor changes are proposed to the data elements and the forms to ensure better coordination between the toxics and criteria pollutant inventory data systems. Provisions for designating confidential data are discussed in the next section. In addition, a "Process Identification Number" or "Process ID" field would be added to the Process and Emissions Information elements and forms to provide a unique numeric identification number for each emitting process. Using a simple, sequential number as the "key data field" to identify each process would improve computer system efficiency and would be simpler for facility operators to assign than the Source Classification Code (SCC) number which is the necessary key data field in the current forms. The SCC number is an 8-digit code which must be assigned based on the particular type of industrial emitting process and must be selected from among several thousand codes created by the U.S. Environmental Protection Agency for categorizing industrial processes. Allowing facility operators to number their processes with a simple, sequential digit would be more straightforward and would reduce potential data quality problems in the data system from poorly assigned SCC codes. The use of a Process ID is also consistent with the state's criteria pollutant data system and would facilitate integration of toxics and criteria pollutant reporting for those districts and facilities that want to pursue this option for reporting updates.

H. Confidential Data Provisions

The staff proposes a number of changes to the reporting forms and procedures to conform with recent court rulings regarding designation of confidential or trade secret information, and to provide a more standardized mechanism for maintaining the confidentiality of data in the statewide database.

In order to allow the benefits to facilities and districts of integrating their Hot Spots reporting with other inventory reporting through a combined toxics and criteria pollutant inventory system, it is essential that equivalent procedures and designations of confidential data be implemented in both the toxics and criteria pollutant inventory systems. In addition to a due process which is being undertaken by the ARB staff, involving a public consultation process and notification of affected facilities claiming trade secret data, the reporting forms themselves will be revised to ensure a single, consistent mechanism for designating future data as trade secret. The proposed amendments would include on the reporting forms and formats a single data field which a facility operator would check to designate a specific group of data fields as confidential. These designated fields are those which are used to calculate emissions, such as the annual and maximum hourly process rate, the controlled and uncontrolled emission factor, the process description field, and the method of estimation code.

I. Appendix C: Facility "Look-Up Table"

The staff proposes to re-structure the Guidelines to move the contents of Appendix C (referred to as the Facility "Look-Up Table") which includes lengthy and technically detailed guidance on which substances may be associated with various source types, to a separate document, which is incorporated by reference. The Guidelines will be simpler to use and less cumbersome when these lengthy tables are separated out from the main text. The Guidelines do not mandate reporting or source testing for all of the substances listed in association with a given source type; rather, the Look-Up Table is intended to provide guidance to districts and facilities when initially evaluating a facility's likely toxic emissions. The vast majority of facilities have completed their initial reporting and no longer need to refer to the Look-Up Table. Therefore moving this lengthy Appendix C to a separate document will greatly improve the ease of use of the main text for nearly all facilities, while still making it readily available to any remaining facilities which may benefit from it.

Minor revisions are proposed to Appendix C to update the list of polycyclic aromatic hydrocarbons which are included on the Hot Spots list and to remove outdated references to supplemental reporting forms which no longer exist or are no longer needed.

J. Miscellaneous Revisions

The staff proposes a number of other clarifications and minor revisions that clarify the intent of the guidelines and reflect updated information.

- The Definitions are proposed to be revised and expanded to address terminology used in the proposed amendments and to cite the most current version of the San Joaquin Valley Rule pertaining to stationary sources for the definition of "Facility".

- Table B-1 in Appendix B-II, the list of air basins and districts, is proposed to be updated to reflect recent changes in the Riverside county area.

- Consistent language is proposed throughout the Guidelines for the state review process for several procedures (such as designation of update categories and alternatives to required source testing), which gives the state the opportunity to comment on the proposal and presumes approval if the state board does not comment within the specified timeframe.

- Section II.I. would be added to clarify that emission inventory reports must be submitted by facility operators to implement their district-approved plan in accordance with Health and Safety Code section 44341.

- Section II.F. would be expanded to clarify how landfill gas testing results under the Calderon testing program can be coordinated with Hot Spots reporting. This guidance had been provided to the districts and facilities in previous guidance letters. Including the information in the regulatory report would ensure wider distribution to all facilities and more consistent application of the statutory provision regarding solid waste disposal facilities.

- Other minor revisions would be made to clarify the original language to ensure consistency in interpreting and complying with the guidelines.

III.

PROGRAM BACKGROUND AND REQUIREMENTS

A. AIR TOXICS HOT SPOTS PROGRAM OVERVIEW

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 and subsequent amendments (the "Act"; Health and Safety Code (H&SC) Sections 44300 through 44394) requires affected facilities in the state to prepare and update emission inventory reports and submit these data to the districts for review and approval. The districts must review these data and prioritize facilities based on their potential public health risks. High priority facilities designated must prepare health risk assessments. If, upon review of the health risk assessment, the district determines that there is a significant health risk associated with emissions from a facility, the facility operator must notify all exposed persons of the risk assessment results. Significant risk facilities must prepare a risk reduction audit and plan to reduce the risks within specified timeframes.

The information collected under this program is also used to support the Air Resources Board's Toxic Air Contaminant Identification and Control Program, commonly referred to as the AB 1807 process (Health and Safety Code Section 39650 et seq.).

B. EMISSION INVENTORY REQUIREMENTS

The Act requires operators of specified facilities to submit comprehensive, site-specific emission inventory **plans** to the appropriate air pollution control district by specified dates. Each plan must specify how the facility operator will inventory the facility's emissions of all toxic substances on the list of substances subject to the Act. This list of substances was approved by the Board in July 1988 and updated in September 1989, September 1990, and June 1991.

Each facility operator is required to submit an emission inventory **report** which contains the required emissions data that are compiled according to the plan. Subsequently, facilities designated by the districts as high priority must prepare health risk assessments. Facilities determined by the districts to be of significant health risk must notify the public of their health risk assessment results. Significant risk facilities must prepare a risk reduction audit and plan to reduce their risks within specified timeframes.

Upon receiving an emission inventory plan, a district must approve, modify, or return it to the facility operator for revision within 120 days (H&SC Section 44340(b)). After a district approves a plan, the facility operator must implement the plan by submitting an emission inventory report to the district within 180 days (H&SC Section 44341). The report must contain the emission data, a facility diagram, and other required information. Within 90 days of receipt of the report, the district must review the report and obtain any necessary corrections from the facility. The district must transmit data contained in the approved report to the Air Resources Board (H&SC Section 44341). The emission inventory information must be updated every four years (H&SC Section 44344).

C. EMISSION INVENTORY CRITERIA AND GUIDELINES REGULATION

The emission inventory plans and reports must be prepared and approved according to the Emission Inventory Criteria and Guidelines Regulation. The Act specifies that the criteria and guidelines must include at least all of the items listed in subsections (a) through (i) of Health and Safety Code Section 44342 and must ensure that, to the extent technologically feasible, actual measurements be utilized whenever necessary to verify the accuracy of emission estimates. The updates to the emission inventories collected under this program must be prepared according to procedures specified in the criteria and guidelines regulation.

The Act provides that the ARB is responsible for compiling and maintaining the list of substances (H&SC Section 44321). The list of over 700 substances required to be inventoried under this program (Appendix A to the regulation) is separated into groups for emission inventory reporting purposes. The two original groups include substances whose emissions must be quantified and substances whose production, use, or other presence must be reported. The original groups, and the currently proposed third group for medicinal substances which need not be reported unless manufactured by the facility, are discussed in Chapter II of this staff report.

Amendments to the Emission Inventory Criteria and Guidelines Regulation were approved by the Air Resources Board in June 1990, September 1990, June 1991, and June 1993. The amendments approved by the Board in June 1993 became effective upon approval by the Office of Administrative Law on January 31, 1994 (the 1994 Regulation). The 1994 Regulation streamlined the inventory update procedures substantially, allowing 90 percent of the facilities to use a simple two-page form once every four years, to note changes in activity without emission quantification, thus saving industry several million dollars per year in costs to comply with inventory requirements. The proposed amendments in this staff report would further streamline the update reporting requirements and exempt many facilities from update reporting, thus saving industry even more in costs of inventory compliance.

D. FACILITIES SUBJECT TO INVENTORY REQUIREMENTS

The Act requires that facilities submit their initial plans and inventories in three phases depending on the facilities' emissions of criteria pollutants. The Act then requires that all facilities submit updates every four years following their initial submittal.

In the first phase of the program, initial inventory plans were due by August 1, 1989, for any facility which: (1) manufactured, formulated, used, or released any listed substance, or any other substance which reacted to form a listed substance, and which released 25 tons per year or more of any of the following criteria pollutants: total organic gases (TOG), particulate matter (PM), nitrogen oxides (NOx), or sulfur oxides (SOx), or (2) was listed in any current toxics use or toxics air emission survey, inventory, or report released or compiled by a district. The first update plans for these facilities were required by August 1, 1991, because the Act formerly required biennial updates, but was subsequently amended to require updates every four years.

In the second phase of the program, inventory plans were due by August 1, 1990, for any

facility which released between 10 and 25 tons per year of any of the four criteria pollutants named above and which manufactured, formulated, used, or released a listed substance or precursor. The first biennial update plans for these facilities were required by August 1, 1992.

It is estimated that approximately 5,000 facilities in California were subject to the reporting requirements for these two initial phases. To date, emission inventories have been received from most of these facilities.

In the third phase of the program, emission inventory information was required to be submitted by August 1, 1991, for specific classes of less-than-10-tons-per-year facilities identified by the ARB. These classes were listed in Appendix E to the regulation. The districts must prepare industrywide emission inventories for those classes of facilities identified in Appendix E that meet criteria specified in the Act (H&SC Section 44323). It is estimated that over 20,000 less-than-10-tons-per-year facilities are affected by this regulation, although most of these are expected to be covered by industrywide inventories prepared by the districts under Health and Safety Code Section 44323. Information collected from the facility classes listed in Appendix E are subject to four-year update requirements.

The implementation schedule shown in Table 2 identifies key milestones related to the emission inventory and other requirements under the 1994 regulation; the schedule is based on the time allotted for completion of specified activities in Health and Safety Code Sections 44340, 44341, and 44343.

The proposed amendments in this staff report would exempt from update reporting requirements any facility which meets the proposed criteria to be designated a "low level" facility. Based on preliminary estimates obtained by surveying the districts, it is anticipated that approximately one half of the facilities which have completed their initial reporting may meet the "low level" criteria and therefore be exempted from further updates. It is anticipated that less than five percent of the original number of facilities would exceed the "high level" criteria and be required to continue emission update reporting on a four-year basis.

E. OTHER EMISSION INVENTORY REQUIREMENTS

In addition to requiring the ARB to adopt an emission inventory guidelines regulation, the Act also required the ARB to develop an air toxics emission inventory for mobile, natural, and area sources not subject to district permit requirements. A report containing these data was made available in May 1990.

The Act also required the ARB to prepare a report to the Legislature to identify those classes of facilities emitting less than 10 tons per year of criteria pollutants to be included in the program and to set a schedule for their inclusion. This report was submitted to the Legislature in June 1990.

The Act also required the ARB to develop a data base to maintain the air toxics emission inventory data collected under the Hot Spots program and make the data available to the public. The ARB has developed this data base, referred to as the Air Toxics Emission Data System, which currently contains most of the data from facilities subject to the first and second phases of the program.

Table 2

Key Dates Pertaining to Implementation of the Air Toxics Hot Spots Requirements[1]

Action	First Phase[2]	Second Phase[3]	Third Phase[4]
Facilities submit plans to district	**Aug. 1, 1989**	**Aug. 1, 1990**	**Aug. 1, 1991**
Districts approve plans **(120 days)**	~ Dec. 1, 1989	~ Dec. 1, 1990	~ Dec. 1, 1991
Facilities implement plans & submit inventory reports to district **(180 days)**	~ June 1, 1990	~ June 1, 1991	~ June 1, 1992
Districts review reports and data **(90 days)**	~ Sept. 1, 1990	~ Sept. 1, 1991	~ Sept. 1, 1992
Districts forward data to ARB (90 days)	~ Dec. 1, 1990	~ Dec. 1, 1991	~ Dec. 1, 1992
Districts prioritize facilities for risk assessment	**Dec. 1, 1990**	**Dec. 1, 1991**	**Dec. 1, 1992**
Facilities submit update plan to district	Aug. 1, 1991	Aug. 1, 1992	Every 4 years

[1]Dates and time periods shown in bold are specified by the Air Toxics "Hot Spots" Act. Other dates are approximate, based on the applicable time periods.

2 First Phase: includes facilities that emit greater than 25 tons/year of criteria pollutants; also includes facilities listed on district toxics inventories.

[3]Second Phase: includes facilities that emit 10-25 tons/year of criteria pollutants.

[4]Third Phase: includes facilities that emit less than 10 tons/year of criteria pollutants and are included in specified classes identified for inclusion in the Hot Spots program.

F. RELATIONSHIP TO OTHER REGULATIONS

As discussed previously, the proposed Emission Inventory Criteria and Guidelines Report would exempt facilities from emission inventory reporting requirements using "low level" threshold criteria which are similar to the exemption levels from fees which were approved by the Air Resources Board in January 1996, for the Hot Spots Fee Regulation for fiscal year 1995-96. However, the prioritization score level for exemption is being proposed to be increased from 0.1 in the 1995-96 Fee Regulation to 1.0 in the proposed Emission Inventory Criteria and Guidelines, for the reasons discussed in Chapter II. The proposed increase in the prioritization score criteria would be combined with other provisions in the Guidelines to ensure that there is still ample public health protection while allowing more facilities to be exempted that pose little or no risk.

The proposed amendments to the Emission Inventory Criteria and Guidelines would establish the applicability of facilities subject to the Hot Spots reporting requirements. Once established, the applicability criteria can then be extended to the fee provisions. It is the staff's intent that whatever final thresholds are approved by the Air Resources Board for the Inventory Guidelines would also be proposed as thresholds for the upcoming Fee Regulation for fiscal year 1996-97. It is anticipated that the 1996-97 Fee Regulation will be considered by the Board in fall 1996.

IV.

ECONOMIC AND ENVIRONMENTAL IMPACTS

A. ECONOMIC IMPACTS

This section discusses the economic impact of the proposed amendments to the Emissions Inventory Criteria and Guidelines Regulation (the Regulation). ARB staff has conducted an analysis of potential economic impacts of the proposed amendments to the Regulation. Section 11346.3 of the Government Code requires that, in proposing to adopt or amend any administrative regulation, state agencies shall assess the potential for adverse economic impact on California business enterprises and individuals. The assessment shall include a consideration of the impact of the proposed regulation on the ability of California businesses to compete with businesses in other states, the impact on California jobs, and the impact on California business expansion, elimination, or creation.

Based on our analysis, we have determined that the proposed amendments to the Regulation will not have any adverse impacts on the economic status of the state. The proposed amendments should result in reductions in costs for many facilities subject to the Regulation. Cost savings will also be seen for public agencies. The proposed amendments should not result in any additional costs for the remainder of facilities subject to the Regulation.

1. Economic Impact on Facilities

As discussed earlier in this report, the effect of the proposed amendments is to further streamline the emission inventory requirements of the Air Toxics Hot Spots Program. The proposed amendments to the inventory regulation categorize facilities into "high", "intermediate", and "low" levels for the purpose of defining emission inventory update reporting requirements. These levels are based on facilities' actual risk assessment results, or, if risk values have not been determined, on prioritization scores calculated by the local air districts. The proposed amendments will exempt low level facilities, those with low or insignificant risk, from future update reporting. Consequently, those facilities would not be expected to incur any further costs to comply with emission inventory update requirements. The staff anticipates that 45-55 percent of the total number of facilities currently in the program will be designated as "exempt" from reporting requirements.

Intermediate level facilities would continue to be tracked by local air districts through the use of the two-page Update Summary Form. However, districts will also be given the flexibility to collect equivalent data through alternative district reporting programs, such as the criteria pollutant emission inventory process. This would avoid duplicate data collection and would also reduce costs to facilities complying with the update reporting requirements.

The proposed amendments will not change the four year update reporting requirements for high level facilities, those facilities whose emissions produce the highest levels of risk to public health. Significant risk facilities represent approximately five percent of all facilities currently in the program. High level facilities will continue to submit air toxics emission inventory updates via the

Hot Spots reporting forms. However, the proposed amendments will give districts greater flexibility in collecting emissions data from these high risk facilities. If a significant risk facility has been required by district staff to conduct a Risk Reduction Audit and Plan, the district staff may use the Risk Reduction Audit and Plan reporting requirements in lieu of the Hot Spots reporting forms.

2. Potential Cost Impacts

Facilities exempted from the program will see a cost savings from a savings of time and resources associated with the preparation of emissions inventory. Staff has estimated the proposed amendments will result a savings of approximately $150 per exempted facility.

Most other facilities will fall into the intermediate level group, and their emissions and activities will now be tracked by the local districts. Initially, the staff expects most districts to track facilities through the Update Summary Form. Most, if not all of these facilities are currently required to submit the Update Summary Form, and therefore the proposed amendments will not result in any additional savings or costs. However, greater savings would result from those districts that integrate update reporting requirements with other district reporting requirements, especially criteria pollutant emission reporting. The staff estimates that initially approximately 50 percent of districts will integrate their reporting programs within a three year period. This integrated data collection process would result in a cost savings of $150 per affected facility. Ultimately, the staff estimates that most, but not all, districts will move to an integrated data collection process, especially as computer software now being developed by ARB becomes available.

High risk facilities will still be required to update their emission inventories every four years, so their costs are not expected to be reduced. The highest risk facilities are required by local air districts to complete a Risk Reduction Audit and Plan. The proposed amendments will allow these highest risk facilities the flexibility to use their Risk Reduction emissions reporting to fulfill their four-year update reporting requirement, thereby eliminating the need for further, and potentially duplicative, reporting. While this could save these high risk facilities several thousands of dollars, this will only benefit a small number of facilities since only a small number of facilities are expected to have risks high enough to require a Risk Reduction Audit and Plan.

3. Other Potential Business Impacts

Staff does not expect any significant change in employment due to the proposed regulatory amendments. No change is expected to occur in the status of California business creation, elimination, or expansion as a result of the proposed regulatory amendments. No change is expected to occur in the status of California businesses competitiveness when compared to businesses in other states as a result of the proposed regulatory amendments.

4. Economic Impact on Public Agencies

Costs to public agencies (air pollution control and air quality management districts) should also decrease. The proposed amendments to the Regulation will affect the resources required by the local air districts to carrying out their responsibilities under the program to review and approve emission inventory updates, assist facility operators with their updates, and prioritize facilities based on the updated emission estimates. With the facility reporting exemptions and the reduced reporting requirements in the proposed amendments, local air districts should see a costs savings created by a

reduced need for staff resources.

B. ENVIRONMENTAL IMPACTS

The staff is not aware of any significant adverse impacts on the environment resulting from the proposed amendments to the Emissions Inventory Criteria and Guidelines Regulation.

The proposed changes to the regulation are designed to focus the inventory update reporting requirements on the most significant risk facilities and substances that have been identified under this program. The proposed amendments will allow the ARB to update air toxics emissions information for these facilities that adversely impact the environment, even while reducing the costs and burden to other low risk facilities. The proposed amendments will allow the ARB to improve the effectiveness of the Hot Spots Program to identify those sources that present a significant health risk due to air toxics emissions, and to reduce those air toxics risks.

ATTACHMENT I

Air Toxics "Hot Spots" Information and Assessment Act

PART 6. AIR TOXICS "HOT SPOTS" INFORMATION AND ASSESSMENT
(Part 6 added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.
Note: Sections 44380 and 44384 became operative Jan. 1, 1988.)

CHAPTER 1. LEGISLATIVE FINDINGS AND DEFINITIONS
(Chapter 1 added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44300. This part shall be known and may be cited as the Air Toxics "Hot Spots" Information and Assessment Act of 1987.
(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44301. The Legislature finds and declares all of the following:
(a) In the wake of recent publicity surrounding planned and unplanned releases of toxic chemicals into the atmosphere, the public has become increasingly concerned about toxics in the air.
(b) The Congressional Research Service of the Library of Congress has concluded that 75 percent of the UnitedStates population lives in proximity to at least one facility that manufactures chemicals. An incomplete 1985 survey of large chemical companies conducted by the Congressional Research Service documented that nearly every chemical plant studied routinely releases into the surrounding air significant levels of substances proven to be or potentially hazardous to public health.
(c) Generalized emissions inventories compiled by air pollution control districts and air quality management districts in California confirm the findings of the Congressional Research Service survey as well as reveal that many other facilities and businesses which do not actually manufacture chemicals do use hazardous substances in sufficient quantities to expose, or in a manner that exposes, surrounding populations to toxic air releases.
(d) These releases may create localized concentrations or air toxics "hot spots" where emissions from specific sources may expose individuals and population groups to elevated risks of adverse health effects, including, but not limited to, cancer and contribute to the cumulative health risks of emissions from other sources in the area. In some cases where large populations may not be significantly affected by adverse health risks, individuals may be exposed to significant risks.
(e) Little data is currently available to accurately assess the amounts, types, and health impacts of routine toxic chemical releases into the air. As a result, there exists significant uncertainty about the amounts of potentially hazardous air pollutants which are released, the location of those releases, and the concentrations to which the public is exposed.
(f) The State of California has begun to implement along-term program to identify, assess, and control ambient levels of hazardous air pollutants, but additional legislation is needed to provide for the collection and evaluation of information concerning the amounts, exposures, and short- and long-term health effects of hazardous substances regularly released to the surrounding atmosphere from specific sources of hazardous releases.
(g) In order to more effectively implement control strategies for those materials posing an unacceptable risk to the public health, additional information on the sources of potentially

hazardous air pollutants is necessary.

(h) It is in the public interest to ascertain and measure the amounts and types of hazardous releases and potentially hazardous releases from specific sources that may be exposing people to those releases, and to assess the health risks to those who are exposed.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44302. The definitions set forth in this chapter govern the construction of this part.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44303. "Air release" or "release" means any activity that may cause the issuance of air contaminants, including the actual or potential spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of a substance into the ambient air and that results from the routine operation of a facility or that is predictable, including, but not limited to, continuous and intermittent releases and predictable process upsets or leaks.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44304. "Facility" means every structure, appurtenance, installation, and improvement on land which is associated with a source of air releases or potential air releases of a hazardous material.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1,1988, by Section 44384.)

44306. "Health risk assessment" means a detailed comprehensive analysis prepared pursuant to Section 44361 to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and populationwide health risks associated with those levels of exposure.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44307. "Operator" means the person who owns or operates a facility or part of a facility.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44308. "Plan" means the emissions inventory plan which meets the conditions specified in Section 44342.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44309. "Report" means the emissions inventory report specified in Section 44341.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

CHAPTER 2. FACILITIES SUBJECT TO THIS PART

(Chapter 2 added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44320. This part applies to the following:

(a) Any facility which manufactures, formulates, uses, or releases any of the substances listed pursuant to Section 44321 or any other substance which reacts to form a substance listed in Section 44321 and which releases or has the potential to release total organic gases, particulates,

or oxides of nitrogen or sulfur in the amounts specified in Section 44322.

(b) Except as provided in Section 44323, any facility which is listed in any current toxics use or toxics air emission survey, inventory, or report released or compiled by a district. A district may, with the concurrence of the state board, waive the application of this part pursuant to this subdivision for any facility which the district determines will not release any substance listed pursuant to Section 44321 due to a shutdown or a process change.

(Amended by Stats. 1989, Ch. 1254, Sec. 7.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 90700-90703, 90704, 93303, 93306

44321. For the purposes of Section 44320, the state board shall compile and maintain a list of substances that contains, but is not limited to, all of the following:

(a) Substances identified by reference in paragraph(1) of subdivision (b) of Section 6382 of the Labor Code and substances placed on the list prepared by the National Toxicology Program issued by the United States Secretary of Health and Human Services pursuant to paragraph (4) of Section 262 of Public Law 95-622 of 1978. For the purposes of this subdivision, the state board may remove from the list any substance which meets both of the following criteria:

(1) No evidence exists that it has been detected in air.

(2) The substance is not manufactured or used in California, or, if manufactured or used in California, because of the physical or chemical characteristics of the substance or the manner in which it is manufactured or used, there is no possibility that it will become airborne.

(b) Carcinogens and reproductive toxins referenced in or compiled pursuant to Section 25249.8, except those which meet both of the criteria identified in subdivision (a).

(c) The candidate list of potential toxic air contaminants and the list of designated toxic air contaminants prepared by the state board pursuant to Article 2 (commencing with Section 39660) of Chapter 3.5 of Part 2, including, but not limited to, all substances currently under review and scheduled or nominated for review and substances identified and listed for which health effects information is limited.

(d) Substances for which an information or hazard alert has been issued by the repository of current data established pursuant to Section 147.2 of the Labor Code.

(e) Substances reviewed, under review, or scheduled for review as air toxics or potential air toxics by the Office of Air Quality Planning and Standards of the Environmental Protection Agency, including substances evaluated in all of the following categories or their equivalent: preliminary health and source screening, detailed assessment, intent to list, decision not to regulate, listed, standard proposed, and standard promulgated.

(f) Any additional substances recognized by the state board as presenting a chronic or acute threat to public health when present in the ambient air, including, but not limited to, any neurotoxins or chronic respiratory toxins not included within subdivision (a), (b), (c), (d), or (e).

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 90700-90702, 93307, 93308, 93334, 93335

44322. This part applies to facilities specified in subdivision (a) of Section 44320 in accordance with the following schedule:

(a) For those facilities that release, or have the potential to release, 25 tons per year or greater of total organic gases, particulates, or oxides of nitrogen or sulfur, this part becomes effective on July 1, 1988.

(b) For those facilities that release, or have the potential to release, more than 10 but less than 25 tons per year of total organic gases, particulates, or oxides of nitrogen or sulfur, this part becomes effective July 1, 1989.

(c) For those facilities that release, or have the potential to release, less than 10 tons per year of total organic gases, particulates, or oxides of nitrogen or sulfur, the state board shall, on or before July 1, 1990, prepare and submit a report to the Legislature identifying the classes of those facilities to be included in this part and specifying a timetable for their inclusion.

(Amended by Stats. 1989, Ch. 1254, Sec. 8.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 90702, 90703, 93303-93305, 93308

44323. A district may prepare an industrywide emissions inventory and health risk assessment for facilities specified in subdivision (b) of Section 44320 and subdivisions(a) and (b) of Section 44322, and shall prepare an industrywide emissions inventory for the facilities specified in subdivision(c) of Section 44322, in compliance with this part for any class of facilities that the district finds and determines meets all of the following conditions:

(a) All facilities in the class fall within one four-digit Standard Industrial Classification Code.

(b) Individual compliance with this part would impose severe economic hardships on the majority of the facilities within the class.

(c) The majority of the class is composed of small businesses.

(d) Releases from individual facilities in the class can easily and generically be characterized and calculated.

(Amended by Stats. 1989, Ch. 1254, Sec. 9.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 93304, 93306

44324. This part does not apply to any facility where economic poisons are employed in their pesticidal use, unless that facility was subject to district permit requirements on or before August 1, 1987. As used in this section,"pesticidal use" does not include the manufacture or formulation of pesticides.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44325. Any solid waste disposal facility incompliance with Section 41805.5 is in

compliance with the emissions inventory requirements of this part.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

CHAPTER 3. AIR TOXICS EMISSION INVENTORIES

(Chapter 3 added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44340. (a) The operator of each facility subject to this part shall prepare and submit to the district a proposed comprehensive emissions inventory plan in accordance with the criteria and guidelines adopted by the state board pursuant to Section 44342.

(b) The proposed plan shall be submitted to The district on or before August 1, 1989, except that, for any facility to which subdivision (b) of Section 44322 applies, the proposed plan shall be submitted to the district on or before August 1, 1990. The district shall approve, modify, and approve as modified, or return for revision and resubmission, the plan within 120 days of receipt.

(c) The district shall not approve a plan unless all of the following conditions are met:

(1) The plan meets the requirements established by the state board pursuant to Section 44342.

(2) The plan is designed to produce, from the list compiled and maintained pursuant to Section 44321, a comprehensive characterization of the full range of hazardous materials that are released, or that may be released, to the surrounding air from the facility. Air release data shall be collected at, or calculated for, the primary locations of actual and potential release for each hazardous material. Data shall be collected or calculated for all continuous, intermittent, and predictable air releases.

(3) The measurement technologies and estimation methods proposed provide state-of-the-art effectiveness and are sufficient to produce a true representation of the types and quantities of air releases from the facility.

(4) Source testing or other measurement techniques are employed wherever necessary to verify emission estimates, as determined by the state board and to the extent technologically feasible. All testing devices shall be appropriately located, as determined by the state board.

(5) Data are collected or calculated for the relevant exposure rate or rates of each hazardous material according to its characteristic toxicity and for the emission rate necessary to ensure a characterization of risk associated with exposure to releases of the hazardous material that meets the requirements of Section 44361. The source of all emissions shall be displayed or described.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 93300, 93301, 93303-93307, 93310-93315, 93320, 93321-93324, 93330-93340, 93345-93347

44341. Within 180 days after approval of a plan by the district, the operator shall implement the plan and prepare and submit a report to the district in accordance with the plan. The district shall transmit all monitoring data contained in the approved report to the state board.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 93300-93301, 93303-93306, 93310-93315, 93320-93324,93330-93340,93345-93347

44342. The state board shall, on or before May 1,1989, in consultation with the districts, develop criteria and guidelines for site-specific air toxics emissions inventory plans which shall be designed to comply with the conditions specified in Section 44340 and which shall include at least all of the following:

(a) For each class of facility, a designation of the hazardous materials for which emissions are to be quantified and an identification of the likely source types within that class of facility. The hazardous materials for quantification shall be chosen from among, and may include all or part of, the list specified in Section 44321.

(b) Requirements for a facility diagram identifying each actual or potential discrete emission point and the general locations where fugitive emissions may occur. The facility diagram shall include any nonpermitted and nonprocess sources of emissions and shall provide the necessary data to identify emission characteristics. An existing facility diagram which meets the requirements of this section may be submitted.

(c) Requirements for source testing and measurement. The guidelines may specify appropriate uses of estimation techniques including, but not limited to, emissions factors, modeling, mass balance analysis, and projections, except that source testing shall be required wherever necessary to verify emission estimates to the extent technologically feasible. The guidelines shall specify conditions and locations where source testing, fence-line monitoring, or other measurement techniques are to be required and the frequency of that testing and measurement.

(d) Appropriate testing methods, equipment, and procedures, including quality assurance criteria.

(e) Specifications for acceptable emissions factors, including, but not limited to, those which are acceptable for substantially similar facilities or equipment, and specification of procedures for other estimation techniques and for the appropriate use of available data.

(f) Specification of the reporting period required for each hazardous material for which emissions will be inventoried.

(g) Specifications for the collection of useful data to identify toxic air contaminants pursuant to Article 2 (commencing with Section 39660) of Chapter 3.5 of Part 2.

(h) Standardized format for preparation of reports and presentation of data.

(i) A program to coordinate and eliminate any possible overlap between the requirements of this chapter and the requirements of Section 313 of the Superfund Amendment and Reauthorization Act of 1986 (Public Law 99-499).

The state board shall design the guidelines and criteria to ensure that, in collecting data to be used for emissions inventories, actual measurement is utilized whenever necessary to verify the accuracy of emission estimates, to the extent technologically feasible.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 93300, 93301, 93303-93307, 93310-93315, 93320-93324,93330-93340,93345-93347

44343. The district shall review the reports submitted pursuant to Section 44341 and shall, within 90 days, review each report, obtain corrections and clarifications of the data, and notify the state Department of Health Services, the Department of Industrial Relations, and the city or county health department of its findings and determinations as a result of its review of the report.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1,1988, by Section 44384.)

44344. Except as provided in Section 44391, emissions inventories developed pursuant to this chapter shall be updated every four years, in accordance with the procedures established by the state board. Those updates shall take into consideration improvements in measurement techniques and advancing knowledge concerning the types and toxicity of hazardous material released or potentially released.

(Amended by Stats. 1993, Ch. 1041, Sec. 1.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 93307, 93330

44344.3. (a) A facility shall be granted an exemption by a district from further compliance with this part after meeting all of the following criteria:

(1) The facility was required to comply with this part only as a result of its particulate matter emissions.

(2) The facility has participated in, utilized data derived from, or is eligible to utilize data derived from, approved pooled source testing.

(3) The facility has submitted an emissions inventory plan and report that was subsequently accepted and approved.

(4) The facility has been designated by the district as a low priority facility under the guidelines set forth pursuant to this part for facility prioritization, and facility emissions do not present a significant health risk as specified in subdivision (b) of Section 44362.

(5) The facility handles, processes, stores, or distributes bulk agricultural commodities or handles, feeds, or rears livestock.

(b) Subdivision (a) does not apply to a facility that, because of information provided pursuant to Section 44344.7, is reclassified as an intermediate or high priority facility by the district.

(c) The operator of a facility that has been granted an exemption pursuant to this section shall biennially submit a statement to the district for the district's review, with a copy of the most recent emissions inventory for the facility, indicating that, except as to matters for which an emissions inventory update has been or will be submitted pursuant to Section 44344.7, there has been no significant change in facility operations or activities. The district shall not impose any fee upon the operator with regard to the submission of the statement.

(Added by Stats. 1993, Ch. 1037, Sec. 1.)

44344.5. The operator of any new facility that previously has not been subject to this part shall prepare and submit an emissions inventory plan and report.

(Added by Stats. 1993, Ch. 1037, Sec. 2.)

44344.7. The operator of a facility exempted pursuant to subdivision (a) of Section 44344.3 shall submit an emissions inventory update for those sources and substances for which a change in activities or operations has occurred, as follows:

(a) The facility emits a newly listed substance.

(b) A sensitive receptor has been established or constructed on or after January 1, 1994, within 500 meters of the facility.

(c) The facility emits a substance for which the potency factor has increased.

(d) The facility has begun emission of a listed substance not included in the previous emissions inventory.

(Added by Stats. 1993, Ch. 1037, Sec. 3.)

44345. (a) On or before July 1, 1989, the state board shall develop a program to compile and make available to other state and local public agencies and the public all data collected pursuant to this chapter.

(b) In addition, the state board, on or before March 1, 1990, shall compile, by district, emissions inventory data for mobile sources and area sources not subject to district permit requirements, and data on natural source emissions, and shall incorporate these data into data compiled and released pursuant to this chapter.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 93330, 93345

44346. (a) If an operator believes that any information required in the facility diagram specified pursuant to subdivision (b) of Section 44342 involves the release of a trade secret, the operator shall nevertheless make the disclosure to the district, and shall notify the district in writing of that belief in the report.

(b) Subject to this section, the district shall protect from disclosure any trade secret designated as such by the operator, if that trade secret is not a public record.

(c) Upon receipt of a request for the release of information to the public which includes information which the operator has notified the district is a trade secret and which is not a public record, the following procedure applies:

(1) The district shall notify the operator of the request in writing by certified mail, return receipt requested.

(2) The district shall release the information to the public, but not earlier than 30 days after the date of mailing the notice of the request for information, unless, prior to the expiration of the 30-day period, the operator obtains an action in an appropriate court for a declaratory judgment that the information is subject to protection under this section or for a preliminary injunction prohibiting disclosure of the information to the public and promptly notifies the district of that action.

(d) This section does not permit an operator to refuse to disclose the information required pursuant to this part to the district.

(e) Any information determined by a court to be a trade secret, and not a public record pursuant to this section, shall not be disclosed to anyone except an officer or employee of the district, the state, or the United States, in connection with the official duties of that officer or employee under any law for the protection of health, or to contractors with the district or the state and its employees if, in the opinion of the district or the state, disclosure is necessary and required for the satisfactory performance of a contract, for performance of work, or to protect the health and safety of the employees of the contractor.

(f) Any officer or employee of the district or former officer or employee who, by virtue of that employment or official position, has possession of, or has access to, any trade secret subject to this section, and who, knowing that disclosure of the information to the general public is prohibited by this section, knowingly and willfully discloses the information in any manner to any person not entitled to receive it is guilty of a misdemeanor. Any contractor of the district and any employee of the contractor, who has been furnished information as authorized by this section, shall be considered an employee of the district for purposes of this section.

(g) Information certified by appropriate officials of the United States as necessary to be kept secret for national defense purposes shall be accorded the full protections against disclosure as specified by those officials or in accordance with the laws of the United States

(h) As used in this section, "trade secret" and"public record" have the meanings and protections given to them by Section 6254.7 of the Government Code and Section 1060 of the Evidence Code. All information collected pursuant to this chapter, except for data used to calculate emissions data required in the facility diagram, shall be considered "air pollution emission data," for the purposes of this section.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 93321, 93322, 93339

CHAPTER 4. RISK ASSESSMENT

(Chapter 4 added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44360. (a) Within 90 days of completion of the review of all emissions inventory data for facilities specified in subdivision (a) of Section 44322, but not later than December 1, 1990, the district shall, based on examination of the emissions inventory data and in consultation with the state board and the State Department of Health Services, prioritize and then categorize those facilities for the purposes of health risk assessment. The district shall designate high, intermediate, and low priority categories and shall include each facility within the appropriate category based on its individual priority. In establishing priorities pursuant to this section, the district shall consider the potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to potential receptors, including, but not limited to, hospitals, schools, day care centers, worksites, and residences, and any other factors that the district finds and determines may indicate that the facility may pose a significant risk to receptors. The district shall hold a public hearing prior to the final establishment of priorities and

categories pursuant to this section.

