# pennsylvania
### DEPARTMENT OF ENVIRONMENTAL PROTECTION

# APPENDIX A

# Point Sources

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**Point Sources**

A point source is a stationary, identifiable source of air pollution that usually emits 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 volatile organic compounds (VOC), nitrogen oxides ($NO_X$), and carbon monoxide (CO) are derived from Pennsylvania's 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 Air Emissions Reporting Requirements (AERR).

The AIMS database is linked to the PA Department of Environmental Protection's (DEP) eFACTS (Environment Facility, Application, Compliance Tracking System) database. This database allows DEP to share data internally for all program areas. In addition, the public is provided better access to the information through DEP's website.

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

Information on the emission inventory reporting system, including the instructions, can be found at:

> http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/Business%20Topics/Emission%20Inventory/docs/2700-BK-DEP1936.pdf

Annually, facilities complete worksheets or enter data into the Air Emissions System (AES) 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 SCC number. In addition to process data required, combustion unit data must include fuel used, fuel characteristics such as sulfur content and British thermal units (BTU), and any laboratory results. For each source, the company must supply an estimate of total emissions from criteria and hazardous pollutants, including the method used for completing the estimate. If the company estimates emissions using anything other than emissions factors, it must provide the methodology. Usually that methodology involves material balance, which uses material inputs and outputs to estimate materials emitted. The company is also required to provide emissions for the entire site, which must equal the total of all individual sources. For those companies submitting through AES, error messages are returned when emissions are significantly different from those expected, at which time the company will either change the entry or offer justification for acceptance of their numbers.

After the companies provide this data, inspectors or permit reviewers input and/or review the data in the AIMS system. For those companies submitting emissions inventory data by paper copy, the reviewer may receive an error message for emissions significantly different from previous years. At that time, the reviewer will contact the company for more information and either request a change submittal or enter the reason for the discrepancy.

The point source inventories for Allegheny and Philadelphia Counties are prepared by the Allegheny County Health Department and the Philadelphia County Health Department, respectively. The two county agencies submitted their point source emission inventories directly to EPA's EIS (Emission Inventory System) as required by the AERR. The county agencies also provided their point source data to DEP in order that effective State Implementation Plan (SIP) preparation may be undertaken.

The methodologies used by Philadelphia and Pittsburgh to calculate their inventories and perform QA/QC (quality assurance/quality control) may be found at http://www.phila.gov/health/airmanagement/index.html and http://www.achd.net/air/index.php, respectively.

The data files used for this document were obtained as a download from the EIS gateway. The SMOKE files from the gateway were imported into the EMF system in order to apply the necessary data filters and summer day averages.

Starting with the 2008 inventory, aircraft engine emissions occurring during Landing and Takeoff operations and the Ground Support Equipment and Auxiliary Power Units associated with the aircraft are included in the point data category at individual airports. Emissions from locomotives that occur at rail yards are also included in the point data category. Any aircraft and rail yard emissions not included in point will be discussed in Appendix B Nonpoint Sources.