APPENDIX B-1

PENNSYLVANIA STATIONARY POINT SOURCE EMISSION ESTIMATION METHODS

Bureau of Air Quality
Department of Environmental Protection
Division of Air Information

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APPENDIX B-1

PREPARATION OF
PENNSYLVANIA POINT SOURCE INVENTORIES

Bureau of Air Quality
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A. Introduction

This document describes the methodology used by the Commonwealth of Pennsylvania to develop inventories of air pollutants emitted as required by the U. S. Environmental Protection Agency's Consolidated Emission Reporting Rule (CERR) (40 CFR Part 51, Subpart A). The 2002 inventory will also be the base year inventory for State Implementation Plan (SIP) revision development for $PM_{2.5}$, 8-hour ozone and regional haze.

The CERR requires the Commonwealth to report actual emissions for the following pollutants: sulfur oxides, volatile organic compounds (VOC), nitrogen oxides, carbon monoxide, lead and lead compounds, primary $PM_{2.5}$, primary PM_{10}, and ammonia (40 CFR 51.15(a)). The CERR lists primary PM as an optional pollutant for reporting purposes. The CERR does not require the submission of hazardous air pollutant emissions data.

Emissions from point sources are reported for 65 of the Commonwealth's 67 counties. Point source emissions from sources located in Allegheny County are reported directly to EPA by the Allegheny County Health Department. Point source emissions from sources located in Philadelphia Counties are reported directly by the Philadelphia County Health Department, Air Management Services.

The annual emission inventory must be temporally resolved to provide seasonal data for air quality modeling purposes. Temporal adjustments to the annual inventory are made because of seasonal differences in the rate of emissions or activity, or to apportion emissions to a particular season or day. For the 8-hour ozone National Ambient Air Quality Standard (NAAQS) emissions inventory, VOC, NO_x, and CO emissions are reported as actual annual and actual summer weekday. Summer weekday emissions are defined as an average day's emissions for a typical summer day during the ozone season. For the $PM_{2.5}$ NAAQS and regional haze rule emission inventories, direct emissions (including condensibles) of PM10 and $PM_{2.5}$, and the precursor VOC, NO_x, SOx, and NH3 are reported as actual annual data.

For the ozone SIP inventories, rule effectiveness and rule penetration are applied. Rule effectiveness reflects the ability of a regulatory program to achieve all the emission reductions that could have been achieved by full compliance with the applicable regulations at all sources at all times. Rule penetration is an estimate of the extent to which a regulation covers emissions from an area source category for a specified control area. Rule penetration is applied to the control efficiency for a regulation to account for less than 100 percent coverage of the emissions for an area source category. Because the inventory was developed prior to EPA's issuance of the November, 2005 revision to the rule effectiveness guidance, Commonwealth followed the previous EPA guidance and assumed an 80% rule effectiveness for applicable sources unless specified to the contrary.

B. Point Sources

A point source is a stationary, identifiable source of air pollution that usually emits the air pollutants through a stack or vent. A facility contains one or more point sources and is not limited to industrial facilities. Examples of an air pollution facility are steel mills, oil refineries, electric generating facilities, and coal preparation plants. A non-industrial facility may contain a large boiler or other air pollution source.

The data for the 2002 and 2004 sulfur oxides, volatile organic compounds (VOC), nitrogen oxides, carbon monoxide, lead and lead compounds, primary $PM_{2.5}$, primary PM_{10}, and ammonia point source emission inventory is derived from the Pennsylvania Air Information Management System (AIMS). AIMS sources are identified and inventoried by Pennsylvania regional air quality offices through permitting operations and regional and central office field inspections and surveys. The AIMS system is designed to include all point source emission categories as required by the CERR.

The AIMS database is linked to the Department's eFACTS (Environment Facility, Application, Compliance Tracking System) database. This allows Department-wide sharing of data for all program areas. In addition, the public is provided better access to the information through the Department's Internet website.

The point source inventories for Allegheny and Philadelphia Counties will be prepared by the Allegheny County Health Department and the Philadelphia County Health Department, respectively. The two county agencies will submit their point source emission inventories directly to EPA's National Emission Inventory as required by the CERR. The county agencies will also provide their point source data to the Department in order that effective State Implementation Plan preparation may be undertaken.

Paper Submittal of Inventory Data

Annually, facilities complete worksheets for each source that operated and emitted pollutants for the year. Data required for processes include monthly material throughputs, days and weeks the sources operated, material processed, maximum throughput per hour, and correct Source Classification Code (SCC) number. In addition to these process data, combustion unit data must include fuel used, fuel characteristics such as sulfur content and Btu. For each source, an estimate of total criteria and hazardous pollutant emissions must be supplied, along with the estimation method. If emissions are estimated using anything other than emissions factors from SCC codes, methodology must be provided. In addition to emissions estimates for each piece of equipment, site emissions are required. If there is equipment that is too small for individual reporting, emissions from this equipment will be reflected in the site total.

After the facilities provide these data, DEP reviewers input the data into the AIMS system. At this time, the system may create an error message if emissions are significantly different from those expected, based upon emissions factors and throughputs. At this point, the reviewer must determine if the estimate is accurate and may either override the error message or contact the facility for corrections, which are then input by the reviewer.

After all data are entered, reports are generated to show comparisons between emissions years. If there are significant differences, reviewers must determine why emissions are different. Explanations may include changes in production or change in material input. Once all discrepancies have been corrected or explained, the data are accepted, and the inventory is considered complete.

Instructions Available

DEP has developed instructions for companies to complete the annual inventory submission, which describes the database fields in the AIMS/eFACTS system. This document is revised annually to reflect any new guidance for the applicable reporting year.

Information on the emission inventory reporting system can be found at: www.dep.state.pa.us/dep/deputate/airwaste/aq/emission/Emission_Inventory.htm. Instructions for the system are attached.

INSTRUCTIONS FOR COMPLETING THE ANNUAL EMISSIONS REPORTING FORMS

Commonwealth of Pennsylvania
Department of Environmental Protection

Edward G. Rendell, Governor
Commonwealth of Pennsylvania

Kathleen McGinty, Secretary
Department of Environmental Protection

2700-BK-DEP1936 Rev. 12/2005

Table of Contents

1. Background 1

1.1 Annual Emission Statement (AES) Background: 1

1.2 Electronic Reporting: 2

1.2.1 Web-based Reporting Forms 2

1.2.2 eXtensible Markup Language (XML) 2

2. Helpful Resources 3

2.1 Check-Lists For Common Errors 3

2.1.1 Facility Information 3

2.1.2 Sub Facility Information 3

2.1.3 Hazardous Air Pollutants (HAPs) 3

2.2 AP-42 and FIRE 4

2.3 Industry-Specific Emission Factors 5

2.4 Standard Industrial Classification and North American Industry Classification System 5

2.5 Small Business Assistance 5

3. Instructions For Determining Which Facilities Belong In AIMS/eFACTS For Inventory Purposes 6

3.1 Title V Facilities 6

3.2 Non-Title V Facilities 7

3.2.1 Facilities Inventoried for Emission Statement Purposes 7

3.2.2 Facilities Inventoried for Permit Cap Compliance Certification 8

3.2.3 Facilities Inventoried for State Implementation Planning Purposes 9

4. Commonly Asked Questions About Inventory Reporting 10

5. Elaboration On Worksheet Contents, For All Firm-Plants 12

5.1 Throughputs For Each Source 12

5.2 Operating Schedules For Each Source 12

5.3 Emission Estimates 13

5.4 Fuel Analysis 13

5.5 Surface Coating (Paint, Glue, Ink) Analysis 13

5.6 Control Devices 13

5.7 Stacks 13

5.8 Hazardous Air Pollutants 14

5.9 Site Pollutant Summary 14

6. Confidentiality 15

7. Certification of Data Accuracy for Emission Statement 15

8. Extensions Beyond March 1 15

9. DEP Contact Listings 16

9.1 Contact Listing, Norristown - Region I (Southeast) 16

9.2 Contact Listing, Wilkes-Barre - Region II (Northeast) 17

9.3 Contact Listing, Harrisburg - Region III (Southcentral)....18
9.4 Contact Listing, Williamsport - Region IV (Northcentral)....19
9.5 Contact Listing, Pittsburgh - Region V (Southwest)....19
9.6 Contact Listing, Meadville - Region VI (Northwest)....20
9.7 Contact Listing, Philadelphia Air Management Services....22
9.8 Contact Listing, Allegheny County Health Department....22
10. Calculation Method Codes For Emissions....23
11. Reliability Codes For Emissions....24
12. Abbreviations/Acronyms....25
13. Table A: Hazardous Air Pollutants (112 [b]) Sorted Alphabetically by Pollutant Name....26
14. Table B: Hazardous Air Pollutants (112 [b]) Sorted by Chemical Abstract Service Number....31
15. Table C: Compounds As Listed In 112(b)....35
Appendix A WORKSHEET FOR A NEW FACILITY....36
Appendix B WORKSHEET FOR MISCELLANEOUS SOURCE EMISSIONS....38
Appendix C WORKSHEET FOR NEW COMBUSTION UNITS....39
Appendix D WORKSHEET FOR NEW PROCESSES....43
Appendix E WORKSHEET FOR NEW INCINERATORS....48
Appendix F WORKSHEET FOR NEW CONTROL DEVICES....54
Appendix G WORKSHEET FOR NEW STACKS....55
Appendix H WORKSHEET FOR NEW FUEL MATERIAL LOCATIONS....56
Appendix I WORKSHEET FOR CHANGES TO EXISTING STACKS OR CONTROL DEVICES....58
Appendix J CERTIFICATION OF DATA ACCURACY....60

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Note: This booklet contains the instructions for filling out the Annual Emission Statement. These instructions have been prepared to assist the owner/operators to report their emissions data. These instructions are not regulations. The Department reserves the right to modify these instructions as needed. *Please save this booklet for future reference.* If you have questions about the Annual Emission Statement, please contact your Regional Air Quality staff.