(b) (1) Within 150 days of the designation of priorities and categories pursuant to subdivision (a), the operator of every facility that has been included within the highest priority category shall prepare and submit to The district a health risk assessment pursuant to Section 44361. The district may, at its discretion, grant a 30-day extension for submittal of the health risk assessment.

(2) Health risk assessments required by this chapter shall be prepared in accordance with guidelines established by the Office of Environmental Health Hazard Assessment. The office shall prepare draft guidelines which shall be circulated to the public and the regulated community and shall adopt risk assessment guidelines after consulting with the state board and the Risk Assessment Committee of the California Air Pollution Control Officers Association and after conducting at least two public workshops, one in the northern and one in the southern part of the state. The adoption of the guidelines is not subject to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The scientific review panel established pursuant to Section 39670 shall evaluate the guidelines adopted under this paragraph and shall recommend changes and additional criteria to reflect new scientific data or empirical studies.

(3) The guidelines established pursuant to paragraph(2) shall impose only those requirements on facilities subject to this subdivision that are necessary to ensure that a required risk assessment is accurate and complete and shall specify the type of site-specific factors that districts may take into account in determining when a single health risk assessment maybe allowed under subdivision (d). The guidelines shall, in addition, allow the operator of a facility, at the operator's option, and to the extent that valid and reliable data are available, to include for consideration by the district in the health risk assessment any or all of the following supplemental information:

(A) Information concerning the scientific basis for selecting risk parameter values that are different than those required by the guidelines and the likelihood distributions that result when alternative values are used.

(B) Data from dispersion models, microenvironment characteristics, and population distributions that may be used to estimate maximum actual exposure.

(C) Risk expressions that show the likelihood that any given risk estimate is the correct risk value.

(D) A description of the incremental reductions in risk that occur when exposure is reduced.

(4) To ensure consistency in the use of the supplemental information authorized by subparagraphs (A), (B),(C), and (D) of paragraph (3), the guidelines established pursuant to paragraph (2) shall include guidance for use by the districts in considering the supplemental information when it is included in the health risk assessment.

(c) Upon submission of emissions inventory data for facilities specified in subdivisions (b) and (c) of Section 44322, the district shall designate facilities for inclusion within the highest priority category, as appropriate, and any facility so designated shall be subject to subdivision (b). In addition, the district may require the operator of any facility to prepare and submit health risk assessments, in accordance with the priorities developed pursuant to subdivision (a).

(d) The district shall, except where site specific factors may affect the results, allow the use of a single health risk assessment for two or more substantially identical facilities operated

by the same person.

(e) Nothing contained in this section, Section 44380.5, or Chapter 6 (commencing with Section 44390) shall be interpreted as requiring a facility operator to prepare a new or revised health risk assessment using the guidelines established pursuant to paragraph (2) of subdivision (a) of this section if the facility operator is required by the district to begin the preparation of a health risk assessment before those guidelines are established.

(Amended by Stats. 1992, Ch. 1162, Sec. 1.)

44361. (a) Each health risk assessment shall be submitted to the district. The district shall make the health risk assessment available for public review, upon request. After preliminary review of the emissions impact and modeling data, The district shall submit the health risk assessment to the State Department of Health Services for review and, within 180 days of receiving the health risk assessment, the State Department of Health Services shall submit to the district its comments on the data and findings relating to health effects. The district shall consult with the state board as necessary to adequately evaluate the emissions impact and modeling data contained within the risk assessment.

(b) For the purposes of complying with this section, the State Department of Health Services may select a qualified independent contractor to review the data and findings relating to health effects. The State Department of Health Services shall not select an independent contractor to review a specific health risk assessment who may have a conflict of interest with regard to the review of that health risk assessment. Any review by an independent contractor shall comply with the following requirements:

(1) Be performed in a manner consistent with guidelines provided by the State Department of Health Services.

(2) Be reviewed by the State Department of Health Services for accuracy and completeness.

(3) Be submitted by the State Department of Health Services to the district in accordance with this section.

(c) The district shall reimburse the State Department of Health Services or the qualified independent contractor designated by the State Department of Health Services pursuant to subdivision (b), within 45 days of its request, for its actual costs incurred in reviewing a health risk assessment pursuant to this section.

(d) If a district requests the State Department of Health Services to consult with the district concerning any requirement of this part, the district shall reimburse the State Department of Health Services, within 45 days of its request, for the costs incurred in the consultation.

(e) Upon designation of the high priority facilities, as specified in subdivision (a) of Section 44360, the state Department of Health Services shall evaluate the staffing requirements of this section and may submit recommendations to the Legislature, as appropriate, concerning the maximum number of health risk assessments to be reviewed each year pursuant to this section.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44362. (a) Taking the comments of the State Department of Health Services into account, the district shall approve or return for revision and resubmission and then approve, the health risk assessment within 180 days of receipt. If the health risk assessment has not been revised and

resubmitted within 60 days of the district's request of the operator to do so, the district may modify the health risk assessment and approve it as modified.

(b) Upon approval of the health risk assessment, the operator of the facility shall provide notice to all exposed persons regarding the results of the health risk assessment prepared pursuant to Section 44361 if, in the judgment of The district, the health risk assessment indicates there is a significant health risk associated with emissions from the facility. If notice is required under this subdivision, the notice shall include only information concerning significant health risks attributable to the specific facility for which the notice is required. Any notice shall be made in accordance with procedures specified by the district.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44363. (a) Commencing July 1, 1991, each district shall prepare and publish an annual report which does all of the following:

(1) Describes the priorities and categories designated pursuant to Section 44360 and summarizes the results and progress of the health risk assessment program undertaken pursuant to this part.

(2) Ranks and identifies facilities according to the degree of cancer risk posed both to individuals and to the exposed population.

(3) Identifies facilities which expose individuals or populations to any noncancer health risks.

(4) Describes the status of the development of control measures to reduce emissions of toxic air contaminants, if any.

(b) The district shall disseminate the annual report to county boards of supervisors, city councils, and local health officers and the district board shall hold one or more public hearings to present the report and discuss its content and significance.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44364. The state board shall utilize the reports and assessments developed pursuant to this part for the purposes of identifying, establishing priorities for, and controlling toxic air contaminants pursuant to Chapter 3.5 (commencing with Section 39650) of Part 2.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44365. (a) If the state board finds and determines that a district's actions pursuant to this part do not meet the requirements of this part, the state board may exercise the authority of the district pursuant to this part to approve emissions inventory plans and require the preparation of health risk assessments.

(b) This part does not prevent any district from establishing more stringent criteria and requirements than are specified in this part for approval of emissions inventories and requiring the preparation and submission of health risk assessments. Nothing in this part limits the authority of a district under any other provision of law to assess and regulate releases of hazardous substances.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44366. (a) In order to verify the accuracy of any information submitted by facilities pursuant to this part, a district or the state board may proceed in accordance with Section 41510.

(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

CHAPTER 5. FEES AND REGULATIONS

(Chapter 5 added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44380. (a) The state board shall adopt a regulation which does all of the following:

(1) Sets forth the amount of revenue which The district must collect to recover the reasonable anticipated cost which will be incurred by the state board and the Office of Environmental Health Hazard Assessment to implement and administer this part.

(2) Requires each district to adopt a fee schedule which recovers the costs of the district and which assesses a fee upon the operator of every facility subject to this part. A district may request the state board to adopt a fee schedule for the district if the district's program costs are approved by The district board and transmitted to the state board by April 1 of the year in which the request is made.

(3) Requires any district that has an approved toxics emissions inventory compiled pursuant to this part by August 1 of the preceding year to adopt a fee schedule, as described in paragraph (2), which imposes on facility operators fees which are, to the maximum extent practicable, proportionate to the extent of the releases identified in the toxics emissions inventory and the level of priority assigned to that source by the district pursuant to Section 44360.

(b) Commencing August 1, 1992, and annually thereafter, the state board shall review and may amend the fee regulation.

(c) The district shall notify each person who is subject to the fee of the obligation to pay the fee. If a person fails to pay the fee within 60 days after receipt of this notice, the district, unless otherwise provided by district rules, shall require the person to pay an additional administrative civil penalty. The district shall fix the penalty at not more than 100 percent of the assessed fee, but in an amount sufficient in its determination, to pay the district's additional expenses incurred by the person's noncompliance. If a person fails to pay the fee within 120 days after receipt of this notice, the district may initiate permit revocation proceedings. If any permit is revoked, it shall be reinstated only upon full payment of the overdue fee plus any late penalty, and a reinstatement fee to cover administrative costs of reinstating the permit.

(d) Each district shall collect the fees assessed pursuant to subdivision (a). After deducting the costs to The district to implement and administer this part, the district shall transmit the remainder to the Controller for deposit in the Air Toxics Inventory and Assessment Account, which is hereby created in the General Fund. The money in the account is available, upon appropriation by the Legislature, to the state board and the Office of Environmental Health Hazard Assessment for the purposes of administering this part.

(Amended by Stats. 1992, Ch. 375, Sec. 1.)

44380.1. A facility shall be granted an exemption by a district from paying a fee in accordance with Section 44380 if all of the following criteria are met:

(a) The facility primarily handles, processes, stores, or distributes bulk agricultural commodities or handles, feeds, or rears livestock.

(b) The facility was required to comply with this part only as a result of its particulate matter emissions.

(c) The fee schedule adopted by the district or the state board for these types of facilities

is not solely based on toxic emissions weighted for potency or toxicity.
(Added by Stats. 1993, Ch. 1037, Sec. 4.)

44380.5. In addition to the fee assessed pursuant to Section 44380, a supplemental fee may be assessed by The district, the state board, or the Office of Environmental Health Hazard Assessment upon the operator of a facility that, at the operator's option, includes supplemental information authorized by paragraph (3) of subdivision (b) of Section 44360 in a health risk assessment, if the review of that supplemental information substantially increases the costs of reviewing the health risk assessment by the district, the state board, or the office. The supplemental fee shall be set by the state board in the regulation required by subdivision (a) of Section 44380 and shall be set in an amount sufficient to cover the direct costs to review the information supplied by an operator pursuant to paragraph (3) of subdivision (b) of Section 44360.
(Added by Stats. 1992, Ch. 1162, Sec. 2.)

44381. (a) Any person who fails to submit any information, reports, or statements required by this part, or who fails to comply with this part or with any permit, rule, regulation, or requirement issued or adopted pursuant to this part, is subject to a civil penalty of not less than five hundred dollars ($500) or more than ten thousand dollars($10,000) for each day that the information, report, or statement is not submitted, or that the violation continues.
(b) Any person who knowingly submits any false statement or representation in any application, report, statement, or other document filed, maintained, or used for the purposes of compliance with this part is subject to a civil penalty of not less than one thousand dollars ($1,000) or more than twenty-five thousand dollars ($25,000) per day for each day that the information remains uncorrected.
(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44382. Every district shall, by regulation, adopt the requirements of this part as a condition of every permit issued pursuant to Chapter 4 (commencing with Section 42300) of Part 4 for all new and modified facilities.
(Added by Stats. 1987, Ch. 1252, Sec. 1. Operative July 1, 1988, by Section 44384.)

44384. Except for Section 44380 and this section, all provisions of this part shall become operative on July 1, 1988.
(Added by Stats. 1987, Ch. 1252, Sec. 1.)

CHAPTER 6. FACILITY TOXIC AIR CONTAMINANT RISK REDUCTION AUDIT AND PLAN

(Chapter 6 added by Stats. 1992, Ch. 1162, Sec. 3.)

44390. For purposes of this chapter, the following definitions apply:
(a) "Airborne toxic risk reduction measure" or"ATRRM" means those in-plant changes in production processes or feedstocks that reduce or eliminate toxic air emissions subject to this part. ATRRM's may include:
(1) Feedstock modification.

(2) Product reformulations.

(3) Production system modifications.

(4) System enclosure, emissions control, capture, or conversion.

(5) Operational standards and practices modification.

(b) Airborne toxic risk reduction measures do not include measures that will increase risk from exposure to the chemical in another media or that increase the risk to workers or consumers.

(c) "Airborne toxic risk reduction audit and plan"or "audit and plan" means the audit and plan specified in Section 44392.

(Added by Stats. 1992, Ch. 1162, Sec. 3.)

44391. (a) Whenever a health risk assessment approved pursuant to Chapter 4 (commencing with Section 44360)indicates, in the judgment of the district, that there is a significant risk associated with the emissions from a facility, the facility operator shall conduct an airborne toxic risk reduction audit and develop a plan to implement airborne toxic risk reduction measures that will result in the reduction of emissions from the facility to a level below the significant risk level within five years of the date the plan is submitted to The district. The facility operator shall implement measures set forth in the plan in accordance with this chapter.

(b) The period to implement the plan required by subdivision (a) may be shortened by the district if it finds that it is technically feasible and economically practicable to implement the plan to reduce emissions below the significant risk level more quickly or if it finds that the emissions from the facility pose an unreasonable health risk.

(c) A district may lengthen the period to implement the plan required by subdivision (a) by up to an additional five years if it finds that a period longer than five years will not result in an unreasonable risk to public health and that requiring implementation of the plan within five years places an unreasonable economic burden on the facility operator or is not technically feasible.

(d) (1) The state board and districts shall provide assistance to smaller businesses that have inadequate technical and financial resources for obtaining information, assessing risk reduction methods, and developing and applying risk reduction techniques.

(2) Risk reduction audits and plans for any industry subject to this chapter which is comprised mainly of small businesses using substantially similar technology may be completed by a self-conducted audit and checklist developed by the state board. The state board, in coordination with the districts, shall provide a copy of the audit and checklist to small businesses within those industries to assist them to meet the requirements of this chapter.

(e) The audit and plan shall contain all the information required by Section 44392.

(f) The plan shall be submitted to the district, within six months of a district's determination of significant risk, for review of completeness. Operators of facilities that have been notified prior to January 1, 1993, that there is a significant risk associated with emissions from the facility shall submit the plan by July 1, 1993. The district's review of completeness shall include a substantive analysis of the emission reduction measures included in the plan, and the ability of those measures to achieve emission reduction goals as quickly as feasible as provided in subdivisions (a) and (b).

(g) The district shall find the audit and plan to be satisfactory within three months if it meets the requirements of this chapter, including, but not limited to, subdivision (f). If the district determines that the audit and plan does not meet those requirements, the district shall remand the audit and plan to the facility specifying the deficiencies identified by the district. A facility

operator shall submit a revised audit and plan addressing the deficiencies identified by the district within 90 days of receipt of a deficiency notice.

(h) Progress on the emission reductions achieved by the plan shall be reported to the district in emissions inventory updates. Emissions inventory updates shall be prepared as required by the audit and plan found to be satisfactory by The district pursuant to subdivision (g).

(i) If new information becomes available after the initial risk reduction audit and plan, on air toxics risks posed by a facility, or emission reduction technologies that may be used by a facility that would significantly impact risks to exposed persons, the district may require the plan to be updated and resubmitted to the district.

(j) This section does not authorize the emission of a toxic air contaminant in violation of an airborne toxic control measure adopted pursuant to Chapter 3.5 (commencing with Section 39650) or in violation of Section 41700.

(Amended by Stats. 1993, Ch. 1041, Sec. 2.)

44392. A facility operator subject to this chapter shall conduct an airborne toxic risk reduction audit and develop a plan which shall include at a minimum all of the following:

(a) The name and location of the facility.

(b) The SIC code for the facility.

(c) The chemical name and the generic classification of the chemical.

(d) An evaluation of the ATRRM's available to the operator.

(e) The specification of, and rationale for, the ATRRMs that will be implemented by the operator. The audit and plan shall document the rationale for rejecting ATRRMs that are identified as infeasible or too costly.

(f) A schedule for implementing the ATRRMs. The schedule shall meet the time requirements of subdivision (a) of Section 44391 or the time period for implementing the plan set by the district pursuant to subdivision (b) or (c) of Section 44391, whichever is applicable.

(g) The audit and plan shall be reviewed and certified as meeting this chapter by an engineer who is registered as a professional engineer pursuant to Section 6762 of the Business and Professions Code, by an individual who is responsible for the processes and operations of the site, or by an environmental assessor registered pursuant to Section 25570.3.

(Added by Stats. 1992, Ch. 1162, Sec. 3.)

44393. The plan prepared pursuant to Section 44391 shall not be considered to be the equivalent of a pollution prevention program or a source reduction program, except insofar as the audit and plan elements are consistent with source reduction, as defined in Section 25244.14, or subsequent statutory definitions of pollution prevention.

(Added by Stats. 1992, Ch. 1162, Sec. 3.)

44394. Any facility operator who does not submit a complete airborne toxic risk reduction audit and plan or fails to implement the measures set forth in the plan as set forth in this chapter is subject to the civil penalty specified in subdivision (a) of Section 44381, and any facility operator who, in connection with the audit or plan, knowingly submits any false statement or representation is subject to the civil penalty specified in subdivision (b) of Section 44381.

(Added by Stats. 1992, Ch. 1162, Sec. 3.)

ATTACHMENT II

Proposed Emission Inventory Criteria and Guidelines Report

California Environmental Protection Agency

Air Resources Board

EMISSION INVENTORY

CRITERIA AND GUIDELINES REPORT

FOR THE AIR TOXICS "HOT SPOTS" PROGRAM

MAY 1996

Issue Date: June 7, 1996

California Environmental Protection Agency

Air Resources Board

EMISSION INVENTORY

CRITERIA AND GUIDELINES REPORT

FOR THE AIR TOXICS "HOT SPOTS" PROGRAM

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State of California
Air Resources Board
Technical Support Division

EMISSION INVENTORY
CRITERIA AND GUIDELINES REPORT

Table of Contents

	Page
Section I. Purpose and How to Use This Report.	1
A. Purpose.	1
B. How to Use This Report.	1
Section II. Applicability: Who Must Comply and When?	6
A. Facilities Whose Criteria Pollutant Emissions Are 25 Tons Per Year or More.	6
B. Facilities Whose Criteria Pollutant Emissions Are 10 Tons Per Year or More.	6
C. New Facilities and Facilities Whose Criteria Pollutant Emissions Increase.	6
(1) Requirements for New Facilities and Facilities Whose Criteria Pollutant Emissions Increase:	7
(2) Alternative Evaluation for New or Modified Sources Subject to Permit:	8
D. Facilities Added to District Surveys.	9
E. Facilities Emitting Less Than 10 Tons Per Year of Criteria Pollutants.	9
(1) Facilities in a Class Listed in Appendix E.	9
(2) Facilities in Classes Added to Appendix E.	10
(3) Facilities Identified By the District As Posing Concern to Public Health.	11
F. Solid Waste Disposal Facilities.	11
G. Change in Ownership or Company Name.	11
H. Updates to the List of Substances.	12
I. Submittal of Emission Inventory Reports.	
Section III. Removal of Facilities That No Longer Meet Applicability Criteria	13
A. Facilities Whose Emissions Decrease Below 10 Tons Per Year of Criteria Pollutants	13
(1) Conditions.	13
(2) Reinstatement.	13
B. Facilities Removed from District Surveys.	14
(1) Conditions.	14
(2) Reinstatement.	14
C. 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.	14
(1) Conditions.	14
(2) Reinstatement.	15

	Page
Section IV. Update Categories and Exemptions From Update Reporting	16
A. "Low Level" Facilities Exempted From Update Reporting.	16
(1) Conditions:	16
(2) Reinstatement.	18
(3) Alternative Permit Evaluation for Modified Sources Subject to Permit.	20
(4) District Determination Regarding Exemption.	21
B. "Intermediate Level" Facilities For Update Reporting.	21
(1) Conditions:	21
(2) Facilities Emitting Specified Quantities of HAPs	23
C. "High Level" Facilities For Update Reporting.	23
D. Facilities Not Yet Prioritized.	24
E. Timing for Designation of Update Categories.	24
F. Re-Designation if Facility is Re-Prioritized.	24
Section V. Update Reporting Requirements	25
A. General Update Reporting Requirements.	25
B. Update Reporting Requirements for "High Level" Facilities.	25
(1) Continue to Update the Risk-Driving Devices or All Devices.	25
(2) Alternative: Update Reporting Through Risk Reduction Audit and Plan.	25
C. Update Reporting Requirements for "Intermediate Level" Facilities.	26
(1) Track Activity Changes and Update if Significant Increases.	26
(2) Alternative: Track Through Combined Criteria/Toxics Inventory Reporting.	27
D. Update Reporting Requirements for "Low Level" Facilities.	27
E. Update Reporting Requirements for Facilities Not Yet Prioritized:	27
(1) If the Facility's Emission Inventory Has Been Approved:	27
(2) If the Facility's Emission Inventory Has Not Been Approved:	28
F. Voluntary Updates.	28
G. Data Revised for Prioritizations or Risk Assessments.	28
H. Update Summary Form	29
I. Update Plans and Update Reports.	29
J. Use of Previously Submitted Information.	30
K. Update Reporting Year.	31
L. Schedule for Update Submittal.	32
M. Schedule for Update Summary Form Review.	33
Section VI. Requirements for Preparing Emission Inventory Plans	34
A. General.	34
B. Flow Diagram.	34
C. Trade Secrets.	35
D. Numbering.	35
E. Specification of Emission Quantification Methods.	36
F. Source Test Protocol and Other Required Information.	36

	Page
Section VII. Requirements for Emission Inventory Reports	37
A. General.	37
B. Facility Diagram.	37
C. Reporting Formats and Forms.	38
(1) Required Data Elements and Formats	38
(2) Acceptable Forms	38
(3) General Reporting Form Procedures	38
D. Other Required Data.	39
E. Format for Reports and Presentation of Data.	40
F. Plot Plan.	40
G. Other Procedures.	40
Section VIII. Other Requirements	41
A. Instructions for Record Keeping.	41
B. Specification of Reporting Period and Averaging Intervals for Each Substance.	41
C. Specifications for Identifying Emission Points and Substances Emitted.	42
D. Exempted Uses.	42
E. Emission Quantification and Degree of Accuracy.	43
F. Reporting Mixtures and Trade Name Products.	44
Section IX. Source Testing and Emission Factors	46
A. Source Testing and Measurement.	46
B. Pooled Source Testing.	47
C. Alternatives to Required Source Testing.	48
D. ARB-Approved Emission Factors Derived From Hot Spots Source Tests.	49
(1) Proposal to Use ARB-Approved Emission Factors:	49
(2) Review Process:	50
(3) Approval Involving Potent Substances:	51
(4) Approval Involving Other Substances:	51
E. Source Test Protocol and Source Test Report.	51
F. Converting Source Test Results to Emission Rates.	53
G. Specifications for Acceptable Estimation Methods and Emission Factors.	53
Section X. Definitions.	55

APPENDICES

		Location
Appendix A	List of Substances	Included
Appendix A-I	Substances for Which Emissions Must Be Quantified	
Appendix A-II	Substances for Which Use, Production, or Other Presence Must Be Reported	
Appendix A-III	Substances Which Need Not Be Reported Unless Manufactured By the Facility	
Appendix B	Reporting Formats and Instructions	
Appendix B-I	Data Elements and Formats	Included
Appendix B-II	Reporting Forms and Instructions	Separate Cover
Appendix C	Facility Guideline Index (Facility "Look-Up" Table)	Separate Cover
Appendix C-I	Responsibilities of All Facilities	
Appendix C-II	Further Responsibilities for Specific Facility Classes	
Appendix D	Source Testing: Summary of Requirements for Testing and Measurement	Included
Appendix E	Requirements for Classes of Facilities Emitting Less Than 10 Tons Per Year of Criteria Pollutants	Included
Appendix F	Criteria for Inputs for Risk Assessment Using Screening Air Dispersion Modeling	Included

EMISSION INVENTORY CRITERIA AND GUIDELINES REPORT

Section I. Purpose and How to Use This Report.

A. Purpose.

This report sets forth the criteria and guidelines for preparing emission inventory plans and reports to develop site-specific inventories of air emissions of toxic substances, as required by the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (the "Act": Stats. 1987, ch. 1252; Health and Safety Code section 44300-44394, as amended). The requirements in this report are enforceable as regulations because this report is incorporated by reference into Title 17 of the California Code of Regulations, section 93300.5.

This Emission Inventory Criteria and Guidelines Report does the following: 1) specifies which facilities are subject to air toxics emission inventory reporting and update reporting; 2) specifies information a facility operator must include in a facility's air toxics emission inventory plan and inventory report; 3) identifies specific classes of facilities that emit less than ten tons per year of criteria pollutants that are subject to the Hot Spots program and specifies their emission inventory reporting requirements; 4) specifies source testing requirements, acceptable emission estimation methods, and the reporting formats to be used; 5) establishes groups of the substances to be inventoried; 6) designates facilities into levels for purposes of update reporting, based on prioritization scores, risk assessment results, or *de minimis* thresholds; 7) exempts "low level" facilities from further update reporting unless specified reinstatement criteria are met, and specifies the update reporting requirements for other facilities; 8) specifies information a facility operator must include in a facility's update to their emission inventory; and 9) includes provisions for integrating Hot Spots reporting with other district programs if specified criteria are met.

B. How to Use This Report.

This report is organized into sections which address related requirements. Table 1 provides a guide to locating information in this report, such as requirements for new facilities and update reporting requirements for facilities which completed previous reporting.

Figures 1 and 2 , respectively, provide a graphical summary of the designations of facilities as "low level", "intermediate level", or "high level" facilities for purposes of update reporting, and the types of update requirements and acceptable alternatives corresponding to each of these levels.

For definitions of terms, see section X.

TABLE 1

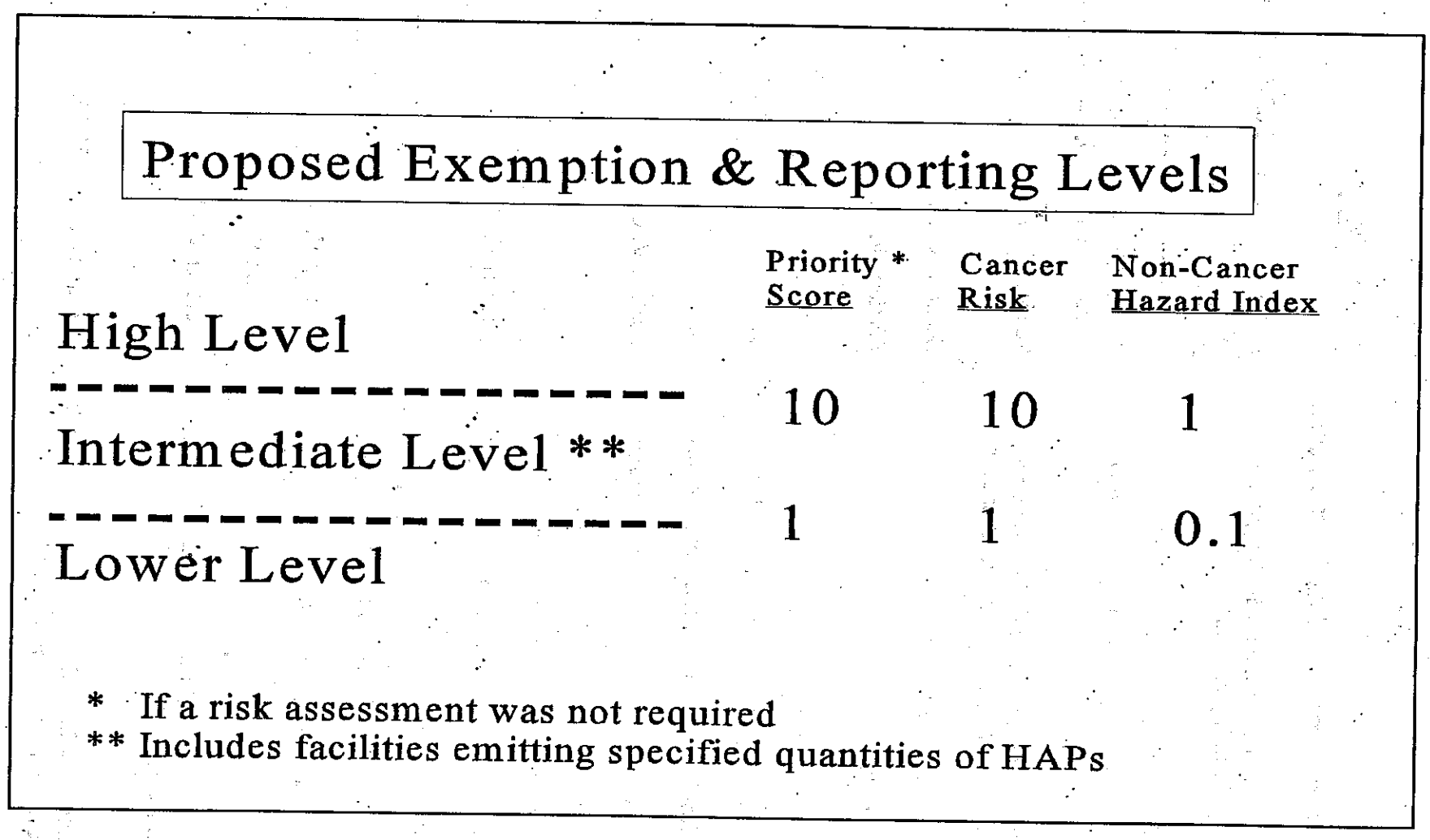
How to Locate Information in this Regulatory Report

	Refer to:
A. If you are a new facility....	
1. Is the facility subject to Hot Spots reporting requirements?	Section II. Applicability. Also see Appendix E for classes of smaller facilities.
- Could a permit evaluation qualify facility for exemption as a "low level" facility?	Section II. C.
- Is your facility covered by an industrywide inventory prepared by the district?	Section II. C.
2. If you are required to prepare an emission inventory plan and report:	Section VI. Requirements for Preparing Emission Inventory Plans. Section VII. Requirements for Emission Inventory Reports. Section VIII. Other Requirements.
- Is any source testing required? What emission factors and estimation methods are acceptable?	Appendix D and Section IX. Source Testing and Emission Factors.
- What substances are covered?	Appendix A: List of Substances
- If you need help identifying some likely substances from your facility's operation:	Appendix C: Facility "Look-Up" Table.
- What data must be reported and in what form?	Appendix B: Reporting Formats and Forms
- Where are terms defined?	Section X. Definitions.

TABLE 1 (continued)

	Refer to:
B. If your facility has reported at least once...	
1. Has your facility changed so it no longer meets the applicability criteria?	Section III. Removal of Facilities That No Longer Meet Applicability Criteria.
2. What is the update category of your facility?	Section IV. Update Categories and Exemptions From Update Reporting.
- "Low level": exempt from update reporting, unless changes trigger reinstatement criteria.	Section IV. A.
- "Intermediate level".	Section IV. B.
- "High level".	Section IV. C.
3. What update reporting is required? Can other reporting programs substitute?	Section V. Update Reporting Requirements.
- "Low level" facilities: exempt from updates.	Section V. D.
- "Intermediate level" facilities: track activity. May be able to substitute merged toxics/criteria inventory reporting for Hot Spots update requirement.	Section V. C.
- "High level" facilities: update risk-driving devices. May be able to substitute Risk Reduction Audit and Plan update (if required) for Hot Spots update requirement.	Section V. B.
- Facilities not yet prioritized.	Section V. E.
- Voluntary updates.	Section V. F.
- If revised emissions were used in a risk assessment.	Section V. G.
4. What data must be updated and in what format? Can previous information be used?	Sections V. H. - V. M.

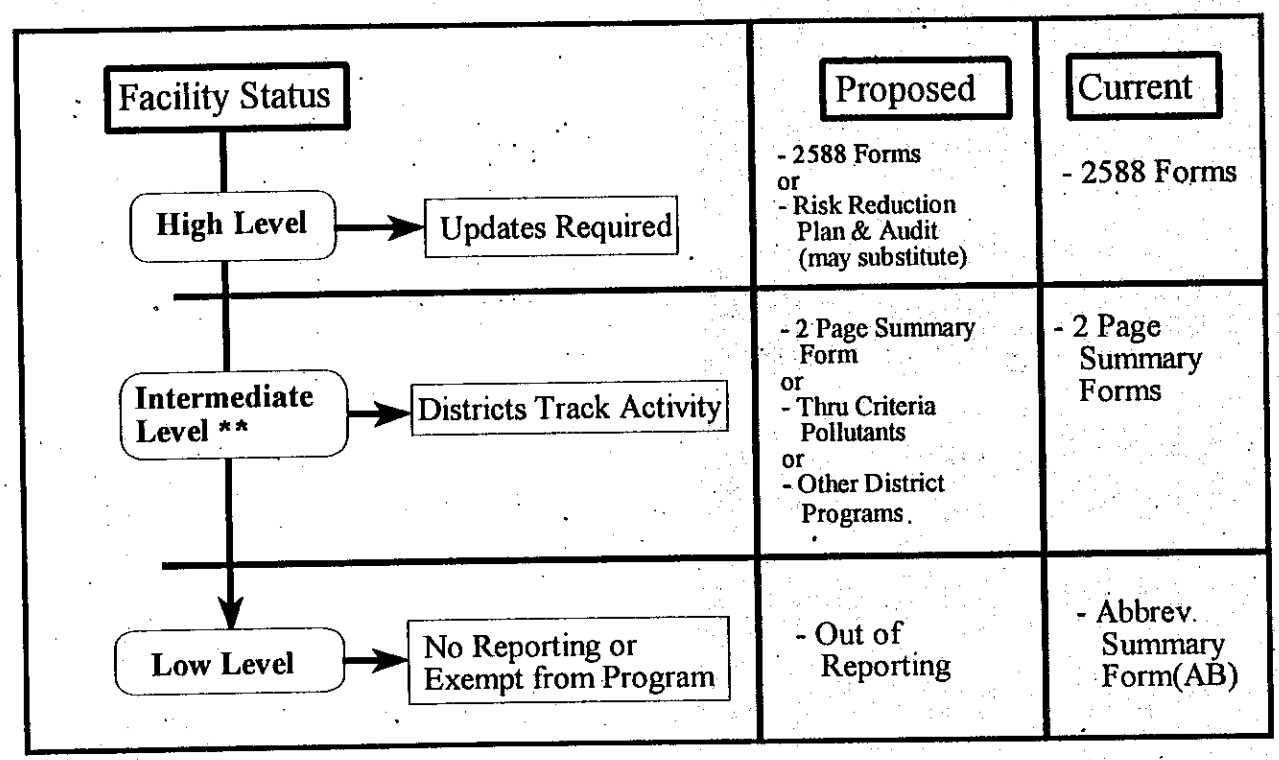
Figure 1



Note: If there is any inconsistency between this figure and the text of this report, text language takes precedence.

May 28, 1996

Figure 2
Reporting Requirements



**** Includes facilities emitting specified quantities of HAPs**

Note: If there is any inconsistency between this figure and the text of this report, text language takes precedence.

Section II. Applicability: Who Must Comply and When?

A. Facilities Whose Criteria Pollutant Emissions Are 25 Tons Per Year or More.

Except for facilities or activities exempted by Health and Safety Code sections 44324 and 44325, as further defined in section III and IV, this regulation applies 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 the list of "Air Pollution Control District Air Toxic Inventories, Reports, or Surveys" in Appendix A of Title 17 California Code of Regulations, sections 90700 through 90705.

Plan Submittal Date: Every facility included in section II.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 in accordance with Health and Safety Code section 44323.

B. Facilities Whose Criteria Pollutant Emissions Are 10 Tons Per Year or More.

Effective July 1, 1989, this regulation applies 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.

Plan Submittal Date: Every facility included in section II.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.

C. New Facilities and Facilities Whose Criteria Pollutant Emissions Increase.

(1) Requirements for New Facilities and Facilities Whose Criteria Pollutant Emissions Increase:

This regulation applies 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 II.A. or II.B. 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) **Covered by Industrywide:** 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;

(b) **Earlier Submission:** The facility is subject to earlier submission of an inventory plan in accordance with district requirements adopted in accordance with Health and Safety Code sections 44365(b); or

(c) **Assessed Under Permit Evaluation for New or Modified Sources:** The entire new facility, or all of the modified facility's physical changes or changes in activities or operations which cause the facility's emissions to increase so that they are above the levels specified in Section II.A. or II.B, are subject to a district permit program for new and modified sources established in accordance with Health and Safety Code section 42300, the district conducts an assessment which meets all the criteria specified in the following subsection (2), and the facility qualifies under subsection 2(a) or 2(b).

