



CITY OF PHILADELPHIA  
DEPARTMENT OF PUBLIC HEALTH  
PUBLIC HEALTH SERVICES  
AIR MANAGEMENT SERVICES

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***Instructions  
for  
Synthetic Minor Operating Permit Application***

***September 2002***

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## Part A: General Information

### A. Overview

This application is to be used in cases where a Title V Operating Permit is not required. Similar to a Title V Operating Permit, the Synthetic Minor Operating Permit will encompass all sources within a facility (site). This application is to be used for Synthetic Minor facilities. It can also be used by Natural Minor facilities, although there is also a more basic Natural Minor operating permit application. Natural Minor facilities are facilities that are truly minor without the imposition of federally enforceable emission limitations. Synthetic Minor facilities are facilities whose potential to emit, without taking limitations and/or restrictions, exceed the Title V applicability threshold. Hence, by taking a restriction in the hours of operation, an emission limitation, or any other approved method, a major facility by definition will become a minor facility and escape the Title V Operating Permit program. It is important to note that in order for a facility to become a synthetic minor, the limitations and/or restrictions taken must be ***federally enforceable***. ***Federally Enforceable*** means that the emission limitations and requirements are enforceable by the Environmental Protection Agency (EPA) and citizens under the Clean Air Act (CAA).

#### A.1 Number of copies required

Submit the completed application package in **triplicate** to Air Management Services. The mailing address is provided at the end of this guide (Appendix A).

#### A.2 Application Fees

A payment of the permit application processing fee of \$300 (from 2000 to 2004 and \$375 thereafter) by means of one check made payable to the "City of Philadelphia" must be included with this application.

#### A.3 Certification

This application must be signed by a ***responsible official*** in Section 1.4 of the application, "Certification of Truth, Accuracy, and Completeness". Synthetic Minor applicants must also sign Section 1.10 relating to "Certification of Compliance".

**"Responsible Official"** is defined as follows:

- a. For a corporation: a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
  - i. the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
  - ii. the delegation of authority to such representative is approved in advance by Air Management Services (AMS);
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this paragraph, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or
- d. For affected sources:
  - i. The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the Clean Air Act or the regulations promulgated thereunder are concerned; and
  - ii. The designated representative for any other purposes under 40 CFR Part 70.

#### **A.4 Compliance Review Form**

A completed City of Philadelphia Compliance Review Form must be submitted with each operating permit application, as required by Title 25 of the Pennsylvania Code, Section 127.412.

#### **A.5 Electronic Information**

Air Management Services forms and regulations are available via the agency's web site at [www.phila.gov/health/units/ams](http://www.phila.gov/health/units/ams).

## Part B: Specific Instructions

### B. Overview

The Synthetic Minor Operating Permit Application consists of the following sections:

Section 1:	General Information
Section 2:	Site Information
Section 3:	Site Inventory
Section 4:	Source Information
Section 5:	Control Device Information
Section 6:	Stack/Flue Information
Section 7:	Fuel Material Location Information
Section 8:	Alternative Operating Scenario
Section 9:	Certification of Compliance for Synthetic Minor Facilities

#### ***B.1 Section 1: General Information***

This section gives general information about the site as a whole and is only filled out once per application. There are four basic parts in this section:

##### ***1.1 Application Type:***

Indicate the type of permit for which this application is made for. Check all that would apply:

- ***Initial*** is for the initial application submittal.
- ***Renewal*** is for the renewal of an existing operating permit.
- ***Modification*** is for a proposed modification to the original operating permit or plan approval.
- ***Synthetic Minor & Natural Minor*** (see discussion about Synthetic and Natural Minor facilities in Part A, “***Overview***”, and in Part B, Section 2.1, “***Facility Type***”).
- ***Other*** is for all other types of application submittals. Briefly explain the type of submittal on the space provided.

## 1.2 ***Plant Information:***

This sub-section provides general information about the plant. The following information is requested and must be completed:

- a) ***Tax ID:*** This is the Federal Tax ID. This number is unique for a company and in conjunction with the plant code, is used to track information for a site.
- b) ***Firm Name:*** The name of the company.
- c) ***Plant ID:*** **Do not** fill out this code. This code is assigned by AMS and is used to separate multiple sites that belong to a facility. This number along with the Tax ID would directly point to a specific site location.
- d) ***Plant Name:*** Applicants designation of the plant for which the application is made.
- e) ***Plant Address:*** Address where the plant is located.
- f) ***Permit Contact at the Plant:*** Provide the name of a contact person for questions relating to information provided in this application.
- g) ***Telephone Number:*** Provide the telephone number of the contact person given above.
- h) ***SIC Code:*** This is the Standard Industrial Classification Code for the main activity at this site.
- i) ***Description of SIC Code:*** Provide a brief description for the SIC Code given.
- j) ***County:*** Philadelphia
- k) ***Municipality:*** Philadelphia
- l) ***UTM Zone, North, & East:*** *The UTM Zone for Philadelphia is 18.* Provide the Universal Transverse Mercator (UTM) coordinates for the plant as a whole.
- m) ***Method of obtaining UTM:*** Explain the method used in obtaining the above UTM coordinates. For example, from topographical map or global positioning satellite (GPS).