This booklet is available electronically via the Internet. Access the DEP Web site at www.depweb.state.pa.us, Keyword: "Emission Inventory."

1. Background

1.1 Annual Emission Statement (AES) Background:

The Annual Emission Statement (AES) requests information to satisfy several regulatory requirements. These requirements include Title V permitting, the Annual Inventory, and Emission Statements, as well as other regulations that are part of the State Implementation Plan (SIP). The Title V regulation is found in the Pennsylvania Code, Title 25, Chapter 127. The Annual Inventory regulation is found in the Pennsylvania Code, Title 25, Chapter 135.1-135.5. The Emission Statement regulation is found in Pennsylvania Code, Title 25, Chapter 135.21. The Emission Statement information is due March 1. The Annual Inventory information is due March 1 or within 60 days of the date the facility's owner/operator is notified by the Department of Environmental Protection (DEP) that the facility is subject to Annual Inventory, whichever is later. DEP has chosen March 1 as the collective deadline to avoid having to request Emission Statement and Annual Inventory information separately.

When a facility's owner/operator provides the AES to the appropriate DEP regional office, the information is entered, either automatically or manually depending on the reporting method, into DEP's computer database. This database is called the Air Information Management System / environment, Facility, Application, Compliance Tracking System (AIMS/eFACTS). The Regional Air Quality (RAQ) staff review the submission for incorrect or missing data before the data is accepted into AIMS/eFACTS. For a facility that has not been entered in AIMS/eFACTS in previous years, the RAQ staff first creates a map showing the connections between the sub facilities being tracked, the control devices and the stacks. Worksheets for owners/operators of facilities that have never previously reported, or for new sub facilities, are included in these Instructions, and are also available from the DEP website or from RAQ staff. For a facility that has previously been entered, a skeleton consisting of the map and unchanging sub facility information, such as rated capacities, has been copied over from the previous year.

Once the operating schedules, throughputs, and facility emission estimates have been entered, AIMS/eFACTS calculates the emissions using Sub Facility Classification Code (SCC) factors. If the AIMS/eFACTS and facility estimates do not match, the RAQ staff may work with the facility's owner/operator to determine if corrections are needed. AIMS/eFACTS can contain multiple emission estimates for a specific pollutant from a specific piece of equipment. Acceptable calculation methods include stack tests, Continuous Emission Monitoring (CEM) data, material balance calculations, and industry-specific emission factors, to list some examples. CEM data is usually the most reliable and should be used before any other method.

Some uses for AIMS/eFACTS data include Emissions Reductions Credits, Open Market Trading, regulation evaluation, the State Implementation Plan and modeling. A variety of standard and custom reports can be run on AIMS/eFACTS by DEP staff. AIMS/eFACTS data is provided to the federal National Emission Inventory (NEI) database and to other state agencies and the public upon request (See Chapter VI. Confidentiality).

Lab samples are also logged into AIMS/eFACTS and linked to the appropriate plant and sub facility. AIMS/eFACTS also contains permit, emission fee, compliance, stack test and Continuous Emission Monitoring (CEM) information.

This booklet is available electronically via Internet. Access the DEP Web Site at http://www.depweb.state.pa.us, Keyword: Emission Inventory."

1.2 Electronic Reporting:

Detailed electronic reporting information such as upcoming training (when scheduled) and registration forms are available from the DEP web site at http://www.depweb.state.pa.us, Keyword: "Emission Inventory." Contact Carrie Eastman at 717-783-5974 or through electronic mail at ceastman@state.pa.us to request electronic reporting information, including registration forms to request access to the services.

1.2.1 Web-based Reporting Forms

The Bureau of Air Quality's (BAQ's) web-based reporting application is called ***AES*Online***. ***AES*Online*** allows a facility's owner/operator to enter data on an Internet web site through an ordinary web browser. ***AES*Online*** users no longer need to fill out paper forms. Facility users log in to a series of secure screens and enter their facility's inventory data. ***AES*Online*** automatically fills in fields where applicable from the previous year's submission and also checks the data as it is entered to insure accuracy. Additionally, ***AES*Online*** includes the ability to add notes to the data and exchange correspondence with RAQ staff. ***AES*Online*** provides a unique navigation system to allow the user to move between screen forms with ease. After the RAQ staff review the submission, entries that need clarification are highlighted by the system so that the facility user can immediately verify the data without having to scroll through unnecessary screens. Data is automatically saved as each screen form is completed to prevent loss of data if the Internet connection is broken.

AES*Online requires Internet access. If your data management system is maintained in spreadsheets or databases, you may want to explore the entirely automated eXtensible Markup Language (XML) option instead of ***AES*Online***.

1.2.2 eXtensible Markup Language (XML)

XML provides a common language that allows dissimilar computer systems to share data. XML surrounds each piece of data with tags, similar to the way a web browser displays a page from the Internet. Software, called a parser, uses these tags to interpret the data. Many different software companies offer parsers, for a variety of prices. An XML parser is bundled into Windows 2003. XML uses a Document Type Definition (DTD) to establish the data content and tags for a specific file or document. BAQ has developed a DTD that defines the AES data and tags. A company that wishes to submit XML data to BAQ must request a copy of the DTD and configure their parser to translate the BAQ DTD. Files in XML format may be transferred on disk or over the Internet. The XML standards and sample files are available for download at http://www.depweb.state.pa.us, Keyword: "Emission Inventory."

Useful links for more information on XML:
http://www.w3.org
http://msdn.Microsoft.com/xml/

2. Helpful Resources

2.1 Check-Lists For Common Errors

Some errors have a way of being repetitious. While the BAQ accepts responsibility for unclear instructions and other systemic errors, please complete this checklist before submitting your AES.

Comments and questions about the contents of the AES can be directed to Mike Rudawski at 717-783-9241 or mrudawski@state.pa.us.

2.1.1 Facility Information

- Is your tax ID (IRS #) valid?
- Are all the contacts on your forms correct?
- Is BAQ's map of your sub facilities correct?
- Do you have any sub facilities not included in the map?

2.1.2 Sub Facility Information

- Are your units of measure correct? (AIMS/eFACTS automatically defaults to the units used last year.)
- Does your SCC match BAQ's?
- Have you submitted throughput data by month for each sub facility?
- Have you included date effective and date end?
- How about days per week, total days, and total hours?
- If you have manually calculated your emissions, **have you explained how you did it?** (Please provide as many details as possible.)
- Does the Pollutant Summary page include all emissions?
- Does the summary page compare with the other emissions you have entered?

2.1.3 Hazardous Air Pollutants (HAPs)

- Have you speciated your HAPs emissions by sub facility?

2.2 AP-42 and FIRE

AP-42 is a compilation of air pollutant emission factors containing the same factors used for sub Facility Classification Codes (SCCs). AP-42 uses factors for general sub facility categories. AP-42 contains a variety of methods for calculating emissions for any given sub facility type. The Bureau of Air Quality currently uses version 6.23 from October 2000. The AP-42 series is available in several media. AP-42 is available free online at www.epa.gov/ttn/chief/ap42/index.html

The Factor Information REtrieval (FIRE) database contains emission estimation factors for criteria and hazardous air pollutants. FIRE factors are very specific for sub facility type. FIRE offers sub facility specific factors, and does not provide multiple calculation methods ranked by preference. More information about FIRE may be obtained at www.epa.gov/ttn/chief/software/fire/index.html .

Please note: If comparing factors in FIRE against AP-42, the FIRE factors should take precedence because the FIRE version is more recent.

Paper copies of AP-42 may be obtained from the Government Printing Office (GPO) in Washington, DC. Orders must be prepaid (except for other federal agencies or college bookstores). The stock number for the 5th edition of AP-42 ("Compilation of Air Pollutant Emission Factors; Volume I: Stationary Point And Area Sub Facilities") is S/N 055-000-00500-1. Supplement A is S/N 055-000-00551-6. Supplement B is S/N 055-000-00565-6. The Government Printing Office can be contacted for current pricing at:

US GPO Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
www.gpo.gov
phone 866-512-1800
fax 202-512-2250

Mail orders must include a check or money order made out to the "Superintendent of Documents".

The *Air CHIEF* compact disc (CD-ROM), with AP-42 and other hazardous air pollutant emission estimation reports and databases, can be purchased from the Government Printing Office. The item number is S/N 055-000-00643-1.

For further information on *Air CHIEF* and other aspects of emission estimation, call U.S. EPA's *Info CHIEF* help line at 919-541-1000 during regular office hours, Eastern Time. The CHIEF web page is www.epa.gov/ttn/chief/ . EPA does not have the staff or the structure to provide engineering support.

If you have factor needs, new data, questions, or suggestions for U.S. EPA, please send them to this address:

AP-42 Team (MD 14)
Emission Factor and Inventory Group
Emissions, Monitoring, and Analysis Division
Office Of Air Quality Planning And Standards
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

2.3 Industry-Specific Emission Factors

Industry groups have also developed emission factors. You may want to contact your group to obtain any factors that exist.

2.4 Standard Industrial Classification and North American Industry Classification System

The U.S. Bureau of Census has replaced its Standard Industrial Classification (SIC) system with the North American Industry Classification System (NAICS). SICs have been converted to the 2002 version of the NAICS codes in AIMS/eFACTS where possible. In some cases, a conversion was not possible. The NAICS is also required by the IRS, and your financial department may have this information for you.

NAICS information is available from a federal website. Copies are available for download or purchase. Go to http://www.census.gov/epcd/www/naics.html or the NAICS link on BAQ's web site at http://www.dep.state.pa.us/dep/deputate/airwaste/aq/emission/Emission_Inventory.htm

2.5 Small Business Assistance

The Environmental Management Assistance Program (EMAP) is a program in Pennsylvania designed to help small businesses understand and comply with environmental regulations and identify pollution prevention and energy efficiency opportunities. There are four ways to request assistance from EMAP: Call regulations.877-ask-emap, visit the website at www.askemap.org, send an email to questions@askemap.org or contact your local Small Business Development Center (check www.pasbdc.org for the center nearest you). Services such as site visits and permit reviews are confidential and provided at no charge. Business names and addresses will not be released to any regulatory agency.