(2) Alternative Evaluation for New or Modified Sources Subject to Permit: The following alternative may be used, at district option, to determine whether a new or modified facility must submit an emission inventory plan.

(a) **New facility**: If the entire new facility is subject to a district permit program for new sources established in accordance with Health and Safety Code section 42300, and the district conducts an assessment which meets all the criteria specified in subsection (c), below, and the district designates the new facility a "low level" facility in accordance with Section IV.A, then the new facility shall not be required to submit an emission inventory plan under subsection II.C.(1).

(b) **Modified facility:** If all of the modified facility's physical changes or changes in activities or operations which cause the facility's criteria pollutant emissions to increase above the levels specified in Section II.A. or II.B. are subject to a district permit program for modified sources established in accordance with Health and Safety Code section 42300, and the district conducts an assessment which meets all the criteria specified in subsection (c), below, and the district designates the modified facility a "low level" facility in accordance with Section IV.A, then the modified facility shall not be required to submit an emission inventory plan under subsection II.C.(1).

(c) **Criteria:** The district assessment must include an evaluation of all the emissions and potential emissions of listed substances, and their associated risks, from the new or modified facility. The district assessment must meet all of the following criteria:

(i) The assessment evaluates all substances listed under Appendix A-I, herein, that are emitted or could potentially be emitted under the permitted conditions from the new or modified facility;

(ii) The assessment includes any new or revised health effects values approved by the Office of Environmental Health Hazard Assessment (OEHHA) since either the facility's permit was last revised or the district conducted an assessment, whichever is earlier;

(iii) The assessment evaluates the aggregate effect of changes on the entire facility, both from

multiple sources within the facility, and from the aggregate effect over time of multiple changes;

(iv) The assessment evaluates the receptor distance for the facility;

(v) The assessment evaluates the total quantity of emissions of each listed substance that could potentially be allowed to be emitted under the enforceable level of the permit;

(vi) The district finds that the new or modified facility meets the criteria for a "low level" facility as specified in section IV.A., herein;

(vii) The district issues an enforceable permit or permits, which limit the emissions of listed substances for the entire facility including any emissions from the facility as modified by the physical changes or changes in activities or operations, to not exceed the levels evaluated in the assessment;

(viii) The assessment meets equivalent provisions for the elements of a plan as specified in Health and Safety Code sections 44340 and 44342, including but not limited to producing a comprehensive characterization of the full range of pollutants; collecting or calculating data for all releases; ensuring that the collected data will ensure the ability to characterize risk, if needed under Health and Safety Code section 44361; that the source of all emissions is displayed or described; and that a facility diagram be available which meets the requirements of Health and Safety Code section 44342(b). A facility-total summary of the emissions may be used to comply with these provisions as long as the totals are calculated based on all releases;
and

(ix) The facility operator complies with all other applicable requirements of the Hot Spots program specified in Health and Safety Code sections 44300 - 44394.

D. Facilities Added to District Surveys.

This regulation applies 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 A of Title 17 California Code of Regulations, sections 90700 through 90705. The operator of a facility added to Appendix A of Title 17, CCR, Sections 90700 through 90705 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.

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

(1) Facilities in a Class Listed in Appendix E.

This regulation applies 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 belongs to any class listed in Appendix E.

The operator of any facility subject to this section which belongs to any class listed in Appendix E shall submit to the appropriate district an emission inventory plan and emission inventory report which meet all the requirements of this regulation, 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 in accordance with Health and Safety Code section 44323;

(b) The facility is subject to earlier submission of an inventory plan in accordance with sections II.A., II.B., II.C., or II.D., or in accordance with district requirements adopted in accordance with Health and Safety Code section 44365(b); or

(c) The facility meets the general exclusion provision for individual facilities as specified in Note (1) to Appendix E.

Plan Submittal Date: The inventory plan shall be due August 1 of the year following the effective date of this section for any facility subject to this section and in operation at the time of the effective date of this section. For any facility subject to this section commencing operation after the effective date of this section and on or before January 1 of a given year, the operator shall submit an emission inventory plan to the appropriate district by the following August 1, except as provided in section II.E.(1)(a) or (b), above. The schedule specified in Health and Safety Code sections 44340(b), 44341, and 44343, and in section II.A and section VII.G herein shall apply to the review, approval, and implementation of the plan and submittal of the report.

(2) Facilities in Classes Added to Appendix E.

This regulation applies to any facility subject to this section which belongs to any class subsequently added to Appendix E of this regulation. The operator of any facility which belongs to a class added to Appendix E on or before April 1 of a given year shall submit the required emission inventory plan to the appropriate district by the following August 1, unless:

(a) **Covered by Industrywide:** 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 in accordance with Health and Safety Code section 44323;

(b) **Earlier Submission:** The facility is subject to earlier submission of an inventory plan in accordance with sections II.A., II.B., II.C., or II.D., or in accordance with district requirements adopted in accordance with Health and Safety Code section 44365(b);

(c) **Meets the General Exclusion Provisions in Appendix E:** The facility meets the general exclusion provision for individual facilities as specified in Note (1) to Appendix E; or

(d) **Assessed Under Permit Evaluation for New or Modified Sources:** The entire facility, or all of the facility's processes which cause the facility to be subject to the requirements in Appendix E for an "Any SIC" class or a class limited to specified portions of an SIC, are subject to a district permit program for new or modified sources established in accordance with Health and Safety Code section 42300, and the district conducts an assessment which meets all the criteria specified in section II.C.(2), herein, and the district designates the facility a "low level" facility in accordance with the criteria in section IV.A. If the facility meets the requirements under this subsection, II.E.(2), the facility shall not be required to submit an emission inventory plan or report under subsection E.(1).

(3) Facilities Identified By the District As Posing Concern to Public Health.

(a) This regulation applies to any facility which does not belong to a class of facilities listed in Appendix E, but for which the district has made an initial assessment of the emissions from the facility and has made a determination that:

(i) in the judgment of the district, there is a reasonable basis for determining that the facility may individually or in combination with other facilities pose a potential threat to public health, or the district has identified the emissions from the facility as being of particular concern to the community, and

(ii) detailed toxics emission data are needed by the district to completely evaluate potential health risk to surrounding receptors.

At district option, in making the determination, the district may take into account any of the following factors: estimates of the quantity of toxic emissions from the facility; potency or toxicity of the substances released from the facility; nature of the release characteristics of the emissions; proximity of receptors; level of uncertainty in the estimated quantity or toxicity of the emissions; presence of one or more substances for which there is no approved, quantitative health effects value but for which there is quantitative or qualitative data indicating adverse health effects; control equipment affecting the emissions; anticipated or permitted levels of operation of the facility; comparison of anticipated operations and releases from the facility relative to other facilities which have been found to exceed the criteria for "low level" facilities, as specified in Section IV; proximity of other facilities and sources of toxic emissions; other factors affecting the release, toxicity, dispersion, or potential risk of the likely emissions from the facility; and any other factor the district considers relevant.

(b) The operator of any facility identified by the district under E.(3)(a) of this section, and notified by the district on or before April 1 of a given year, shall submit an emission inventory plan that meets the requirements of this regulation to the appropriate district by the following August 1, unless:

(i) 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 in accordance with Health and

Safety Code Section 44323; or

(ii) The facility is subject to earlier submission of an inventory plan in accordance with Sections II.A., II.B., II.C., or II.D, or in accordance with district requirements adopted in accordance with Health and Safety Code Sections 44365(b).

F. Solid Waste Disposal Facilities.

For purposes of this regulation, 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 regulation. A facility shall be 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. A facility in compliance with Health and Safety Code section 41805.5 may use information collected under the Calderon testing program to satisfy the emission inventory requirements of this regulation for pollutants and activities subject to the Calderon testing program only.

G. Change in Ownership or Company Name.

The update requirements in section V apply to any facility subject to this regulation under the provisions of Health and Safety Code sections 44320 and 44322, which subsequently changes ownership or company name. Change in ownership or company name does not affect update reporting requirements or schedule.

H. 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 under this regulation, or in the next update of the emission inventory required under Health and Safety Code section 44344 and section V, herein, unless the district notifies the facility in writing that the facility's emissions of the added substance are or will be included in an industrywide emission inventory prepared by the district.

I. Submittal of Emission Inventory Reports.

The operator of any facility subject to this regulation shall implement the facility's emission inventory plan as approved by the district and prepare and submit a report to the district in accordance with Health and Safety Code section 44341.

If the operator notifies the district in writing in the report that the operator believes specified information required in the facility diagram under Section VII.B. involves the release of a trade secret, the district shall protect from disclosure any trade secret designated as such by the operator, if that trade secret is not a public record. The district shall notify the state board if an operator designates information as trade secret information in writing in the report.

Section III. Removal of Facilities That No Longer Meet Applicability Criteria

A. Facilities Whose Emissions Decrease Below 10 Tons Per Year of Criteria Pollutants

(1) Conditions.

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 II.A. and II.B. *[these sections address facilities emitting 25 or more, or 10 or more, tons per year, respectively, of criteria pollutants]** , if the facility demonstrates to the district, and the district finds and the state board concurs that the following criteria are satisfied.

(a) The facility does not satisfy the conditions specified in section II.A.(2) or II.E. *[these sections address, respectively, facilities on district toxics survey lists and facilities emitting less than 10 tons per year of criteria pollutants]*;

(b) The emission reductions are permanent and enforceable; and

(c) The facility poses no significant risk to public health.

Concurrence of the state board will be presumed if the state board does not respond to the district within 45 days of the state board's receipt of the district's notification of its finding.

The operator of any facility that satisfies these criteria 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 update requirements under section V. for that or any subsequent year.

(2) Reinstatement.

If at any time a facility ceases to satisfy any of the criteria specified in section III.A.(1), the facility is subject to the requirements of this regulation, including update requirements. The operator of a facility shall notify the district immediately if the facility ceases to satisfy any of the criteria specified in section III.A.(1).

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* NOTE: Explanatory notes in italic type and enclosed in brackets ("[ ]") are included to assist the reader in following section cross references. If there is any inconsistency or incompleteness between the main text and an italicized note, the main text takes precedence.

B. Facilities Removed from District Surveys.

(1) Conditions.

This regulation shall cease to apply to any facility removed from a district's toxics use or toxics air emission survey, inventory, or report referenced in Appendix A of Title 17 California Code of Regulations, section 90700 through 90705, if the facility demonstrates to the district, and the district finds and the state board concurs that the following criteria are satisfied.

(a) The facility does not satisfy the conditions specified in sections II.A, B, or E *[these sections address facilities emitting 25 or more, 10 or more, or less than 10 tons per year of criteria pollutants, respectively]*; and

(b) The facility poses no significant risk to public health.

Concurrence of the state board will be presumed if the state board does not respond to the district within 45 days of the state board's receipt of the district's notification of its finding.

The operator of any facility that satisfies these criteria and is deleted from a reference in Appendix A of Title 17 California Code of Regulations, section 90700 through 90705, on or before April 1 of a given year shall not be required to comply with update requirements under section V for that or any subsequent year.

(2) Reinstatement.

If at any time a facility ceases to satisfy any of the criteria specified in section III.B.(1), the facility is subject to the requirements of this regulation, including update requirements. The operator of a facility shall notify the district immediately if the facility fails to satisfy the criteria specified in section III.B.(1).

C. 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.

(1) Conditions.

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

(a) the facility does not satisfy the conditions specified in section II.A., II.B., or any other condition specified in section II.E. *[these sections address facilities emitting 25 or more, 10 or more, or less than 10 tons per year of criteria pollutants, respectively]*;

(b) the process is discontinued permanently; and

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

Concurrence of the state board will be presumed if the state board does not respond to the district within 45 days of the state board's receipt of the district's notification of its finding.

The operator of any facility that satisfies these 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 update requirements under section V for that or any subsequent year.

(2) Reinstatement.

If at any time a facility ceases to satisfy any of the criteria specified in section III.C.(1), the facility is subject to the requirements of this regulation, including update requirements. The operator of a facility shall notify the district immediately if the facility ceases to satisfy the criteria specified in section III.C.(1).

Section IV. Update Categories and Exemptions From Update Reporting

A. "Low Level" Facilities Exempted From Update Reporting.

(1) Conditions:

Facilities may qualify to be designated "low level" facilities for update reporting purposes if they meet the following conditions.

Except as specified in subdivision (e), below, for facilities which emit federal Hazardous Air Pollutants (HAPs) as specified in Section IV.B.(2), a facility that has completed and obtained district approval of its emission inventory, and that has completed all other applicable requirements, will be excluded from update reporting requirements under this regulation, if the district finds and the state board concurs that any of the following criteria are satisfied:

(a) **Prioritization Score:** the facility was not required to conduct a risk assessment under Health and Safety Code section 44360(b), and the facility has been prioritized by its district in accordance with Health and Safety Code Section 44360(a) using procedures that have undergone public review, and, based on the most recent district-approved toxics emission inventory, the facility's prioritization score is less than 1.0 for cancer health effects and is less than 1.0 for non-cancer health effects. Some appropriate procedures for estimating prioritization scores are presented in the California Air Pollution Control Officers' Association (CAPCOA) "Air Toxics 'Hot Spots' Program Facility Prioritization Guidelines, July 1990", which is incorporated by reference herein; or

(b) **Approved Risk Assessment Result:** the facility was required to conduct a risk assessment under Health and Safety Code section 44360(a), and the facility has had its risk assessment approved by the district in accordance with Health and Safety Code Section 44362 and has been notified in writing by the district that the risk assessment results show a total potential cancer risk at an actual receptor, summed across all pathways of exposure and all compounds, of less than one (1.0) case per one million persons and a total hazard index (H.I.) for each toxicological endpoint of less than 0.1. Some appropriate procedures for determining potential cancer risk and total hazard index are presented in the CAPCOA "Air Toxics 'Hot Spots' Program Revised 1992 Risk Assessment Guidelines, October 1993", which is incorporated by reference herein; or

(c) ***De Minimis* Thresholds For Specified Classes of Facilities:** the facility was not required to conduct a risk assessment under Health and Safety Code section 44360(b), and the facility's primary activity falls into one of the following classes and the facility meets the specified criteria:

(i) the facility primarily performs printing as described by Standard Industrial Classification (SIC) Codes 2711 through 2771 or 2782, and the facility uses an annual average of two gallons per day or less (or 17 pounds per day or less) of all graphic arts materials (deducting the amount of any water or acetone).

(ii) the facility is a wastewater treatment plant as described by SIC Code 4952 which does not have a sludge incinerator, and the facility's maximum throughput does not exceed 10,000,000 gallons per day.

(iii) the facility is a crematorium for humans or animals, as described by SIC Code 7261 or any SIC Code that describes a facility using an incinerator to burn biomedical waste (animals), the facility uses only propane or natural gas as fuel, and the facility annually cremates no more than 300 human bodies or 43,200 pounds of remains (human or animal). Facilities using incinerators that burn biomedical waste other than cremating humans or animals do not qualify for this exemption.

(iv) the facility is primarily a boat building and repair facility or the facility is primarily a ship building and repair facility, as described by SIC Codes 3731 or 3732, respectively, and the facility uses 20 gallons per year or less of coatings or is a coating operation using hand-held nonrefillable aerosol cans only; or

(v) the facility is a hospital or veterinary clinic building that is in compliance with the control requirements specified in the Ethylene Oxide Control Measure for Sterilizers and Aerators, section 93108 of Title 17, California Code of Regulations, and has an annual usage of ethylene oxide of less than 100 pounds per year if it is housed in a single story building, or has an annual usage of ethylene oxide of less than 600 pounds per year if it is housed in a multi-story building.

(d) **Results of Approved Screening Risk Assessment:** the facility was not required to conduct a risk assessment under Health and Safety Code section 44360(b), and if the facility's prioritization score is greater than or equal to 1.0, the district, or the facility with the concurrence of the district, may conduct a worst-case, health conservative risk assessment using screening air dispersion modeling, as described below, to demonstrate that the facility's screening risk levels qualify the facility for a "low level" exemption under this section.

(i) **Screening Criteria:** the facility must use a worst-case, health conservative methodology, and must obtain written concurrence from the district and the Office of Environmental Health Hazard Assessment (OEHHA) that the methodology meets all of the criteria specified in Appendix F of this regulation, and conforms to acceptable procedures for calculating cancer risk and hazard index. Some appropriate procedures for determining potential cancer risk and total hazard index are presented in the CAPCOA "Air Toxics 'Hot Spots' Program Revised 1992 Risk Assessment Guidelines, October 1993", which is incorporated by reference herein.

(ii) **Approval Process:** upon receipt of a proposal for use of a screening risk assessment, the district shall ensure that all components of information required under this section are included and that the methodology meets all state and district criteria for appropriate procedures. If the district determines that the proposal is not complete, the district will identify components that need to be included and will notify the facility. The facility may revise its proposal and resubmit it to the district. Once the proposal and risk assessment are complete, the district shall immediately submit the assessment to OEHHA for technical review and comment. To the extent practicable, OEHHA will determine whether the

proposed screening risk assessment is acceptable and will note any deficiencies in the assessment, and will respond within 45 days of receipt of the assessment. OEHHA's approval of the assessment will be presumed if OEHHA does not respond to the district within 45 days of OEHHA's receipt of the assessment. The facility operator shall correct any deficiencies identified by OEHHA. The district may approve the assessment only if both the district and OEHHA find the assessment acceptable.

(iii) **Screening Threshold:** the facility qualifies as a "low level" facility for purposes of this section and is exempted from update reporting requirements under section V, if the approved screening risk assessment shows a total potential cancer risk at the point of maximum off-site impact, summed across all pathways of exposure and all compounds, of less than one (1.0) case per one million persons and a total hazard index for each toxicological endpoint of less than 0.1.

(iv) **Screening Assessment Date:** if the screening risk assessment is completed and approved on or before April 1 of a given year, the results may be used to qualify the facility for an exemption from update reporting requirements under section V that would be due in August of that year.

(e) **Exemption Does Not Apply to Facilities Emitting Specified Quantities of HAPs:** Notwithstanding subdivisions (a) through (d), above, a facility that emits specified quantities of federal Hazardous Air Pollutants (HAPs) as specified in section IV.B.(2), will not qualify as a "low level" facility for purposes of this section and will not be exempted from update reporting under section V.

Concurrence of the state board with the designation of a "low level" facility will be presumed if the state board does not respond to the district within 45 days of the state board's receipt of the district's notification of its finding.

A facility designated by the district as "low level" on or before April 1 of a given year shall be exempt from update requirements under section V that would be due in August of that year.

(2) Reinstatement.

(a) A facility exempted from update reporting under section IV.A.(1) shall, upon receipt of a notice from the district, again be subject to the update requirements in Section V of this regulation and the operator shall submit an emission inventory update, within 180 days or on an alternative schedule specified in writing by the district, for those sources and substances for which a physical change affecting the facility, a change in facility activities or operations, or a change in other factors has occurred, as follows:

(i) The facility emits a substance which has been added to the list of substances in accordance with Health and Safety Code Section 44321 and for which a health effects value has been approved by the Office of Environmental Health Hazard Assessment (OEHHA); or

(ii) The district determines that the receptor distance for the facility decreased after the district determined the facility's prioritization score or risk, to such an extent that the facility no longer qualifies for an exemption as a "low level" facility under section IV.A.(1); or

(iii) The facility emits a substance for which a new health effects value has been established by OEHHA such that the facility no longer qualifies as a "low level" facility under section IV.A.(1), or for which the health effects value has changed so that the potential health impact has increased such that the facility no longer qualifies as a "low level" facility under section IV.A.(1); or

(iv) The district determines that the approved source test method or emission estimation method used by the facility to calculate its emissions changed after the district determined the facility's prioritization score or risk, to such an extent that the facility no longer qualifies for an exemption as a "low level" facility under section IV.A.(1) using the new method to estimate or calculate the facility's emissions; or

(v) The district determines there is good cause to expect the facility no longer qualifies for an exemption as a "low level" facility under section IV.A.(1).

At district option, in making the determination, the district may take into account any of the following factors: estimates of the quantity of toxic emissions from the facility; potency or toxicity of the substances released from the facility; nature of the release characteristics of the emissions; proximity of receptors; level of uncertainty in the estimated quantity or toxicity of the emissions; presence of one or more substances for which there is no approved, quantitative health effects value but for which there is quantitative or qualitative data indicating adverse health effects; control equipment affecting the emissions; anticipated or permitted levels of operation of the facility; comparison of anticipated operations and releases from the facility relative to other facilities which have been found to exceed the criteria for "low level" facilities, as specified in Section IV; proximity of other facilities and sources of toxic emissions; other factors affecting the release, toxicity, dispersion, or potential risk of the likely emissions from the facility; and any other factor the district considers relevant.

(b) A facility exempted from update reporting under section IV.A.(1) shall again be subject to update requirements of Section V, as follows. If a physical change or a change in facility activities or operations affecting the facility has occurred so that the facility no longer satisfies the exemption criteria of section IV.A.(1) that qualified the facility to be a "low level" facility, the operator shall submit an emission inventory update, within 180 days or on an alternative schedule specified in writing by the district.

(c) If a substantial decrease in the receptor distance occurred for the facility, and the facility operator could reasonably be expected to estimate the decreased distance, so that the facility no longer qualifies for an exemption as a "low level" facility under section IV.A.(1), the facility operator shall notify the district immediately unless the facility has received a notice from the district in accordance with subdivision (a)(ii), above.

(3) Alternative Permit Evaluation for Modified Sources Subject to Permit.

Notwithstanding section IV.A.(2), a physical change affecting the facility or a change in facility activities or operations shall not cause the facility to again be subject to the update reporting requirements in Section V if the district determines that all the following conditions are met:

(a) The physical change or change in activities or operations is subject to a district permit program established in accordance with Health and Safety Code Section 42300;

(b) The district conducts an assessment of the potential changes in toxics emissions or their associated risks, whichever the district determines to be appropriate, attributable to the physical change or change in activities or operations of the facility, and finds that the changes in emissions will not cause the facility to cease to satisfy the exemption criteria specified in section IV.A.(1) which qualify the facility to be a "low level" facility;

(c) The district assessment meets all of the following criteria:

(i) The assessment evaluates all substances listed under Appendix A;

(ii) The assessment evaluates any new or revised health effects values approved by OEHHA after the facility's most recent district assessment;

(iii) The assessment evaluates the aggregate effect of changes on the entire facility, both from multiple sources within the facility, and from the aggregate effect over time of multiple changes;

(iv) The assessment evaluates any decreases in receptor distance;

(v) The assessment evaluates any significant improvements in emission quantification methods applicable to the substances emitted from the facility;

(vi) The assessment evaluates the total quantity of emissions of each listed substances that could potentially be allowed to be emitted under the enforceable level of the permit; and

(vii) If the proposed modification is only for replacement of existing equipment with identical newer equipment, the district may streamline the evaluation to make only the following determinations: that the new equipment will have emissions of listed toxic substances equivalent to those emitted by the existing equipment; that the substances have had no changes in health effects values and no significant improvements in quantification method since the facility's most recent district assessment; and the receptor distance has not decreased since the facility's most recent district assessment.

(d) The district issues an enforceable permit for the physical change or change in facility activities or operations, which limits the toxic emissions to within the levels included in the evaluation; and

(e) The facility operator complies with all other applicable requirements of the Hot Spots program specified in Health and Safety Code Sections 44300 - 44394 , including but not limited to health

risk assessment, public notification, and risk reduction audit and plan requirements if applicable to the facility.

(f) **Update of emission data:** If, as a result of the evaluation for the permitted change, a previously "low level" or "intermediate level" facility still qualifies as a "low level" or "intermediate level" facility, respectively, then the district need not transmit updated emission data to the state board.

If, as a result of the evaluation for the permitted change, a facility meets the criteria for a "high level" facility or the facility meets the criteria for a higher category level than it did previously, the facility shall, within 180 days of district request or from the commencement of operation under the permit, whichever is later, submit to the district the updated emission data in the applicable format for updates as specified in section V or in an alternative format approved by the district. The district shall transmit the data for the updated emissions to the state board, in the format for updates specified in section V, or an alternative format approved by the state board.

(4) District Determination Regarding Exemption.

If a district has good cause to believe that a facility may individually or in combination with other facilities pose a potential threat to public health and that a facility therefore does not qualify for an exemption claimed by the facility from the reporting requirements of this regulation, the district may require the facility to document, in a format specified by the district, the facility's emissions and impacts, or the changes in emissions expected to occur as a result of a particular physical change, a change in activities or operations at the facility, or a change in other factors. The district may deny the exemption if the documentation does not support the claim for exemption.

At district option, in making the determination, the district may take into account any of the following factors: estimates of the quantity of toxic emissions from the facility; potency or toxicity of the substances released from the facility; nature of the release characteristics of the emissions; proximity of receptors; level of uncertainty in the estimated quantity or toxicity of the emissions; presence of one or more substances for which there is no approved, quantitative health effects value but for which there is quantitative or qualitative data indicating adverse health effects; control equipment affecting the emissions; anticipated or permitted levels of operation of the facility; comparison of anticipated operations and releases from the facility relative to other facilities which have been found to exceed the criteria for "low level" facilities, as specified in Section IV; proximity of other facilities and sources of toxic emissions; other factors affecting the release, toxicity, dispersion, or potential risk of the likely emissions from the facility; and any other factor the district considers relevant.

B. "Intermediate Level" Facilities For Update Reporting.

(1) Conditions:

If a facility has completed and obtained district approval of its emission inventory and completed all other applicable requirements, and the facility does not qualify as a "low level" facility, the facility shall be designated as an "intermediate level" facility for update reporting purposes. The facility shall comply with

the update requirements for "intermediate level" facilities as specified in section V.C. of this regulation, if the district finds and the state board concurs that the following criteria are satisfied.

(a) **Prioritization Score:** the facility was not required to conduct a risk assessment under Health and Safety Code section 44360(b), and the facility has been prioritized by its district in accordance with Health and Safety Code Section 44360(a) using procedures as described in section IV.A.(1), and the facility's prioritization score is less than 10 for cancer health effects and is less than 10 for non-cancer health effects; or

(b) **Approved Risk Assessment Result:** the facility was required to conduct a risk assessment under Health and Safety Code section 44360(b), and the facility has had its risk assessment approved by the district in accordance with Health and Safety Code Section 44362, as described in section IV.A.(1), and has been notified in writing by the district that the risk assessment results show a total potential cancer risk at an actual receptor, summed across all pathways of exposure and all compounds, of less than ten (10) cases per one million persons and a total hazard index (H.I.) for each toxicological endpoint of less than 1.0; or

(c) **Results of Approved Screening Risk Assessment:** if the facility was not required to conduct a risk assessment under Health and Safety Code section 44360(b), and the facility's prioritization score is greater than or equal to 10, the district, or the facility with the concurrence of the district, may conduct a worst-case, health conservative risk assessment using screening air dispersion modeling, as described below, to demonstrate that the facility's screening risk levels qualify the facility for the "intermediate level" for purposes of update reporting.

(i) **Screening Criteria:** the facility must use a worst-case, health conservative methodology, and must obtain written concurrence from the district and the Office of Environmental Health Hazard Assessment (OEHHA) that the methodology meets all of the criteria specified in Appendix F of this regulation, and conforms to acceptable procedures for calculating cancer risk and hazard index. Some appropriate procedures for determining potential cancer risk and total hazard index are presented in the CAPCOA "Air Toxics 'Hot Spots' Program Revised 1992 Risk Assessment Guidelines, October 1993", which is incorporated by reference herein.

(ii) **Approval Process:** upon receipt of a proposal for use of a screening risk assessment, the district shall ensure that all required components of information are included and that the methodology meets all state and district criteria for appropriate procedures. If the district determines that the proposal is not complete, the district will identify components that need to be included and will notify the facility. The facility may revise its proposal and resubmit it to the district. Once the proposal and assessment are complete, the district shall immediately submit the assessment to OEHHA for technical review and comment. To the extent practicable, OEHHA will determine whether the proposed screening risk assessment is acceptable and will note any deficiencies in the assessment, and will respond within 45 days of receipt of the assessment. OEHHA's approval of the assessment will be presumed if OEHHA does not respond to the district within 45 days of OEHHA's receipt of the assessment. The facility operator shall correct any deficiencies identified by OEHHA. The district may approve the assessment only if both the district and OEHHA find the assessment acceptable.

(iii) **Screening Threshold:** the facility qualifies as an "intermediate level" facility for purposes of update reporting requirements, if the approved screening risk assessment results show a total potential cancer risk at the point of maximum off-site impact, summed across all pathways of exposure and all compounds, of less than ten (10) cases per one million persons and a total hazard index for each toxicological endpoint of less than 1.0.

(iv) **Screening Assessment Date:** if the screening risk assessment is completed and approved on or before April 1 of a given year, the results may be used to qualify the facility as an "intermediate level" facility regarding update requirements under section V that would be due in August of that year.

Concurrence of the state board with the designation of an "intermediate facility" will be presumed if the state board does not respond to the district within 45 days of the state board's receipt of the district's notification of its finding.

A facility designated by the district as "intermediate level" on or before April 1 of a given year shall comply with update requirements that would be due in August of that year.

(2) Facilities Emitting Specified Quantities of HAPs: notwithstanding the exemption criteria in section IV.A.(1), a facility shall not be designated as a "low level" facility and shall not be exempted from the update reporting requirements if, based on the most recent district-approved toxics emission inventory report, the facility emits the following quantities of any listed substances which are designated by the United States Environmental Protection Agency (U.S. EPA) as a Hazardous Air Pollutant (HAP) under Title III of the federal Clean Air Act Amendments of 1990 (42 U.S. Code, 7412(b)):

(a) Five or more tons per year of any individual HAP substance, or

(b) A combined total of 12.5 or more tons per year of HAP substances.

A facility meeting these criteria shall be designated a "high level" facility if it exceeds any of the criteria specified in subsections (1)(a), (b), or (c), above, or otherwise shall be designated an "intermediate level" facility and shall comply with the update reporting requirements specified in Section V. for "high level" or "intermediate level" facilities, respectively.

C. "High Level" Facilities For Update Reporting.

All facilities exceeding any one of the criteria specified in section IV.B shall be designated by the district, with the concurrence of the state board, as "high level" facilities for update reporting purposes and shall comply with the update requirements specified in section V for "high level" facilities.

Concurrence of the state board with the designation of a "high level" facility will be presumed if the state board does not respond to the district within 45 days of the state board's receipt of the district's notification of its finding.

A facility that has been designated by the district as "high level" on or before April 1 of a given year shall comply with update reporting requirements that would be due in August of that year.

D. Facilities Not Yet Prioritized.

The operator of any facility that has not been prioritized by the district in accordance with Health and Safety Code section 44360(a) shall comply with the update reporting requirements specified in section V.E.

E. Timing for Designation of Update Categories.

If a facility has completed all applicable requirements and has been designated by the district into the appropriate update category on or before April 1 of a given year, the results of the district's categorization may be applied to the facility's applicable update reporting requirements under section V that would be due in August of that year.

F. Re-Designation If Facility is Re-Prioritized.

The district shall re-evaluate and may re-designate a facility's update category if the district re-prioritizes a facility subsequent to the original designation of the facility's update category. If a facility has been re-designated by the district on or before April 1 of a given year, the results of the district's categorization may be applied to the facility's applicable update reporting requirements under section V that would be due for any update requirement due on or after August 1 of that year.

The district may re-designate a facility to a lower update category than previously only if the facility demonstrates to the district, and the district finds and the state board concurs that the following criteria are satisfied.

(a) The re-designation must be based on the most recent district-approved emission inventory;

(b) The emission and risk reductions are permanent and enforceable;

(c) The facility meets the criteria specified in Section IV for the applicable update category;

(d) The facility poses no significant risk to public health; and

(e) If the facility was required to conduct a risk assessment under Health and Safety Code section 44360(a) based on a previous emission inventory report, the facility must demonstrate to the satisfaction of the district and the state board that using the most recent district-approved emission inventory results in revised risk assessment values which meet the risk assessment criteria specified in Section IV for the applicable update category.

Concurrence of the state board will be presumed if the state board does not respond to the district within 45 days of the state board's receipt of the district's notification of its finding.

Section V. Update Reporting Requirements

A. General Update Reporting Requirements.

Facility operators required to report under section II are subject to update reporting requirements as specified in section V, unless: (1) the facility is exempted under section III, (2) the facility is designated as a "low level" facility and exempted from update reporting requirements in accordance with sections IV.A and V.D, or (3) the district notifies the facility in advance in writing that the facility's emissions will be included in an industrywide emission inventory prepared by the district in accordance with Health and Safety Code section 44323.

Every facility operator subject to update reporting requirements shall submit either an Update Summary Form or an update plan and report, as specified in sections B through G, below. Facility operators shall comply with these requirements in accordance with the schedule specified in section V.L. In subsections B through M of this section the terms "high level", "intermediate level", and "low level" mean the same as specified in section IV of this regulation, and shall be based on emissions from the most recent facility emission inventory approved by the district.

B. Update Reporting Requirements for "High Level" Facilities.

(1) Continue to Update Reports on the Risk-Driving Devices or All Devices.

Every four years the operator of any facility which is categorized by the district as a "high level" facility under section IV.C., shall submit to the district an update plan and report, as specified in section V.I., unless the facility meets the criteria for alternative update reporting as specified in subsection B (2). Operators subject to this section 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 0.1, in the judgment of the district. Devices shall be identified with the concurrence of the district. Alternatively, facility operators subject to this section may, at their option, submit update plans and reports which show all changes to all devices at the facility.

(2) Alternative: Update Reporting Through Risk Reduction Audit and Plan.

If the facility is required to prepare a risk reduction audit and plan under Health and Safety Code Section 44391, and the facility submits an emission inventory update in accordance with Health and Safety Code Section 44391(h) which the district determines to contain equivalent information as required for update reporting for "high level" facilities under subsection B (1), the facility may submit the risk reduction emission inventory update to the district to comply with the update requirement for "high level" facilities. The district shall transmit the updated data to the state board in a format approved by the state board as specified in Section VII.C.

C. Update Reporting Requirements for "Intermediate Level" Facilities.

(1) Track Activity Changes and Update Reports if Significant Increases.

Every four years the operator of any facility which is categorized by a district as an "intermediate level" facility under section IV.B., shall complete and submit to the district for review the Update Summary Form in Appendix B, as specified in section V.H. 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 section V.I. The update plan and report shall include updated information for devices that experience significant increases in activity.

(a) Significant Increases. For facility operators subject to section C (1), 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 subsection C.(1)(a)(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 0.1, in the judgment of the district. Devices shall be identified with the concurrence of 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).

(b) 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 in Appendix B. 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 Information and Emission Information Form must be submitted by the facility operator for any individual device or grouped devices (reported on the same Process Information Form) whose activity increases by 10 percent or more.

(c) 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 section V.I.

(2) Alternative: Track Through Combined Criteria/Toxics Inventory Reporting.

The facility shall be exempted from the activity tracking and update requirements in section V.C.(1) if the district notifies the facility in advance in writing that the facility's toxics emissions are included by the district in a combined district emission inventory program that includes criteria pollutants and toxic substances, and if the facility provides throughput and other data requested by the district in accordance with the combined program. The district shall report the updated emission inventory to the state board with its combined emission inventory updates.

D. Update Reporting Requirements for "Low Level" Facilities.

Facilities categorized by the district as "low level" facilities under section IV.A. are not subject to the update reporting requirements of this section.

E. Update Reporting Requirements for Facilities Not Yet Prioritized:

(1) If the Facility's Emission Inventory Has Been Approved:

If a facility whose emission inventory report has been approved by the district has not been prioritized by the district under Health and Safety Code section 44360(a), the facility is an "intermediate level" facility for purposes of update reporting, and the facility shall comply with the activity tracking and update requirements in section V.C. for "intermediate level" facilities, unless the following criteria are satisfied:

(a) The facility operator may request in writing that the district, within 90 days of receipt of the request, prioritize the facility and designate its update category in accordance with section IV herein. The district shall, within 90 days of receipt of the request, prioritize the facility in accordance with Health and Safety Code section 44360(a) using procedures that have undergone public review, and designate the facility's update category. The district shall notify the facility operator of the prioritization results, if requested by the operator to do so.

(b) If the district prioritizes and designates the update category of the facility within 90 days of the request or within 90 days following the effective date of this regulation, whichever comes later, the facility shall comply with the applicable update reporting requirements specified in this section for "low level", "intermediate level", or "high level" facilities.