## 1.3 ***Mailing Information:***

Provide the name and address of the person to which the operating permit should be mailed.

#### **1.4 Certification of Truth, Accuracy, and Completeness:**

This certification must be signed by a responsible official. Refer to Part A, Item A.3, “Certification” on page 3 of this guide for a definition of “*responsible official*”.

**Caution:** Please note that applications without a signed certification in the appropriate sections (1 and/or 10) will be returned as incomplete.

## **B.2 Section 2: Site Information**

There are four parts within this section. Specific information relating to the type and status of the facility with respect to Synthetic Minor and supporting compliance methods are included in these parts.

### **2.1 Facility Type:**

Check the appropriate facility type in the box provided and follow the instructions given in the application. **Natural Minor Facilities** are facilities that are truly minor without the imposition of federally enforceable emission limitations. These facilities can be operated at their maximum rated capacity (8760 hours per year with no control) and not exceed the Title V applicability threshold. On the other hand, **Synthetic Minor Facilities** are facilities that must operate under a limitation(s) and/or restriction(s) in order to legally escape the Title V operating permit program. This would be an emission limitation or control equipment, limit on hours of operation, and/or operational capacity restriction. Please note that all Synthetic Minor Facilities must be able to meet the proposed restrictions and/or limitations immediately upon the submission of this application.

### **2.2 Synthetic Minor Facility Information (To be completed by all facilities seeking Synthetic Minor Status):**

If the facility as a whole can take a limitation and/or restriction for all sources within the facility, please check the box beside the “**Site Level**”. If the proposed restriction is for an individual source, check the “**Source Level**” box and do not complete the rest of this section. Restrictions and/or limitations at the source level should be completed in Section 4 of this application.

There are six different possible limitations a facility can select in this section. Note that any combination of the following restrictions is possible. Please check all methods that would apply to your facility and complete all requested information as indicated.

- **Restriction in the Hours of Operation:** If this box is checked, provide the proposed hours of operation in a year for this facility.
- **Restriction of Production Rate:** If this method is selected, provide the proposed Production Rate. Indicate rate per time. Annual figures will be imposed as a 12 month running average.
- **Type of Fuel:** If this is checked, provide the fuel type and proposed maximum throughput rate.
- **Fuel Usage Restriction:** Give the fuel type as well as the proposed maximum throughput rate in the spaces provided.
- **Control Device(s):** For this selection, provide the type of control device, the control device Component ID, and the estimated control efficiency.
- **Emission Limitation:** If this box is selected, provide the pollutant name and the emission limit per unit time. For example, X lbs of pollutant per hour.

### **2.3 Compliance Method for the Site (For Synthetic Minor Facilities only):**

Completion of this section is required only if Section 2.2 has been completed. This section is required since it will allow AMS to determine whether the company will be able to demonstrate compliance with the proposed limitations. There are four questions in this section. Answer all questions as required. There is no specific guidance or requirement for a proposed compliance method. The applicant is free to propose any method to show compliance as long as it is practically enforceable and acceptable to AMS. The level of detail required for a proposed method to check for compliance is again, up to the applicant. However, please provide enough detail so that AMS can arrive at a decision based on the information given.

### **2.4 Potential Emission Estimates for the Site:**

This section is mandatory for all Synthetic Minor Facilities who elected to take a restriction and/or limitation at the Site Level (i.e., Sections 2.2 and 2.3 has been completed). This is an estimate of potential emissions for the site. Provide the potential emission absent operational restrictions proposed in Section 2.2 in the column titled “Potential Emission BEFORE taking limitations (TPY)”. In the next column, Potential Emission AFTER taking limitations (TPY), provide the estimate potential emissions using the proposed restrictions as stated in Section 2.2. Please note that all supporting calculation methods used in determining the Potential Emissions for the Pollutant must be included in this application.

## **B.3 Section 3: Site Inventory List**

Provide a summary of all sources here. For purposes of identifying what sources to list, the general guideline is to list all sources that have the potential to emit any Regulated Air Pollutants (as defined in Pa Code, Title 25, Chapter 121) in any amount. Sources that belong in the ***Insignificant Activities Listing*** need not be included in this inventory. See Appendix C for the ***Insignificant Activities Listing***.

If you have a source or group of sources which you believe should be classified as Insignificance Activities and should be included in the Insignificant Activities Listing, the following steps must be taken to assure that you have identified all sources in the facility:

- 1) Contact AMS to see if a special exemption can be granted for this request.  
or;
- 2) Using a separate sheet of paper, list all sources that you believe should be considered as insignificant activities. Include a justification as well as an upper bound estimate of the potential emission for each source in this listing and attach this listing immediately following the Site Inventory Section.