The DEP Small Business Ombudsman, Jeanne Dworetzky, helps businesses locate sources of funding to install equipment and process changes which result in pollution prevention or energy efficiency. She can also represent small business interests to DEP. Jeanne Dworetzky can be reached at 717-772-5942 or jdworetsky@state.pa.us.

3. Instructions For Determining Which Facilities Belong In AIMS/eFACTS For Inventory Purposes

These guidelines are a synthesis of the inventory requirements of Title V, the Annual Inventory, Emission Statements and other regulations that are part of the State Implementation Plan (SIP). The Title V regulation is found in the Pennsylvania Code, Title 25, Chapter 127. The Annual Inventory regulation is found in the Pennsylvania Code, Title 25, Chapter 135.1-135.5. The Emission Statement regulation is found in Pennsylvania Code, Title 25, Chapter 135.21. The definition of the term “Title V Facility” can be found in the Pennsylvania Code, Title 25, Chapter 121.1. Exemptions from state operating permits can be found at www.depweb.state.pa.us, Keyword: "Air Permits". Search for document number 275-2101-003 Plan Approval and Operating Permit Exemption List (pdf file in the eLibrary). For information on permitting, contact the Bureau of Air Quality’s Division of Permits at717-787- 717-787-4325.

Owners/operators of facilities that wish to generate or trade Emission Reduction Credits (ERCs) will need to document emissions. The AES is one way to document emissions. All owners/operators of facilities have the option of submitting the AES for ERC purposes. If the facility’s owner/operator does not submit the AES, the facility’s owner/operator should at least maintain sufficient production records to be able to reconstruct emissions for ERC purposes and for audits.

The emissions from any facility that is not required to submit annual inventory forms are captured in the area source inventory, which is calculated using demographics and emission factors. For information on area source inventory, contact the Bureau of Air Quality’s Division of Air Information at 717-787-9702.

Any emissions that are below the source reporting thresholds for facilities that are subject to the annual inventory will be calculated by BAQ using emission factors. Owners/operators of facilities have the option of submitting emission estimates for emissions below the sub facility thresholds if the facility’s estimate is better than the factor-generated numbers.

3.1 Title V Facilities

All owners/operators of Title V facilities must complete the AES. Owners/operators of Title V facilities are subject to the Annual Emission Statement because by definition they exceed the reporting thresholds in the Emission Statement and SIP regulations. Inventory information from Title V facilities is used for emission fee purposes and, in combination with other information, to demonstrate compliance. The RAQ staff determine which sub facilities will appear on the AIMS/eFACTS reporting forms. In some cases, the facility’s owner/operator and RAQ staff may agree to treat multiple pieces of related equipment as one sub facility in the Title V permit. The facility’s owner/operator must provide operating schedules and throughputs for all sub facilities on the forms. NOx, SOx, VOC, PM10, PM2.5, ammonia (NH_3) and CO emissions of 1.0 ton per year or more per sub facility must be reported on a sub facility by sub facility basis. Report to the nearest hundredth (0.00) of a ton.

All HAPs must be reported. HAPs must be reported individually (speciated). Any HAP emissions greater than 0.5 ton per speciated HAP per sub facility per year must be reported on a sub facility by sub facility basis. Report to the nearest hundredth (0.00) of a ton. Sub facility-by-sub facility speciated reporting of HAPs is required for Maximum Achievable Control Technology (MACT) purposes. In cases where HAPs are also VOCs or particulates, do not subtract the HAP emission estimates from the VOC or particulate emission estimates. The subtraction will be dealt with by BAQ’s AIMS/eFACTS database.

Based upon the Federal Clean Air Act, Section 112 (C) (6), certain pollutants are of special concern. For these HAPs of special concern, owners/operators of facilities should report any emissions above the following thresholds:

Polychlorobiphenols (PCB)	0.01 tons/yr per sub facility
Mercury (Hg)	0.01 tons/yr per sub facility
Lead (Pb)	0.01 tons/yr per sub facility
Polycyclic Organic Matter (POM)	0.01 tons/yr per sub facility
Dioxins	0.00001 tons/yr or 0.02 pounds/yr per sub facility
Furans	0.00001 tons/yr or 0.02 pounds/yr per sub facility

As all HAPs must be reported and as some sub facilities are considered insignificant and not included on the reporting forms, use the "Other Sub Facility" block on the reporting forms to reconcile the facility totals with individual sub facility estimates.

3.2 Non-Title V Facilities

Owners/operators of Non-Title V facilities may be required to complete the AES for several reasons: the Emission Statement regulation, permit cap compliance certification and State Implementation Plan (SIP) purposes. DEP may also request inventory information from any facility, per the Pennsylvania Code, Title 25, Chapter 135. The Emission Statement, permit caps and SIP are discussed in paragraphs 1-3 below.

3.2.1 Facilities Inventoried for Emission Statement Purposes

The Emission Statement regulation is found in Pennsylvania Code, Title 25, Chapter 135.21. Owners or operators of facilities that are located in Bucks, Chester, Delaware, or Montgomery Counties that emits or have a potential to emit 25 tons or more per year of VOC or 25 tons or more per year of NO_x are required owner/operator to report. Owners or operators of facilities located in the remainder of the Commonwealth that emits or has a potential to emit 50 tons or more per year of VOC or 100 tons or more per year of NO_x must complete the AES. **Facilities that emit less than 25 tons per year of either oxides of nitrogen or VOC and that are on the exemption list in Section 3.2.1.1 of this document do not have to complete the AES.**

Owners or operators of facilities located in Allegheny or Philadelphia Counties should contact the county agency listed in Sections 9.7 and 9.8 for reporting instructions.

Owners/operators of Non-Title V facilities subject to the Emission Statement regulation must report throughputs and operating schedules for all sub facilities in AIMS/eFACTS. In addition, these owners/operators of facilities must report VOC and NOx actual emissions of 1.0 TPY or more per sub facility. Emissions less than 1.0 ton per year do not have to be reported. Report to the nearest hundredth (0.00) of a ton. All emissions must be reported sub facility by sub facility, not as facility totals. The emission estimates for other pollutants will be calculated by Air Quality's AIMS/eFACTS database using emission factors. The facility's owner/operator has the option of reporting emission estimates for other pollutants if the facility's owner/operator's estimates are better than the factor-based calculations. These facilities may also be required to report HAPs. Please refer to Section 3.1 of this document.

3.2.1.1. Emission Statement Exemptions

The following list of exemptions was published in the Pennsylvania Bulletin Volume 23, Number 17, pages 1994-95 on April 24, 1993:

- Non-Industrial Surface Coating:
  - Architectural
  - Automotive Refinishing
- Other Solvent Use
  - Electronics and Electrical Degreasing
  - Other Manufacturing Degreasing
  - Automotive Repair Cold Cleaning Degreasing
  - Manufacturing Cold Cleaning Degreasing
  - Dry cleaning
  - Graphic Arts
- Surface Coatings
  - Flatwood Products
  - Furniture & Fixtures
  - Electrical Insulation
  - Metal Cans
  - Miscellaneous Finished Products
  - Machinery & Equipment
  - Appliances
  - New Motor Vehicles
  - Marine
  - Miscellaneous Manufacturing
  - Maintenance
  - Other Special Coatings
- Waste Management Practices
  - Publicly-Owned Treatment Works
  - Landfills
  - Treatment Storage Disposal Facilities
- Small Stationary Fossil Fuels*
  - Fuel Oil Combustion
  - Coal Combustion
  - Gas Combustion
- Miscellaneous Sub Facilities
  - On-Site Incineration (does not include open burning)
  - Leaking Underground Storage Tanks

**The sizes of small stationary fossil fuel sources are defined by Chapter 127.14, Permit Exemptions.*

3.2.2 Facilities Inventoried for Permit Cap Compliance Certification

Some owners/operators of facilities have taken permit restrictions in order to avoid major status and a federally enforceable permit. Also, a facility may have a sub facility cap for other reasons. The method of demonstrating cap compliance is addressed in the permit. The AES may be used to demonstrate cap compliance.

3.2.3 Facilities Inventoried for State Implementation Planning Purposes

Owners/operators of synthetic minor facilities are subject to the inventory and must complete the AIMS/eFACTS reporting forms if actual VOC emissions are greater than or equal to 10 TPY for the facility. This VOC threshold was established to meet EPA's ozone planning requirements. The facility's owner/operator must report annually. Owners/operators of synthetic minor facilities subject to the inventory must report throughputs and operating schedules for all sub facilities on the AIMS/eFACTS reporting forms. In addition, these owners/operators of facilities must report VOC actual emissions as a facility total. Report to the nearest hundredth of a ton. The emission estimates for other pollutants will be calculated by Air Quality's AIMS/eFACTS database using emission factors. The facility's owner/operator has the option of reporting emission estimates for other pollutants if the facility's owner/operator's estimates are better than the factor-based calculations.

4. Commonly Asked Questions About Inventory Reporting

Nitrogen oxide (NO) is listed on the Title V pollutant list. Fees are paid for nitrogen dioxide (NO2). Nitrogen oxides (NOx) are reported for inventory but are actually NO2. Should the Title V NO be reported as NO, as NO2, or as NOx?

Report NO_x as NO_2.

If a facility's owner/operator has completed some emission estimates incorrectly before receiving these instructions, does the facility's owner/operator need to go back and fix them? If so, when?

Yes. Incorrectly completed facility emission estimates should be corrected as soon as possible by notifying the RAQ staff.

Which sub facilities must be tracked and reported for inventory?

Owners/operators of facilities are responsible for reporting on any sub facilities identified by RAQ staff. If a sub facility does not appear on the preprinted forms or web site, the sub facility is not automatically exempted from reporting.