(c) If the district does not prioritize and designate the update category of the facility within 90 days as specified in subsection (b), above, the facility must complete Part A of the Update Summary Form in Appendix B, as specified in section V.H. For any facility prioritized by August 1 of a given year, section V.E.(1) no longer applies to the facility for that year or for any subsequent year

(2) If the Facility's Emission Inventory Has Not Been Approved:

If a facility with an emission inventory plan (or update plan) approved by the district has submitted a complete emission inventory report (or update report) within 180 days after district approval of the plan, but has not been prioritized by the district in accordance with Health and Safety Code section 44360(a), and has not been notified by the district regarding either (a) approval of the report, (b) the need for corrections or modifications to the report, or (c) that the facility will be included in an industrywide inventory prepared by the district, then the facility is an "intermediate level" facility for purposes of update reporting, and shall comply with the activity tracking and update requirements in section V.C. for "intermediate level" facilities, unless all of the following criteria are satisfied:

(a) The facility operator may request in writing that the district, within 120 days of receipt of the request, review and approve its emission inventory report, or notify the facility of needed corrections. The district shall, within 120 days of receipt, either (i) approve the report and provide the facility's prioritization and update categorization results, (ii) notify the facility of needed corrections to the report, or (iii) notify the facility that it will be included in an industrywide inventory prepared by the district.

(b) If the district notifies the facility within 120 days of the request or within 120 days of the effective date of this regulation, whichever comes later, that corrections are needed to the emission inventory report, the facility shall revise the report according to the timeframe specified by the district and return it to the district for review and approval. If corrections are not needed to the emission inventory report and the district prioritizes and designates the update category of the facility within 120 days, the facility shall comply with the applicable update reporting requirements specified in section V for "low level", "intermediate level", or "high level" facilities as appropriate.

(c) If the district does not prioritize the facility or notify the facility operator of needed corrections within 120 days as specified in subsection V.E.(2) (b), above, the facility shall comply with the following update reporting requirements: every four years, the operator shall complete and submit to the district Part A of the Update Summary Form in Appendix B, as specified in section V.H. For any facility prioritized by August 1 of a given year, section V.E.(2) 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 to satisfy the requirements of section V, 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 state board.

H. Update Summary Form

(1) Operators of facilities identified in sections V.C., V.E.(1)(c), and V.E.(2)(c) shall complete and submit the Update Summary Form, included in Appendix B, for the applicable update reporting year based on the schedule specified in section V.L.

(2) Districts shall review the Update Summary Form and respond to the facility operator as specified in section V.M. The Update Summary Form shall satisfy a facility's update requirements for facilities specified in section V.C., V.E.(1)(c), and V.E.(2)(c) unless the operator is notified by the district that an update plan and report is required as specified in section V.

(3) 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:

(a) increases in throughput, fuel usage, process rate changes, or emissions;
(b) changes in types of fuels or substances used at the facility;
(c) determinations that previous source test data are inadequate;
(d) addition of new processes or equipment to the facility which cause increases in emissions;
(e) issuance of new permits or changes in permit conditions;
(f) emissions of any listed substances not previously reported, including newly listed substances, that may cause the facility to exceed the criteria specified in Section IV for the facility's current update category;
(g) emissions of listed substances for which a new or revised health effects value has been established by OEHHA, such that the facility may exceed the criteria specified in Section IV for the current update category;
(h) facility status as it pertains to current or future air pollution control measures;
(i) reductions in the distance from the facility to the nearest receptor;
(j) changes in emission factors;
(k) other factors the district considers relevant.

I. Update Plans and Update Reports.

(1) The operator of any facility subject to the plan and report update requirements of this section shall submit to the district any required update plan and update report according to the schedules specified in section V.L. 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 under sections VI through IX and Appendices A through F. Such information includes but is not limited to any applicable substances added to Appendix A in accordance with section II.H., which have not previously been addressed in the plan or report.

(2) Except as provided in section V.J., at least the following updated information shall be submitted as part of the update plan and report:

(a) For those facilities subject to section V.I. under section V.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 under section V.B.

(b) For facilities subject to section V.I. under section V.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 under section V.C.

(3) 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.

(4) 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 under this subchapter which apply to the facility, including but not limited to any applicable substances added to Appendix A under section II.H.

(5) 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.

(6) An update report shall include all applicable report components as required under section VII, 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 VII.E, including any new or updated source test results under section VII.E(2) where such tests have been performed prior to the date of submittal of the update report.

J. Use of Previously Submitted Information.

(1) Except as specified for previous source test results in subsections J.(2), J.(3), and J.(4), 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:

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

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

(2) Except as specified in subsection J.(3), the facility operator may propose in the update plan to use the results of a previous source test conducted in accordance with section IX. to fulfill the update requirements for a source test required under section IX.A. and Appendix D provided that:

(a) the test meets the requirements for use of previous source tests specified in section IX.A.(4); and

(b) the test meets all other applicable requirements specified in sections IX.A through C.

Such a proposal to use the "results of a previous source test" may include a proposal to calculate a revised emission result by applying the site-specific emission factor developed under section IX.F., together with current values of the applicable "usage units" as specified in section IX.F., 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 J.(2) and J.(3) are met.

(3) 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 under section IX.A. and Appendix D if:

(a) a major change, including but not limited to: long-term shutdown of equipment, startup of new or modified 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,

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

(c) 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).

(4) 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 J.(2) and J.(3) 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.

K. Update Reporting Year.

(1) 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.

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

L. Schedule for Update Submittal.

(1) Update submittals shall be due according to the following schedule unless the district specifies in writing in advance an alternative schedule within the required four-year update period.

(a) For any facility subject to the requirements of this regulation under sections II.A. and V.B., the update plan shall be due by August 1, 1994, and every four years thereafter.

(b) For any facility subject to the requirements of this regulation under sections II.A. and either V.C. or V.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.

(c) For any facility subject to the requirements of this regulation under sections II.B. and V.B., the update plan shall be due by August 1, 1995, and every four years thereafter.

(d) For any facility subject to the requirements of this regulation under sections II.B. and either V.C. or V.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.

(e) For any facility subject to the requirements of this regulation under either section II.C or II.D. and section V.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.

(f) For any facility subject to the requirements of this regulation under either section II.C or II.D and either section V.C. or V.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.

(g) For any facility subject to the requirements of this regulation under any of section II.E(1)(a) or II.E(2) or II.E(3) and section V.B., the update plan shall be due by August 1, 1994 and every four years thereafter.

(h) For any facility subject to the requirements of this regulation under any of section II.E(1)(a) or II.E(2) or II.E(3) and either section V.C. or V.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.

(2) Except as provided in subsection L.(3), the schedule specified for the inventory plan and report in Health and Safety Code sections 44340(b), 44341, and 44343, and in section VII.A. and VII.G. of this regulation shall apply to the review, approval, and implementation of the update plan and update report.

(3) Nothing in subsection L.(2) 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.

M. Schedule for Update Summary Form Review.

(1) 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 section V.I. 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.

(2) If the district does not respond to the facility operator as specified in section V.M.(1), 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.

Section VI. Requirements for Preparing Emission Inventory Plans

A. General.

The emission inventory plan submitted in accordance with the requirements of section II 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.

B. Flow Diagram.

Each inventory plan shall include a flow diagram consisting of a comprehensive schematic drawing of the process flows that 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 that 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:

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

(a) Boilers
(b) IC Engines
(c) Incinerators
(d) Flares
(e) Furnaces
(f) Kilns
(g) Process Heaters
(h) Control Devices (including hoods)
(i) Storage or Process Tanks or Enclosures
(j) 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.

(2) 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.

(3) 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 VIII.E. The estimate of such components may be indicated as an aggregation at a general location.

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

(5) 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.

(6) 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.

C. 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.

D. 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.

E. 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 section IX, as appropriate. Each method shall result in an accurate and comprehensive characterization of releases.

F. Source Test Protocol and Other Required Information.

The emission 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 under section IX.A. and Appendix D. The emission inventory plan shall propose values for the effectiveness of air pollution control equipment in accordance with the requirements of section IX.G(3) and shall include any other documentation required to be cited under section VIII.

Section VII. Requirements for Emission Inventory Reports

A. General.

The emission inventory report shall be submitted to the district within 180 days after approval of the emission inventory plan submitted under Section II. The emission inventory reports 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, which are included in Appendix B, 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 state board where applicable, shall be corrected.

B. Facility Diagram.

(1) The facility diagram shall include all the information presented in the flow diagram and in the equivalent format. The emission inventory report shall identify any specific required information which the facility chooses to designate as trade secret.

(2) 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 the following data fields: annual process rate, maximum hourly process rate, controlled and uncontrolled emission factors, method of estimation code, process description field, and the following data fields which are not required to be reported under this regulation but which may be reported under combined toxics and criteria pollutant inventory reporting: equipment size, maximum design rate, percent sulfur content, and emission factor origin code.

"Necessary data to calculate emissions" which may be designated trade secret shall not include (a) information previously disclosed or easily discernable; (b) all information which the district requires any applicant to provide before such applicant builds, alters, replaces, or operates a facility, device, or emitting process; (c) information on the Facility Information Form or the Stack Information Form in Appendix B; and (d) all other information on the Device Information Form, Process Information Form, and Emission Information Form in Appendix B that was not defined in the preceding paragraph as "necessary data to calculate emissions."

(3) For standardization purposes, information claimed to be a trade secret should 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. Any information claimed to be a trade secret in writing in the report will be protected from disclosure by the district as specified in Section II.I.

C. Reporting Formats and Forms.

(1) Required Data Elements and Formats:

The operator of each facility subject to the emission inventory report requirements of this regulation shall provide complete information for each required core and supplemental data element in the specified field formats. The data elements (or data fields) that are required to be reported, and the associated field formats for each, are specified in Appendix B-I, for each of the five **core** components of the emission inventory report: Facility Information, Stack Information, Device Information, Process Information, and Emission Information, and for the **supplemental** component, the Supplemental Use and Production (S-UP) Information. The operator shall complete one entry for Facility Information, one entry of Stack Information for each stack or vent from which a listed substance may be released, one entry of Device Information for each device associated with a release of a listed substance, one entry of Process Information for each emitting process associated with the release of a listed substance within each device, and one entry of Emission Information for each listed substance within each process. The operator shall submit one entry of S-UP information for each substance for which it is required.

The Update Summary Form (US Form) required under Section V.C. and V.E. for update summary information is also included in Appendix B.

(2) Acceptable Forms:

The operator of each facility subject to emission inventory report requirements of Section II shall submit the required **core** and **S-UP** data elements, in the formats specified in subsection (1), above, via electronic or paper media, using the state board's reporting forms and instructions, as specified in Appendix B-II to this regulation, except that the required information shall be submitted in an alternative format as approved by the district and which meets the state board's specifications in Appendix B-I.

The Update Summary Form information shall be submitted using the US Form and instructions in Appendix B, except that the required information may be submitted in an alternative format as approved by the district and which meets the state board's specifications in Appendix B-I.

(3) General Reporting Form Procedures:

(a) **Core Forms:** The operator of each facility submitting an emission inventory report in accordance with subsection C.(2), shall complete the following: one **Facility Information Form** , an entry on a **Stack Information Form** for each stack or vent from which a listed substance may be released, an entry on a **Device Information Form** for each device associated with a release of a listed substance, a **Process Information Form** for each emitting process within each device, and an **Emission Information Form** for each listed substance which is emitted from each process. A Device Information Form, a Process Information Form, and an Emission Information Form shall be completed for each general location of fugitive emissions.

(b) **Form S-UP:**

(i) Form S-UP shall be completed for all substances listed 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.

(ii) Form S-UP shall also be completed for all substances listed in Appendix A-I when required under section VIII. E.(5).

(c) Designation of Trade Secrets: Information designated as trade secret on the facility diagram or in the emission inventory report should be identified on the reporting forms according to the instructions set forth in Appendix B.

(d) Availability of Forms: The state board's reporting forms, or the alternative forms as approved by the district, shall be available at the district office and shall be provided to facility operators upon request.

D. Other Required Data.

(1) Each emission 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 under section VIII.

(2) The emission inventory report shall include the results of any source tests performed in accordance with district regulations implementing an airborne toxic control measure which was adopted under 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 emission inventory report.

(3) If so required by the district, the facility operator shall include with the emission inventory report a facility-wide emissions summary which lists for each reported substance the total of the annual emissions and maximum hourly emissions from the facility. The totals for each reported substance shall match the sums of the annual and maximum hourly emissions, respectively, which are reported for the substance on the Process Information Form and Emission Information Form for all applicable emitting processes at the facility. If such a summary is required by the district, the district shall, upon the facility operator's request, specify a standardized format for the summary data.

(4) If so required by the district, the facility operator shall include, in the emission 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, upon the facility operator's request, specify a standardized format for the information.

E. Format for Reports and Presentation of Data.

The core **Facility Information Form** shall be the first page of the emission inventory report. Other core and supplemental 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.

F. 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, unless an alternative scaling is authorized by the district. 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.

G. 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.

Section VIII. Other Requirements

A. 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 under Health and Safety Code section 44344:

(1) Each emission inventory plan.

(2) Each emission inventory report.

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

(4) 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.

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

(6) 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.

(7) All other documentation supporting the calculation or 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.

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

(1) The calendar reporting period (reporting year) 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.

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

C. Specifications for Identifying Emission Points and Substances Emitted.

(1) The facility operator shall identify and report in the emission inventory plan and the emission 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.

(2) 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. The operator shall also report the production, use, or presence of substances listed in Appendix A-III if the substance is manufactured by the facility and is released to the air.

(3) 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 VIII.E.

(4) Nothing in subsections (1) through (3), 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.

D. Exempted Uses.

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

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

(2) 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.

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

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

(5) 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.

(6) 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.

(7) 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.

(8) 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.

E. Emission Quantification and Degree of Accuracy.

(1) For all substances listed in Appendix A-I, the emission 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.

(2) For each process for which source testing is required to quantify emissions of a listed substance under section IX.A. 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 (3) 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 emission 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 E.(3).

(3) For each substance listed in Appendix A-I, the total facility 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, in accordance with the instructions in Appendix B.

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

(4) 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.

(5) For all substances listed in Appendix A-I which are manufactured, formulated, used, or released but for which total facility emissions are below the applicable limits for degree of accuracy required by subsection E.(3) and listed in Appendix A-I, the facility operator shall submit the data required for Supplemental Use and Production Information specified in Appendix B to indicate the presence of such substances, unless a numeric estimate of such emissions is reported on an Emission Information Form for the appropriate emitting process.

(6) For all substances listed in Appendix A-III, the facility operator shall be required to report the production, use, or other presence of the substance only if the substance is manufactured by the facility and the substance is released to the air. If required to report the substance, the operator shall submit the data required for Supplemental Use and Production Information specified in Appendix B.

F. Reporting Mixtures and Trade Name Products.

(1) Except as provided in subsections F.(3) through F.(8), the emissions of each listed substance contained in any mixture shall be individually reported to the degree of accuracy required in section VIII.E. and Appendix A.

(2) **Mixtures Without Emittent Identification Numbers:** Except as required in subsections F.(3) through F.(8), 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.

(3) **Mixtures With Emittent Identification Numbers:** Except as required in subsections F.(4) through F.(8), 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:

(a) 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.

(b) 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.

(4) **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.

(5) **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.

(6) **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.

(7) 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.

(8) Source test results for dioxins and furans (polychlorinated dibenzodioxins, PCDD, and polychlorinated dibenzofurans, PCDF) 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.

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

(10) 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 VIII.E. 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 to the satisfaction of the district that no listed substances are included in the mixture or the facility operator establishes the amounts of listed substances that are present.

Section IX. Source Testing and Emission Factors

A. Source Testing and Measurement.

(1) Source testing shall be required for 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.

(2) The ARB-adopted test methods shall be used to fulfill the source test requirements in subsection (1) when the specified conditions exist, except that:

(a) 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

(b) 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.

(c) 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.

(d) 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.

(3) The facility operator may propose in the emission 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 emission inventory plan sufficient information to enable the Executive Officer of the state board 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.

(4) The emission 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.

B. Pooled Source Testing.

(1) The operators of a group of related facilities may propose in each of their respective emission inventory plans to satisfy any source testing requirement under Section IX.A. 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 emission inventory plan.

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

(3) 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:

(a) The facility operator includes in the emission inventory 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

(b) If applicable, the facility operator corrects any deficiencies identified by the Executive Officer of the state board.

(4) If the proposal is not approved by the district or the state board, each facility shall undertake individual source testing as required.

C. Alternatives to Required Source Testing.

(1) As a substitute for a required source test as set forth in Appendix D or the alternatives to it as set forth in sections IX.A. and IX.B. and Appendix D, the emission 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:

(a) the proposed alternative method:

(i) 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

(ii) 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 VIII.E.; or

(b) 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

(c) 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 C.(1)(b), in which case the best technologically feasible non-testing alternative may be proposed.

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

(3) 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 state board concur that the proposed alternative method complies with subsection C.(1). 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 state board to meet the requirements of subsection C.(1).

(4) If the proposed alternative method is to determine emissions of a substance other than those

identified in subsection C.(3), the district may approve the proposed alternative only if, after considering any comments by the Executive Officer of the state board, the district determines that the proposed alternative method complies with subsection C.(1). If the proposal is not approved, the facility shall undertake and complete source testing as required or shall use an alternative method which is determined by the district to meet the requirements of subsection C.(1).

D. ARB-Approved Emission Factors Derived From Hot Spots Source Tests.

(1) Proposal to Use ARB-Approved Emission Factors:

As a substitute for a required source test as set forth in Appendix D or the alternatives to a required source test as set forth in sections IX.A. and IX.B. and Appendix D, the emission inventory plan or update plan may include a proposal to use ARB-approved emission factors which have been derived from analysis of source tests conducted in accordance with the requirements of Health and Safety Code section 44340 and 44342. The ARB-approved emission factors are those which are compiled in the data system "California Air Toxics Emission Factors (CATEF): A CARB Database", Version 1.2, May 1996, which is incorporated by reference herein. The emission factors in CATEF include the mean (average) values, as well as the minimum and maximum values of the emission factor range for each substance and source type for which an emission factor is presented.

The district may approve the proposal for a facility to use CATEF emission factors subject to the following conditions:

(a) If the use of either the **average** value or the **maximum** value of the applicable emission factor range published in CATEF would result in calculated total emissions for the facility (defined below) that cause the facility to meet the criteria for a "high level" facility under section IV, the operator must use the maximum values of the emission factor ranges, except as specified below.

"Total emissions for the facility" shall be determined by including all listed substances and source types for which emission factors are proposed to be used, along with all other substances and sources at the facility quantified by other approved methods.

Exception: The operator may propose to use the average value of the emission factor range, and the district may approve the proposal, only if the operator can demonstrate to the satisfaction of both the district and the state board that the emissions from the operator's facility could not exceed the levels calculated to result from the use of the average value for specified reasons. The operator shall include in the emission inventory plan sufficient information regarding operating conditions, input and output streams, equipment characteristics, control equipment, and other parameters that affect emission characteristics of the operator's facility and the tested facility (or facilities) to demonstrate that the operator's facility could not exceed the average value of the emission factor range.

(b) For purposes of evaluating whether a facility can be exempted as a "low level" facility under section IV, the facility operator must use the **maximum** value of the applicable emission factor range published in CATEF, and the use of these values must not result in calculated total

emissions for the facility, as defined in section (a), above, that cause the facility to exceed the criteria for a "low level" facility under section IV, except as follows.

Exception: If the use of maximum values would result in emissions exceeding the "low level" criteria, but use of average values would not exceed the "low level" criteria, the operator may propose to use the average value of the emission factor range, and the district may approve the proposal, only if the operator can demonstrate to the satisfaction of both the district and the state board that the emissions from the operator's facility could not exceed the levels calculated to result from the use of the average value for specified reasons. The operator shall include in the emission inventory plan sufficient information regarding operating conditions, input and output streams, equipment characteristics, control equipment, and other parameters that affect emission characteristics of the operator's facility and the tested facility (or facilities) to demonstrate that the operator's facility could not exceed the average value of the emission factor range.

(c) The district determines that the proposed emission factor(s) will result in a characterization of the facility's emissions as accurate as that achievable in practice by the ARB-adopted source test method or a pooled source test;

(d) The facility operator includes in the emission inventory 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 tested facility (or facilities) from which the ARB-approved emission factor was derived to demonstrate to the satisfaction of the district and the state board that:

(i) the operator's facility and the tested facility (or facilities), from which the emission factors are derived, are substantially equivalent in all parameters affecting emissions of listed substances from the sources for which emission factors are proposed to be used; and

(ii) sufficient similarity in all parameters affecting emissions of listed substances exists between the tested facility (or facilities) and the operator's facility to which the emission factor is proposed to be applied, such that emissions can be calculated to yield representative emission results to the required degree of accuracy;

(e) If applicable, the facility operator corrects any deficiencies identified by the Executive Officer of the state board.

(2) Review Process:

Upon receipt of a proposal for the use of ARB-approved emission factors to satisfy a required source test, the district shall ensure that all components of information required under section IX are included. Once the proposal is complete, the district shall immediately submit the proposal to the Executive Officer of the state board for technical review and comment. To the extent practicable, the Executive Officer of the state board will determine whether the required source test would provide a substantially more accurate quantification of emissions and shall note any deficiencies in the proposal. The proposal will be presumed acceptable to the state board if the Executive Officer does not respond to the district within 45 days of the state board's receipt of the proposal from the district.

(3) Approval Involving Potent Substances:

If ARB-approved emission factors are proposed for to satisfy a required source test for arsenic or arsenic compounds, beryllium or beryllium compounds, cadmium or cadmium compounds, chromium (hexavalent), benzo(a)pyrene, or polychlorinated dioxins and dibenzofurans, the district may approve the proposal only if both the district and the state board concur that the proposal complies with subsection D.(1). If the proposal is not approved by both the district and the state board, the facility shall undertake source testing as required or shall use an alternative method or emission factor which is determined by the district and the state board to meet the requirements of subsection D.(1).

(4) Approval Involving Other Substances:

If the proposed use of ARB-approved emission factors is to satisfy a required source test for a substance other than those identified in subsection D.(3), the district may approve the proposal only if, after considering any comments by the Executive Officer of the state board, the district determines that the proposal complies with subsection D.(1). If the proposal is not approved, the facility shall undertake source testing as required or shall use an alternative method or emission factor which is determined by the district to meet the requirements of subsection D.(1).

E. Source Test Protocol and Source Test Report.

For each required source test, including pooled source tests conducted under section IX.B., a proposed source test protocol shall be submitted with the emission inventory plan. The proposed protocol shall include the information set forth in subsections E. (1) through E. (23), 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 E.(1) through E.(23). Information denoted as trade secret on the facility diagram or elsewhere in the emission inventory report should be so denoted in the source test report according to the procedure set forth in subsection VII.B.3. Facilities participating in pooled source tests conducted under section IX.B. 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 of the source test report is not needed.

(1) Date on which the source test was [will be] performed.
(2) Name and qualifications of companies and/or persons who conducted [will conduct] the source test and analyzed [will analyze] the samples.
(3) Name of contractor.
(4) Process description.
(5) Process reactant composition and rates [approximate values or range of values for composition and rates].
(6) Fuel analysis and firing rates for combustion processes [approximate values or range of values for fuel composition and firing rates].
(7) 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 IX.A. and Appendix D].

(8) 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.
(9) ARB independent tester Executive Order, provided in accordance with section 91207, Title 17, California Code of Regulations, if the tester has been certified by the ARB for the proposed source test method.
(10) Typical values and allowable ranges of operating parameters (including pressure and feed rate) of the process [approximate values or range of values for operating parameters].
(11) Process operating conditions during test [approximate values or range of values anticipated during test].
(12) Stack temperature [approximate value anticipated].
(13) Concentration of any listed substances in the exhaust stream [approximate values or range of values anticipated].
(14) Mass emission rate of any listed substances [approximate values or range of values anticipated].
(15) Composition and rate of waste streams, including scrubber effluent, ash, fly ash [approximate values or range of values anticipated].
(16) Oxygen, carbon dioxide and moisture content of exhaust gas [approximate values or range of values anticipated].
(17) Exhaust gas velocity and volumetric flow rate at the point where testing is conducted [approximate values or range of values anticipated].
(18) Sampling points and number of samples [proposed points and number].
(19) Calibration data, including certification that the accuracy of calibration gases is traceable to the National Institute of Standards and Technology (NIST).
(20) Quality assurance and quality control data including analysis audit, zero and span drift, blank and spiked samples [proposed].
(21) Chain of custody document, where appropriate [proposal for provision of document].
(22) Applicable emission standards or other permit conditions affecting emissions of listed substances.
(23) The estimated limit of detection, the proposed number of test runs, and any other pretest calculations for the source test method that is used.
(24) A table summarizing the results of the test, with emissions and emission factors expressed, respectively, in pounds per hour and pounds per process unit appropriate for the SCC describing the process.

If any of the emissions are derived from source test results with some or all of the test runs below the limit of detection, the operator shall report the emissions in accordance with the procedures in Appendix B for reporting emissions derived from below the limit of detection source test results.

F. Converting Source Test Results to Emission Rates.

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

(2) 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.

(3) 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.

(4) 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.

G. Specifications for Acceptable Estimation Methods and Emission Factors.

(1) Where emissions of substances are required to be quantified but where measurement is not required under section IX.A., the emission 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 VIII.E. The district may approve a proposed method only if all of the following criteria are met:

(a) 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;

(b) 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 VIII.E.; and

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

(i) 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.

(ii) 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 state board has published, in accordance with Health and Safety Code sections 39650 - 39675, 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.

(iii) Engineering calculations and emission estimation models shall be based on sufficient data about the air toxics emission characteristics at all relevant conditions to characterize the emissions to the degree of accuracy required by section VIII.E.

(2) 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 G. (1)(a) and (b) are met.

(3) The effects of all air pollution control equipment or process conditions that 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 emission 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.

Section X. Definitions.

For the purposes of this regulation the following definitions apply:

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

(2) **"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.

(3) **"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.

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

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

(6) **"Emittent identification number" or "Emittent ID"** means the number code for each listed substance in Appendix A, which is the Chemical Abstract Service (CAS) registry number for the chemical where available, or a 4-digit code number assigned by the staff of the state board.

(7) **"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.

(8) **"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.

(a) Except for the oil production operations defined in subsection 8(b), 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.

(b) 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 3.29, "Definitions" in San Joaquin Valley Unified Air Pollution Control District Rule 2201 "New and Modified Stationary Source Review Rule" as amended June 15, 1995, which is incorporated by reference herein.

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

(10) **"Federal Hazardous Air Pollutant" or "Federal HAP" or "HAP"** mean a substance identified by the United States Environmental Protection Agency under Section 112 subsection (b) of the federal Clean Air Act Amendments of 1990 (42 U.S. Code, Section 7412(b)).

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

(12) **"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 Appendices A-I, A-II, and A-III of this regulation; a "listed substance" is a substance included on this list.

(13) **"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".

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

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

(15) **"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.

(16) **"Source Classification Codes" or "SCCs"** means number codes created by the United States Environmental Protection Agency used to identify processes associated with point sources that contribute emissions to the atmosphere.

(17) **"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.

(18) **"Trade secrets"** means the same as defined under Health and Safety Code section 44346(h).

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

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

(21) **"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 under section VIII.D.

APPENDIX A

LIST OF SUBSTANCES

APPENDIX A-I

SUBSTANCES FOR WHICH

EMISSIONS MUST BE QUANTIFIED

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
75070	Acetaldehyde		c	20.	1 2 3 4	
60355	Acetamide		c	2.	1 2 3 4	
75058	Acetonitrile	06/91		200.	1 2	
98862	Acetophenone	06/91		100.	1 2	
53963	2-Acetylaminofluorene [PAH-Derivative, POM]		c	100.	1 2 4 5	
107028	Acrolein			0.05	1 2	
79061	Acrylamide		c	0.01	1 2 3 4	
79107	Acrylic acid	06/91		5.	1 2	
107131	Acrylonitrile		c	0.1	1 2 3 4 5	
107051	Allyl chloride		c	5.	1 2 4	
7429905	Aluminum	06/91		100.	1 7	
1344281	Aluminum oxide (fibrous forms)	06/91		100.	7	
117793	2-Aminoanthraquinone [PAH-Derivative, POM]		c	5.	1 2 4 5	
92671	4-Aminobiphenyl [POM]		c	100.	1 2 3 4 5	
61825	Amitrole		c	0.1	3 4 5	
7664417	Ammonia			200.	1 2	
6484522	Ammonium nitrate	06/91		100.	1	
7783202	Ammonium sulfate	06/91		100.	1	
62533	Aniline	09/90	c	5.	1 2 4	
90040	o-Anisidine		c	100.	1 2 3 4 5	
-	Anthracene [PAH, POM], (see PAH)					
7440360	Antimony	06/91		1.	7	
*	Antimony compounds	06/91		1.	1 2	[7]
	including but not limited to:	09/90	c	1.	1 2 3 4	[7]
1309644	Antimony trioxide		c	0.01	1 2 3 4 5	
7440382	Arsenic		c	0.01	1 2 3 4 5	[7]
1016	Arsenic compounds (inorganic)			0.01	1 2 7	[7]
	including but not limited to:	06/91		0.1	1	[7]
7784421	Arsine	06/91		1.	7	
1017	Arsenic compounds (other than inorganic)	06/91		1.	1	[7]
7440393	Barium					
*	Barium compounds		c	2.	1 2 3 4 5	
-	Benz[a]anthracene [PAH, POM], (see PAH)		c	0.0001	1 2 3 4 5	
71432	Benzene		c	0.0001	1 2 3	
92875	Benzidine (and its salts) [POM]					
1020	Benzidine-based dyes [POM]		c	0.0001	1 2 4 5	
	including but not limited to:		c	0.0001	1 2 4 5	
1937377	Direct Black 38 [PAH-Derivative, POM]	09/89	c	0.0001	1 2 4	
2602462	Direct Blue 6 [PAH-Derivative, POM]					
16071866	Direct Brown 95 (technical grade) [POM]					
-	Benzo[a]pyrene [PAH, POM], (see PAH)					
-	Benzo[b]fluoranthene [PAH, POM], (see PAH)	06/91	c	100.	4	
271896	Benzofuran					

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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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
98077	Benzoic trichloride (Benzotrichloride)		c	10.	1 2 4 5	
-	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	50.	1 2 4	
7440417	Beryllium		c	0.001	1 2 3 4 5	
*	Beryllium compounds	09/89	c	0.001	1 2 3 4 5	[7]
92524	Biphenyl [POM]	06/91		0.5	1 2	
111444	Bis(2-chloroethyl) ether (DCEE)	09/89	c	0.05	1 2 4	
542881	Bis(chloromethyl) ether		c	0.001	1 2 3 4 5	
103231	Bis(2-ethylhexyl) adipate	06/91		100.	1	
7726956	Bromine			0.5	2	
*	Bromine compounds (inorganic) including but not limited to:			100.	1 2	[7]
7758012	Potassium bromate			0.1	1 3 4	[7]
75252	Bromoform	06/91		100.	1 2 4	
106990	1,3-Butadiene		c	0.1	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	0.01	1 2 3 4 5	
*	Cadmium compounds		c	0.01	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 4	
63252	Carbaryl [PAH-Derivative, POM]	06/91		100.	1 2	
1050	Carbon black extracts		c	2.	1 3 4	
75150	Carbon disulfide	09/89		200.	1 2 4	
56235	Carbon tetrachloride		c	1.	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	
57749	Chlordane	09/89	c	10.	1 2 4	
108171262	Chlorinated paraffins (average chain length, C12; approximately 60% chlorine by weight)	09/89	c	2.	3 4 5	
7782505	Chlorine			0.5	1 2	
10049044	Chlorine dioxide	06/91		1.	1	
79118	Chloroacetic acid	06/91		100.	1 2	
532274	2-Chloroacetophenone	06/91		0.1	1 2	
106478	p-Chloroaniline	07/96		100.	4 7	

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
1058	Chlorobenzenes	06/91		100.	1	
	including but not limited to:			200.	1 2	
108907	Chlorobenzene			100.	1 7	
25321226	Dichlorobenzenes (mixed isomers)	06/91		200.	1 7	
	including:			100.	1 7	
95501	1,2-Dichlorobenzene	06/91		5.	1 2 3 5	
541731	1,3-Dichlorobenzene	06/91	c	200.	1 2	
106467	p-Dichlorobenzene (1,4-Dichlorobenzene)	06/91	c	100.	1 2 4	
120821	1,2,4-Trichlorobenzene	09/90	c	10.	1 2 3 4 5	
510156	Chlorobenzilate (POM) (Ethyl-4,4'-dichlorobenzilate)		c	100.	1 2 4 5	
67663	Chloroform		c	100.	1 3	
107302	Chloromethyl methyl ether (technical grade)		c			
1060	Chlorophenols					
	including but not limited to:	06/91	c	100.	1 7	
120832	2,4-Dichlorophenol	09/90	c	10.	1 2 4	
87865	Pentachlorophenol	06/91	c	100.	1 2	
95954	2,4,5-Trichlorophenol		c	2.	1 2 4	
88062	2,4,6-Trichlorophenol		c	10.	3 4 5	
95830	4-Chloro-o-phenylenediamine			2.	7	
76062	Chloropicrin			5.	1 2	
126998	Chloroprene		c	0.5	3 4	
95692	p-Chloro-o-toluidine	06/91		0.001	7	
7440473	Chromium	06/91		0.001	1 2	[7]
*	Chromium compounds (other than hexavalent)		c	0.0001	1 2 3 4 5	[7]
18540299	Chromium, hexavalent (and compounds)					
	including but not limited to:	06/91	c	0.001	1 2 5	[7]
10294403	Barium chromate	06/91	c	0.001	1 2 5	[7]
13765190	Calcium chromate	06/91	c	0.0001	1 2 5	[7]
1333820	Chromium trioxide	06/91	c	0.001	1 2 5	[7]
7758976	Lead chromate	06/91	c	0.0001	1 2 5	[7]
10588019	Sodium dichromate	06/91	c	0.001	1 2 5	[7]
7789062	Strontium chromate					
-	Chrysene (PAH, POM), (see PAH)	06/91		0.5	7	
7440484	Cobalt	06/91		0.5	1 2	[7]
*	Cobalt compounds		c	0.05	1 2 3 4 5	
1066	Coke oven emissions			0.1	2	
7440508	Copper	09/89		0.1	1 2	[7]
*	Copper compounds		c	0.05	1 3 4	
1070	Creosotes		c	1.	3 4 5	
120718	p-Cresidine			5.	1 2	
1319773	Cresols (mixtures of) (Cresylic acid)					
	including:	06/91		5.	1 2	
108394	m-Cresol	06/91		5.	1 2	
95487	o-Cresol	06/91		5.	1 2	
106445	p-Cresol	07/96	c	50.	7	
4170303	Crotonaldehyde	06/91		200.	1 2	
98828	Cumene					

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
80159	Cumene hydroperoxide	06/91		100.	1	
135206	Cupferron		c	0.5	4 5	
1073	Cyanide compounds including but not limited to:	06/91		0.05	1 2	[8]
74908	Hydrocyanic acid			10.	2	
110827	Cyclohexane	06/91		200.	1	
108930	Cyclohexanol	07/96		200.	7	
66819	Cycloheximide			2.	6	
1163195	Decabromodiphenyl oxide [POM]	06/91		100.	1 2	
1075	Dialkylnitrosamines including but not limited to:			0.001	1	
924163	N-Nitrosodi-n-butylamine		c	0.0001	1 3 4 5	
1116547	N-Nitrosodiethanolamine		c	100.	1 3 4 5	
55185	N-Nitrosodiethylamine		c	0.001	1 3 4 5	
62759	N-Nitrosodimethylamine		c	0.01	1 2 3 4 5	
621647	N-Nitrosodi-n-propylamine		c	0.01	1 3 4 5	
10595956	N-Nitrosomethylethylamine		c	0.001	1 3 4	
615054	2,4-Diaminoanisole		c	5.	3 4	
1078	Diaminotoluenes (mixed isomers) including but not limited to:	09/90	c	100.	1 4	
95807	2,4-Diaminotoluene (2,4-Toluenediamine)		c	0.05	1 2 3 4 5	
334883	Diazomethane	06/91	c	5.	1 2	
226368	Dibenz[a,h]acridine [POM]		c	0.5	1 2 3 4 5	
224420	Dibenz[a,j]acridine [POM]		c	0.5	1 2 3 4 5	
-	Dibenz[a,h]anthracene [PAH, POM], (see PAH)					
194592	7H-Dibenzo[c,g]carbazole		c	0.05	1 2 3 4 5	
-	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	0.01	1 2 3 4 5	
96139	2,3-Dibromo-1-propanol	07/96	c	50.	4	
84742	Dibutyl phthalate	06/91		100.	1 2	
-	p-Dichlorobenzene (1,4-Dichlorobenzene) (see Chlorobenzenes)					
91941	3,3'-Dichlorobenzidine [POM]		c	0.1	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	20.	1 2 4	
94757	Dichlorophenoxyacetic acid, salts and esters (2,4-D)	06/91		100.	1 2	
78875	1,2-Dichloropropane (Propylene dichloride)	09/90	c	20.	1 2 4	
542756	1,3-Dichloropropene		c	10.	1 2 3 4 5	
62737	Dichlorovos (DDVP)	09/89	c	0.5	1 2 4	
115322	Dicofol [POM]	06/91		100.	1 2	