For the purposes of Title V fees, owners/operators of facilities must provide emission estimates and pay fees on all sub facilities covered by the regulations, whether or not the sub facilities appear on the AES.

Any owners/operators of facilities that are applying for synthetic minor status must document all parameters that they agree to cap in their application. These caps are in place from the time the synthetic minor application was submitted. Therefore, any facility's owner/operator that has applied for a synthetic minor permit and has agreed to cap production must document compliance with the caps. The AES is one method of documenting compliance. Please contact your RAQ staff for more information on documenting compliance.

Blank reporting forms for sub facilities not currently in AIMS/eFACTS are included in this Instruction booklet, and may also be downloaded from the DEP web site or obtained from RAQ staff.

If a sub facility is missing from the AES, did the facility's owner/operator have to report any HAPs, including fugitives, emitted from the missing sub facilities?

If applicable requirements (such as BAT) exist for the sub facility, the sub facility must be added to AIMS/eFACTS so that sub facility-specific HAPS can be reported. If applicable requirements do not exist, the facility's owner/operator must report all HAPS but can report the HAPs as speciated facility totals.

Please clarify the current and future policies on aggregating small, similar sub facilities.

Any aggregation of small similar sub facilities will have to be done via the permit. Please contact your RAQ staff to discuss aggregating sub facilities.

If a facility was in the 2002 baseline inventory with significant emissions, but has now changed processes so that the facility is not subject to the AES under the current guidance, what should the facility's owner/operator do?

The facility's owner/operator will not have to report the AES. The facility will not be deleted from the AIMS/eFACTS database because DEP needs to maintain all emission information from previous years in case the facility generates Emission Reduction Credits (ERCs). Also, deletion would cause the facility to disappear from the baseline inventory. The facility will be left in the AIMS/eFACTS database and marked as not subject to the AES.

EPA has adopted new National Ambient Air Quality Standards for ozone and fine particulates. The EPA implementation rules for these pollutants establish 2002 as the new baseline inventory year. Facility owners/operators should review their 2002 inventory to determine whether they should report. Please contact RAQ staff if you need to be added to the 2002 inventory.

What version of the Source Classification Codes (SCCs) should be used?

Use version 6.23 from October 2000. Information can be found at www.epa.gov/ttnchie1/software/fire/index.html .

Will DEP request inventory information for previous operating years from companies that have been operating since 1990 but have not reported previously?

Yes, these companies will need to be added to the 1990 baseline inventory and other periodic inventories. The RAQ staff will notify the companies of the information needed.

5. Elaboration On Worksheet Contents, For All Firm-Plants

5.1 Throughputs For Each Source

Throughputs must be tracked and reported in monthly increments for each sub facility. **If an operating schedule changes during a month, you must provide a throughput for each operating schedule in effect that month**. Monthly throughputs are required to accommodate various data reports generated from AIMS/eFACTS, such as quarterly reporting with a December start date, or quarterly percentages.

Note: If there is not enough space provided on the preprinted forms to submit all operating schedules and throughputs and/or new SCCs, use the form WORKSHEET FOR ADDITIONAL OPERATING SCHEDULES FOR EXISTING SUB FACILITY/SCCs, OR ADDITIONAL SUB FACILITY/SCCs FOR EXISTING SUB FACILITIES.

5.2 Operating Schedules For Each Source

DEP recognizes that owners/operators of facilities may change operating schedules during the year. Owners/operators of primary facilities must provide at least one operating schedule for each sub facility. Owners/operators of primary facilities may provide multiple operating schedules per sub facility if an operating schedule changes significantly during the year. Examples of significant changes could be a piece of equipment shut down for more than two weeks or a change from 1 shift to 2 or 3 (and vice versa). Consult with RAQ staff for guidance. Keep in mind that worst-case production numbers will yield worst-case emissions numbers when emissions are calculated in AIMS/eFACTS using SCCs.

For each sub facility operating schedule, the facility's owner/operator must provide:

1. Start date of the operating schedule,
2. End date of the operating schedule.

Additionally, for each operating schedule 2 of the following 3 must be provided:

1. Total hours the sub facility operated during that particular operating schedule,
2. Total days the sub facility operated during that particular operating schedule, and
3. Average days per week the sub facility operated during that particular operating schedule.

If you are trying to report a shutdown period for a sub facility, you end the current operating schedule when the shutdown occurs and start a new operating schedule when the shutdown is over. For example, if your plant were shut down from July 1 to July 15, you would have:

Operating schedule 1: Date effective = January 1
Date end = June 30
Operating schedule 2: Date effective = July 16
Date end = December 31

Note: *If there is not enough space provided on the preprinted forms to submit all operating schedules and throughputs and/or new SCCs, contact your DEP regional office.*

5.3 Emission Estimates

Owners/operators of facilities must provide an estimate of the tons of NOx, VOC, PM10, PM2.5, SO_X, NH_3 and CO emitted per year for each sub facility within the plant. See Section 5.8 of this document for HAP reporting.

Owners/operators of facilities must also indicate the method used to calculate the emissions. Calculation Method Codes are listed in the back of the instructions. Continuous Emission Monitoring (CEM) data is the most reliable for emission estimates and should be used when available.

5.4 Fuel Analysis

Percent sulfur, percent ash and Btu content must be reported for all fuels. Report zeros where appropriate. Check with the DEP contact for your county or your RAQ staff to determine the analytical results that must be reported.

5.5 Surface Coating (Paint, Glue, Ink) Analysis

Percent water, coating density, and total volatile content must be reported for all water- and solvent-based coatings used. If possible, include a list of all coatings and their associated analyses with your submission. Some DEP regions provide VOC worksheets to aid reporting. Contact your RAQ staff for the preferred reporting format.

5.6 Control Devices

The owners/operators of new facilities and previously unreported sub facilities must report control efficiencies for every pollutant controlled by a control device. These pollutants may include VOCS, NO_X, SO_X, CO, PM 10, PM2.5 and NH_3. If the primary control system does not capture 100 percent of the sub facility emissions, both a fugitive emission point and a regular stack should be reported. **Capture and control are not the same.** A device may control 90 percent of the captured VOCs but capture only 80 percent of the VOCs generated by the sub facility.

If your facility's owner/operator is planning to add, modify, or remove control devices, your RAQ staff should be notified prior to the change.

5.7 Stacks

The owners/operators of new facilities and previously unreported sub facilities must report stack inside diameter, height, exhaust flow in ACFM, exhaust velocity in meters or feet per second, exhaust temperature, exhaust percent moisture and the direction of stack discharge. Stack information is requested on all forms except the WORKSHEET FOR A NEW FIRM-PLANT and the WORKSHEET FOR NEW FUEL MATERIAL LOCATIONS.

Note: If your facility's owner/operator is planning to add, modify, or remove stacks, your DEP inspector should be notified prior to the change and the form WORKSHEET FOR NEW STACKS or the WORKSHEET FOR CHANGES TO EXISTING CONTROL DEVICES OR STACKS FOR EXISTING SUB FACILITYS should be submitted.

5.8 Hazardous Air Pollutants

Hazardous Air Pollutant (HAP) estimates are required for certain plants. Please refer to Chapter III. Guidance For Determining Which Facilities Belong in AIMS/eFACTS For Inventory Purposes for more information. All HAPs that must be reported are listed in Chapters XII to XVI. A calculation method is required with the HAP estimates. Refer to Chapter XI., Calculation Method Codes For Emissions. Additional information can be found in the Pennsylvania Code, Chapter 121.1 under "Title V regulated air pollutants". You must use the reporting form provided in the Appendix or with your preprinted input forms.

There are *de minimus* levels for HAP reporting. If the total HAP emissions from a facility are less than one (1) ton per year per HAP, the facility's owner/operator is not required to report Haps. However, if the facility has over one (1) ton per year of any HAP that Hap needs to be reported for each sub facility that emits that specific HAP. For example, a facility has 1.5 tons per year of benzene emissions from three sub facilities and 0.75 tons per year of toluene emissions. The three sub facilities emit 1 ton, 950 pounds and 50 pounds of toluene respectively. The facility's owner/operator must report the three sources of benzene

All HAPs must be reported. HAPs must be reported individually (speciated). Any HAP emissions greater than 0.5 ton per speciated HAP per sub facility per year must be reported on a sub facility by sub facility basis. Report to the nearest hundredth of a ton. Sub facility by sub facility speciated reporting of HAPs is required for Maximum Achievable Control Technology (MACT) purposes.

In some cases HAPs are also VOCs or particulates, such as trichloroethylene. Do not subtract the HAP emission estimates from the VOC or particulate emission estimates. The subtraction will be dealt with by Air Quality's AIMS/eFACTS database.

Based upon the Federal Clean Air Act, Section 112 (C) (6), certain pollutants are of special concern.

For these HAPs of special concern, owners/operators of facilities should report any emissions above the following thresholds:

Polychlorobiphenols (PCB)	0.01 TPY per sub facility
Mercury (Hg)	0.01 TPY per sub facility
Lead (Pb)	0.01 TPY per sub facility
Polycyclic Organic Matter (POM)	0.01 TPY per sub facility
Dioxins	0.00001 TPY per sub facility
Furans	0.00001 TPY per sub facility

As all HAPs must be reported and as some sub facilities are considered insignificant and not included on the reporting forms, use the "Other Sub Facility" block on the reporting forms to reconcile the facility totals with individual sub facility estimates.

5.9 Site Pollutant Summary

The form summarizes the annual emissions of NO_X, SO_X, VOC, PM10, PM 2.5, NH_3 and CO for the facility. You must use the reporting form provided in the Appendix or with your preprinted input forms.