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
- -	Diesel engine exhaust	09/90	c		1 3 4	[9]
9901	Diesel engine exhaust, particulate matter	09/90	c	10.	1 3 4	[9]
9902	Diesel engine exhaust, total organic gas	09/90	c	10.	1 3 4	[9]
#	Diesel fuel (marine)	06/91		20.	1 2	
111422	Diethanolamine		c	20.	1 2 3 4 5	
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	0.01	1 2 3 4 5	
60117	4-Dimethylaminoazobenzene [POM]	06/91		200.	1 2	
121697	N,N-Dimethylaniline	09/90	c	0.0001	1 2 4	
57976	7,12-Dimethylbenz[a]anthracene [PAH-Derivative, POM]		c	10.	1 2 3 4 5	
119937	3,3'-Dimethylbenzidine (o-Tolidine) [POM]		c	100.	1 2 3 4 5	
79447	Dimethyl carbamoyl chloride	09/90	c	100.	1 2 3	
68122	Dimethyl formamide		c	0.1	1 2 3 4 5	
57147	1,1-Dimethylhydrazine	06/91		50.	1 2	
131113	Dimethyl phthalate		c	0.01	1 2 3 4 5	
77781	Dimethyl sulfate	06/91		100.	1 2	
534521	4,6-Dinitro-o-cresol (and salts)	06/91		100.	1 2	
51285	2,4-Dinitrophenol	06/91	c	0.001	1 2 3 4	
42397648	1,6-Dinitropyrene [PAH-Derivative, POM]	06/91	c	0.05	1 2 3 4	
42397659	1,8-Dinitropyrene [PAH-Derivative, POM]	06/91		100.	7	
25321146	Dinitrotoluenes (mixed isomers) including but not limited to:	09/89	c	0.5	1 2 4	
121142	2,4-Dinitrotoluene	06/91		100.	7	
606202	2,6-Dinitrotoluene		c	5.	1 2 3 4 5	
123911	1,4-Dioxane					
-	Dioxins (Chlorinated dibenzodioxins) (see Polychlorinated dibenzo-p-dioxins) [POM]		c	100.	1 2 4	
630933	Diphenylhydantoin [POM]		c	100.	1 2 4 5	
122667	1,2-Diphenylhydrazine (Hydrazobenzene) [POM]		c	2.	1 3 4	
1090	Environmental Tobacco Smoke		c	2.	1 2 3 4 5	
106898	Epichlorohydrin	06/91		100.	1 2	
106887	1,2-Epoxybutane	09/89		100.	6	
1091	Epoxy resins		c	200.	1 2 3 4 5	
140885	Ethyl acrylate	06/91		200.	1 2	
100414	Ethyl benzene			200.	1 2 4	
75003	Ethyl chloride (Chloroethane)				7	
-	Ethyl-4,4'-dichlorobenzilate (see Chlorobenzilate)	06/91		200.	1 3 4 5 6	
74851	Ethylene		c	0.5	1 2 3 4 5	
106934	Ethylene dibromide (1,2-Dibromoethane)		c	2.	1 2	
107062	Ethylene dichloride (1,2-Dichloroethane)	06/91		200.	1 2	
107211	Ethylene glycol	06/91		100.	1 2 3 4 5 6	
151564	Ethyleneimine (Aziridine)		c	0.5	1 2 3 4 5	
75218	Ethylene oxide		c	2.		
96457	Ethylene thiourea					

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
1101	Fluorides and compounds including but not limited to:	09/89		100.	2	
7664393	Hydrogen fluoride			50.	1 2 7	
1103	Fluorocarbons (brominated)			200.	6	[10]
1104	Fluorocarbons (chlorinated) including but not limited to:			200.	1 6	[10]
76131	Chlorinated fluorocarbon (CFC-113)			200.	2 6	
50000	Formaldehyde		c	5.	1 2 3 4 5 6	
110009	Furan	07/96	c	5.	4	
- -	Gasoline engine exhaust	09/90	c		3	[9]
	including but not limited to:					
- -	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	200.	1 2 3 4	[11]
111308	Glutaraldehyde			0.1	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		200.	1 2 6	
110805	Ethylene glycol monoethyl ether	09/89		50.	1 2 6	
111159	Ethylene glycol monoethyl ether acetate	09/90		100.	1 2 6	
109864	Ethylene glycol monomethyl ether	09/89		10.	1 2 6	
110496	Ethylene glycol monomethyl ether acetate	09/90		200.	1 2 6	
2807309	Ethylene glycol monopropyl ether	09/90		100.	1 2 6	
107982	Propylene glycol monomethyl ether	09/90		200.	1 6	
108656	Propylene glycol monomethyl ether acetate	09/90		100.	1 6	
112492	Triethylene glycol dimethyl ether	09/90		100.	1 2 6	
76448	Heptachlor	09/89	c	100.	1 2 4	
118741	Hexachlorobenzene		c	0.1	1 2 3 5	
87683	Hexachlorobutadiene	06/91		0.1	1 2	
1120	Hexachlorocyclohexanes including but not limited to:		c	0.05	1 3 4 5	
58899	Lindane	09/90	c	0.1	1 2 4	
77474	Hexachlorocyclopentadiene			2.	1 2	
67721	Hexachloroethane	09/90	c	200.	1 2 4	
680319	Hexamethylphosphoramide		c	100.	1 2 3 4 5	
110543	Hexane	06/91		200.	1 2	

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
302012	Hydrazine		c	0.01	1 2 3 4 5	
7647010	Hydrochloric acid			20.	1 2	
-	Hydrocyanic acid (see Cyanide compounds)					
7783064	Hydrogen sulfide	06/91		5.	1 2	
123319	Hydroquinone			100.	1 2	
-	Indeno[1,2,3-cd]pyrene [PAH, POM], (see PAH)	07/96		5.	7	
13463406	Iron pentacarbonyl			0.05	6	
1125	Isocyanates					
	including but not limited to:	06/91		0.05	1 2	
822060	Hexamethylene-1,6-diisocyanate	06/91		0.1	1 2	
101688	Methylene diphenyl diisocyanate (MDI) [POM]			1.	1 2	
624839	Methyl isocyanate					
-	Toluene-2,4-diisocyanate (see Toluene diisocyanates)					
-	Toluene-2,6-diisocyanate (see Toluene diisocyanates)					
		06/91		200.	1 2	
78591	Isophorone	07/96	c	200.	3	
78795	Isoprene, except from vegetative emission sources	06/91		200.	1	
67630	Isopropyl alcohol	06/91		100.	1 2	
80057	4,4'-Isopropylidenediphenol [POM]		c	0.5	1 4 6	
7439921	Lead		c	0.5	1 3	[7]
1128	Lead compounds (inorganic)					
	including but not limited to:		c	1.	1 2 4 5	[7] [12]
301042	Lead acetate					
-	Lead chromate (see Chromium, hexavalent)		c	2.	1 4 5	[7]
7446277	Lead phosphate	09/90	c	2.	1 2 4	[7] [12]
1335326	Lead subacetate	06/91		5.	1 2	[7]
1129	Lead compounds (other than inorganic)			0.5	1 2	
108316	Maleic anhydride			0.1	1 2	
7439965	Manganese	09/89		0.1	1 2	[7]
*	Manganese compounds			1.	1 2 4 6	
7439976	Mercury	09/89		1.	1 2 4	[7]
*	Mercury compounds					
	including but not limited to:			1.	2	[7]
7487947	Mercuric chloride			1.	2	[7]
593748	Methyl mercury (Dimethylmercury)			200.	1 2	
67561	Methanol	06/91		100.	1 2	
72435	Methoxychlor [POM]		c	100.	1 2 3 4	
75558	2-Methylaziridine (1,2-Propyleneimine)			20.	1 2 6	
74839	Methyl bromide (Bromomethane)	06/91		20.	1 2	
74873	Methyl chloride (Chloromethane)			200.	1 2 6	
71556	Methyl chloroform (1,1,1-Trichloroethane)	09/90	c	0.001	1 2 4	
56495	3-Methylcholanthrene [PAH-Derivative, POM]		c	0.05	1 2 3 4 5	
3697243	5-Methylchrysene (PAH-Derivative, POM)		c	0.1	1 2 3 4 5	
101144	4,4'-Methylene bis(2-chloroaniline) (MOCA) [POM]		c	50.	1 2 3 4 5 6	
75092	Methylene chloride (Dichloromethane)		c	0.1	1 2 3 4 5	
101779	4,4'-Methylenedianiline (and its dichloride) [POM]					

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
78933	Methyl ethyl ketone (2-Butanone)	06/91		200.	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		20.	1 2	
75865	2-Methyllactonitrile (Acetone cyanohydrin)	07/96		50.	7	
80626	Methyl methacrylate			200.	1 2 6	
109068	2-Methylpyridine	07/96		100.	7	
1634044	Methyl tert-butyl ether	06/91		200.	1 2	
90948	Michler's ketone [POM]		c	0.1	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	0.0001	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	0.1	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	0.1	1 2 5	[7]
3333393	Nickel carbonate	06/91	c	0.1	1 2 5	[7]
13463393	Nickel carbonyl		c	0.1	1 2 4 5	[7]
12054487	Nickel hydroxide	06/91	c	0.1	1 2 5	[7]
1271289	Nickelocene	06/91	c	0.1	1 2 5	[7]
1313991	Nickel oxide	06/91	c	0.1	1 2 5	[7]
12035722	Nickel subsulfide		c	0.1	1 2 4 5	[7]
1146	Nickel refinery dust from the pyrometallurgical process	09/89	c	0.1	4	
7697372	Nitric acid	06/91		50.	1	
139139	Nitrilotriacetic acid		c	100.	1 4 5	
98953	Nitrobenzene			0.5	1 2	
92933	4-Nitrobiphenyl [POM]	09/89	c	100.	1 2 4	
7496028	6-Nitrochrysene [PAH-Derivative, POM]	06/91	c	0.001	1 2 3 4	
607578	2-Nitrofluorene [PAH-Derivative, POM]	06/91	c	5.	1 2 3 4	
302705	Nitrogen mustard N-oxide		c	0.05	3 4	

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
100027	4-Nitrophenol	06/91		100.	1 2	
79469	2-Nitropropane		c	0.01	1 2 3 4 5	
5522430	1-Nitropyrene [PAH-Derivative, POM]	06/91	c	0.5	1 2 3 4	
156105	p-Nitrosodiphenylamine [POM]		c	5.	1 2 4 5	
684935	N-Nitroso-N-methylurea		c	100.	1 2 4 5	
59892	N-Nitrosomorpholine		c	0.01	1 2 3 4 5	
100754	N-Nitrosopiperidine		c	200.	3 4 5	
930552	N-Nitrosopyrrolidine		c	0.05	3 4 5	
- -	PAHs (Polycyclic aromatic hydrocarbons) [POM] including but not limited to:				1 2	[13]
1151	PAHs, total, w/o individ. components reported			50.	1 2	
1150	PAHs, total, with individ. components also reported			50.	1 2	
83329	Acenaphthene [PAH, POM]	07/96		50.	1	
208968	Acenaphthylene [PAH, POM]	07/96		50.	1	
120127	Anthracene [PAH, POM]	06/91		50.	1 2 7	
56553	Benz[a]anthracene [PAH, POM]		c	0.5	1 2 3 4 5	
50328	Benzo[a]pyrene [PAH, POM]		c	0.05	1 2 3 4 5	
205992	Benzo[b]fluoranthene [PAH, POM]		c	0.5	1 2 3 4 5	
192972	Benzo[e]pyrene [PAH, POM]	07/96		0.5	1	
191242	Benzo[g,h,i]perylene [PAH, POM]	07/96		0.5	1	
205823	Benzo[j]fluoranthene [PAH, POM]		c	0.5	1 2 3 4 5	
207089	Benzo[k]fluoranthene [PAH, POM]		c	0.5	1 2 3 4 5	
218019	Chrysene [PAH, POM]	09/90	c	5.	1 2 4	
53703	Dibenz[a,h]anthracene [PAH, POM]		c	0.1	1 2 3 4 5	
192654	Dibenzo[a,e]pyrene [PAH, POM]		c	0.05	1 2 3 4 5	
189640	Dibenzo[a,h]pyrene [PAH, POM]		c	0.001	1 2 3 4 5	
189559	Dibenzo[a,i]pyrene [PAH, POM]		c	0.001	1 2 3 4 5	
191300	Dibenzo[a,l]pyrene [PAH, POM]		c	0.001	1 2 3 4 5	
206440	Fluoranthene [PAH, POM]	07/96		0.5	1	
86737	Fluorene [PAH, POM]	07/96		0.5	1	
193395	Indeno[1,2,3-cd]pyrene [PAH, POM]		c	0.5	1 2 3 4 5	
91576	2-Methyl naphthalene [PAH, POM]	07/96		50.	1	
91203	Naphthalene [PAH, POM]			50.	1 2	
198550	Perylene [PAH, POM]	07/96		0.5	1	
85018	Phenanthrene [PAH, POM]	07/96		0.5	1	
129000	Pyrene [PAH, POM]	07/96		0.5	1	
#	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				[14]
56382	Parathion	06/91		100.	1 2	
1336363	PCBs (Polychlorinated biphenyls) [POM]		c	0.01	1 2 3 4 5 6	
82688	Pentachloronitrobenzene (Quintobenzene)	06/91		100.	1 2	
79210	Peracetic acid	06/91		100.	1	
127184	Perchloroethylene (Tetrachloroethene)		c	5.	1 2 3 4 5 6	

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
108952	Phenol			200.	1 2	
106503	p-Phenylenediamine	06/91		100.	1 2	
90437	2-Phenylphenol [POM]	06/91		100.	1 2	
75445	Phosgene			2.	1 2	
7723140	Phosphorus			0.1	1 2	
- -	Phosphorus compounds:	09/89			2	
7803512	Phosphine			0.01	1 2 7	
7664382	Phosphoric acid	09/89		50.	1 2	
10025873	Phosphorus oxychloride	09/89		0.1	2	
10026138	Phosphorus pentachloride	09/89		0.1	2	
1314563	Phosphorus pentoxide	09/89		0.1	2	
7719122	Phosphorus trichloride	09/89		0.1	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		0.5	1 2	
115866	Triphenyl phosphate [POM]	09/89		100.	1 2	
101020	Triphenyl phosphite [POM]	09/89		100.	1 2	
85449	Phthalic anhydride			0.01	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	0.00002	1 2	
1085	Dioxins, total, with individ. isomers also reported (PCDDs)		c	0.00002	1 2	
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) [POM]		c	0.000001	1 2 3 4 5	
40321764	1,2,3,7,8-Pentachlorodibenzo-p-dioxin [POM]		c	0.000001	1 2	
39227286	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [POM]		c	0.000001	1 2 4	
57653857	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [POM]		c	0.000001	1 2	
19408743	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [POM]		c	0.000001	1 2	
35822469	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [POM]		c	0.000001	1 2	
3268879	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin [POM]	07/96	c	0.000001	1 2	
41903575	Total Tetrachlorodibenzo-p-dioxin [POM]	07/96	c	0.000001	1 2	
36088229	Total Pentachlorodibenzo-p-dioxin [POM]	07/96	c	0.000001	1 2	
34465468	Total Hexachlorodibenzo-p-dioxin [POM]	07/96	c	0.000001	1 2	
37871004	Total Heptachlorodibenzo-p-dioxin [POM]	07/96	c	0.000001	1 2	

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
- -	Polychlorinated dibenzofurans (PCDFs or Dibenzofurans) [POM]		c		1 2	
	including but not limited to:					
1080	Dibenzofurans (Polychlorinated dibenzofurans) (PCDFs) [POM]		c	0.00002	1 2	
51207319	2,3,7,8-Tetrachlorodibenzofuran [POM]		c	0.000001	1 2	
57117416	1,2,3,7,8-Pentachlorodibenzofuran [POM]		c	0.000001	1 2	
57117314	2,3,4,7,8-Pentachlorodibenzofuran [POM]		c	0.000001	1 2	
70648269	1,2,3,4,7,8-Hexachlorodibenzofuran [POM]		c	0.000001	1 2	
57117449	1,2,3,6,7,8-Hexachlorodibenzofuran [POM]		c	0.000001	1 2	
72918219	1,2,3,7,8,9-Hexachlorodibenzofuran [POM]		c	0.000001	1 2	
60851345	2,3,4,6,7,8-Hexachlorodibenzofuran [POM]		c	0.000001	1 2	
67562394	1,2,3,4,6,7,8-Heptachlorodibenzofuran [POM]		c	0.000001	1 2	
55673897	1,2,3,4,7,8,9-Heptachlorodibenzofuran [POM]	07/96	c	0.000001	1 2	
39001020	1,2,3,4,5,6,7,8-Octachlorodibenzofuran [POM]	07/96	c	0.000001	1 2	
55722275	Total Tetrachlorodibenzofuran [POM]	07/96	c	0.000001	1 2	
30402154	Total Pentachlorodibenzofuran [POM]	07/96	c	0.000001	1 2	
55684941	Total Hexachlorodibenzofuran [POM]	07/96	c	0.000001	1 2	
38998753	Total Heptachlorodibenzofuran [POM]	09/89			1 2	[15]
#	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])					
1120714	1,3-Propane sultone		c	0.05	1 2 3 4 5	
57578	beta-Propiolactone		c	10.	1 2 3 4 5	
123386	Propionaldehyde	06/91		200.	1 2	
114261	Propoxur (Baygon)	06/91		100.	1 2	
115071	Propylene			200.	1 2	
75569	Propylene oxide		c	10.	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		c	100.	1 2 4	[16]
	including but not limited to:					
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			
7782492	Selenium			0.5	2	
*	Selenium compounds			0.5	1 2	[7]
	including but not limited to:	09/90	c	0.1	2 4 5	[7]
7446346	Selenium sulfide		c	0.1	1 3 4	
1175	Silica, crystalline	06/91		2.	7	
7440224	Silver	06/91		2.	1	[7]
*	Silver compounds					

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 (lb/yr) (Note [5])	Source List(s) (Note [6])	Other Notes(s)
1310732	Sodium hydroxide			2.	1 2	
100425	Styrene		c	100.	1 2 3 6	
96093	Styrene oxide		c	100.	1 2 3 4	
7664939	Sulfuric acid	06/91		2.	1	
100210	Terephthalic acid	06/91		100.	1	
79345	1,1,2,2-Tetrachloroethane	09/90	c	1.	1 2 4	
7440280	Thallium	06/91		100.	7	
*	Thallium compounds	06/91		100.	7	[7]
62555	Thioacetamide		c	0.01	3 4 5	
62566	Thiourea		c	0.1	1 3 4 5	
7550450	Titanium tetrachloride	06/91		100.	1 2	
108883	Toluene			200.	1 2 4 6	
-	2,4-Toluenediamine (see 2,4-Diaminotoluene)					
1204	Toluene diisocyanates including but not limited to:	06/91	c	0.1	1 3	
584849	Toluene-2,4-diisocyanate		c	0.1	1 2 3 5	
91087	Toluene-2,6-diisocyanate		c	0.1	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	50.	1 2 4	
-	1,1,1-Trichloroethane (see Methyl chloroform)					
79016	Trichloroethylene		c	20.	1 2 4	
-	2,4,6-Trichlorophenol (see Chlorophenols)					
96184	1,2,3-Trichloropropane	07/96	c	200.	3 4 7	
121448	Triethylamine	06/91		20.	1 2	
1582098	Trifluralin	06/91		100.	1 2	
95636	1,2,4-Trimethylbenzene	06/91		5.	1	
540841	2,2,4-Trimethylpentane	06/91		100.	1 2	
51796	Urethane (Ethyl carbamate)		c	0.1	1 2 3 4 5	
7440622	Vanadium (fume or dust)	06/91		10.	7	[17]
108054	Vinyl acetate	06/91		200.	1 2	
593602	Vinyl bromide		c	20.	1 2 3 4	
75014	Vinyl chloride		c	0.5	1 2 3 4 5	
100403	4-Vinylcyclohexene	07/96	c	5.	3	
75025	Vinyl fluoride	07/96	c	200.	3	
75354	Vinylidene chloride			20.	1 2	
1206	Wood preservatives (containing arsenic and chromate)	09/89		100.	6	
1210	Xylenes (mixed xylenes) including:			200.	1 2 6	
108383	m-Xylene	06/91		200.	1 2	
95476	o-Xylene	06/91		200.	1 2	
106423	p-Xylene	06/91		200.	1 2	
7440666	Zinc			2.	2	
*	Zinc compounds including but not limited to:	09/89		2.	1 2	[7]
1314132	Zinc oxide			2.	2	[7]

APPENDIX A-II

SUBSTANCES FOR WHICH PRODUCTION, USE, OR OTHER PRESENCE MUST BE REPORTED

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	
62476599	Acifluorfen [POM]	09/90	c	1 2 4	
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	
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	
-	2-Amino-9H-pyrido(2,3-b)indole (see A-alpha-C)		c	4 5	
134292	o-Anisidine hydrochloride	06/91		7	
104949	p-Anisidine		c	3 4	
140578	Aramite		c	1 2 3 4 5	
492808	Auramine [POM]		c	3 4 5	
446866	Azathioprine	09/90	c	1 2 4	
103333	Azobenzene [POM]	06/91		7	
98873	Benzal chloride	06/91		7	
55210	Benzamide		c	1 2 3 4	
1694093	Benzyl violet 4B [POM]		c	3 4	
1025	Betel quid with tobacco		c	1 2 3 4 5	
494031	N-N-Bis(2-chloroethyl)-2-naphthylamine (Chlornaphazine) [PAH-Derivative, POM]	06/91		7	
108601	Bis(2-chloro-1-methylethyl) ether		c	3 4	
1030	Bitumens, extracts of steam-refined and air-refined bitumens		c	3	
1035	Bleomycins	09/90	c	4	
75274	Bromodichloromethane	06/91		4	
1689845	Bromoxynil		c	3 4	
25013165	Butylated hydroxyanisole (BHA)	06/91		7	
123728	Butyraldehyde		c	3 4	
3068880	beta-Butyrolactone	09/89		4	
630080	Carbon monoxide		c	3 4	
143500	Chlordecone (Kepone)	09/89	c	4	
6164983	Chlordimeform	09/89	c	3 4 5	
115286	Chlorendic acid	09/90	c	4	
124481	Chlorodibromomethane	09/89	c	4 5	
563473	3-Chloro-2-methylpropene		c	3	
1065	Chlorophenoxy herbicides	09/89	c	4	
1897456	Chlorothalonil	06/91	c	3	
1059	p-Chloro-o-toluidine (strong acid salts)				

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)
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	
6358538	Citrus Red No. 2 [POM]		c	1 2 3 4	
8007452	Coal tars	09/89	c	3 4 5	
21725462	Cyanazine	09/90		4	
14901087	Cycasin		c	3 4	
13121705	Cyhexatin	09/89		4	
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	
1596845	Daminozide	09/90	c	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	
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) including:	09/90		4 7	
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	

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)
2475458	Disperse Blue 1 [PAH-Derivative, POM]	06/91	c	1 2 3 4 7	
541413	Ethyl chloroformate	06/91	c	3 4 7	
62500	Ethyl methanesulfonate	06/91		4	
2164172	Fluometuron	09/89	c	3 4	
133073	Folpet		c	4	
3570750	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	09/90	c	3 4	
60568050	Furmecyclox		c	3 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	4	
765344	Glycidaldehyde	09/90	c	4	
556525	Glycidol		c	4 5	
16568028	Gyromitrin (Acetaldehyde methylformylhydrazone)	09/89	c	4	
2784943	HC Blue 1	09/89	c	1 2 7	
1024573	Heptachlor epoxide	06/91	c	4 5	
1335871	Hexachloronaphthalene [PAH-Derivative, POM]		c	3 4 7	
10034932	Hydrazine sulfate	06/91		4	
76180966	IQ (2-Amino-3-methylimidazo[4,5-f]quinoline)	09/90	c	4	
78842	Isobutyraldehyde	09/89	c	1 2 4	
120581	Isosafrole	09/89	c	3 4 5	
4759482	Isotretinoin	09/90	c	4	
77501634	Lactofen [POM]	09/90	c	4	
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		7	
8018017	Mancozeb	06/91		4	
12427382	Maneb	09/90	c	3 4	
59052	Methotrexate	09/89	c	1 2 4 5	
96333	Methyl acrylate	09/89	c	1 2 3 4 7	
590965	Methylazoxymethanol	06/91		4	
592621	Methylazoxymethanol acetate	09/90	c	3 4	
101611	4,4'-Methylene bis (N,N-dimethyl) benzenamine [POM]	09/89	c	1 2 4 5	
838880	4,4'-Methylene bis(2-methylaniline) [POM]	06/91	c	1 2 3 4	
74953	Methylene bromide		c	3 4	
66273	Methyl methanesulfonate		c	1 2 3 4	
129157	2-Methyl-1-nitroanthraquinone (uncertain purity) [PAH-Derivative, POM]		c	3 4	
70257	N-Methyl-N'-nitro-N-nitrosoguanidine				
	N-Methyl-N-nitrosourethane (see N-Nitroso-N-methylurethane)	09/90	c	4	
924425	N-Methyloacrylamide	09/90		4	
9006422	Metiram		c	3 4 5	
1140	Mineral oils (untreated and mildly treated oils; and those used in occupations such as mulespinning, metal machining, and jute processing).				

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)
2385855	Mirex		c	3 4 5	
315220	Monocrotaline		c	3 4	
505602	Mustard gas {Sulfur mustard}		c	3 4 5	
134327	1-Naphthylamine [PAH-Derivative, POM]	09/90	c	1 2 4	
91598	2-Naphthylamine [PAH-Derivative, POM]		c	1 2 3 4 5	
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	
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	09/89	c	3 4	
64091914	4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone {NNK}	09/89	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	
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	
794934	Panfuran S {Dihydroxymethylfuratrizine)		c	3 4	
122601	Phenyl glycidyl ether	09/90	c	3 4	
57410	Phenytoin [POM]		c	1 2 3 4 5	
88891	Picric acid	06/91		7	
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	
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	

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)
			c	3 4 5	
95067	Sulfallate	09/90	c	4	
5216251	p-alpha,alpha,alpha-Tetrachlorotoluene	06/91		7	
961115	Tetrachlorvinphos	09/90	c	4	
509148	Tetranitromethane		c	1 2 3 4	
139651	4,4'-Thiodianiline [POM]		c	4 5	
1314201	Thorium dioxide		c	3 4	
1200	Tobacco products, smokeless		c	3	
1205	alpha-chlorinated Toluenes		c	4 5	
636215	o-Toluidine hydrochloride	09/90	c	4	
106490	p-Toluidine	06/91		7	
52686	Trichlorfon	09/90	c	4	
68768	Tris(aziridinyl)-p-benzoquinone (Triaziquone)		c	3 4 5	
52244	Tris(1-aziridinyl) phosphine sulfide (Thiotepa)	09/89	c	4	
126727	Tris(2,3-dibromopropyl)phosphate		c	3 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	1 2 3 4	
72571	Trypan blue [PAH-Derivative, POM]	09/90	c	4	
106876	4-Vinyl-1-cyclohexene diepoxide (Vinyl cyclohexene dioxide)			1 2 4	
81812	Warfarin [POM]	06/91		4	
87627	2,6-Xylidene	09/90	c	4	
12122677	Zineb				

APPENDIX A-III

SUBSTANCES WHICH NEED NOT BE REPORTED UNLESS MANUFACTURED BY THE FACILITY

APPENDIX A-III

Substances Which Need Not Be Reported Unless Manufactured By the Facility

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
		09/90		4	
546883	Acetohydroxamic acid	09/90	c	4	
50760	Actinomycin D		c	1 2 3 4 5	
23214928	Adriamycin [PAH-Derivative, POM]	09/90		1 2 4	
28981977	Alprazolam [POM]	09/90		4	
39831555	Amikacin sulfate			4	
54626	Aminopterin		c	3 4 5	
1005	Analgesic mixtures containing phenacetin		c	3 4	
1010	Androgenic (anabolic) steriods including but not limited to:	09/90		4	
58184	Methyltestosterone		c	4 5	
434071	Oxymetholone	09/89		4	
58220	Testosterone and its esters including but not limited to:	09/90		4	
315377	Testosterone enanthate	06/91		4	
50782	Aspirin		c	3 4	
115026	Azaserine	09/90		1 2 4	
5411223	Benzphetamine hydrochloride [POM]		c	3 4	
154938	Bischloroethyl nitrosourea		c	3 4 5	
55981	1,4-Butanediol dimethanesulfonate (Busulfen/ Myleran)	09/90		4	
41575944	Carboplatin	09/90		4	
474259	Chenodiol		c	3 4 5	
305033	Chlorambucil		c	3 4	
56757	Chloramphenicol			1 2 4	
1620219	Chlorcyclizine hydrochloride (POM)		c	3 4 5	
13010474	1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)		c	3	
13909096	1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (Methyl CCNU)		c	3 4	
15663271	Cisplatin	09/90		1 2 4	
50419	Clomiphene citrate [POM]		c	3 4	
50180	Cyclophosphamide	09/89		4	
147944	Cytarabine		c	3 4 5	
4342034	Dacarbazine	09/90		4	
17230885	Danazol		c	1 2 3 4	
20830813	Daunomycin [PAH-Derivative, POM]	09/90		1 2 4	
23541506	Daunorubicin hydrochloride [PAH-Derivative, POM]	09/90	c	1 2 4	
84173	Dienestrol [POM]	09/90		4	
564250	Doxycycline	09/90		1 2 4	
379793	Ergotamine tartrate [POM]		c	3 5	
1095	Estrogens, non-steroidal including but not limited to:		c	1 2 3 4 5	
56531	Diethylstilbestrol [POM]		c	3 5	
1100	Estrogens, steroidal including but not limited to:	09/90	c	4	
1068	Conjugated estrogens		c	4 5	
50282	Estradiol 17 beta		c	4 5	
53167	Estrone				

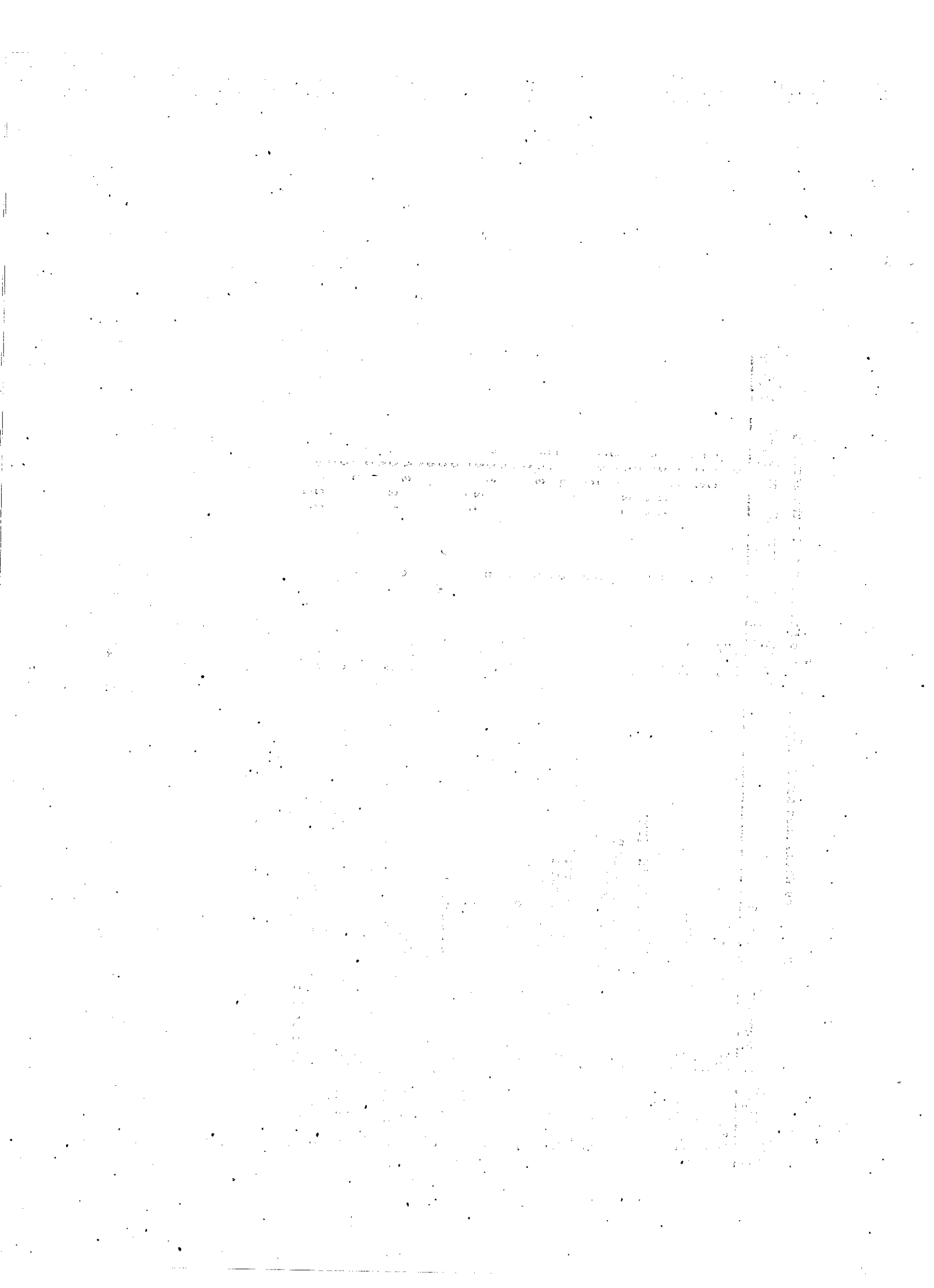
APPENDIX A-III
Substances Which Need Not Be Reported Unless Manufactured By the Facility

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
57636	Ethinyl estradiol		c	4 5	
72333	Mestranol		c	3 4 5	
33419420	Etoposide [POM]	09/90		2	
54350480	Etretinate			4	
51218	Fluorouracil	09/89		4	
76437	Fluoxymesterone	09/90		4	
13311847	Flutamide	09/90		4	
67458	Furazolidone	09/90	c	4	
126078	Griseofulvin		c	3 4	
23092173	Halazepam [POM]	09/90		1 2 4	
3778732	Ifosfamide	09/90		4	
9004664	Iron dextran complex		c	3 4 5	
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	
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	
15475566	Methotrexate sodium	09/90		4	
484208	5-Methoxypsoralen		c	3	
56042	Methylthiouracil		c	3 4	
443481	Metronidazole		c	3 4 5	
59467968	Midazolam hydrochloride [POM]	09/90		1 2 4	
62015398	Misoprostol	09/90		4	
50077	Mitomycin C		c	3 4	
70476823	Mitoxantrone hydrochloride [PAH-Derivative, POM]	09/90		1 2 4	
139913	5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone		c	3 4	
86220420	Nafarelin acetate [PAH-Derivative, POM]	09/90		1 2 4	
3771195	Nafenopin [POM]		c	1 2 3 4	
1405103	Neomycin sulfate	09/90		4	
56391572	Netilmicin sulfate	09/90		4	
61574	Niridazole		c	3 4	
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	
6533002	Norgestrel	09/90		4	
79572	Oxytetracycline	06/91		4	
115673	Paramethadione	09/90		4	
52675	Penicillamine	06/91		4	

APPENDIX A-III

Substances Which Need Not Be Reported Unless Manufactured By the Facility

Emittent ID (Note [1])	Substance Name (Note [2])	Add Date (Note [3])	Carcinogen (Note [4])	Source List(s) (Note [6])	Other Notes(s)
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	
50066	Phenobarbital		c	3 4	
59961	Phenoxybenzamine [POM]	09/89	c	1 2 4	
63923	Phenoxybenzamine hydrochloride [POM]	09/90	c	1 2 3 4 5	
54911	Pipobroman	09/90		4	
18378897	Plicamycin [PAH-Derivative, POM]	09/90		1 2 4	
366701	Procarbazine hydrochloride		c	3 4 5	
57830	Progesterone		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	
3810740	Streptomycin sulfate	06/91		4	
18883664	Streptozotocin		c	3 4 5	
54965241	Tamoxifen citrate [POM]	09/90		1 2 4	
846504	Temazepam [POM]	09/90		1 2 4	
64755	Tetracycline hydrochloride	06/91		4	
50351	Thalidomide			4	
154427	Thioguanine	09/90		4	
49842071	Tobramycin sulfate	09/90		4	
299752	Treosulfan		c	3 4	
28911015	Triazolam [POM]	09/90		1 2 4	
13647353	Trilostane	09/90		4	
127480	Trimethadione	06/91		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	



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 VII.E. and Appendix B.

Note	Text of Note

[6] Substances are required to be included on the Hot Spots list based on the following lists cited in Health & Safety Code Section 44321:

1 = California Air Resources Board (44321(c));

2 = Environmental Protection Agency (44321(e));

3 = International Agency for Research on Cancer; (44321(a); Labor Code section 6382(b)(1))

4 = Governor's List of Carcinogens and Reproductive Toxicants; (44321(b); HSC Section 25249.8)

5 = National Toxicology Program (44321(a));

6 = Hazard Evaluation System and Information Service (44321(d));

7 = Added pursuant to HSC Section 44321 (f).

[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 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.

Note	Text of Note

[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.

[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 FORMATS

AND INSTRUCTIONS

APPENDIX B-I

DATA ELEMENTS AND FORMATS

APPENDIX B-I

DATA ELEMENTS AND FORMATS REQUIRED FOR AIR TOXICS HOT SPOTS REPORTS (see note 1 at end)

I. FACILITY INFORMATION

COUNTY ID	Number (2)
FACILITY ID	Number (9)
AIR BASIN	Character (3)
DISTRICT ID	Character (3)
INVENTORY YEAR	Number (4)
FACILITY NAME	Character (30)
STREET ADDRESS	Character (30)
CITY	Character (20)
ZIP CODE	Number (5)
ZIP CODE EXTENSION	Number (4)
CONTACT PERSON	Character (24)
PHONE AREA CODE	Number (3)
PHONE NUMBER	Number (7)
FACILITY SIC CODE	Number (4)
NUMBER OF EMPLOYEES	Number (5)
UTM ZONE	Number (2)
UTM EAST COORDINATE (km)	Number (6, 3 decimal places)
UTM NORTH COORDINATE (km)	Number (7, 3 decimal places)
MAILING INFO (if different):	
MAILING COMPANY NAME	Character (30)
MAILING STREET ADDRESS	Character (30)
MAILING CITY	Character (20)
MAILING ZIP CODE	Number (5)
MAILING ZIP EXTENSION	Number (4)
MAILING CONTACT PERSON	Character (24)
FACILITY PHASE P1=Phase 1 Facility P2=Phase 2 Facility P3=Phase 3 Facility	Character (2) [OPTIONAL]
INDUSTRYWIDE Y=Yes, N=No	Character (1) [OPTIONAL]

NOTE: Include the Authorizing Signature With the Submittal of Data

II. STACK INFORMATION

COUNTY ID	Number (2)
FACILITY ID	Number (9)
AIR BASIN	Character (3)
DISTRICT ID	Character (3)
INVENTORY YEAR	Number (4)
ACTION CODE A=Add, D=Delete, C=Change	Character (1)
STACK ID	Number (5)
STACK UTM EAST	Number (6, 3 decimal places)
STACK UTM NORTH	Number (7, 3 decimal places)
STACK HEIGHT	Number (4)
STACK DIAMETER (in feet)	Number (4, 1 decimal place)
GAS TEMPERATURE (in deg F)	Number (4)
GAS FLOW RATE (in cfm)	Number (8)
GAS VELOCITY (in ft/min)	Number (6)

NOTE: Include the Authorizing Signature With the Submittal of Data

III. DEVICE INFORMATION

COUNTY ID	Number (2)
FACILITY ID	Number (9)
AIR BASIN	Character (3)
DISTRICT ID	Character (3)
INVENTORY YEAR	Number (4)
ACTION CODE A=Add, D=Delete, C=Change	Character (1)
DEVICE ID	Number (5)
DEVICE NAME	Character (20)
PERMIT ID	Character (16) [OPTIONAL]
NUMBER OF DEVICES	Number (5)

NOTE: Include the Authorizing Signature With the Submittal of Data

IV. PROCESS INFORMATION

	COUNTY ID	Number (2)
	FACILITY ID	Number (9)
	AIR BASIN	Character (3)
	DISTRICT ID	Character (3)
	DEVICE ID	Number (5)
	INVENTORY YEAR	Number (4)
	ACTION CODE A=Add, D=Delete, C=Change	Character (1)
	PROCESS ID	Number (14)
*	PROCESS DESCRIPTION	Character (40)
	SCC	Number (8)
	SIC	Number (4)
*	PROCESS RATE	Number (Width limit 11)
*	MAXIMUM HOURLY PR. RATE	Number (Width limit 9)
	STACK ID (corresponding to this process)	Number (5)
**	CONFIDENTIAL FLAG	Character (1)
	HOURS PER DAY	Number (2)
	DAYS PER WEEK	Number (2)
	WEEKS PER YEAR	Number (2)
	YEAR OF ESTIMATE	Number (4)
	DISTRICT PROD1	Character (8) [OPTIONAL DISTRICT USE ONLY]
	DISTRICT PROD2	Character (8) [OPTIONAL DISTRICT USE ONLY]

Relative Monthly Throughput: (Percent range: 0 - 100.0%)

JANUARY	Number (4, 1 decimal place)
FEBRUARY	Number (4, 1 decimal place)
MARCH	Number (4, 1 decimal place)
APRIL	Number (4, 1 decimal place)
MAY	Number (4, 1 decimal place)
JUNE	Number (4, 1 decimal place)
JULY	Number (4, 1 decimal place)
AUGUST	Number (4, 1 decimal place)
SEPTEMBER	Number (4, 1 decimal place)
OCTOBER	Number (4, 1 decimal place)
NOVEMBER	Number (4, 1 decimal place)
DECEMBER	Number (4, 1 decimal place)

NOTE: Include the Authorizing Signature With the Submittal of Data

V. EMISSION INFORMATION

COUNTY ID	Number (2)
FACILITY ID	Number (9)
AIR BASIN	Character (3)
DISTRICT ID	Character (3)
DEVICE ID	Number (5)
PROCESS ID	Number (14)
INVENTORY YEAR	Number(4)
ACTION CODE A=Add, D=Delete, C=Change	Character (1)
POLLUTANT ID	Number (9)
POLLUTANT ABBREV. NAME	Character (15)
* UNCONTROLLED EMISSION FACTOR	Number (Width limit 10)
CONTROL DEVICE - PRIMARY	Number (3)
CONTROL DEVICE - SECONDARY	Number (3)
CONTROL EFFICIENCY	Number (4, 1 decimal place)
* EMISSION FACTOR	Number (Width limit 10)
ANNUAL EMISSIONS (in lbs/yr) (except radionuclides in Curies/yr)	Number (Width limit 14)
MAXIMUM HOURLY EMISSIONS (in lbs/hr) (except radionuclides in milliCuries/yr)	Number (Width limit 10)
* METHOD OF ESTIMATION	Number (2)

NOTE: Include the Authorizing Signature With the Submittal of Data

VI. SUPPLEMENTAL USE AND PRODUCTION (S-UP) INFORMATION

COUNTY ID	Number (2)
FACILITY ID	Number (9)
AIR BASIN	Character (3)
DISTRICT ID	Character (3)
INVENTORY YEAR	Number (4)
ACTION CODE A=Add, D=Delete, C=Change	Character (1)
POLLUTANT ID	Number (9)
POLLUTANT ABBREV. NAME	Character (15)
USED Y=Yes, N=No	Character (1)
PRODUCED Y=Yes, N=No	Character (1)
OTHERWISE PRESENT Y=Yes, N=No	Character (1)
HOW PRESENT	Character (39)

NOTE: Include the Authorizing Signature With the Submittal of Data

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NOTES TO APPENDIX B-I:

NOTE 1: The reporting forms in Appendix B-II contain data fields for reporting each of the required data elements listed in Appendix B-I. The list of elements in Appendix B-I defines what data elements are required to be reported and in what format (e.g., numeric, character, what length).

NOTES REGARDING CONFIDENTIAL/TRADE SECRET DATA DESIGNATION:

* **The data elements preceded by an asterisk are automatically protected as confidential when the CONFIDENTIAL field on the Process Information form (or other approved data submittal form) is filled in with a "Y", as discussed below.**

** **The CONFIDENTIAL data field on the Process Information form or submittal should be filled in with a "Y" (for Yes) to designate a claim of confidential trade secret data for a specific device and process. When the CONFIDENTIAL data field is "Y", then the data fields marked with an asterisk (*) on the Process Information and Emission Information submittals are protected as trade secret data under the provisions of Health and Safety Code section 44346. These data fields are "necessary data to calculate emissions" and are the only data which may be designated as trade secret. (See also Section VII.B., VII.C.(3)(c), and the instructions in Appendix B-II.)**

APPENDIX B-II

REPORTING FORMS AND INSTRUCTIONS

(PUBLISHED UNDER SEPARATE COVER
AND
INCORPORATED BY REFERENCE)

APPENDIX C

FACILITY GUIDELINE INDEX

(FACILITY "LOOK-UP" TABLE)

(PUBLISHED UNDER SEPARATE COVER
AND
INCORPORATED BY REFERENCE)

APPENDIX D

SOURCE TESTING:

SUMMARY OF REQUIREMENTS

FOR MEASUREMENTS

AND ALTERNATIVES

APPENDIX D

Source Testing:
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 IX.A. 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

Source Testing:
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, 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
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.

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

3. Residual and crude oil combustion and incineration*	a. Full set metals/stack test b. Metals, chloride/fuel analysis c. Benzene/stack test d. PAH/stack test e. Formaldehyde/stack test	Small business:Fuel analysis - - - - 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 analysis 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. Requirements a-c shall not apply to emergency or stand-by equipment that primarily burn distillate or diesel fuel.
5. Waste oil combustion and incineration* (including oil containing used, recycled, reprocessed, or re-refined oil)	a. Full set metals/stack test b. Halogenated organics/stack test c. Benzene/stack test d. PAH/stack test e. Dioxins/stack test f. Formaldehyde/stack test g. PCBs/stack test: required any time that dioxins are tested	Small business:Fuel analysis - - - - Small business:Not required -
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.

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

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)
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	-

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

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
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 * f. Hydrogen chloride/stack test*	- - - - Small business:Not required 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

APPENDIX E

REQUIREMENTS FOR CLASSES OF FACILITIES EMITTING LESS THAN 10 TONS PER YEAR OF CRITERIA POLLUTANTS

Appendix E

Requirements for Classes of Facilities Emitting Less Than 10 Tons Per Year of Criteria Pollutants

NOTES TO APPENDIX E

(1) **General Exclusions:** Individual facilities meeting the following conditions are excluded from the requirements in Appendix E. Any individual facility for which, in the judgment of the district, a health-conservative, preliminary assessment of the facility's emissions indicates that the facility's emissions would result in a prioritization score, risk level, or *de minimis* level which would qualify as a "low level" facility for reporting purposes in accordance with the criteria specified in section IV.A. of this regulation, is excluded from Appendix E.

The district may base the preliminary emission assessment on approximate facility-total emission estimates for the facility, provided that the estimates account for all listed substances emitted from the facility and represent a health-conservative characterization of the facility and its operations and emissions.

(2) **Additional Exclusions and Conditions:**

a [*Advisory note to districts*: Some SIC codes which may contain facilities of this type include: 33xx, 34xx, 35xx, 36xx, 37xx, 76xx, where "x" represents any valid digit for an SIC code. However, a facility in these SIC codes is not subject to the requirements for Appendix E facilities unless the facility is subject to Section II. E.(1) or II.E.(2) and the facility's activities are also included in the described Appendix E class activity.]

b Facilities using less than four pounds of ethylene oxide per year are excluded. Also excluded are facilities which are hospital or veterinary clinics in compliance with the control requirements specified in the Ethylene Oxide Control Measure for Sterilizers and Aerators, section 93108 of Title 17, California Code of Regulations, and that have an annual usage of ethylene oxide of less than 100 pounds per year if the facility is housed in a single story building, or have an annual usage of ethylene oxide of less than 600 pounds per year if the facility is housed in a multi-story building.

c Facilities using solvents for cold cleaning and vapor degreasing in the following quantities are excluded:

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

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

NOTES TO APPENDIX E (continued)

d Any facility that is a crematorium for humans, animals, or pets or uses an incinerator to burn biomedical waste (animals), if the facility uses only propane or natural gas as fuel, and the facility annually cremates no more than 300 human bodies or 43,200 pounds of remains (human or animal) is excluded. Facilities using incinerators that burn biomedical waste other than cremating animals do not qualify for this exclusion.

e This class applies to any facility at which asbestos removal occurs on a routine and predictable basis for a period of at least one year.

f 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.

g [*Advisory note to districts*: Some SIC codes which may contain facilities of this type include: 249x, 339x, 341x, 356x, 376x, 382x, 383x, 386x, 422x, 571x, 769x, 87xx, where "x" represents any valid digit for an SIC code. However, a facility in these SIC codes is not subject to the requirements for Appendix E facilities unless the facility is subject to Section II.E.(1) or II.E.(2) and the facility activities also include the described Appendix E class activity.]

h Only the described portions of the SIC are included.

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

j Facilities using an annualized average of two gallons per day or less (or 17 pounds per day or less) of all graphic arts materials (deducting the amount of any water or acetone) are excluded.

k Facilities using 20 gallons per year or less of coatings, or performing all coating operations using hand held nonrefillable aerosol cans only are excluded.

l Facilities which do not have a sludge incinerator and whose maximum facility throughput does not exceed 10,000,000 gallons per day are excluded.

APPENDIX E

Classes of Facilities Emitting Less Than 10 Tons Per Year of Criteria Pollutants for Which the Facility Operators Must Prepare Complete Emission Inventory Plans and Reports (1), (2)

(1) See the General Exclusion for "low level" facilities in the preceding Notes.

(2) See the Additional Exclusions and Conditions in the preceding Notes, wherever superscripts appear.

Standard Industrial Classification Code (SIC)	Description of Class
Any SIC	Metal platers using cadmium or chromium[a].
Any SIC	Facilities using ethylene oxide for sterilization[b].
Any SIC	Facilities with cooling towers using hexavalent chromium.
Any SIC	Facilities that perform degreasing[c].
Any SIC	Facilities using incinerators that burn hazardous, municipal, or biomedical waste (including animal crematoria), or burning tires[d].
Any SIC	Long term asbestos removal (over one year)[e].
Any SIC	Treatment, storage, disposal, and recycling facilities (TSDFs; TSDR facilities)[f].
Any SIC	Facilities using 1,4-Dioxane where emissions exceed 85 pounds per year of 1,4-Dioxane[g].
Any SIC	Facilities where combustion of crude, residual, distillate, or diesel oil occurs in excess of 3,000 gallons per year total at the facility.
Any SIC	Facilities using styrene or styrene compounds where emissions exceed 1,000 pounds per year of styrene or styrene compounds.
Any SIC	Facilities using methylene chloride for paint or coating removal, where usage of methylene chloride exceeds 6 gallons per year.
0723[h]	Crop preparation services for market, if fumigation is performed using ethylene oxide, propylene oxide, or methyl bromide.

1442-1446[h]	Construction sand and gravel mining, if asphalt products are also used or produced at the facility.
2221[h],3229[h]	Fiberglass and various fiberglass materials and products manufacturing facilities within SICs 2221 and 3229.
2611,2621,[2631][i]	Pulp and paper mills.
2711-2771,2782	Printing and publishing including printshops and miscellaneous commercial printing[j].
2812-2899	Chemicals and allied products manufacturing.
2911-2999	Petroleum refining and related industries.
3011-3089, [3293],[3555][i]	Rubber and miscellaneous plastics products manufacturing, if a listed substance is used in a blowing agent, plasticizer, or diluent, or is present as free monomer.
3471-3479[h]	Miscellaneous plating, polishing, coating, engraving, and allied services, if using hexavalent chromium, nickel, or cadmium.
3674	Semiconductors and related devices manufacturing.
3731-3732	Boat and ship building and repair[k].
4952	Wastewater treatment facilities (including publicly owned treatment works, POTWs)[l].
4953	Refuse systems, where landfill gas emissions of vinyl chloride exceed 8.5 pounds per year.
5171-5172	Petroleum bulk stations and terminals and related wholesalers.
5511-5521,[7531], 7532,[7535][i]	Auto body shops (including new and used car dealers where surface coating occurs).
5541 or Any SIC	Facilities where any retail sale of gasoline occurs.
7216 or Any SIC	Dry cleaners using perchloroethylene.
7261[h]	Funeral services with crematories[d].
8011-8099[h]	Medical services, hospitals, and related facilities, if formaldehyde emissions exceed 110 pounds per year, or if sterilization occurs as described under "Any SIC" for "Facilities using ethylene oxide for sterilization", above.

APPENDIX F

CRITERIA FOR INPUTS

FOR RISK ASSESSMENT

USING

SCREENING AIR DISPERSION MODELING

Appendix F

Criteria For Inputs for Risk Assessment Using Screening Air Dispersion Modeling

(A) The emissions must represent all listed substances emitted from the facility. Emission estimates must be health-protective and approved by the district, and the assessment must take into account both the highest actual emissions and the facility's potential to emit, including use of the highest levels enforceable under the facility's permit(s), if the process(es) are subject to permits.

(B) Source characterization for the facility for air dispersion modeling (including but not limited to stack parameters, choice of volume or area source configurations, building downwash, raincaps, position of release point(s) within the facility) must be health protective. The most health-protective characterization which applies to the actual conditions at the facility must be chosen for the modeling analysis.

(C) Air dispersion modeling must use worst-case meteorological conditions and the most health-protective parameters applicable to the facility. Generic, default meteorological data, not site-specific data, should be used. A matrix representing all possible combinations of wind speed and stability classes should be used. The combination which results in the worst-case concentration should be selected. Ambient air temperature and mixing height must represent worst-case conditions. The rural or urban dispersion coefficients should represent the worst case which is applicable to the actual facility site.
Some acceptable meteorological conditions are the "full meteorology" option in the U.S. Environmental Protection Agency (U.S. EPA) SCREEN3 (96043) model, February 1996, which is incorporated by reference herein.

(D) The most appropriate computer models must be used, including the most recent version, with all the correct switches (including but not limited to switches for downwash, rural vs. urban, and complex vs. flat terrain). The district must approve switches used in the model and ensure that the most health-conservative estimates of dose are obtained.

Some acceptable models are the U.S. EPA SCREEN3 (96043) model, February 1996, and the U.S. EPA ISC3 (95250) model, September 1995, both of which are incorporated by reference herein.

(E) Other procedures must use methods in available guidelines as follows:

(1) The potential health impact must be calculated for the point of maximum impact (PMI) or maximum off-site concentration.

(2) The potential non-cancer acute inhalation total hazard index (H.I.) must be calculated for all substances for each toxicological endpoint.

(3) The potential non-cancer chronic inhalation hazard index (H.I.) must be calculated for all substances for each toxicological endpoint.

(4) The potential non-cancer chronic non-inhalation (ingestion and dermal exposure) hazard index (H.I.) must be calculated for all applicable substances for each toxicological endpoint.

(5) The non-cancer chronic inhalation and non-inhalation hazard indices (H.I.s) must be added for each toxicological endpoint to determine the total hazard index (total H.I.) for each endpoint.

(6) The total potential carcinogenic impact from inhalation exposure and non-inhalation exposure pathways (where applicable for the substance) must be calculated. At a minimum, multipathway exposure must include the inhalation, soil ingestion, and dermal exposure, and mother's milk pathways; exposure through food ingestion including vegetables/fruits, meat, milk, and fish, and exposure through consumption of contaminated surface water should be included if those pathways exist at a specific site.

(7) Health effects values used for cancer and non-cancer health effects are subject to the approval by the Office of Environmental Health Hazard Assessment (OEHHA). Health effects values used for cancer risk assessment are those available in the California Environmental Protection Agency (Cal/EPA), Standards and Criteria Working Group document entitled "California Cancer Factors: Update", 1994, available through the Office of Environmental Health Hazard Assessment, and incorporated by reference herein. Some health effects values for assessing non-cancer health impacts are available in the CAPCOA "Air Toxics 'Hot Spots' Program Revised 1992 Risk Assessment Guidelines, October 1993," which is incorporated by reference herein. Other health effects values for non-cancer risk assessment are available on the United States Environmental Protection Agency, Integrated Risk Information System (IRIS) database (Software Version 1.0, 1992), 1996. The CAPCOA Risk Assessment Guidelines will be superseded by OEHHA Air Toxics Hot Spots Risk Assessment Guidelines.

(8) Any other assumptions, if needed, must be consistent with the procedures approved by OEHHA for preparing health risk assessments. Some acceptable procedures are included in the California Air Pollution Control Officers' Association (CAPCOA) "Air Toxics 'Hot Spots' Program Revised 1992 Risk Assessment Guidelines, October 1993", which is incorporated by reference herein.

(F) Stochastic modeling exercises are not acceptable as screening level risk assessments.

California Environmental Protection Agency

Air Resources Board

ADDITIONAL APPENDICES

TO THE EMISSION INVENTORY

CRITERIA AND GUIDELINES REPORT

FOR THE AIR TOXICS "HOT SPOTS" PROGRAM

MAY 1996

Issue Date: June 7, 1996

California Environmental Protection Agency

Air Resources Board

ADDITIONAL APPENDICES

TO THE EMISSION INVENTORY

CRITERIA AND GUIDELINES REPORT

FOR THE AIR TOXICS "HOT SPOTS" PROGRAM

MAY 1996

Issue Date: June 7, 1996

State of California
Air Resources Board
Technical Support Division

APPENDIX B

REPORTING FORMATS

AND INSTRUCTIONS

APPENDIX B-I

DATA ELEMENTS AND FORMATS

(INCLUDED WITH THE MAIN REPORT)

APPENDIX B-II

REPORTING FORMS AND INSTRUCTIONS

Appendix B - II

Reporting Forms and Instructions

The following instructions are for completing core reporting forms, the Supplemental Use and Production Information Form, and the Update Summary Form as explained in Sections V, VII, and VIII of the Emission Inventory Criteria and Guidelines Report:

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

The **Supplemental Use and Production Information Form** shall be completed and submitted with the inventory report for all substances set forth in:

a) 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.

b) 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 VIII.E, unless a numeric estimate of such emissions is reported on an Emission Information Form for the appropriate emitting process. See the instructions for the Emission Information Form (Item (16)) for information on using the degree of accuracy values for reporting purposes.

c) Appendix A-III which are manufactured by any facility subject to the requirements set forth in VIII.E.(6).

The facility operator shall complete and submit to the district an **Update Summary Form** (US Form) as required to comply with the applicable update requirements specified in section V.A - M.

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 the facility operator does not know this information, the operator may 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 shaded fields on the forms are fields used primarily for the criteria pollutant emission inventory reporting (under combined toxics and criteria pollutant reporting) or for district use. The shaded fields are not required to be filled out by the facility operator for purposes of Hot Spots reporting under this regulation.

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

CALIFORNIA EMISSION INVENTORY DEVELOPMENT AND REPORTING SYSTEM II (CEIDARS II)
REVIEW AND UPDATE REPORT - DATA BASE YEAR:
FACILITY INFORMATION

COUNTY ID * ___ AIR BASIN * ___ DISTRICT ID * ___ PERSON :

DATE :

FACILITY ID * ___ ACTION CODE ___ INVENTORY YEAR :

FACILITY NAME : ___

ADDRESS : ___

CITY : ___ ZIP : ___-___

CONTACT PERSON : ___ PHONE : ___-___

FACILITY SIC : ___ NUMBER OF EMPLOYEES : ___

UTM ZONE : ___ UTM EAST : ___ UTM NORTH : ___

-- MAILING

COMPANY NAME : ___

ADDRESS : ___

CITY : ___ ST: ___ ZIP : ___-___

ATTENTION : ___

FACILITY CITY CODE ___ AIRS AQCR ___ SUBCOUNTY ID ___

AREA DESIGNATION ___ CO ___ NO2 ___ OZ ___ PM ___ SO2 ___

FACILITY PHASE ___ FACILITY STATUS ___ FORECAST ID ___ PRIORITY ___ INDUSTRY WIDE ___

DISTRICT USE ___ FACD1 ___ FACD2 ___

Facility Information Form

In the space provided on the upper right of the form, initial and date the form, and fill in the inventory reporting year for which you are reporting data.

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

(2) Facility ID: Enter the district-assigned facility identification code. If the Facility ID is unknown, consult 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 Facility Information 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) Facility Name: The name of 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 and extension 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 unknown, consult the district.

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

(12) 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, consult the district, who should be able to provide guidance on assigning facility coordinates.

(13) Mailing Address: Name, Address, City, State, Zip code (and extension), 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.

Shaded: The following fields have been included on the reporting forms for one of two reasons:

a) Optional Fields: These fields will be completed by district staff as tracking tools for the Hot Spots program.

b) Additional/Optional Merged Data System Fields: These fields will also be completed by district staff(s) if your district has chosen to submit a merged emission inventory report to the criteria pollutant and toxics data collection system. These fields are primarily related to emissions of criteria pollutants.

(14) Optional Fields: The fields FACILITY CITY CODE, FACILITY PHASE, FACILITY STATUS, PRIORITY and INDUSTRY WIDE are optional fields for district use and do not need to be filled in by the facility.

(15) Additional/Optional Merged Data System Fields: The fields AIRS AQCR, SUBCOUNTY ID, AREA DESIGNATION, CO, NO2, OZ, PM, SO2, FORECASTID, FACD1 and FACD2 are optional fields for those using the reporting forms to report emissions to the merged data system. The merged system allows the reporting of toxics and criteria pollutant emissions in one submittal.

CALIFORNIA EMISSION INVENTORY DEVELOPMENT AND REPORTING SYSTEM II (CEIDARS II)
REVIEW AND UPDATE REPORT - DATA BASE YEAR:
STACK INFORMATION

COUNTY ID * ___ AIR BASIN * ____ DISTRICT ID * ___ PERSON :

FACILITY ID * _____ DATE :

INVENTORY YEAR :

ACTION CODE	STACK ID *	AIRS STACK NUMBER	UTM EAST (KM)	UTM NORTH (KM)	STACK HEIGHT (FEET)	STACK DIAMETER (FEET)	GAS TEMP (F)	GAS FLOW RATE (CFM)	GAS VELOCITY (FPM)

Stack Information Form

This form can be copied as many times as needed.

In the space provided on the upper right of the form, initial and date the form, and fill in the inventory reporting year for which you are reporting data.

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 this information is not known or provided, consult the district.

Report on the Stack Information 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 Information Form a non-ducted, non-directional release. Instead, specify "fugitive", if applicable, in the process description field on the Process Information Form.

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

(2) Facility ID: Enter the district-assigned facility identification code. If the Facility ID is unknown, consult 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, provide 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) 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, consult the district, who will provide guidance on assigning stack coordinates.

(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

(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.

Shaded: The following fields have been included on the reporting forms for one of two reasons:

a) Optional Fields: These fields will be completed by district staff as tracking tools for the Hot Spots program.

b) Additional/Optional Merged Data System Fields: These fields will also be completed by district staff(s) if your district has chosen to submit a merged emission inventory report to the criteria pollutant and toxics data collection system. These fields are primarily related to emissions of criteria pollutants.

(11) Additional/Optional Merged Data System Fields: The field AIRS STACK NUMBER is an optional field for those using the reporting forms to report emissions to the merged data system. The merged system allows the reporting of toxics and criteria pollutant emissions in one submittal.

CALIFORNIA EMISSION INVENTORY DEVELOPMENT AND REPORTING SYSTEM II (CEIDARS II)
REVIEW AND UPDATE REPORT - DATA BASE YEAR:
DEVICE INFORMATION

COUNTY ID * ___ AIR BASIN * ____ DISTRICT ID * ___ PERSON :

DATE :

FACILITY ID * _____ INVENTORY YEAR :

ACTION CODE	DEVICE ID *	DEVICE NAME	PERMIT ID	NUMBER OF DEVICES	AIRS POINT ID	SUB COUNTY

CONFIDENTIAL	EQUIPMENT SIZE	UNIT	TYPE	SECT	TOWNSHIP	RANGE	DISTRICT USE DEV1	DISTRICT USE DEV2

ACTION CODE	DEVICE ID *	DEVICE NAME	PERMIT ID	NUMBER OF DEVICES	AIRS POINT ID	SUB COUNTY

CONFIDENTIAL	EQUIPMENT SIZE	UNIT	TYPE	SECT	TOWNSHIP	RANGE	DISTRICT USE DEV1	DISTRICT USE DEV2

Device Information Form

This form can be copied as many times as needed.

In the space provided on the upper right of the form, initial and date the form, and fill in the inventory reporting year for which you are reporting data.

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 this information is not known or provided, consult the district.

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

(2) Facility ID: Enter the district-assigned facility identification code. If the Facility ID is unknown, consult 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 (Process Information and Emission Information 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) Permit ID: The district permit number for the device, if available.

(7) 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.

Shaded: The following fields have been included on the reporting forms for one of two reasons:

a) Optional Fields: These fields will be completed by district staff as tracking tools for the Hot Spots program.

b) Additional/Optional Merged Data System Fields: These fields will also be completed by district staff(s) if your district has chosen to submit a merged emission inventory report to the criteria pollutant and toxics data collection system. These fields are primarily related to emissions of criteria pollutants.

(8) Additional/Optional Merged Data System Fields: The fields AIRS POINT ID, EQUIPMENT CONFIDENTIALITY CODE, EQUIPMENT SIZE, EQUIPMENT UNIT, EQUIPMENT TYPE, SUBCOUNTY, SECTION, TOWNSHIP, RANGE, DEVD1 and DEVD2 are optional fields for those using the reporting forms to report emissions to the merged data system. The merged system allows the reporting of toxics and criteria pollutant emissions in one submittal.

NOTE: If the facility operator is reporting under the merged toxics and criteria pollutant emission inventory system, the Equipment Size (found on the Device Information Form) may be identified as confidential by putting a "Y" in the Equipment Confidentiality field on the Device Information Form. See the Process Information Form instructions for identifying confidential data fields on the Process Information Form and Emission Information Form.

CALIFORNIA EMISSION INVENTORY DEVELOPMENT AND REPORTING SYSTEM II (CEIDARS II)
REVIEW AND UPDATE REPORT - DATA BASE YEAR:
PROCESS INFORMATION

COUNTY ID * AIR BASIN * DISTRICT ID * PERSON :

FACILITY ID * DEVICE ID * PROCESS ID * DATE :

INVENTORY YEAR :

ACTION CODE | DESCRIPTION | SCC | SIC

PROCESS RATE SCC UNITS /YR | MAXIMUM HOURLY PROCESS RATE | MAXIMUM DESIGN RATE SCC UNITS/HR | % SULFUR | PROCESS RATE ORIGIN | PROCESS RATE RELIABILITY | STACK ID

HOURS/ DAY | DAYS/ WEEK | WEEKS/ YEAR | YEAR OF ESTIMATE | DISTRICT USE PROD1 | DISTRICT USE PROD2 | FORECASTID | CONFIDENTIAL

RELATIVE MONTHLY THROUGHPUT

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

Process Information Form

In the space provided on the upper right of the form, initial and date the form, and fill in the inventory reporting year for which you are reporting 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 this information is not known or provided, consult the district.

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

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

(3) Device ID: The number of the device associated with the process. This device ID should be included on the Device Information Form.

(4) Process ID: Process ID identifies the process and is unique within a device and a specific process.

(5) Action Code/Process: Enter the appropriate Action Code: A, C, or D.
'A' indicates Add--A new process has been added to the facility. Include all corresponding data on a Process Information 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 associated with the process.

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

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

(8) SIC: The Standard Industrial Classification number best describing the industrial activity associated with the process. If this information is 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".

(9) Process Rate (in SCC Units/Yr): The actual annual process rate during the reporting year, expressed in the appropriate units specified for the SCC describing the process.

(10) Maximum Hourly Process Rate (in SCC units/hour): The greatest operating rate that would be expected for the source in a one hour period, expressed in the appropriate units specified for the SCC describing 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 Stack Information Form. By entering the stack ID on the Process Information 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 Process Information 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 Process Information Forms.

(12) Hours/Day: The number of hours per day the process is in operation during the reporting year. (Consult the district regarding codes to use for any non-uniform operation.)

(13) Days/Week: The number of days per week the process is in operation during the reporting year. (Consult the district regarding codes to use for any non-uniform operation.)

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

(15) Year of Estimate/Process: Enter the year that corresponds to the process data submitted. 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/Process field should be set to 1991.

(16) CONFIDENTIAL: For identifying trade secret data. Indicate if any of the data items required on the facility diagram and designated on the facility diagram as instructed under Section VII.B are trade secrets by placing a "Y" in the confidential box. Putting a "Y" in this box identifies as confidential the following data fields on the Process Information Form and Emission Information Form:

Process Description, Process Rate, Maximum Hourly Process Rate, Maximum Design Rate, % Sulfur in fuel (all found on the Process Information Form), Uncontrolled Emission Factor, Emission Factor, Emission Factor Origin Code, and Method of Estimate Code (all found on the Emission Information Form).

NOTE: If the facility operator is also reporting under the merged toxics and criteria pollutant emission inventory system, the Equipment Size (found on the Device Information Form) may also be identified as confidential by putting a "Y" in the Equipment Confidentiality field on the Device Information Form.

A facility operator may notify the district in writing in the emission inventory report that additional information is a trade secret. However, this additional information will not be included in the data system.

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

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

Shaded: The following fields have been included on the reporting forms for one of two reasons:

a) Optional Fields: These fields will be completed by district staff as tracking tools for the Hot Spots program.

b) Additional/Optional Merged Data System Fields: These fields will also be completed by district staff(s) if your district has chosen to submit a merged emission inventory report to the criteria pollutant and toxics data collection system. These fields are primarily related to emissions of criteria pollutants.

(18) Additional/Optional Merged Data System Fields: The fields MAXIMUM DESIGN RATE (in SCC UNITS/HR), % SULFUR in fuel, PROCESS RATE ORIGIN, PROCESS RATE RELIABILITY, PROD1, PROD2, and FORECASTID are optional fields for those using the reporting forms to report emissions to the merged data system. The merged system allows the reporting of toxics and criteria pollutant emissions in one submittal.

CALIFORNIA EMISSION INVENTORY DEVELOPMENT AND REPORTING SYSTEM II (CEIDARS II)
REVIEW AND UPDATE REPORT - DATA BASE YEAR:
EMISSION INFORMATION

COUNTY ID * ⌊⌊⌋ AIR BASIN * ⌊⌊⌊⌋ DISTRICT ID * ⌊⌊⌊⌋ PERSON :

DATE :

FACILITY ID * ⌊⌊⌊⌊⌊⌊⌊⌊⌋ DEVICE ID * ⌊⌊⌊⌊⌋ PROCESS ID * ⌊⌊⌋ INVENTORY YEAR :

ACTION CODE ⌊⌋ | POLLUTANT ID * ⌊⌊⌊⌊⌊⌊⌊⌋ | POLLUTANT ABBREVIATED NAME ⌊⌊⌊⌊⌊⌊⌊⌊⌊⌊⌊⌋

UNCONTROLLED EMISSION FACTOR ⌊⌊⌊⌊⌊⌊⌊⌊⌋ | CONTROL DEVICES PRIMARY ⌊⌊⌊⌋ | SECONDARY ⌊⌊⌊⌋ | CONTROL EFFICIENCY ⌊⌊⌊⌊⌋ | EMISSION FACTOR ⌊⌊⌊⌊⌊⌊⌊⌊⌊⌋ | EMISSION FACTOR ORIGIN ⌊⌊⌋ | RELIABILITY ⌊⌊⌋ | FRACTION ROG/PM10 ⌊⌊⌊⌊⌋ | FRACTION VOC ⌊⌊⌊⌊⌋

ANNUAL EMISSIONS ⌊⌊⌊⌊⌊⌊⌊⌊⌊⌊⌋ | HOURLY MAX EMISSIONS ⌊⌊⌊⌊⌊⌊⌊⌊⌋ | METHOD OF ESTIMATE ⌊⌊⌋ | REASON FOR CHANGE ⌊⌊⌋ | DISTRICT USE POTENTIAL EMISSIONS ⌊⌊⌊⌊⌊⌊⌊⌊⌊⌊⌋ | FORECAST ID ⌊⌋

ACTION CODE ⌊⌋ | POLLUTANT ID * ⌊⌊⌊⌊⌊⌊⌊⌋ | POLLUTANT ABBREVIATED NAME ⌊⌊⌊⌊⌊⌊⌊⌊⌊⌊⌊⌋

UNCONTROLLED EMISSION FACTOR ⌊⌊⌊⌊⌊⌊⌊⌊⌋ | CONTROL DEVICES PRIMARY ⌊⌊⌊⌋ | SECONDARY ⌊⌊⌊⌋ | CONTROL EFFICIENCY ⌊⌊⌊⌊⌋ | EMISSION FACTOR ⌊⌊⌊⌊⌊⌊⌊⌊⌊⌋ | EMISSION FACTOR ORIGIN ⌊⌊⌋ | RELIABILITY ⌊⌊⌋ | FRACTION ROG/PM10 ⌊⌊⌊⌊⌋ | FRACTION VOC ⌊⌊⌊⌊⌋

ANNUAL EMISSIONS ⌊⌊⌊⌊⌊⌊⌊⌊⌊⌊⌋ | HOURLY MAX EMISSIONS ⌊⌊⌊⌊⌊⌊⌊⌊⌋ | METHOD OF ESTIMATE ⌊⌊⌋ | REASON FOR CHANGE ⌊⌊⌋ | DISTRICT USE POTENTIAL EMISSIONS ⌊⌊⌊⌊⌊⌊⌊⌊⌊⌊⌋ | FORECAST ID ⌊⌋

Emission Information Form

In the space provided on the upper right of the form, initial and date the form, and fill in the inventory reporting year for which you are reporting data.