6. Confidentiality

Confidential status must be requested in a letter to the DEP regional office annually. The letter must specify the sub facilities and information that are affected, and the reasons for needing confidentiality. Confidentiality is discussed in Section 13.2 of the Pennsylvania Air Pollution Control Act. Only throughputs and operating schedules can be treated as confidential in AIMS/eFACTS. Confidential throughputs and operating schedules are not provided in basic reports requested by the public and agencies other than EPA. Confidential throughputs and operating schedules are not provided to EPA.

7. Certification of Data Accuracy for Emission Statement

This form must be completed annually by the owners/operators of facilities that are subject to the Emission Statement regulation. You must use the form provided in the Appendix or with your preprinted input forms. If you are using the form in the Appendix, make sure to fill in your Primary Facility ID (assigned by DEP) in the space at the top of the form.

8. Extensions Beyond March 1

As per 25 Pa. Code Section 135.3(c) a facility's owner/operator may request an extension of time from the Department for the filing of the annual emission inventory, and the Department may grant the extension for reasonable cause. Extension requests should be made in writing to the RAQ contact listed in these Instructions. Include the reason for the request and the expected date by which the inventory report will be submitted.

9. DEP Contact Listings

Please return the completed forms to the appropriate RAQ representative from the following contact listing. If you have questions about the forms, please call your RAQ representative.

9.1 Contact Listing, Norristown - Region I (Southeast)

Contact	County
James Rebarchak Southeast Regional Office 2 East Main Street Norristown, PA 19401 (484) 250-7503	Montgomery County
Kevin McLemore Southeast Regional Office 2 East Main Street Norristown, PA 19401 (484) 250-7502250-5900	Chester County Delaware County
Kevin McLemore Southeast Regional Office 2 East Main Street Norristown, PA 19401 (484) 250-7502	Chester County Delaware County
Shawn Mountain Southeast Regional Office 2 East Main Street Norristown, PA 19401 (484) 250-7504	Bucks County

9.2 Contact Listing, Wilkes-Barre - Region II (Northeast)

Contact	County	
Roger Bellas Northeast Regional Office Two Public Square Wilkes-Barre, PA 18711-0790 (570) 826-2464	Lackawanna County Luzerne County Pike County Monroe County (except: Schuylkill County Susquehanna County Wayne County Wyoming County	 Stroudsburg East Stroudsburg Stroud Ross Hamilton Township)
Peter DiSabella Northeast Regional Office Two Public Square Wilkes-Barre, PA 18711-0790 (610) 826-2345	Lehigh County Northampton County Monroe County (partial):	 Stroudsburg East Stroudsburg Hamilton Township Ross Stroud

9.3 Contact Listing, Harrisburg - Region III (Southcentral)

Contact	County
Frederick Heagy Southcentral Regional Office 909 Elmerton Ave. Harrisburg, PA 17110 (717) 705-4886	Cumberland County Dauphin County Lebanon County Perry County
Susan Foster York District Office 150 Roosevelt Avenue, Suite 200 York, PA 17401-3381 (717) 771-4481	Adams County Franklin County York County
Dave Bonga Lancaster District Office 1661 Old Philadelphia Pike Lancaster, PA 17602 (717) 390-2360	Berks County Lancaster County
Richard Roller Altoona District 3001 Fairway Drive Altoona, PA 16602 (814) 946-7294	Bedford County Blair County Fulton County Juniata County Huntington County Mifflin County

9.4 Contact Listing, Williamsport - Region IV (Northcentral)

Contact	County
Muhammad Zaman Northcentral Regional Office 208 West Third Street Suite 101 Williamsport, PA 17701 (570) 327-0512	Bradford County Cameron County Centre County Clearfield County Clinton County Columbia County Lycoming County Montour County Northumberland County Potter County Snyder County Sullivan County Tioga County Union County

9.5 Contact Listing, Pittsburgh - Region V (Southwest)

Contact	County
Keith Gratzmiller Pittsburgh Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745 (412) 442-4000	Armstrong County Beaver County Greene County Washington County
Dan Haney Greensburg District Office RR2, Box 603-C, Route 819S Greensburg, PA 15601-9802 (724) 925-5415	Cambria County Fayette County Indiana County Somerset County Westmoreland County

9.6 Contact Listing, Meadville - Region VI (Northwest)

Contact	County	Township/Borough
Staci Gustafson Northwest Regional Office 230 Chestnut Street Meadville, PA 16335-3481 (814) 332-6940	Crawford County Erie County Mercer County (partial):	 Deer Creek Township Delaware Township Fairview Township Fredonia Borough French Creek Township Greene Township Greenville Borough Hempfield Township Jamestown Borough Lake Township Mill Creek Township New Lebanon Borough New Vernon Township Otter Creek Township Perry Township Pymatuning Township Salem Township Sandy Creek Township Sandy Lake Borough Sandy Lake Township Sheakleyville Borough Stoneboro Borough Sugar Grove Township West Salem Township
	Venango County (partial):	Canal Township Cooperstown Borough French Creek Township Jackson Township Oakland Township Plum Township Sugarcreek Borough Utica Borough

9.6 Contact Listing, Meadville - Region VI (Northwest) (continued)

Contact	County	Township/Borough
Lori McNabb 121 North Mill Street New Castle, PA 16101	Butler County Lawrence County Mercer County (partial):	Clark Boro Coolspring Township East Lackawannock Township Farrell Findley Township Grove City Borough Hermitage Hickory Township Jackson Center Jackson Township Jefferson Township Lackawannock Township Liberty Township Mercer Pine Township Sharon Sharpsville Borough Shenango Township South Pymatuning Township Springfield Township West Middlesex Borough Wheatland Borough Wilmington Township Wolf Creek Township Worth Township
	Venango County (partial):	Barkeyville Borough Clinton Township Clintonville Borough Emlenton Borough Franklin Borough Irwin Township Mineral Township Polk Sandycreek Township Scrubgrass Township Victory Township

9.6 Contact Listing, Meadville - Region VI (Northwest) (continued)

Contact	County	Township/Borough
David Bubbenmoyer Northwest Regional Office 230 Chestnut Street, Meadville, PA 16335 (814) 723-3273	Clarion County Elk County Forest County Jefferson County McKean County Warren County Venango County (partial):	 Allegheny Township Cherrytree Township Cornplanter Township Cranberry Township Oil City Oil Creek Township Pinegrove Township Pleasantville Borough President Township Richland Township Rockland Township Rouseville Borough

9.7 Contact Listing, Philadelphia Air Management Services

Contact
Assistant Director of Engineering Department of Public Health Air Management Services 321 University Avenue Philadelphia, PA 19104 (215) 875-5678

9.8 Contact Listing, Allegheny County Health Department

Contact
Allegheny County Health Department Bureau of Air Pollution Control 301 39th Street Pittsburgh, PA 15201 (412) 578-8133

10. Calculation Method Codes For Emissions

These codes are assigned by the facility's owner/operator and describe the method used to calculate the emission estimates. Codes 4, 5, 6, 7 and 8 are assigned within AIMS/eFACTS and should not be assigned by the facility's owner/operator.

CODE	AIMS DESCRIPTION
1	DEP Stack Test
2	Company Stack Test Approved by DEP
3	Other Company Test Approved by DEP
9	See Comment
10	Company SCC Factor
11	Company Material Balance
12	Company Efficiency of Control Device
13	Company VOC Calculation
14	Continuous Emission Monitoring
15	AP-42
16	Company-Calculated Site Emission

11. Reliability Codes For Emissions

Reliability codes are assigned by the RAQ staff or AIMS/eFACTS. **The codes are provided in the instructions for informational purposes only**. The following list is arranged in order of most reliable method of calculation to least reliable. Codes A, B, C, D, E and U are assigned by AIMS/eFACTS and describe the reliability of the SCC used.

CODE	DESCRIPTION
CEM	Continuous Emission Monitoring
BST	Best Stack Test
ST	Stack Test
DVC	DEP VOC Calculation
CVC	Company VOC Calculation
MMB	Measured Material Balance
ME	Measured Efficiency
RE	Rated Efficiency
EMB	Estimated Material Balance
COM	See Comment
A	A Rated Factor
B	B Rated Factor
C	C Rated Factor
D	D Rated Factor
E	E Rated Factor
SITE	Site-Level Manual Emission
U	U Unrated Factor
NA	N/A For Plant Total

12. Abbreviations/Acronyms

Abbreviation/Acronym	Definition
ACFM	Actual cubic feet per minute
ACT	Actual
AIMS	Air Information Management System (BAQ's database module of eFACTS)
AIRS	Aerometric Information Retrieval System (EPA's database)
BAQ	Bureau of Air Quality
BTU	British thermal units
CAS	Chemical abstract service
CD	Control device
CO	Carbon monoxide
CU	Combustion unit
DEP	Pennsylvania Department of Environmental Protection
eFACTS	environment, Facility, Application, Compliance Tracking System
EHS	Extremely Hazardous Substance
EPA	United States Environmental Protection Agency
FML	Fuel material location
FUEL MAT LOC	Fuel material location
Hg	Mercury
IN	Incinerator
INC	Incinerator
MACT	Maximum Achievable Control Technology
MBTU	Thousand Btu
MMBTU	Million Btu
NAICS	North American Industrial Classification System
NOx	Nitrogen oxides
Pb	Lead
PCB	Polychlorobiphenols
P000	General particulate
PM10	Particulate matter less than 10 microns in diameter
PM2.5	Particulate matter less than 2.5 microns in diameter
POM	Polycyclic Organic Matter
PR	Process
PTE	Potential to Emit
RAQ	Regional Air Quality
SCC	Sub Facility Classification Code
SCFM	Standard cubic feet per minute
SIC	Standard Industrial Classification
SOx	Sulfur oxides
TPY	Tons per Year
VOC	Volatile organic compounds

13. Table A: Hazardous Air Pollutants (112 [b]) Sorted Alphabetically by Pollutant Name

CAS	POLLUTANT *(Alphabetical By Pollutant Name)*
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including Benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine

CAS	POLLUTANT *(Alphabetical By Pollutant Name)*
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene (2-chloro-1,3-butadiene)
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene (Isopropylbenzene)
94757	2,4-D, salts,esters (Dichlorophenoxyacetic acid)
72559	DDE (p,p-Dichlorodiphenyldichloroethylene)
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene
91941	3,3-Dichlorobenzidine
111444	Dichloroethyl ether (Bis(2 chloroethyl)ether)
542756	1,3-Dichloropropene (mixture)
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Dimethylaniline
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene

CAS	POLLUTANT *(Alphabetical By Pollutant Name)*
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (1-chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane (1,2-Butylene oxide)
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (1,2-Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene 1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
123319	Hydroquinone
78591	Isophorone
58899	Lindane (gamma hexachlorocyclohexane) (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)

CAS	POLLUTANT *(Alphabetical By Pollutant Name)*
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (4-methyl-2-pentanone) (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4,4-Methylene-bis(2-chloroaniline)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (PCB's) (Aroclors)
1120714	1,3-Propane sultone
57578	beta Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone (1,4-benzoquinone)

CAS	POLLUTANT *(Alphabetical By Pollutant Name)*
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo p dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide (bromoethene)
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	o-Xylenes
108383	m-Xylenes
106423	p-Xylenes

14. Table B: Hazardous Air Pollutants (112 [b]) Sorted by Chemical Abstract Service Number

CAS	POLLUTANT *(by Chemical Abstract Service Number)*
50000	Formaldehyde
51285	2,4-Dinitrophenol
51796	Ethyl carbamate (Urethane)
53963	2-Acetylaminofluorene
56235	Carbon tetrachloride
56382	Parathion
57147	1,1-Dimethyl hydrazine
57578	beta Propiolactone
57749	Chlordane
58899	Lindane (gamma hexachlorocyclohexane) (all isomers)
59892	N-Nitrosomorpholine
60117	Dimethyl aminoazobenzene
60344	Methyl hydrazine
60355	Acetamide
62533	Aniline
62737	Dichlorvos
62759	N-Nitrosodimethylamine
63252	Carbaryl
64675	Diethyl sulfate
67561	Methanol
67663	Chloroform
67721	Hexachloroethane
68122	Dimethyl formamide
71432	Benzene (including Benzene from gasoline)
71556	Methyl chloroform (1,1,1-Trichloroethane)
72435	Methoxychlor
72559	DDE (p,p-Dichlorodiphenyldichloroethylene)
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
74884	Methyl iodide (Iodomethane)
75003	Ethyl chloride (Chloroethane)
75014	Vinyl chloride
75058	Acetonitrile
75070	Acetaldehyde
75092	Methylene chloride (Dichloromethane)
75150	Carbon disulfide
75218	Ethylene oxide
75252	Bromoform
75343	Ethylidene dichloride (1,1-Dichloroethane)
75354	Vinylidene chloride (1,1-Dichloroethylene)
75445	Phosgene
75558	1,2-Propylenimine (2-Methyl aziridine)
75569	Propylene oxide
76448	Heptachlor

CAS	POLLUTANT *(by Chemical Abstract Service Number)*
77474	Hexachlorocyclopentadiene
77781	Dimethyl sulfate
78591	Isophorone
78875	Propylene dichloride (1,2-Dichloropropane)
78933	Methyl ethyl ketone (2-Butanone)
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
79061	Acrylamide
79107	Acrylic acid
79118	Chloroacetic acid
79345	1,1,2,2-Tetrachloroethane
79447	Dimethyl carbamoyl chloride
79469	2-Nitropropane
80626	Methyl methacrylate
82688	Pentachloronitrobenzene (Quintobenzene)
84742	Dibutylphthalate
85449	Phthalic anhydride
87683	Hexachlorobutadiene
87865	Pentachlorophenol
88062	2,4,6-Trichlorophenol
90040	o-Anisidine
91203	Naphthalene
91225	Quinoline
91941	3,3-Dichlorobenzidine
92524	Biphenyl
92671	4-Aminobiphenyl
92875	Benzidine
92933	4-Nitrobiphenyl
94757	2,4-D, salts,esters (Dichlorophenoxyacetic acid)
95476	o-Xylenes
95487	o-Cresol
95534	o-Toluidine
95807	2,4-Toluene diamine
95954	2,4,5-Trichlorophenol
96093	Styrene oxide
96128	1,2-Dibromo-3-chloropropane
96457	Ethylene thiourea
98077	Benzotrichloride
98828	Cumene (Isopropylbenzene)
98862	Acetophenone
98953	Nitrobenzene
100027	4-Nitrophenol
100414	Ethyl benzene
100425	Styrene
100447	Benzyl chloride
101144	4,4-Methylene-bis(2-chloroaniline)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4-Methylenedianiline
106423	p-Xylenes
106445	p-Cresol

CAS	POLLUTANT *(by Chemical Abstract Service Number)*
106467	1,4-Dichlorobenzene
106503	p-Phenylenediamine
106514	Quinone (1,4-benzoquinone)
106887	1,2-Epoxybutane (1,2-Butylene oxide)
106898	Epichlorohydrin (1-chloro-2,3-epoxypropane)
106934	Ethylene dibromide (1,2-Dibromoethane)
106990	1,3-Butadiene
107028	Acrolein
107051	Allyl chloride
107062	Ethylene dichloride (1,2-Dichloroethane)
107131	Acrylonitrile
107211	Ethylene glycol
107302	Chloromethyl methyl ether
108054	Vinyl acetate
108101	Methyl isobutyl ketone (4-methyl-2-pentanone) (Hexone)
108316	Maleic anhydride
108383	m-Xylenes
108394	m-Cresol
108883	Toluene
108907	Chlorobenzene
108952	Phenol
110543	Hexane
111422	Diethanolamine
111444	Dichloroethyl ether (Bis(2 chloroethyl)ether)
114261	Propoxur (Baygon)
117817	Bis(2-ethylhexyl)phthalate (DEHP)
118741	Hexachlorobenzene
119904	3,3-Dimethoxybenzidine
119937	3,3-Dimethyl benzidine
120809	Catechol
120821	1,2,4-Trichlorobenzene
121142	2,4-Dinitrotoluene
121448	Triethylamine
121697	N,N-Dimethylaniline
122667	1,2-Diphenylhydrazine
123319	Hydroquinone
123386	Propionaldehyde
123911	1,4-Dioxane (1,4-Diethyleneoxide)
126998	Chloroprene (2-chloro-1,3-butadiene)
127184	Tetrachloroethylene (Perchloroethylene)
131113	Dimethyl phthalate
132649	Dibenzofurans
133062	Captan
133904	Chloramben
140885	Ethyl acrylate
151564	Ethylene imine (Aziridine)
156627	Calcium cyanamide
302012	Hydrazine
334883	Diazomethane
463581	Carbonyl sulfide

CAS	POLLUTANT *(by Chemical Abstract Service Number)*
510156	Chlorobenzilate
532274	2-Chloroacetophenone
534521	4,6-Dinitro-o-cresol, and salts
540841	2,2,4-Trimethylpentane
542756	1,3-Dichloropropene (mixture)
542881	Bis(chloromethyl)ether
584849	2,4-Toluene diisocyanate
593602	Vinyl bromide (bromoethene)
624839	Methyl isocyanate
680319	Hexamethylphosphoramide
684935	N-Nitroso-N-methylurea
822060	Hexamethylene 1,6-diisocyanate
1120714	1,3-Propane sultone
1319773	Cresols/Cresylic acid (isomers and mixture)
1330207	Xylenes (isomers and mixture)
1332214	Asbestos
1336363	Polychlorinated biphenyls (PCB's) (Aroclors)
1582098	Trifluralin
1634044	Methyl tert butyl ether
1746016	2,3,7,8-Tetrachlorodibenzo p dioxin
7550450	Titanium tetrachloride
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
7723140	Phosphorus
7782505	Chlorine
7803512	Phosphine
8001352	Toxaphene (chlorinated camphene)

15. Table C: Compounds As Listed In 112(b)

Compound Name
Antimony Compounds
Arsenic Compounds (inorganic including arsine)
Beryllium Compounds
Cadmium Compounds
Chromium Compounds
Cobalt Compounds
Coke Oven Emissions
Cyanide Compounds [1]
Fine mineral fibers [3]
Glycol ethers [2]
Lead Compounds
Manganese Compounds
Mercury Compounds
Nickel Compounds
Polycyclic Organic Matter [4]
Radionuclides (including radon) [5]
Selenium Compounds

Note: Unless otherwise specified, "Glycol ethers" and all listings above that contain the word "compounds" are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

[1] X'CN where X = H' or any other group where a formal dissociation may occur. For example, KCN or $Ca(CN)_2$.

[2] Includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol $R(OCH2CH2)_n$-OR' where

n = 1, 2, or 3
R = alkyl or aryl groups
R' = R, H, or groups which, when removed, yield glycol ethers with the structure: $R(OCH2CH2)_n$-OH. Polymers are excluded from the glycol category.

[3] Includes mineral fibers emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

[4] Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 ^{o} C.

[5] A type of atom that spontaneously undergoes radioactive decay.