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

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

(3) Device ID: The number of the device associated with the process. This device ID should be included on the Device Information Form.

(4) Process ID: Process ID identifies the process and is unique within a device and a specific process. This Process ID should be included on the Process Information Form.

(5) Action Code/Emissions: Enter the appropriate Action Code: A, C, or D.
'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.

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

Mixtures: In accordance with section VIII.F, 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 that 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 VIII.F.(7) and (8), pertaining to polycyclic aromatic hydrocarbons (PAHs) and polychlorinated dibenzo-p-dioxins (dioxins), respectively, the following instructions apply:

(i) 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 4-digit 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."

(ii) 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."

(7) Pollutant Abbreviated 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.

(8) Uncontrolled Emission Factor: The average rate at which the pollutant is emitted to the atmosphere in pounds per SCC process unit, not including the effect of any pollution control equipment which reduces emissions of the listed emittent.

(9) Control Device Codes (Primary and Secondary) and Control Efficiency Code: The primary control device 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, a secondary control device may be the only equipment controlling the listed emittent or may be used in conjunction with the primary control device which has a greater effect in reducing the listed emittent.

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

Table B-II also shows the various emittents, Particulate Matter (PM), Total Organic Gases (TOG), and Sulfur Dioxide (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.

On the far right-hand side of Table B-II 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 device if it 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.

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

(11) Annual 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 VIII.E) in reporting facility emissions, refer to item (16). For reporting emissions derived from below Limit of Detection (LOD) source test data, refer to the Below Limit of Detection Emissions instructions in item (17).

(12) Hourly Maximum Emissions: 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.

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

(14) Reason for Change: Enter a code from Table B-IV that describes the reason for the change in the emissions.

Shaded: The following fields have been included on the reporting forms for one of two reasons:

a) Optional Fields: These fields will be completed by district staff as tracking tools for the Hot Spots program.

b) Additional/Optional Merged Data System Fields: These fields will also be completed by district staff(s) if your district has chosen to submit a merged emission inventory report to the criteria pollutant and toxics data collection system. These fields are primarily related to emissions of criteria pollutants.

(15) Additional/Optional Merged Data System Fields: The fields EMISSION FACTOR ORIGIN, EMISSION FACTOR RELIABILITY, FRACTION ROG/PM10, FRACTION VOC, DISTRICT USE/POTENTIAL EMISSIONS, and FORECASTID are optional fields for those using the reporting forms to report emissions to the merged data system. The merged system allows the reporting of toxics and criteria pollutant emissions in one submittal.

Using Degree of Accuracy Values in Reporting Facility Emissions

(16) **Degree of Accuracy.** The general use of the degree of accuracy values is described in section VIII.E 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 Emission Information Forms. In other words, if facility emissions of a substance exceed one-half of the applicable degree of accuracy unit for the substance, then the substance emissions shall be reported on Emission Information Forms. For example, assume that the total emissions of benzene from a facility are 1.7 lbs/year. The degree of accuracy value for benzene is 2 lbs/yr. Because the facility emissions exceed one-half of the benzene degree of accuracy, the emissions must be reported for any devices emitting benzene. If the total facility benzene emissions were 0.9 lbs/yr, the emissions (to the nearest unit of two pounds) would round down to zero and would not need to be reported on any Emission Information Form. However, the presence of benzene would be required to be reported on the Supplemental Use and Production Information 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 (17) below).

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

(17) **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 detectable limits for use in emissions computations.

The resultant Annual Emissions (in pounds per year) and the Hourly Max Emissions (in pounds per hour) shall be reported on the "Emission Information Form". In addition, a value of "98" must be recorded in the "Method of Estimate" field on the Emission Information 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 Method of Estimate 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 Emissions and the Hourly Max Emissions on the "Emission Information Form" as "0" followed by "ND". In addition, a value of "99" must be recorded in the "Method of Estimate" field on the Emission Information Form. The code of "99" indicates that a source test was conducted, but that **all** runs were below detectable limits.

When these 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.

CALIFORNIA EMISSION INVENTORY DEVELOPMENT AND REPORTING SYSTEM II (CEIDARS II)
REVIEW AND UPDATE REPORT - DATA BASE YEAR:
SUPPLEMENTAL USE AND PRODUCTION INFORMATION

COUNTY ID * AIR BASIN * DISTRICT ID * PERSON :

DATE :

FACILITY ID * INVENTORY YEAR :

ACTION CODE | POLLUTANT ID * | POLLUTANT ABBREVIATED NAME | USED | PRODUCED

PRESENT | HOW_ PRESENT

ACTION CODE | POLLUTANT ID * | POLLUTANT ABBREVIATED NAME | USED | PRODUCED

PRESENT | HOW_ PRESENT

ACTION CODE | POLLUTANT ID * | POLLUTANT ABBREVIATED NAME | USED | PRODUCED

PRESENT | HOW_ PRESENT

Supplemental Use and Production Information Form

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

The Supplemental Use and Production Information 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 Supplemental Use and Production Information Form unless the emissions are based on source test results or reported on Emission Information Forms.

(b) Substances listed in Appendix A-II that are used, produced, or otherwise present at the facility are to be reported on the Supplemental Use and Production Information Form.

(c) Substances listed in Appendix A-III that are manufactured and released to the air.

(1) In the space provided on the upper right of the form, initial and date the form, and fill in the inventory reporting year for which you are reporting data.

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

(3) Facility ID: Enter the district-assigned facility identification code. If the Facility ID is unknown, consult 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 Supplemental Use and Production Information 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) Pollutant ID: Enter the Chemical Abstracts Service Registry number (CAS number) or Emittent ID code created by the ARB for substances in Appendix A-I, A-II, or A-III. Refer to the Emission Information Form Emittent ID instructions for instructions on reporting listed substances which are mixtures or classes of substances.

(6) Pollutant Abbreviated 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 Field - "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.

(8) Substance Produced Field - "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.

(9) Substance Present Field - "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 the space provided if the reported substance is present at the facility.

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 V. C. and E.

COMPANY NAME

FACILITY ID

ADDRESS

COUNTY ID

CITY

ZIP CODE

AIR BASIN

DISTRICT

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 Section V. C.

(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: _____ _____ _____

_____ _____ _____

INVENTORY YEAR 19__	AIR TOXICS EMISSION DATA SYSTEM REVIEW AND UPDATE REPORT UPDATE SUMMARY FORM	FORM US Page 2

Part B (continued) To be completed by facility operators subject to Section V. C.

(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 V. 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 V. C.]

Answer: Yes ☐ No ☐ If yes, update all required information via an update plan and report, or an alternative, in accordance with sections V. C and V. I. – M.

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, consult the district. Using Table B-I, locate and enter the appropriate County ID, Air Basin, and District ID 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 Section V.C. 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 V.J.(3) 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 section V.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 V.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 V.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 V.C. and V.I - V.M.

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 Information Form(s) and Emission Information Form(s) must be submitted by the facility operator for any individual device or groups of devices (reported on the same Process Information Form) whose activity increases by 10 percent or more.

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	SS	SALTON SEA	IMP	IMPERIAL COUNTY APCD
14	INYO	GBV	GREAT BASIN VALLEYS	GBU	GREAT BASIN UNIFIED APCD
15	KERN	MOJ	MOJAVE 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	MOJ	MOJAVE 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	MOJ	MOJAVE DESERT	MOJ	MOJAVE DESERT AQMD
33	RIVERSIDE	SS	SALTON SEA	MOJ	MOJAVE DESERT 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	MOJ	MOJAVE DESERT	MOJ	MOJAVE DESERT AQMD
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

CONTROL DEVICE EQUIPMENT IDENTIFICATION CODE NUMBERS AND VARIOUS EMITTENTS AFFECTED

EQUIPMENT CODE	CONTROL DEVICE/METHOD	VARIOUS EMITTENTS AFFECTED			
		PM[a]	TOG[b]	SOx[c]	TOXIC SUBSTANCES THAT MAY BE CONTROLLED
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		
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 diisocyahate, 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			
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	
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/Trichloroethylene Phenol, Toluene, Toluene diisocyanate, Vinylidene chloride, Xylene
040	Cyclones	x	
041	Chemical Oxidation	x	x
042	Chemical Reduction		x
043	Ozonation		x
044	Chemical Neutralization		x
045	Water Curtain	x	x
046	Nitrogen Blanket		x
047	Conservation Vent		x
048	Bottom Filling		x
049	Submerged Filling		x
			Cadmium, Copper, Nickel

EQUIPMENT CODE	CONTROL DEVICE/METHOD	VARIOUS EMITTENTS AFFECTED		
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			

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[a] Particulate Matter

[b] Total Organic Gases

[c] Sulfuric Oxides

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

TABLE B - IV
REASON FOR CHANGE CODES AND DESCRIPTION

CODE NO.	REASON FOR CHANGE	EXPLANATION
1	Control Regulation	Process emissions are lower than the previous year because a rule or regulation has required a permanent change to the operation, process, or equipment.
2	Voluntary Control	Process emissions are lower than the previous year because of voluntary modification to the equipment, process or operating hours. Reduction in emissions may not be permanent.
3	Change in Operation	Process emissions may be higher or lower then the previous year and are due to normal seasonal or economic changes in the facility activity.
4	Previously Unreported	Emissions are higher because of emissions that were not recorded in the previous year data base.
5	New\Modified Source	An increase in emissions because of new equipment or a process that was not in operation in previous years.
6	Ceased Operation	A decrease in emissions because the equipment or process that was in operation the previous year will not operate in the future.
7	Temporary change	Process emissions are higher or lower than previous year emissions because of special circumstances that are not anticipated to continue into subsequent years. For example, equipment malfunction or a plant operating on a variance.
8	Error	Emissions are higher or lower than the previous year emissions because of an error in the previous year's data. This code would only be used to correct an error. Reasons 1,2 or 3 should be used if they are more significant.
9	Better Emission Factor/Method	Change in emission factor or change in method of emission estimate.

APPENDIX C

FACILITY GUIDELINE INDEX

(FACILITY "LOOK-UP" TABLE)

APPENDIX C - I

RESPONSIBILITIES OF ALL FACILITIES

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) PAHs are composed of the following substances:

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

(3) Substances emitted by a particular device or process may not be limited to those listed in this 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.**

(4) 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

(5) 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.

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 3)
FUEL/WASTE COMBUSTION		
Boilers, Heaters, Kilns IC Engines, Furnaces 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 2 (Notes appear at the beginning of this index.)

Device/Process	Types of Emissions	Specific Substances (see Note 3)
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
Flares	Particulate metals including but not limited to:	Arsenic, Beryllium, Chromium, Lead, Mercury, Nickel Any other listed metal
	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:		
	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 3)
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 3)
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 including but not limited to:	Each pure organic stored or transferred that is a listed substance
Tank Breathing		Each component of a mixture that is a listed substance
Fugitives	Gaseous and aerosol organic compounds	
Equipment Leaks	From: vents, tanks, condensers pumps, valves, compressors	Emissions vary according to substances involved in specific process

Device/Process	Types of Emissions	Specific Substances (see Note 3)
OTHER PROCESSES		
Contaminated Soil/Water Remediation	Chlorinated organics including:	Carbon tetrachloride, Chloroform, EDC, Methyl chloroform, Perc, TCA, TCE Benzene, Chlorobenzene, Toluene, Xylenes
	Other organics including	
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
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 Treatment		Chloroform
Industrial Wastewater Treatment	Chlorinated organics including:	Carbon tetrachloride, Chloroform, EDC, Methylene chloride, Perc, TCA, TCE Benzene, Chlorobenzene, Toluene, Xylenes
	Other organics including:	
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
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 3)
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 substance & device	

APPENDIX C- II

FURTHER RESPONSIBILITIES

FOR SPECIFIC FACILITY CLASSES

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
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) PAHs are composed of the following substances:

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

(3) Substances emitted by a particular device or process may not be limited to those listed in this 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.**

(4) 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

(5) 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.

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 3)
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		Ammonia, Chlorine, EDB, Hydrogen Sulfide, Lead, Silica, All listed metals
Agricultural Production		
Agricultural 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		Arsenic
Almond Processing		
Combustion Processes - see Combustion, Appendix C-I		
Apparel Mfg - see Textile Mill, Appendix C-II		
Arsenic Mining - see Mining Non-Metals, Appendix C-II		Toluene
Artificial Flower Mfg		
Asbestos Milling/Processing - see Clay, Glass, & Stone Prod, Appendix C-II		
Asbestos - see Mining Non-Metals, Appendix C-II		

* See Note 2 (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)
Asphalt Materials Mfg		
Asphalt Felts & Coatings - see Petroleum & Coal Products, Appendix C-II		
Asphaltic Concrete Prod (Including Asphalt Paving Materials Mfg)		
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/Repair - see Transportation Equipment, Appendix C-II		
Boat Building/Repair - see Transportation Equipment (Ship & Boat Building), 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 variable vapor space 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/Repair - 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		

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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)
Canned Food Product Mfg. 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/Repair - 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 Combustion Processes - see Combustion, Appendix C-I		Beryllium
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
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)
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		
Nitrogenous		Ammonia, Hydrogen sulfide, Mercury, Metal compounds, Methanol, Phosphorus, Sodium hydroxide
Phosphatic		Ammonia, Cadmium, Hydrogen sulfide, Lead Nickel
Mixing Only		Ammonia, Arsenic, Cadmium, Hydrogen sulfide
Sodium Arsenate		Ammonia 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
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 Also see Chem Mfg, Industrial Inorganics, Alkalies & Chlorine, Appendix C-II	From: hydrogen stream	Mercury

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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)
Chemical Mfg continued Fertilizers - see Chemical Mfg (Agricultural), Appendix C-II		
Flame Retardants Mfg		Hexachlorocyclopentadiene
Fluorocarbon Mfg Reactor Venting Distillation Storage	From: vents, storage	Carbon Tetrachloride, Chloroform
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-Butadiene, 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, 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).
Chemical Mfg, Cyclic Crudes, continued		
		Nitrosomorpholine, Pentachlorophenol (Chlorophenols), Phenol, Phosgene, Phthalic anhydride, POM, PAHs*, Styrene, Toluene, Toluene diisocyanate, TCE Xylenes, Vinyl chloride
Gum & Wood Chemicals		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, Isocyanates, 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)
Chemical Mfg, Monomers, continued		
Vinyl Chloride	From: heavy ends stream	PCBs, Propylene, Propylene oxide, Sodium hydroxide, Styrene, Toluene, TCA, TCE, Trichlorophenol, Urethane, Vinyl chloride, Vinylidene chloride, Xylenes, Zinc
		EDC
Nuclear Fuel Fabrication		Radionuclides
Organic Chem Mfg		Acrylamide, Acrylonitrile, Carbon tetrachloride, Chlorobenzene, Chloroform, Methylene chloride, Perc, Toluene
		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
Paints & Allied Prod's		Benzyl chloride, Cadmium, Toluene
		Dimethyl sulfate
Pigment		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
Perfume		Methylene chloride
Pesticides, Herbicides, Fungicides Mfg		Cadmium, Chromium, Copper, Lead, Nickel, Zinc
Photographic Chemicals Mfg		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
Pigment (metal containing) Mfg Also see Chem Mfg, Inks and Paints, Appendix C-II		
Plastics Materials & Synthetics		

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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 Production & 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)
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 Nitrosomorpholine
Optical Brighteners 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 Agents		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)
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 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
Clinker Cooler		
Combustion Processes Also see Combustion, Appendix C-I	Benzene, Formaldehyde, Hydrogen chloride,	PCBs, POM, PAHs*, All listed metals
Dry Processes Hydraulic		Arsenic, Cadmium, Chlorine, Chromium, Copper, Hydrogen chloride, Lead, Mercury, Nickel, Toluene, Zinc
Wet Process		
Clay Products, Structural Brick & Structural Clay Tile Ceramic Wall & Floor Tile		Arsenic, Beryllium, Lead
Clay Refractories		Arsenic, Beryllium, Lead Beryllium, Chromium, Mineral fibers

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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		
Glass Container Mfg	From glass furnace	Ammonia, Arsenic, Cadmium, Chlorine, Chromium, Formaldehyde, Hydrogen chloride, Lead, Mercury, Methylene chloride, Nickel, Perc, Styrene, Toluene, TCA
		Arsenic
		Arsenic, Chlorine, Hydrogen chloride, Methylene chloride
Minerals, Ground or Treated		
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
		Ammonia, Beryllium, Copper, Hydrogen sulfide, Lead, Methyl bromide, Naphthalene, Perc, Toluene, TCE, Zinc
Purchased Glass Products		Ammonia, Toluene, TCE, Xylenes
Combustion Processes - see Combustion, Appendix C-I		
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)
Coke Production Also see Metal Smelters, Appendix C-II		POM, PAHs*, Toluene
Colleges & Universities Miscellaneous		Benzene, Carbon tetrachloride, Chloroform, Methylene chloride, Dioxane, Formaldehyde, Mercury, Nitrobenzene, Phenol, Toluene, TCA, Xylenes, Any other listed substance
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)
Combustion Processes - see Combustion, Appendix C-I		
Elec. or Natural Gas Service Combustion Processes - see Combustion, Appendix C-I Cooling Towers - see Other Processes, Appendix C-I		TCA
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)
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
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)
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, Arsine, 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		
Electric Lamps		Toluene, TCE
Lighting Fixtures		Ammonia, Cadmium, Mercury, Toluene, TCA, TCE
Commercial		
Residential		Toluene, TCA
Wiring Devices		Ammonia, Hydrazine, Toluene, TCA, TCE
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)
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		
Water Supply		Hydrogen sulfide
Sanitary Services		Arsenic, Chromium, Hydrogen chloride, Hydrogen sulfide, Mercury, Perc, TCA, TCE
Refuse Systems		Benzene, Chloroform, EDC, Methylene chloride, Perc, TCA, TCE, Vinyl chloride
Sewerage Systems		Ammonia, Arsenic, Beryllium, Cadmium, Chlorine, Chromium, Copper, Hydrogen chloride, Lead, Manganese, Mercury, Nickel, POM, PAHs*, PCBs, Toluene, Vinyl chloride, Zinc
Steam Supply		Ammonia, Arsenic, Cadmium, Chromium, Copper, Hydrogen chloride, Lead, Mercury, Nickel, Zinc
Electroplating - see Metal Plating, Appendix C-II		Benzene, Formaldehyde, Toluene
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
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)
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
Confectionery 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		
Miscellaneous		Methylene chloride, Perc, TCE
Drapery Hardware and Blinds & Shades		Methylene chloride, Phthalic anhydride, Toluene, TCE
Household Furniture		Benzene, TCA
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)
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 Furniture Repair/Reupholstering		Ammonia, Methylene chloride, Toluene, TCA 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
Medical Labs		ETO
Combustion Processes - see Combustion, Appendix C-I Medical Instrument Mfg - see Instrument Mfg, Appendix C-II Research - see Research & 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)
Instruments & Related Prod's		
Engineering & Science Instr		Freon 113, Toluene, TCA
Meas & Controlling Devices		Ammonia, Arsenic, Asbestos, Beryllium, Cadmium, Chromium, Copper, Formaldehyde, Hydrogen chloride, Lead, Methylene chloride, Perc, Phenol, Toluene, TCA, TCE, Zinc
Environmental Controls		Ammonia, ETO, Mercury, Toluene
Process Control Inst		Beryllium, Chlorine, Hydrogen chloride, Mercury, TCE
Electricity Measuring Instruments		Beryllium, Cadmium, Hydrogen chloride, Toluene, Zinc, Zinc oxide
Medical Instr & Supplies		Beryllium, Toluene, TCA
Dental Equip & Supp		Ammonia, Hydrogen chloride, Toluene, TCE
Ophthalmic Goods		Ammonia, Cadmium, Chlorine, ETO, Formaldehyde, Phenol, Toluene, TCA, Zinc, Zinc oxide
Photographic Equip & Supplies		Ammonia, TCA, TCE
Surgical & Med Instr		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
Srg Appliances & Sup		ETO, Formaldehyde, Perc, Toluene, TCA, TCE, Zinc
Optical Instr & Lenses		Ammonia, Chromium, ETO, Formaldehyde, Hydrogen chloride, Lead, Nickel, Toluene, TCA, Vinylidene chloride
Watches/Clocks/Watchcases		Acetaldehyde, Formaldehyde, Methylene chloride, Toluene, TCA, TCE
Plating - see Metal Plating, Appendix C-II		Hydrogen chloride, Toluene, TCE
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
Jewelers Materials & Lapidary Work		Ammonia, Hydrogen chloride, Lead

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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
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
Footwear, not rubber		Toluene
Personal Leather Goods		Toluene, TCE
Tanning Processes	Tanning agents	Chromium, Cresols, Formaldehyde, Phenol
	Dyes, pigments, & coloring agents	Cresols, Formaldehyde, Phenol
	Miscellaneous	Cadmium, Chromium, Copper, Direct Black 38, Lead, Nickel, Zinc compounds
		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		
Construction & Related Machinery		Ammonia, Formaldehyde, Freon 113, Methylene chloride, Nickel, Phenol, Toluene, TCA, TCE
Construction Machinery		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)
Machinery, Construction Related continued		
Oil Field Machinery		
Engines & Turbines		
Internal Combustion 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		
Bell & Roller Bearings		Ammonia, Formaldehyde, Hydrogen chloride, Maleic anhydride, Perc, Phenol, Styrene, Toluene, Toluene diisocyanate, TCA, Xylenes
Blowers & Fans		Ammonia, Chromium, Copper, Cresol, Epichlorohydrin, Formaldehyde, Hydrogen chloride, Lead, Nickel, Phenol, Toluene, TCA, TCE, Zinc oxide
Comprsrs, Air & Gas		Copper, Naphthalene, Toluene, TCA
Industrial Furnaces & Ovens		Copper, Gasoline vapors, Lead, Toluene, TCA, TCE
Industrial Patterns		Toluene
Power Transmission Equipment		Arsenic, Copper, Hydrogen chloride, Lead, Toluene, TCE, Zinc
Pumps & Pumping Equipment		Formaldehyde, Phenol
Speed Changers, Drives & Gears		Ammonia, Copper, Hydrogen chloride
Metalworking Machinery		
Machine Tool Accessories		Ammonia, Formaldehyde, Hydrogen chloride, Lead, Perc, Phenol, Toluene, TCA, Xylenes
Machine Tools, Metal Cutting Types		Perc, Toluene, TCA
Machine Tools, Metal Forming Types		Arsenic, Perc
Rolling Mill Machinery		Ammonia, Beryllium, Chromium, Hydrogen chloride, Toluene, TCA, TCE
Special Dyes; Tools, Jigs, & Fixtures		Ammonia, Lead, Toluene, TCE
Office & Computing Machines		Ammonia, Benzene, Lead, Perc, Toluene, TCA, TCE
Miscellaneous		Cadmium, Chromium, Zinc, Zinc oxide
Calculating & Accounting Machines		1,4-Dichlorobenzene, Formaldehyde, Hydrogen chloride, Methylene chloride, Naphthalene, Toluene, TCE, TCA, Zinc
		CFC-113, Hydrogen chloride, Toluene, TCA
		Arsenic, Hydrogen chloride, TCA

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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
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)
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
	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, Thiourea
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
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 & Stampings		
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)
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 Ammunition		Ammonia, Arsenic, Formaldehyde, Freon 113, Hydrogen chloride, Lead, Phenol, Toluene, Zinc oxide
Ammun, exc small 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		
Structural Metal Product Fabrication		Copper, Toluene, Xylenes, Zinc oxide
Structural Metal Fabrication		Ammonia, Cadmium, Formaldehyde, Perc, Toluene, TCA, Xylenes, Zinc
Metal Doors, Sash, & Trim		Copper, Gasoline vapors, Hydrogen chloride, Lead, Perc, Styrene, Toluene, TCA, TCE Ammonia, Perc, Toluene, Toluene diisocyanate, TCA, TCE
Fabricated Plate Work, boiler shops		
Sheet Metal Work		Ammonia, Copper, Perc, Toluene, TCA, TCE
Architectural Metal Work		

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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 Fabrication		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)		
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 Furnace Tapping Coke Quenching Furnace Charging Metal Forming	Gaseous, aerosol, particulate releases including but not limited to: From the calciner, furnace, mat'l crusher/mill, storage & handling, service road, prebake/reduction/ soderberg stud cell Anode bake furnace	Benzene, Chloroform, Cresols, [Fluorides], Methylene chloride, POM, PAHs*, TCE
Secondary Aluminum Furnace Tapping Furnace Charging Metal Casting Metal Forming	Gaseous, aerosol, particulate releases including but not limited to: From the furnace, and the service road	Benzene, Cresols, POM, PAHs* Nickel Chloroform, Methylene chloride, TCE
Beryllium Alloys Molding	Gaseous, aerosol, particulate releases including but not limited to:	Beryllium
Primary Cadmium Pro Material Prep Metal Casting Mining Operations	Gaseous, aerosol particulate releases including but not limited to: From the furnace, condenser, material storage and handling	Cadmium
Cadmium-Nickel Battery Material Prep	Gaseous, aerosol, particulate releases including but not limited to: From the sintering machine, and material storage and handling	Cadmium, Lead, Nickel
Chromite Ore Refining	Gaseous, aerosol, particulate releases including but not limited to: From dryer, mill, cyclone, storage	Chromium
Metallurgical Coke Coke Oven Charging/ Pushing Material Prep Coke Quenching Coke Production	Gaseous, aerosol particulate releases including but not limited to: From the coke oven, vessels, matr'l storage and handling, and outdoor storage pile	Acetaldehyde, Benzene, Cresols, Formaldehyde, Phenol, Toluene, Xylenes Ammonia, Arsenic, Beryllium, Cadmium, Hydrogen sulfide, Lead, Manganese, Mercury, Nickel, POM, PAHs* POM, PAHs*, Toluene

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

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
Metal Smelters & Foundries continued		
Steel Foundries	Gaseous, aerosol, partic releases including but not limited to: From furnace, foundry mold & core decomposition, and service road From argon oxygen decarburization vessels, coke ovens	Arsenic, Beryllium, Cadmium, Chromium, Manganese, Nickel, Zinc
Converter Charging		
Furnace Tapping		
Furnace Charging		
Metal Casting		
Basic Oxygen Proc		
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 including but not limited to: From the furnace, sintering machine, material storage and handling, outdoor storage pile, and service road	Arsenic, Cadmium, Copper, Lead, POM, PAHs*, Mercury, Selenium
Furnace Tapping		
Furnace Charging		
Material Prep		
Metal Casting		
Slag Dumping		
Mining Operations		
Secondary Lead Smelt	Gaseous, aerosol, partic releases including but not limited to: From the furnace, service road, and outdoor storage pile	Arsenic, Lead, Manganese, POM, PAHs*, Selenium
Furnace Tapping		
Furnace Charging		
Metal Casting		
Lead Acid Battery Pro	Gaseous, aerosol, partic releases including but not limited to:	Arsenic, Cadmium, Lead, Manganese Mercury
Material Prep		
Metal Casting		
Screening		
Storage & Handling		
Miscellaneous Lead Pro	Gaseous, aerosol, partic releases including but not limited to:	Arsenic, Cadmium, Lead
Converter Charging		
Material Preparation		
Metal Casting		
Manganese Production	Gaseous, aerosol, partic releases including but not limited to: From the furnace, mat'l storage & handling, storage pile, slips, casthouse, sinter discharge, windbox & discharge	Manganese, POM, PAHs*
Furnace Charging		
Furnace Tapping		
Material Crusher/ Mill		
Metal Casting		
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)
Metal Smelters & Foundries continued		
Dry Battery Production Material Prep Screening Storage & Handling	Particulate substance releases including but not limited to: From the material crusher/mill and material storage	Manganese, Mercury
Also see Electrical & Electronic Equipment, Appendix C-II		
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, roaster, retort, material storage and handling, outdoor storage pile, and service road	Arsenic, Cadmium, Copper, Mercury, POM, PAHs*, Selenium, Zinc
Secondary Zinc Process Furnace Tapping Furnace Charging Metal Casting	Gaseous, aerosol, partic releases including but not limited to: From the furnace, condenser, retort 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)
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)		
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 including but not limited to: From: polymer and solvent storage dope preparation (blending), filtration, spin cell, lubrication, drawing, finish application, and drying	Polymer constituents - Acrylonitrile, Propylene, Vinyl chloride
Wet Spin		Solvents/precipitants - Sodium hydroxide, Toluene, Zinc chloride
Dry Spin		Flame retardants - Vinyl bromide
Filter-tow Dry Spin		Promoters/activators - Hydrazine
Filament Yarn Dry Spin		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 Transportation Equipment, Appendix C-II		
Musical Instrument 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)
National Defense		
Also see Military Bases, Appendix C-II		
National Security		Carbon tetrachloride, CFC 113, Chromium, Dioxin, Hydrazine, Mercury, Methylene chloride, Perc, Phenol, PCBs, TCA, Xylenes
Natural Gas Combustion - see Combustion, Appendix C-I.		
Needle, Pin, & Fastener Mfg		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
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		Formaldehyde, Hydrogen chloride, Lead, Toluene, TCE, Zinc
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		
Drilling Wells		Benzene, Phenols, POM, PAHs*, Sulfur compounds, Toluene, Xylenes
Exploration		Hydrogen sulfide
Extraction		Benzene, Carbon tetrachloride, Chlorobenzene, 1,4-Dichlorobenzene, EDC, Hydrogen sulfide, Toluene, TCA, Xylenes
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	EDC
Fugitive Losses	From field separator	

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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
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 Paving Mixtures & 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)
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
Printing & Publishing		
Miscellaneous		
Blankbooks & Bookbinding		Toluene
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)
Printing & Publishing continued		
Newspapers		
Printing (Commercial)		
Engraving & Plate		TCE
Gravure		Toluene, TCA
		Benzene
Letterpress		Ammonia, Benzene, Cadmium, Formaldehyde, Gasoline vapors, Methylene chloride, Nickel, Perc, Toluene, TCA, TCE, Xylenes
Lithographic		Ammonia, Benzene, Chromium, Methylene chloride, Naphthalene, Perc, Toluene, TCE
Printing Trade Svcs		Ammonia, Benzene, Toluene, TCE
Typesetting		
Electrotyping & Stereotyping		Ammonia
Publishing (Misc)		
Combustion Processes - see Combustion, Appendix C-I		Lead
Ink Mfg - see Chemical Mfg, Appendix C-II		Toluene
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
	Gaseous products including but not limited to: From raw sewage offgases	
Combustion	From exhaust gases of digester gas burning engines modified to lower NOx emissions	Carbon tetrachloride, Chlorobenzene, p-Dichlorobenzene, EDC Acrolein, 1,3-Butadiene
Sludge Composting	From sawdust used as bulking agent (sawdust from lumber obtained at structural demolition projects)	Ammonia, Dimethylamine 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)
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
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
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)
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, Integrated Circuits, Appendix C-II		
Sewage Plants - see Combustion (Incineration), Appendix C-I		
Shingle & Siding Mfg Also see Plastics, Appendix C-II		Asbestos
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		
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
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)
Textile Mill Product'n Mfg. Miscellaneous		Asbestos, Benzene, Benzidine, Bis(chloromethyl) ether, 1,4-Dichlorobenzene, Dichloroethane, Dioxane, Ethyleneimine, Formaldehyde, Hydrazinc, Methyl Bromide, Perc, Phenol, TCE
Apparel/Other Textile 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 Trimmings	Ammonia, Arsenic, Benzene, Toluene, Vinyl chloride
Floor Covering Mills		Arsenic
Miscellaneous		Arsenic
Woven Carpets & Rugs		Benzene, Formaldehyde
Tufted Carpets & Rugs		Benzene, Benzidine
Knitting Mills		Acrylonitrile, Benzene
Hosiery		Ammonia, Arsenic, Benzene, Perc
Knit Outerwear Mills		Benzene, 1,4-Dioxane, Mineral fibers
Narrow Fabric Mills		Bis(chloromethyl) ether
Nonwoven Industry		Acrylonitrile, Benzene, Benzidene, 1,3-Butadiene, Formaldehyde, Hydrazine, Perc, Toluene, Vinyl chloride, Vinylidene chloride, Xylenes
Textile Finishing		Acrylonitrile, Benzene, Chromium, 1,4-Dichlorobenzene, Toluene
Miscellaneous		Benzene, Copper, 1,4-Dioxane, Formaldehyde, Hydrazine, Perc, Xylenes
Finish Plants		Acrylonitrile, Benzene, 1,4-Dioxane, EDC, Toluene
Cotton		Acrylonitrile, Benzene, Chloroform, 1,4-Dioxane, EDC, Formaldehyde, Mineral fibers, Perc, Styrene, Toluene diisocyanate
Synthetic		Benzene, 1,4-Dioxane, Formaldéhyde, Perc
Weaving Mills		1,4-Dichlorobenzene
Cotton		Toluene diisocyanate
Synthetics		Ammonia, Lead, Toluene diisocyanate
Wool		Arsenic
Woven Fabric Finishing		Arsenic, Benzene, Cresol, Formaldehyde, Hydrogen chloride, Lead, Perc, Styrene, Toluene, Xylenes
Yarn & Thread Mills		TCA
Yarn Mills, not wool		
Throwing & Winding		
Wool Yarn Mills		
Misc Textile Goods		
Coated Fabrics, not rubberized		
Cordage & Twine		

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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		
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		
Auto Repair/Auto Body Repair		
Gen'l Auto Repair		Hydrogen chloride, Methylene chloride, Perc, Toluene, TCE
Tire Retreading & Rpr		Ammonia, Asbestos, Formaldehyde, Toluene, TCA
Paint Shops		Toluene
Top & Body Rpr Shops		Benzene, Naphthalene, Toluene, Xylenes
Motor Vehicles & Car Bodies		Zinc Oxide Naphthalene, Toluene 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)
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		Hydrazine, TCE
Spc Propulsion Units & Parts		Ammonia, Hydrazine, Hydrogen chloride, Lead, Methylene chloride, Toluene
Spc Veh Equipment		Toluene
Motorcycles, Bicycles & Parts		Ammonia, Chromium, Hydrogen chloride, Methylene chloride, Nickel, Toluene, Toluene diisocyanate, TCA
Railroad Equipment		Asbestos, Hydrazine, Methylene chloride, Phenol, PCBs, Styrene, TCE
Ship & Boat Bld & Rpr		
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)
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 from: wood preserving agents	Arsenic, Benzene, Chloroform, Chromium, Copper, Cresols, Dibenzofuran, Dioxins, Hydrogen chloride, Phenol, Naphthalene, Toluene, Zinc, Zinc Oxide
Cellon Process		
Chromated Copper Arsenate Process		
Dricon Process		
Diluent/Creosote Process		
Oil/Penta Process		
	vapor drying agents	various solvents
	preserving carriers	various solvents
	fire retardants	Formaldehyde, Zinc chloride
Combustion Processes - see Combustion, Appendix C-I		
Wood Chemicals Mfg - see Chemical Mfg, Appendix C-II		
Wood Products Mfg.	Miscellaneous	
Fiberboard Mfg.		Cresols, Formaldehyde, Dioxins, TCE
Lumber		Chloroform
Millwork, Plywood, & Structural Members		Cresols, Formaldehyde, Dioxins, TCE, Toluene
Millwork		Asbestos, Carbon tetrachloride, Chlorophenols, Formaldehyde, Methylene chloride, Toluene, Xylenes
Wood Kitchen Cabinets		Methylene chloride, Naphthalene, Styrene, Toluene, TCA, Xylenes
Hardwood Veneer/Plywood		Formaldehyde, Perc

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

Industry/ Emitting Process	Type(s) of Emissions/ Emitting Process Points	Some Specific Substances (Including, but not limited to)
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		Chromium, Methylene chloride, TCA
Wood Finishing		
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	

ATTACHMENT III

Announcements of Public Consultation Meetings

TATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
PETE WILSON, Governor
AIR RESOURCES BOARD
1020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95814-2815

November 20, 1995

Public Workshops: Two-Phased Proposal to Reduce State Costs and Further Streamline the Air Toxics Hot Spots Program

Dear Sir or Madam:

The Air Resources Board (ARB) staff will be holding workshops to discuss a proposal to further streamline the Air Toxics Hot Spots Program (Program). The staff will be discussing a two-phased approach to revise the Program. The first part of each workshop will be to discuss the Phase I proposal which addresses the State's fiscal year 1995-96 Air Toxics Hot Spots Fee Regulation (Fee Regulation). Phase I of the proposal is to provide further exemptions from fees for many lower risk facilities and will be considered by the ARB at its January 25, 1996 hearing.