Appendix A WORKSHEET FOR A NEW FACILITY

Date*: _____ For Year*: _____ Tax ID/Plant Code*: _____

Facility Name*: _____ Primary Facility ID*: _____

Region*: _____ County*: _____ Municipality*: _____

SIC*: _____ _____ NAICS: _____ _____

Contact Type	Name	Address	Telephone
Firm*			
Location			
Corporate			
Fee			
Inspection			
Permit			
Responsible Official			

Appendix A WORKSHEET FOR A NEW FACILITY (cont'd)

Location Information

Latitude*: _____ UTM Elevation: _____ North: _____

Longitude*: _____ Coordinates Zone: _____ East: _____

Fuel Use Summary*

Type	Total Use	Type	Total Use

Pollutant Summary*

(Sum of Individual and Miscellaneous Sub Facilities)
Emission Estimates (0.00 Tons/Year)

Ammonia _____ PM10 _____

CO _____ PM2.5 _____

Lead _____ SO_X _____

NO_X _____ VOC _____

*Indicates a required field

Appendix B WORKSHEET FOR MISCELLANEOUS SOURCE EMISSIONS

Date*: _____ For Year*: _____ Tax ID/Plant Code*: _____

Facility Name*: _____ Primary Facility ID*: _____

Other Miscellaneous Sub Facility Emissions (Criteria/HAPs/Non-Criteria)				
Sub Facility (optional name)	Pollutant	CAS	Amount (0.00)	Calc Method

Note: Most criteria pollutants and HAPs need to be reported if greater than 0.5 TPY. The following pollutants need to be reported if greater than the amount listed:

Polychlorobiphenyls (PCBs)	0.01 TPY
Mercury (Hg)	0.01 TPY
Lead (Pb)	0.01 TPY
Polycyclic Organic Matter (POM)	0.01 TPY
Dioxins	0.02 Lbs/Yr
Furans	0.02 Lbs/Yr

*Indicates a required field

Appendix C WORKSHEET FOR NEW COMBUSTION UNITS

Date: _____ For Year: _____ Tax ID/Plant Code: _____ Facility Name: _____ Primary Facility ID: _____		
Unit Name:		
Description:		
Manufacturer:	Model:	Date Installed:
DEP Permit No.:	Connected to FML(s)?:	

Actual Emission Estimates (Tons/Yr) for Emission Fees and Emission Statements

Pollutant	CAS	Emission Amt (0.00 TPY)	Calculation Method
CO			
Lead			
NH_3			
NOX			
PM10			
PM2.5			
SOX			
VOC			
Additional Pollutants (enter HAPs individually):			

NOTE: Most Criteria pollutants and HAPS need to be reported if greater than 0.5 TPY. The following pollutants need to be reported if greater than the amounts listed:

Polychlorobiphenols (PCB)	0.01 TPY
Mercury (Hg)	0.01 TPY
Lead (Pb)	0.01 TPY
Polycyclic Organic Matter (POM)	0.01 TPY
Dioxins (submit Lbs/Yr only)	0.02 Lbs/Yr
Furans (submit Lbs/Yr only)	0.02 Lbs/Yr

Appendix C WORKSHEET FOR NEW COMBUSTION UNITS (cont'd)

First Fuel Burned: _____		Maximum Throughput/Hr: _____	
SCC, if known: _____		_____	
FML? (y/n) ___	% Sulfur: _____	% Ash: _____	BTU/lb-gal-ft^3: _____
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

2nd Fuel Burned: _____		Maximum Throughput/Hr: _____	
SCC, if known: _____		_____	
FML? (y/n) ___	% Sulfur: _____	% Ash: _____	BTU/lb-gal-ft^3: _____
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

Appendix C WORKSHEET FOR NEW COMBUSTION UNITS (cont'd)

First Control Device

Type (Baghouse, ESP, etc.):	Manufacturer:	Model:	Date Installed:
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	DEP ID number?	Is Material Collected/ Land filled on Site?

Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Second Control Device

Type (Bughouse, ESP, etc.):	Manufacturer:	Model:	Date Installed:
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	DEP ID number?	Is Material Collected Land filled on Site?

Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Appendix C WORKSHEET FOR NEW COMBUSTION UNITS (cont'd)

First Stack

Inside Diameter:	Height:	Distance to Nearest Property Line:
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	DEP ID Number?

Stack Discharge Type: _____

S = Vertical Unobstructed Opening

W = Vertical Weather Cap or Similar Obstruction

X = Horizontal or Nearly Horizontal

Y = Downward or Nearly Downward

Z = Fugitive Emissions

Second Stack

Inside Diameter:	Height:	Distance to Nearest Property Line:
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	DEP ID Number?

Stack Discharge Type: _____

S = Vertical Unobstructed Opening

W = Vertical Weather Cap or Similar Obstruction

X = Horizontal or Nearly Horizontal

Y = Downward or Nearly Downward

Z = Fugitive Emissions

Appendix D WORKSHEET FOR NEW PROCESSES

Date: _____ For Year: _____ Tax ID/Plant Code: _____		
Facility Name: _____ Primary Facility ID: _____		
Process Name:		
Description:		
Manufacturer:	Model:	Date Installed:
DEP Permit No.:	Connected to FML(s)?:	

Actual Emission Estimates (Tons/Yr) for Emission Fees and Emission Statements

Pollutant	CAS	Emission Amt (0.00 TPY)	Calculation Method
CO			
Lead			
NH_3			
NOX			
PM10			
PM2.5			
SOX			
VOC			
Additional Pollutants (enter HAPs individually):			

NOTE: Most Criteria pollutants and HAPS need to be reported if greater than 0.5 TPY. The following pollutants need to be reported if greater than the amounts listed:

Polychlorobiphenols (PCB)	0.01 TPY
Mercury (Hg)	0.01 TPY
Lead (Pb)	0.01 TPY
Polycyclic Organic Matter (POM)	0.01 TPY
Dioxins (Submit Lbs/Yr only)	0.02 Lbs/Yr
Furans (Submit Lbs/Yr only)	0.02 Lbs/Yr

Appendix D WORKSHEET FOR NEW PROCESSES (cont'd)

First Material Processed or Produced: _____			
SCC, if known: _____	Maximum Throughput/Hr: _____		
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

2nd Material Processed or Produced: _____			
SCC, if known: _____	Maximum Throughput/Hr: _____		
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

Appendix D WORKSHEET FOR NEW PROCESSES (cont'd)

First Fuel Burned: _____		Maximum Throughput/Hr: _____	
SCC, if known: _____		_____	
FML? (y/n) ___	% Sulfur: _____	% Ash: _____	BTU/lb-gal-ft^3: _____
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

2nd Fuel Burned: _____		Maximum Throughput/Hr: _____	
SCC, if known: _____		_____	
FML? (y/n) ___	% Sulfur: _____	% Ash: _____	BTU/lb-gal-ft^3: _____
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

Appendix D WORKSHEET FOR NEW PROCESSES (cont'd)

First Control Device

Type (Baghouse, ESP, etc.):	Manufacturer:	Model:	Date Installed:
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	DEP ID number?	Is Material Collected/ Landfilled on Site?

Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Second Control Device

Type (Baghouse, ESP, etc.):	Manufacturer:	Model:	Date Installed:
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	DEP ID number?	Is Material Collected/ Landfilled on Site?

Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Appendix D WORKSHEET FOR NEW PROCESSES (cont'd)

First Stack

Inside Diameter:	Height:	Distance to Nearest Property Line:
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	DEP ID Number?

Stack Discharge Type: _____

S = Vertical Unobstructed Opening

W = Vertical Weather Cap or Similar Obstruction

X = Horizontal or Nearly Horizontal

Y = Downward or Nearly Downward

Z = Fugitive Emissions

Second Stack

Inside Diameter:	Height:	Distance to Nearest Property Line:
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	DEP ID Number?

Stack Discharge Type: _____

S = Vertical Unobstructed Opening

W = Vertical Weather Cap or Similar Obstruction

X = Horizontal or Nearly Horizontal

Y = Downward or Nearly Downward

Z = Fugitive Emissions

Appendix E WORKSHEET FOR NEW INCINERATORS

Date: _____ For Year: _____ Tax ID/Plant Code: _____		
Facility Name: _____ Primary Facility ID: _____		
Incinerator Name:		
Description:		
Manufacturer:	Model:	Date Installed:
Incinerator Capacity:	Primary Burner Capacity:	Secondary Burner Capacity:
Incinerator Class:	Waste Type (see back):	DEP Permit No.:
Exhaust Flow(ACFM):	Exhaust Temp:	Exhaust Moisture (%):
Exhaust CO2 (%):	Connected to FML(s)?	

Actual Emission Estimates (Tons/Yr) for Emission Fees and Emission Statements:

Pollutant	CAS	Emission Amt (0.00 TPY)	Calculation Method
CO			
Lead			
NH_3			
NOX			
PM10			
PM2.5			
SOX			
VOC			
Additional Pollutants (enter HAPs individually):			

NOTE: Most Criteria pollutants and HAPS need to be reported if greater than 0.5 TPY. The following pollutants need to be reported if greater than the amounts listed:

Polychlorobiphenols (PCB)	0.01 TPY
Mercury (Hg)	0.01 TPY
Lead (Pb)	0.01 TPY
Polycyclic Organic Matter (POM)	0.01 TPY
Dioxins (Submit Lbs/Yr only)	0.02 Lbs/Yr
Furans (Submit Lbs/Yr only)	0.02 Lbs/Yr

Appendix E WORKSHEET FOR NEW INCINERATORS (cont'd)

Primary Material Incinerated _____			
SCC, if known: _____	Maximum Throughput/Hr: _____		
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

Secondary Material Incinerated _____			
SCC, if known: _____	Maximum Throughput/Hr: _____		
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

Appendix E WORKSHEET FOR NEW INCINERATORS (cont'd)

First Fuel Burned: _____		Maximum Throughput/Hr: _____	
SCC, if known: _____		_____	
FML? (y/n) ___	% Sulfur: _____	% Ash: _____	BTU/lb-gal-ft^3: _____
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

2nd Fuel Burned: _____		Maximum Throughput/Hr: _____	
SCC, if known: _____		_____	
FML? (y/n) ___	% Sulfur: _____	% Ash: _____	BTU/lb-gal-ft^3: _____
SCHEDULE 1			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____
SCHEDULE 2			
Date Effective:	Monthly Throughput in (Units):		
Date End:	JAN: _____	FEB: _____	MAR: _____
Total Days:	APR: _____	MAY: _____	JUN: _____
Total Hours:	JUL: _____	AUG: _____	SEP: _____
Days per Week:	OCT: _____	NOV: _____	DEC: _____

Appendix E WORKSHEET FOR NEW INCINERATORS (cont'd)

First Control Device

Type (Baghouse, ESP, etc.):	Manufacturer:	Model:	Date Installed:
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	DEP ID number?	Is Material Collected/ Landfilled on Site?

Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Second Control Device

Type (Baghouse, ESP, etc.):	Manufacturer:	Model:	Date Installed:
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	DEP ID number?	Is Material Collected/ Landfilled on Site?

Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Appendix E WORKSHEET FOR NEW INCINERATORS (cont'd)

First Stack

Inside Diameter:	Height:	Distance to Nearest Property Line:
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	DEP ID Number?
Stack Discharge Type: _____ S = Vertical Unobstructed Opening W = Vertical Weather Cap or Similar Obstruction X = Horizontal or Nearly Horizontal Y = Downward or Nearly Downward Z = Fugitive Emissions		

Second Stack

Inside Diameter:	Height:	Distance to Nearest Property Line:
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	DEP ID Number?
Stack Discharge Type: _____ S = Vertical Unobstructed Opening W = Vertical Weather Cap or Similar Obstruction X = Horizontal or Nearly Horizontal Y = Downward or Nearly Downward Z = Fugitive Emissions		

Appendix E WORKSHEET FOR NEW INCINERATORS (cont'd)

INCINERATOR CLASS CODES

Class I	Portable packaged incinerators having a burning rate up to but not including 100 pounds per hour of Type 0 or Type 1 waste or 75 pounds per hour of Type 2 or Type 3 waste.
Class II	Flue fed single chamber incinerators capable of burning Type 0 or Type 1 waste at the rate of 100 pounds or more per hour or Type 2 waste at the rate of 75 pounds or more per hour. New installations of these units are not acceptable to the Department.
Class IIA	Chute fed multi-chamber incinerators suitable for burning Type 0 and Type 1 waste at the rate of 100 pounds or more per hour.
Class III	Direct fed incinerators suitable for burning Type 0 and Type 1 waste at the rate of 100 pounds or more per hour or Type 2 waste at the rate of 75 pounds or more per hour.
Class IV	Incinerators suitable for burning Type 3 waste at the rate of 75 pounds or more per hour.
Class V	Municipal incinerators suitable for burning a combination of wastes.
Class VI	Crematory and pathological incinerators suitable for burning Type 4 waste at the rate of 25 pounds or more per hour.
Class VII	Special incinerators designed to burn Type 5, Type 6, Type 7 or special wastes at the rate of 25 pounds or more per hour.
Class CA	Controlled air incinerators designed to burn waste from institutional, commercial and industrial operation.

INCINERATOR WASTE TYPE CODES

Trash: a mixture of highly combustible waste such as paper, cardboard cartons, wood boxes, and combustible floor sweepings from commercial and industrial activities containing up to 10% by-weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags and plastic or rubber scraps.

Rubbish: a mixture of combustible waste such as paper, cardboard cartons, wood scrip, foliage and combustible floor sweepings from domestic, commercial, and industrial activities containing up to 20% by-weight of restaurant or cafeteria waste, but little or no treated papers, plastic or rubber wastes.

Refuse: consisting of approximately an even mixture of rubbish and garbage by-weight.

Garbage: consisting of animal and vegetable uses from cafeterias, hotels, hospitals, markets, and like installations.

Remains: human and/or animal consisting of carcasses, organs and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds and similar sub facilities.

By-prod: gaseous, liquid, or semi-liquid, such as tar, paints, solvents, sludge, fumes, etc., from industrial operations.

Solids: by-product waste such as rubber, plastics, wood waste, etc., from industrial operations.

Sludge: the accumulated settled solids deposited from sewage.

Appendix F WORKSHEET FOR NEW CONTROL DEVICES

Date: _____	For Year: _____	Tax ID/Plant Code: _____
Facility Name: _____		Primary Facility ID: _____

First Control Device

Type (Baghouse, ESP, etc.):	Manufacturer:	Model:	Date Installed:
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	DEP ID number?	Is Material Collected/ Landfilled on Site?

Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Second Control Device

Type (Baghouse, ESP, etc.):	Manufacturer:	Model:	Date Installed:
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	DEP ID number?	Is Material Collected/ Landfilled on Site?

Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Appendix G WORKSHEET FOR NEW STACKS

Date: _____	For Year: _____	Tax ID/Plant Code: _____
Facility Name: _____		Primary Facility ID: _____

Stack 1

Company Designation:	Base Elevation (Ft):	
Inside Diameter:	Height:	
Flow Volume ACFM:	Velocity (m/sec):	
	Moisture %:	DEP ID Number?
Stack Discharge Type: _____	S = Vertical Unobstructed Opening W = Vertical Weather Cap or Similar Obstruction X = Horizontal or Nearly Horizontal Y = Downward or Nearly Downward Z = Fugitive Emissions	
Latitude* (to 0.0 seconds):	Longitude* (to 0.0 seconds):	
Latitude (to 0.0 seconds):	Longitude (to 0.0 seconds):	
Method:	Horizontal Accuracy:	Geometric Type:
Horizontal Reference Datum:	Reference Point:	

Stack 2

Company Designation:	Base Elevation (Ft):	
Inside Diameter:	Height:	
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	DEP ID Number?
Stack Discharge Type: _____	S = Vertical Unobstructed Opening W = Vertical Weather Cap or Similar Obstruction X = Horizontal or Nearly Horizontal Y = Downward or Nearly Downward Z = Fugitive Emissions	
Latitude (to 0.0 seconds):	Longitude (to 0.0 seconds):	
Method:	Horizontal Accuracy:	Geometric Type:
Horizontal Reference Datum:	Reference Point:	

Appendix H WORKSHEET FOR NEW FUEL MATERIAL LOCATIONS

Date: _____	For Year: _____	Tax ID/Plant Code: _____
Facility Name: _____		Primary Facility ID: _____

Please identify all locations that store fuel used by more than one air pollution sub facility or Control Device in the emissions year. The reason we are identifying fuel locations is to associate the characteristics of the fuel (%Sulfur, %Ash, Btu) once with the fuel location, instead of multiple times with each sub facility fed by the fuel location. Rules for creating fuel locations are:

1. Create a fuel location only if it supplies fuel to more than one sub facility in an emissions year. If a sub facility is fed by its own fuel location, enter the fuel characteristics with its fuel record in your operations data.
2. A fuel location can store only one type of fuel in an emissions year.
3. If it changed the fuel stored during the year, create a separate fuel location for each of the fuels used.
4. A sub facility can be fed a specific fuel from only one fuel location in a year.

Fuel Material Location 1

Company Name:		Fuel Type:		
Storage Capacity:		Date Installed:		
Sub Facilities Fed By This location				
Fuel Analyses for Reporting Year				
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:

Appendix H WORKSHEET FOR NEW FUEL MATERIAL LOCATIONS (cont'd)

Fuel Material Location 2

Company Name:		Fuel Type:		
Storage Capacity:		Date Installed:		
Sub Facilities Fed By This location				
Fuel Analyses for Reporting Year				
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:

Fuel Material Location 3

Company Name:		Fuel Type:		
Storage Capacity:		Date Installed:		
Sub Facilities Fed By This location				
Fuel Analyses for Reporting Year				
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:
%ASH:	%Sulfur:	BTU:	Units(lb-gal-cuft):	Date Sampled:

Appendix I WORKSHEET FOR CHANGES TO EXISTING STACKS OR CONTROL DEVICES

Date: _____	For Year: _____	Tax ID/Plant Code: _____
Facility Name: _____		Primary Facility ID: _____

DEP ID of First Stack: _____

Enter only changed characteristics		
Inside Diameter:	Height:	Distance to Nearest Property Line:
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	
Stack Discharge Type: _____	S = Vertical Unobstructed Opening W = Vertical Weather Cap or Similar Obstruction X = Horizontal or Nearly Horizontal Y = Downward or Nearly Downward Z = Fugitive Emissions	

Notes:

DEP ID of Second Stack: _____

Enter only changed characteristics		
Inside Diameter:	Height:	Distance to Nearest Property Line:
Flow Volume ACFM:	Velocity (m/sec):	
Temperature °F:	Moisture %:	
Stack Discharge Type: _____	S = Vertical Unobstructed Opening W = Vertical Weather Cap or Similar Obstruction X = Horizontal or Nearly Horizontal Y = Downward or Nearly Downward Z = Fugitive Emissions	

Notes:

Appendix I WORKSHEET FOR CHANGES TO EXISTING STACKS OR CONTROL DEVICES (cont'd)

DEP ID of First Control Device: _____

Enter only changed characteristics		
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	Is Material Collected/ Landfilled on Site?
Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Notes:

DEP ID of Second Control Device: _____

Enter only changed characteristics		
Pressure Drop (in/water):	Scrubber Flow Rate (gal/min):	Is Material Collected Landfilled on Site?
Pollutant Control Efficiencies		
Pollutant	Efficiency %	Sub Facility (mfr rating, calculated, other)

Notes:

Appendix J CERTIFICATION OF DATA ACCURACY

AIR POLLUTION CONTROL ACT

CERTIFICATION OF DATA ACCURACY

FOR COMPANIES SUBJECT TO EMISSION STATEMENT REGULATION

Firm-Plant Code (federal tax ID + plant code assigned by DEP): _____

AFS Number (AIRS ID assigned by DEP): _____

Primary Facility ID (assigned by DEP): _____

Company Name: _____

Plant Address: _____

_____

_____

I, _____, certify under penalty of law as provided in 18 Pa. C.S. §4904 and Section 9(b)(2) of the Air Pollution Control Act, 35 P.S., §4009(b)(2) that I am a company officer or plant manager or authorized representative of the facility identified above, authorized to make this affidavit. I further certify that, based on information and belief formed after reasonable inquiry, the statements and information contained in this Emission Statement are true, accurate, and complete.

Signature: _____

Name: _____

(Print or Type)

Title: _____

(Print or Type)

Date: _____