The second half of each workshop will be to discuss Phase II of the proposal, effective in fiscal year 1996-97. In Phase II, ARB staff will review further streamlining of the emission inventory requirements and further fee exemptions in the Fee Regulation. Any additional exemptions made to the inventory requirements would be reflected in the fiscal year 1996-97 Fee Regulation. Phase II of the proposal will be taken to the ARB at a hearing in early summer 1996.

The Program was established to protect the public's health and to ensure that the public is informed of potential health risks associated with near source exposures to air toxic emissions. Under the Program, facilities are required to inventory air toxic emissions, assess the potential health risks from exposure to the emissions, and if necessary, notify the public and reduce significant risks.

The public workshops will be held at the following times and locations:

December 11, 1995
1:30 p.m.
Auditorium
Ronald Reagan Building
300 South Spring Street
Suite 1726
Los Angeles, California

December 12, 1995
1:30 p.m.
Auditorium
Consumer Affairs Building*
400 R Street
Sacramento, California
* City parking is available across the street.

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- A reduction of the State's cost for fiscal year 1995-96 to $2,804,000. This is a reduction of over $1,400,000 or 34 percent compared to fiscal year 1994-95.

- Low fees for facilities in Survey and Industrywide categories.

  -- Fees range from $15 to $125 depending on the air district (see Enclosure 1, Table 4). The State's share of fees are $15 for State industrywide. There is no State cost for Survey facilities.
  -- Provision for waiver of fees for Survey and Industrywide facilities (see Enclosure 1, Section 90704(f)).

- $300 cap on fees for small businesses (see Enclosure 1, Section 90704(g)(2)).

- Flat fees for various program categories (see Enclosure 1, Table 3).

  -- Program categories defined (see Enclosure 1, Section 90701).

3. What are the proposed changes to the Fee Regulation?

Enclosure 2 provides a summary of the proposed changes to the Fee Regulation for fiscal year 1995-96. Enclosure 1 contains the Fee Regulation with the proposed changes underlined, and the text to be removed shown struck out. The fees contained in the Fee Regulation are draft fees based on preliminary reports from the air districts. The fees may either increase or decrease as updated information is received from the air districts.

4. How can we comment on the proposed changes?

You may provide written or oral comments or both. You may present oral comments at the public workshops listed in this announcement. If you wish to submit written comments on the Phase 1 proposal, please address them to Ms. Genevieve A. Shiroma, Chief, Air Quality Measures Branch, Stationary Source Division, P.O. Box 2815, Sacramento, CA 95812. These workshops concern the revised proposal for the Fee Regulation for fiscal year 1995-96. Written comments relating to the revised proposal received after December 8, 1995, and written comments presented at these workshops will be considered by the ARB in connection with the revised proposal and will be included in the rulemaking record.

After considering comments received at the workshops, the proposed changes to the fiscal year 1995-96 Fee Regulation may be revised further before it is considered by the ARB at its January 25, 1996 hearing.

- Determine if additional categories for de minimis levels exist,

- Determine appropriateness of calculation methodology.

Additional public workshops on proposed amendments to the Guidelines Regulation and the 1996-97 Fee Regulation are expected be held in January and February, 1996. We expect the public hearing on these amendments to be held in June or July, 1996.

Who to contact if you have questions on either Phase I or Phase II:

If you have questions regarding the Phase 1 proposal for the fiscal year 1995-96 Fee Regulation, please call Ms. Carla Takemoto, Implementation Section, at (916) 327-0647. If you have questions about Phase II, please call Mr. Richard Bode, Manager, Emission Inventory Methods Section, at (916) 322-3807.

Sincerely,

Genevieve A. Shiroma, Chief
Air Quality Measures Branch

Enclosures

cc: Air Pollution Control Officers (w/Enclosures)

Ms. Carla Takemoto
Implementation Section
Stationary Source Division

Mr. Richard Bode
Manager, Emission Inventory Methods Section
Technical Support Division

STATE OF CALIFORNIA—CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95814-2815

February 14, 1996

Public Workshops: Phase II Proposal to Further Reduce State Costs and Streamline the Air Toxics Hot Spots Program

Dear Sir/Madam:

The Air Resources Board (ARB) staff will be holding workshops to discuss a proposal to further streamline the Air Toxics Hot Spots Program (Program). This is Phase II of the two-phased approach to revise the Program. Phase I ended with Board approval on January 25, 1996, of the fiscal year 1995-96 Air Toxics Hot Spots Fee Regulation to provide exemptions from fees for certain companies in the Program. The Phase II proposal will address amendments to both the Emission Inventory Criteria and Guidelines Regulation and the 1996-97 Fee Regulation.

The first part of each workshop will be to discuss the amendments to the Emission Inventory Criteria and Guidelines Regulation. The staff is working on further streamlining efforts to reduce burdens and costs to facilities subject to the Program. The second part of each workshop will be to discuss the development of the 1996-97 Fee Regulation. A second series of public workshops will be held in late March 1996. The Phase II proposal will be considered by the ARB at its June 13, 1996 hearing.

The Program was established to protect the public's health and to ensure that the public is informed of potential health risks associated with near source exposures to air toxic emissions. Under the Program, facilities are required to inventory air toxic emissions, assess the potential health risks from exposure to the emissions, and if necessary, notify the public and reduce significant risks.

The public workshops will be held at the following times and locations:

February 27, 1996
1:30 p.m.
Board Hearing Room, LL
Air Resources Board
2020 "L" Street
Sacramento, California

February 28, 1996
1:00 p.m.
Room CC6
South Coast AQMD
21865 E. Copley Dr.
Diamond Bar, California

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If you have questions, please call Richard Bode, Manager of the Emission Inventory Methods Section, at (916) 322-3807.

Sincerely,

Linda Murchison

Linda Murchison, Chief
Stationary Source Emission Inventory Branch
Technical Support Division

cc: Air Pollution Control Officers

Mr. Richard Bode, Manager
Emission Inventory Methods Section
Technical Support Division

STATE OF CALIFORNIA—CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95814-2815

March 22, 1996

Public Workshops: Phase II Proposal to Further Reduce State Costs and Streamline the Air Toxics Hot Spots Program

Dear Sir/Madam:

The Air Resources Board (ARB) staff will be holding workshops to discuss a proposal to further streamline the Air Toxics Hot Spots Program (Program) established under the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (Health and Safety Code Sections 44300-44394). This is Phase II of the two-phased approach to revise the Program. The Phase II proposal will address amendments to both the Emission Inventory Criteria and Guidelines Regulation and the 1996-97 Fee Regulation in the Title 17 of the California Code of Regulations. Concepts for amending these two regulations were discussed previously at public workshops held in December 1995, and in February 1996.

The first part of each workshop noticed below will be to discuss the amendments to the Emission Inventory Criteria and Guidelines Regulation and the draft regulatory language. The staff is working on further streamlining efforts to reduce burdens and costs to facilities subject to the Program. The second part of each workshop will be to discuss the development of the 1996-97 Fee Regulation.

The Program was established to protect the public's health and to ensure that the public is informed of potential health risks associated with near source exposures to air toxic emissions. Under the Program, facilities are required to inventory air toxic emissions, assess the potential health risks from exposure to the emissions, and if necessary, notify the public and reduce significant risks.

After considering comments received at the workshops, the staff may revise its recommendations and draft regulatory language as appropriate before proposing amendments to the Board at a noticed public hearing.

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The public workshops will be held at the following times and locations:

April 2, 1996
1:30 p.m.
Board Hearing Room, LL
Air Resources Board
2020 L Street
Sacramento, California

April 3, 1996
1:00 p.m.
Sarah E. McCardle Meeting Rm
Fresno County Free Library
2420 Mariposa Street
Fresno, California

April 4, 1996
1:00 p.m.
Auditorium
Junipero Serra State Building
107 South Broadway
Los Angeles, California

If you have questions, please call Richard Bode, Manager of the Emission Inventory Methods Section, at (916) 322-3807.

Sincerely,

Linda Murchison

Linda Murchison, Chief
Stationary Source Emission Inventory Branch
Technical Support Division

cc: Air Pollution Control Officers

Mr. Richard Bode, Manager
Emission Inventory Methods Section
Technical Support Division

ATTACHMENT IV

Fiscal Impact Analysis

STATE OF CALIFORNIA—CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95814-2815

MEMORANDUM

TO: Frank Moore
Budget Analyst
Department of Finance

FROM: Judith G. Tracy
Staff Counsel

DATE: March 13, 1996

SUBJECT: AIR TOXICS "HOT SPOTS" CRITERIA AND GUIDELINES: STATE COSTS

On June 13, 1996, the Air Resources Board (ARB) will conduct a public hearing to consider the adoption of amendments to its Emission Inventory Criteria and Guidelines Regulation pursuant to the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (Act)(Statutes 1987, chapter 1252; Health and Safety Code Section 44300 et seq.). This Act establishes a program to develop a statewide inventory of site-specific air toxic emissions of over 700 substances in order to assess the risk to public health from exposure to these emissions and to notify the public of any significant health risk discovered.

The existing regulation, which sets forth minimum requirements for preparing the emission inventory plans and reports, applies to any facility which manufactures, formulates, uses, or releases any of the substances or precursors to such substances referenced in the Act and adopted by ARB, and which releases ten tons per year or more of any one of the following four criteria pollutants: total organic gases, sulfur oxides, nitrogen oxides, and particulate matter (17 CCR, Sections 93300-93355 and Appendices A-E). The regulation also applies to specific classes of facilities which release less than ten tons per year of the four criteria pollutants and are listed in Appendix E of the regulation. Facilities are also subject to the regulation if they are listed in any current toxics survey, inventory, or report compiled by a district and set forth in Appendix B to 17 CCR, Sections 90700-90705. Separate from the proposed amendments to the Emission Inventory Criteria and Guidelines Regulation, ARB will also be proposing amendments to the Air Toxics "Hot Spots" Fee Regulation (17 CCR Sections 90700-90705 and Appendices A and B).

The proposed amended Emission Inventory Criteria and Guidelines regulation substantially reduces the numbers of facilities required to report and also provides options other

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than the current update requirements for affected facilities. These changes are expected to substantially reduce costs and burdens to facilities while still maintaining the effectiveness of the program.

Government Code Section 11346.5(a)(6) requires ARB to include in its notice of proposed adoption of the amended regulation, an estimate of the cost or savings to any State agency, the cost to any local agency or school district that is required to be reimbursed pursuant to Government Code Section 17500 et seq., other nondiscretionary costs or savings to local agencies, and the cost or savings in federal funding to the State. The State Administrative Manual in turn requires ARB to attach Standard Form 399, the Fiscal Impact Statement to the face sheet for filing administrative regulations (SAM Section 6055), and to obtain the concurrence of the Department of Finance when specified fiscal effects are anticipated (SAM Section 6056). Requests for concurrence are to be forwarded to your agency at least 30 days prior to the date when the rulemaking notice will be issued (SAM Section 6056).

Because ARB has identified savings to State and local agencies which will occur as a result of the proposed regulation, we are forwarding our savings estimates to you for concurrence. The total estimated savings to affected State and local agencies resulting from the proposed regulation is $54,400.

The proposed amended regulations will be set forth in Title 17 of the California Code of Regulations, Section 93300 et seq.

Should you wish to discuss any technical issues regarding the attached document which sets forth our cost savings, please contact Mr. Richard Bode at 322-3807. If you have any other questions, please feel free to call me at 322-2884.

Attachments

ATTACHMENT

COST SAVINGS FOR LOCAL AND STATE FACILITIES

A. INTRODUCTION

This analysis estimates the Cost savings to local and State government facilities resulting from the proposed amendments to the Emission Inventory Criteria and Guidelines Regulation (the Guidelines Regulation), 17 California Code of Regulations sections 93300-93355. The proposed amendments to the Guidelines Regulation reduce the update reporting requirements for facilities subject to the Air Toxics Hot Spots program and exempt others from reporting requirements entirely. For both public and private facilities subject to the program, these reduced reporting requirements will result in a cost savings.

The proposed amendments to the inventory regulation categorize facilities into "high", "intermediate", and "low" levels. These levels are based on facilities' actual risk assessment results, or, if risk values have not been determined, on prioritization scores calculated by the local air districts. The proposed amendments will no longer require reporting by low level facilities, those with low or insignificant risk. Consequently, those facilities would not be expected to incur any costs to comply with emission inventory update requirements. The staff anticipates that 45-55 percent of the total number of facilities currently in the program will be designated as "exempt" from reporting requirements.

The proposed amendments would require districts to track the facility activity of intermediate level facilities. Districts can track facilities through continued reporting of activity changes using the two-page Update Summary Form. Districts will also be given the flexibility to collect equivalent data through alternative district reporting programs, such as the criteria pollutant emission inventory process. This would avoid duplicate data collection and would reduce costs to facilities complying with the update reporting requirements.

The proposed amendments will not change the four year update reporting requirements for high level facilities, those facilities whose emissions produce significant levels of risk to public health. Significant risk facilities represent approximately five percent of all facilities currently in the program. High level facilities will continue to submit air toxics emission inventory updates via the Hot Spots reporting forms. However, the proposed amendments will give districts greater flexibility in collecting emissions data from these high risk facilities.

If a significant risk facility has been required by district staff to conduct a Risk Reduction Audit and Plan, the district staff may use the Risk Reduction Audit and Plan reporting requirements in lieu of the Hot Spots reporting forms.

To insure that public health is protected, districts can reinstate reporting requirements for a previously exempted low or intermediate level facility if a district determines that a "significant change" in facility activity or emissions has occurred.

For facilities that do not yet have prioritization scores assigned by the district, the proposed amendments initially categorize them at the intermediate risk level. Unprioritized facilities will complete the Update Summary Form or alternatively districts may integrate this reporting with other district reporting programs. As these facilities are prioritized, they will be placed in the program at their designated level of risk.

B. COST SAVINGS FOR LOCAL GOVERNMENT

1. COMPLIANCE COSTS

Compliance costs are the costs to local government facilities to satisfy their four year update reporting requirements.

a. STATEMENT OF THE MANDATE

The current regulation requires local government facilities that are subject to the Air Toxics Hot Spots program to update their emission inventory or activity every four years. Update requirements are based on a facility's prioritization score. High priority - significant risk facilities must now report all changes from their previous emission inventory through the preparation and submittal of full update plans and reports. The report consists of a facility information form and three additional forms to be completed for each emission device showing changes. While a small number of facilities have the necessary staff to prepare update plans and reports in-house, most facilities rely upon consultants to do the work. Therefore, the primary costs of update reporting are fees paid to consultants to prepare update plans and reports. Source testing to determine emissions can also add cost to the reporting process. However, facilities can use valid data from previous source tests and do not need to do retesting to complete their update reporting. Additional source testing should only be

necessary if a facility substantially changes its operation, such as installing new types of equipment, and only if previously conducted source test data are not available.

The current regulation also requires high priority, non-significant risk facilities to complete the two-page Update Summary Form except, if a significant change has occurred, high priority facilities are required to complete a full air toxics emission inventory. Intermediate and low priority facilities complete only the Update Summary Form.

The program has now matured to the point that local air districts administrating it have generally been able to determine the potential health risks posed by the larger facilities. Thus, reporting requirements of the program can now focus on facilities that have a high level of risk associated with their operations, activities, and emissions. The proposed amendments would allow this.

The proposed amendments will exempt local government facilities with a low level of risk from further emissions reporting and they will therefore not incur any compliance costs. This will result in substantial cost savings to these facilities. Intermediate level facilities will be tracked by the local districts through the two-page Update Summary Form or through other existing reporting programs. This change has the potential to result in further cost savings for these facilities. If districts use alternative tracking methods, such as the annual criteria pollutant emission inventory process, this would provide an integrated data collection process and further lower costs to facilities by eliminating duplicate reporting.

High level significant risk facilities will retain the current reporting requirements. Those with very high risks requiring Risk Reduction Audit and Plans can integrate reporting into their risk reduction reporting requirements to avoid duplicate data collection, which will consequently lower their costs.

b. ASSUMPTIONS

Affected local government facilities are air, water, and solid waste facilities; elementary and secondary schools; general government agencies; general medical/surgical hospitals; and Publicly

Owned Treatment Works (POTWs). Many of these facilities will be exempt from reporting requirements because they are low risk and fall into the low level group. They will therefore not incur any compliance costs. Most, if not all, of these facilities were previously required to complete the Update Summary Form to satisfy their update requirements. The staff estimates the average cost to prepare and submit an Update Summary Form is approximately $200, because it can usually be completed in-house without the assistance of consultants. Therefore, low level facilities will save $200 every four years because they will be exempted from reporting requirements. In addition, because the program is maturing and most facilities have already been required to submit at least one Update Summary Form, the staff estimates the average cost for facilities to prepare and submit a second Update Summary Form will be reduced because of the facility's greater understanding and experience with the form. Discussions with staff at several State government facilities confirm that the workload needed to complete the update reporting is expected to decrease by 10 to 30 percent due to greater understanding and experience with the process. The staff estimates that approximately 30 percent of the local government facilities will be exempted from the program because they will be designated low level facilities.

Most other facilities will fall into the intermediate level group, and their emissions and activities will now be tracked by the local districts. Initially, the staff expects most districts to track facilities through the Update Summary Form. Most, if not all of these facilities are currently required to submit the Update Summary Form, and therefore the proposed amendments will not result in any additional savings or costs. However, even greater savings would result from those districts that integrate update reporting requirements with other district reporting requirements, especially criteria pollutant emission reporting. The staff estimates that initially approximately 50 percent of districts will integrate their reporting programs. This integrated data collection process would result in a $200 cost savings per affected facility. Ultimately, the staff estimates that almost all districts will move to an integrated data collection process, especially as computer software now being developed by ARB becomes available.

High risk facilities will still be required to update their emission inventories every four years, so their costs are not expected to be reduced. The highest risk facilities are required by the Act to complete Risk Reduction Audits and Plans. The proposed amendments will allow facilities the flexibility to use their Risk Reduction emissions reporting to fulfill their four-year update reporting requirement, thereby eliminating the need for further, and potentially duplicative, reporting. However, since only a small number of facilities are expected to have risks high enough to require a Risk Reduction Audit and Plan, this will only benefit a small number of facilities.

Currently, unprioritized local government facilities are required only to complete two-thirds of the Update Summary Form. The proposed amendments would treat unprioritized facilities in the same manner as intermediate facilities, requiring them to complete the entire Update Summary Form. While this may result in some small increased cost to these facilities, the staff estimates that the number of facilities left unprioritized within the next 12 months will be very small, and soon it will be zero.

c. ESTIMATES OF COST SAVINGS

The following cost savings estimates are based on the foregoing assumptions. The costs are based on the most current data for the number of facilities in each local government category and the number of significant risk facilities, as discussed below.

(1) Air, Water and Solid Waste Facilities

There are 191 air, water and solid waste facilities in the program. Of these, approximately 60 facilities would be considered low risk and therefore exempt from reporting requirements. Savings for this group is estimated to be $12,000.

Sixty facilities would have an intermediate level of risk and would fall into the tracking category. Initial savings for this group are estimated to be $6,000, assuming that 50 percent of the facilities can integrate their update reporting into other district programs within the next 18 months. It is expected that ultimately (perhaps within the next three years) another 40

percent of the facilities will integrate their reporting with other district programs, resulting in a total savings of $4,800 for this group.

Approximately 70 facilities have a high level of risk and would be required to prepare an update plan and report. There would be no cost savings for this group. Currently, none of these facilities is expected to complete a Risk Reduction Audit and Plan, so further savings are not expected.

Total estimated savings to the air, water, and solid waste facilities is $18,000 within the next 18 months and $22,800 within three years.

(2) Elementary and Secondary Schools

There are ten elementary and secondary schools in the program, and all of these would be exempt from reporting requirements. None of the schools are in the intermediate or high risk level groups.

The total estimated savings to elementary and secondary schools is $2,000.

(3) General Government

There are 55 general government facilities in the program. These general government facilities include facilities associated with public transit districts, municipal airports, and general municipal maintenance agencies. Of these, 22 facilities would be in the low level group and exempt from reporting requirements. Savings for this group are estimated to be $4,400.

Eleven facilities would be in the intermediate group and could submit Update Summary Forms to satisfy their update reporting requirements. Using the same assumptions that 50 percent of these facilities will integrate their update reporting within the next 18 months, savings for this group would initially amount to $1,000. Ultimately, assuming another 40 percent of the facilities will integrate their reporting with other district programs within the next three years, an additional

savings of $1,000 would result. The total savings for this group would be $2,000.

Twelve facilities have a high level of risk and would be required to prepare update plans and reports. There would be no cost savings for this group. Because districts must calculate the risks of these facilities, we cannot determine how many would have risks high enough to be required to complete a Risk Reduction Audit and Plan. The total estimated savings to general government facilities is $6,400.

(4) General Medical/Surgical Hospitals

The staff is aware of 16 general medical/surgical hospitals in the program. Of these, two facilities would be in the low level group and exempt from reporting requirements. Savings for this group are estimated to be $400.

Two facilities would be in the intermediate group and could submit Update Summary Forms to satisfy their update reporting requirements. Using the same assumptions for integrating data reporting programs, an initial savings of $200 would result and, within the next three years, an additional savings of $200 would result. The total savings for this group are estimated to be $400.

Twelve facilities are high level and would be required to prepare update plans and reports. There would be no cost savings for this group. Because districts must calculate the risks of these facilities, we cannot determine how many would have risks high enough to be required to complete a Risk Reduction Audit and Plan.

The total estimated savings to the general medical/surgical hospitals is $800.

(5) Publicly Owned Treatment Works (POTWs)

Publicly Owned Treatment Works (POTWs) are public agency-operated facilities that treat municipal wastewater. The staff is aware of 115 POTWs in the program. Of these, 38 would be low level facilities and exempt from reporting requirements. Savings for this group are estimated to be $7,600.

Forty-six facilities would be in the intermediate group and could submit Update Summary Forms to satisfy their update reporting requirements. Using the same assumptions for integrating data reporting programs, an initial savings of $4,600 would occur and, ultimately, another $3,600 in savings would occur. This creates an estimated savings of $8,200 for the intermediate level group.

Currently, 31 facilities are high level and would be required to prepare update plans and reports. There would be no cost savings for this group. Because districts must calculate the risks of these facilities, we cannot determine how many would have risks high enough to be required to complete a Risk Reduction Audit and Plan.

The total estimated savings to POTWs is $15,800.

2. LOCAL AIR POLLUTION CONTROL DISTRICTS

The proposed amendments to the regulation will exempt low risk facilities from further reporting, resulting in fewer two-page Update Summary Forms for local districts to review. Therefore, these reduced reporting requirements will allow district staff to focus their review on higher risk facilities, without the need for additional resources. The proposed amendments will also allow districts to integrate Hot Spots emission reporting with other district data reporting programs, thereby allowing program consolidation and conserving district resources.

3. CONCLUSIONS

In general, the amended update procedures will reduce costs to local government facilities complying with the Guidelines Regulation. These savings are reflected in the figures provided below.

SUMMARY OF ESTIMATED COST SAVINGS TO LOCAL GOVERNMENT

Local Facility	Estimated Savings
a. Air, Water and Solid Waste	22,800
b. Elementary and Secondary Schools	2,000
c. General Government	6,400
d. General Medical/Surgical Hospitals	800
e. POTWs	15,800
TOTAL ESTIMATED SAVINGS TO LOCAL GOVERNMENT	**$47,800**

Publicly Owned Treatment Works (POTWs) carry out a uniquely governmental function, as the overwhelming number of treatment works are publicly owned. Nevertheless, their costs of compliance with the proposed regulation are not reimbursable by the State within the meaning of Article XIIIB, section 6 and Government Code sections 17500 et seq., because POTWs are authorized by enabling statutes to levy service charges to cover the costs associated with the mandated program.

Elementary and secondary schools' costs of compliance with the regulation are not reimbursable by the State within the meaning of Article XIIIB, section 6 and Government Code sections 17500 et seq., because the school district has the authority to levy assessments sufficient to pay for the program mandated by this act.

Other local government facilities' cost of compliance with the amended regulation should be absorbable within existing budgets and resources of the facilities incurring these costs.

4. SOURCES OF WORKING DATA

Amendments to the Emission Inventory Criteria and Guidelines Regulation pursuant to the Air Toxics "Hot Spots" Information and Assessment Act of 1987, ARB, June, 1993.

List of risk assessment status, "All Risk Assessments = Chronological Order," OEHHA, January 13, 1993.

Facility Risk, or Prioritization Score, Data Provided to the Stationary Source Division of the Air Resources Board by the Air Pollution Control and Air Quality Management Districts for the Fee Regulation Associated With the Air Toxics Hot Spots Program, Fiscal Year 1995-96.

Air Toxics Emission Data System - Inventory year 1993 (as of 3-4-96).

C. COST SAVINGS FOR STATE GOVERNMENT

1. COMPLIANCE SAVINGS

Compliance costs are the costs to State government facilities to satisfy their four year update reporting requirements.

a. STATEMENT OF THE MANDATE

The current regulation requires State government facilities that are subject to the Air Toxics Hot

Spots program to update their emission inventories or activity every four years. Update requirements are based on a facility's prioritization score. High priority - significant risk facilities report all changes from their previous emission inventories through the preparation and submittal of full update plans and reports which consist of a facility information form and three additional forms to be completed for each emission device showing changes. While a small number of facilities have the necessary staffs to prepare update plans and reports in-house, most facilities rely upon consultants to do the work. Therefore, the primary costs of update reporting are fees paid to consultants to prepare update plans and reports. Source testing to determine emissions can also add cost to the reporting process. However, facilities can use valid data from previous source tests and do not need to do retesting to complete their update reporting. Additional source testing should only be necessary if a facility substantially changes its operation, such as installing new types of equipment, and only if previously conducted source test data are not available.

The current regulation also requires high priority, non-significant risk facilities to complete the two-page Update Summary Form, except, if a significant change has occurred, high priority facilities are required to complete a full air toxics emission inventory. Intermediate and low priority facilities complete only the Update Summary Form.

The program has now matured to the point that local air districts administrating it have generally been able to determine the potential health risks posed by the larger facilities. Thus, reporting requirements of the program can now focus on facilities that have a high level of risk associated with their operations, activities, and emissions. The proposed amendments would allow this.

The proposed amendments will exempt State government facilities with a low level of risk from further emissions reporting and they will therefore not incur any compliance costs. This will result in substantial cost savings to these facilities. Intermediate level facilities will be tracked by the local districts through the two-page Update Summary Form or through other existing reporting programs. This change has the

potential to result in further cost savings for these facilities. If districts use alternative tracking methods, such as the annual criteria pollutant emission inventory process, this would provide an integrated data collection process and further reduce costs to facilities by eliminating duplicate reporting.

High level significant risk facilities will retain the current reporting requirements. Those with very high risks requiring Risk Reduction Audit and Plans can integrate reporting into their risk reduction reporting requirements to avoid duplicate data collection, which will consequently lower costs.

b. ASSUMPTIONS

Affected State government facilities include State colleges and universities, correctional institutions, general government agencies, general medical/surgical hospitals, and psychiatric hospitals. Many facilities will be exempt from reporting requirements because they are low risk and fall into the low level group. They will therefore not incur any compliance costs. Most, if not all of these facilities were previously required to complete the Update Summary Form to satisfy their update requirements. The staff estimates the average cost to prepare and submit an Update Summary Form is approximately $200, because it can usually be completed in-house without the assistance of consultants. Therefore, low level facilities will save $200 every four years because they will be exempted from reporting requirements. In addition, because the program is maturing and most facilities have already been required to submit at least one Update Summary Form, the staff estimates the average cost for facilities to prepare and submit a second Update Summary Form will be reduced because of the facility's greater understanding and experience with the form. Discussions with staff at several State government facilities confirm that the workload needed to complete the update reporting is expected to decrease by 10 to 30 percent due to greater understanding and experience with the process. Staff estimates that approximately 30 percent of the State government facilities will be exempted from the program because they will be designated low level facilities.

Most other facilities will fall into the intermediate level group and their emissions and

activities will now be tracked by the local districts. Initially, the staff expects most districts to track facilities through the Update Summary Form. Most, if not all, of these facilities are currently required to submit the Update Summary Form, and therefore the proposed amendments will not result in any additional savings or costs. However, even greater savings would result from those districts that integrate update reporting requirements with other district reporting requirements, especially criteria pollutant emission reporting. The staff estimates that initially approximately 50 percent of districts will decide to integrate their reporting programs within the first 18 months. This integrated data collection process would result in a $200 cost savings per affected facility. Ultimately, the staff estimates that almost all districts will move to an integrated data collection process, especially as computer software currently being developed by ARB becomes available.

High risk facilities will still be required to update their emission inventories every four years, so their costs are not expected to be reduced. The highest risk facilities are required by the Act to complete Risk Reduction Audits and Plans. The proposed amendments will allow facilities the flexibility to use their Risk Reduction emissions reporting to fulfill their four-year update reporting requirement, thereby eliminating the need for further, and potentially duplicative, reporting. However, since only a small number of facilities are expected to have risks high enough to require a Risk Reduction Audit and Plan, this will only benefit a small number of facilities.

Currently, unprioritized State government facilities are required only to complete two-thirds of the Update Summary Form. The proposed amendments would treat unprioritized facilities in the same manner as intermediate facilities, requiring them to complete the entire Update Summary Form. While this may result in some small increased cost to these facilities, the staff estimates that the number of facilities left unprioritized within the next 12 months will be very small, and soon it will be zero.

c. ESTIMATES OF COST SAVINGS

The following cost savings estimates are based on the foregoing assumptions. The costs are based

on the most current data for the number of facilities in each State government category and the number of significant risk facilities, as discussed below.

(1) University of California and California State University

There are 31 campuses in the University of California and California State University systems currently in the program. Of these, 11 campuses would be considered low risk and therefore exempt from the program. Savings for this group would amount to $2,200.

Eleven campuses would have an intermediate level of risk and would fall into the tracking category. Initial savings for this group is estimated to be $1,200 assuming that 50 percent of the facilities can integrate their update reporting into other district programs within the next 18 months. It is expected that ultimately (perhaps within the next three years) another 40 percent of the facilities will integrate their reporting with other district programs resulting in an additional savings of $800 for this group.

Currently, there are nine facilities classified as having a high level of risk that would be required to prepare an update plan and report. There would be no cost savings for this group. Because the districts must calculate the risks of these facilities, we cannot determine how many would have risks high enough to be required to complete a Risk Reduction Audit and Plan.

The total estimated savings to colleges and universities is $4,200.

(2) State Hospitals (Department of Developmental Services, Department of Mental Health)

There are ten hospitals in the State system that participate in the program. Of these, one hospital would be considered low risk and therefore exempt from the program. Savings for this group would amount to $200. Four hospitals would be in the intermediate group and could submit Update Summary Forms to satisfy their update reporting requirements. Using the same assumptions that 50 percent of these facilities will

integrate their update reporting within the next 18 months, savings for this group would initially amount to $400. Ultimately, assuming another 40 percent of the facilities will integrate their reporting with other district programs within the next three years, an additional savings of $400 would result. The total savings for the intermediate group would be $800.

Five of the hospitals have a high level of risk and would be required to prepare update plans and reports. There would be no cost savings for this group. Because the districts must calculate the risks of these facilities, we cannot determine how many would have risks high enough to be required to complete a Risk Reduction Audit and Plan.

The total estimated savings to State hospitals is $1,000.

(3) Department of Corrections

There are 15 correctional institutions in the program. Of these, three facilities would be in the low level group and exempt from reporting requirements. Savings for this group are estimated to be $600. Four facilities would be in the intermediate group and could submit Update Summary Forms to satisfy their update reporting requirements. Using the same assumptions that 50 percent of these facilities will integrate their update reporting within the next 18 months, initial savings for this group are estimated to be $400. Ultimately, assuming another 40 percent of the facilities will integrate their reporting with other district programs within the next three years, an additional savings of $400 would result. The total savings for the intermediate group would be $800.

The total estimated savings to the Department of Corrections is $1,400.

2. CONCLUSIONS

In general, discussions with the staff of other State agencies indicate that the amended update procedures will reduce costs. These savings are reflected in the figures provided below. The State's cost of compliance with the amended regulation should be absorbable within existing budgets and resources of the facilities incurring these costs.

SUMMARY OF ESTIMATED STATE COST SAVINGS

State Facility	Estimated Savings
a. Universities and Colleges	$4,200
b. State Hospitals	$1,000
c. Department of Corrections	$1,400
TOTAL ESTIMATED STATE SAVINGS	$6,600

3. SOURCES OF WORKING DATA

List of risk assessment status, "All Risk Assessments = Chronological Order," OEHHA, January 13, 1993.

Facility Risk, or Prioritization Score, Data Provided to the Stationary Source Division of the Air Resources Board by the Air Pollution Control and Air Quality Management Districts for the Fee Regulation Associated With the Air Toxics Hot Spots Program, Fiscal Year 1995-96.

Air Toxics Emissions Data System - Inventory year 1993 (as of 3-4-96).

Phone conversations with health and safety officers administrators, University of California. March 1996.

Phone conversations with health and safety officers administrators, California State University, March 1996.

Phone conversations with plant operators for Department of Developmental Services, Department of Mental Health. March 1996.

Phone conversation with Steve Woycheshin, Department of Corrections. March 1996.

FISCAL IMPACT STATEMENT (REGULATIONS AND ORDERS)

STATE OF CALIFORNIA

STD 399 (5/86)

SEE SAM SECTION 6055 FOR INSTRUCTIONS

DEPARTMENT	CONTACT PERSON	PHONE NUMBER
Air Resources Board	Judith G. Tracy	322-2884

TITLE/DESCRIPTION OF REGULATION/ORDER

Titles 17 and 26 Air Toxics Hot Spots Emission Inventory Criteria and Guidelines

A. FISCAL EFFECT ON LOCAL GOVERNMENT (Indicate appropriate boxes 1 through 6 and complete if necessary)

☐ 1. Additional expenditures of approximately $ _____ annually which are reimbursable by the State pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code. Funding for this reimbursement:

- ☐ a. is provided in (Item _____, Budget Act of _____) or (Chapter _____, Statutes of _____)
- ☐ b. will be requested in the _____ (FISCAL YEAR) Governor's Budget for appropriation in Budget Act of _____.

☐ 2. Additional expenditures of approximately $ _____ annually which are not reimbursable by the State pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code because this regulation:

- ☐ a. implements the Federal mandate contained in _____;
- ☐ b. implements the court mandate set forth by the _____ court in the case of _____ vs. _____;
- ☐ c. implements a mandate of the people of this State expressed in their approval of Proposition No. _____ at the _____ (DATE) election:
- ☐ d. is issued only in response to a specific request from the _____, which is/are the only local entity(s) affected:
- ☐ e. is more appropriately financed from the _____ (FEES, REVENUE, ETC.) authorized by Section _____ of the _____ Code:
- ☐ f. provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each such unit.

☒ 3. Savings of approximately $ 47,800 ~~annually~~ every four years for affected local government facilities.

☐ 4. No additional costs or savings because this regulation makes only technical, nonsubstantive or clarifying changes to current law and regulations.

☐ 5. No fiscal impact exists because this regulation does not affect any local entity or program.

☐ 6. Other

B. FISCAL EFFECT ON STATE GOVERNMENT (Indicate appropriate boxes 1 through 4 and complete if necessary)

☐ 1. Additional expenditures of approximately $ _____. annually: It is anticipated that State agencies will:

- ☐ a. be able to absorb these additional costs within their existing budgets and resources.
- ☐ b. request supplemental funding by means of "Budget Change Proposals" for the _____ fiscal year.

☒ 2. Savings of approximately $ 6,600 ~~annually~~ every four years for affected state facilities.

☐ 3. No fiscal impact exists because this regulation does not affect any State agency or program.

☐ 4. Other

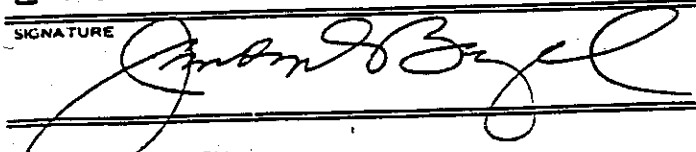
C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS (Indicate appropriate boxes 1 through 4 and complete if necessary)

☐ 1. Additional expenditures of approximately $ _____ annually.

☐ 2. Savings of approximately $ _____ annually.

☐ 3. No fiscal impact exists because this regulation does not affect any federally funded State program or agency.

☐ 4. Other

SIGNATURE  TITLE Executive Officer

AGENCY SECRETARY APPROVAL/CONCURRENCE — DATE

PROGRAM BUDGET MANAGER - DOF

DEPARTMENT OF FINANCE APPROVAL/CONCURRENCE — DATE