In the Inventory table provided, the following information is requested:

- ***Component ID*** is a unique source number to be assigned by the applicant. Please use this assigned number throughout this application.
- ***Company Designation*** is provided for companies to use the existing designation as typically referred to in the plant.
- ***Unit Type*** is the type of the source in question (boiler, incinerator, process, control device, emission point, fuel material location)

#### **B.4 Section 4: Source Information**

This section should be completed once per source. Duplicate this section as needed.

There are seven (7) sub-sections listed in this section:

- 1) General Source Information
- 2) Exhaust System Components
- 3) Source Classification Code (SCC) Listing for Standard Operation
- 4) Source Standard Fuel Physical Characteristics
- 5) Limitations on Source Operation (Optional)
- 6) Compliance Method
- 7) Potential To Emit Estimation (source specific)

##### **4.1 General Source Information**

Information requested in this section is for identification of the source. All required fields are to be completed. If a question does not pertain to your source or if the information requested is not available, please either indicate “NA” for “Not Applicable” or “Not Available”. For example, certain grandfathered sources that were put into operation prior to 1972 may not have information about the manufacturer or the model number of the equipment. In this case, it is acceptable to write “Not Available” in these two fields. In general, if the information requested has already been required during the plan approval permitting process, then it needs to be reported here. Since information requested in this section is self-explanatory, no detailed instructions will be provided except for the following items:

- **Component ID** is a unique number to be assigned by the applicant and must be referenced for this source throughout this application.
- **Source Type:** Check only one box.
- **IP or OL#:** Provide the Installation Permit and/or Operating License Number issued by AMS, if applicable. Circle the appropriate (IP for Installation Permit or OL for Operating License) and provide the number in space provided. If the source is covered by a Plan Approval (PA) or Operating Permit (OP), write in PA or OP before the number.
- **Source Description:** Provide a brief description of the source.

#### **4.2 Exhaust System Components**

This section provides a map of the exhaust system components for a given year (the year is in parenthesis in the heading). Below the map is a list of flow rates and begin/end dates for each link in the map. The following information is requested:

- **From Component Type:** This refers to the starting point of the configuration. Usually, this is either a source, a control device, or a Fuel Material Location (FML). Answer this question by giving the type of source or component such as boiler, baghouse, or Fuel Material Location (FML) in space provided.
- **From Component ID:** Provide the assigned Component ID to the component listed.
- **To Component Type:** Similarly, indicate the stopping point for which the listed component is configured. This normally represents a control device or a stack.
- **To Component ID:** See **From Component ID**
- **Percent Flow:** Provide the percent flow from one component to another.

- ***Begin and End Date:*** Provide the begin and end date for this configuration. If left blank, it will be assumed that this configuration is unchanged through out the year.

#### 4.3 ***Source Classification Code (SCC) Listing for Standard Operation***

In this sub-section, the applicant is asked to complete the following information in a tabular format:

- ***Process:*** List the processes and/or types of fuel burning performed by this source.
- ***SCC:*** This is the Federal Standard Classification Code that represents a specific type of fuel and/or process. If known, provide this code in the space provided. Otherwise, this can be left blank.
- ***Max Throughput Rate:*** This would represent the maximum throughput rate in a standard or typical operation. This number would be used to calculate the potential to emit unless a lower limit has been established in Section 4.5, “***Limitations on Operation***”.
- ***Firing Sequence:*** For fuel burning equipment, indicate how the fuels are being used by the source, sequentially (alternatively) or simultaneously.

This information is for a standard operational year. For a limitation or restriction to any of this information, please complete the table in Section 4.5, “***Limitations on Operation***”. **Do not** attempt to place a restriction on the throughput rate here.

#### 4.4 ***Standard Fuel Physical Characteristics***

This sub-section asks for the type of fuels and its physical characteristics employed for this source. Information requested is as follows:

- ***SCC / Fuel Burned:*** See previous discussion.
- ***FML:*** FML stands for Fuel Material Location. FML is to be used for cases where a central location such as a fuel tank or a pile of coal is being used by multiple sources in a facility. If such a scenario exists in a plant, please complete the ***Fuel Material Location*** worksheet in Section 10 of the application and provide the FML number in the space provided. By completing this worksheet once, the applicant does not have to repeat this information throughout the application.

If the concept of FML does not fit your case, leave the FML column blank and fill in the %Sulfur, %Ash, and BTU in spaces provided.

- **%Sulfur & %Ash & BTU:** If an FML has been specified, these three pieces of information can be left blank. Otherwise, provide the information as requested.

**Taking Restrictions on Fuel Characteristics:** If a restriction is desired with respect to a fuel characteristics, the following steps must be follows:

- 1) **For an FML:** If the restriction is taken by either reducing the % Sulfur, % Ash, or the BTU value for a specific type of fuel/SCC **AND** this change is effective for **all sources** that are fed from this FML, then the changes need to be made at the **FML level**. To do this, fill out Section 7, "**Fuel Material Location**" and provide the restricted fuel characteristics in the spaces provided.
- 2) If the changes are limited to only one source, even though the FML is capable of feeding several other sources, a new FML must be created for this proposed change. Again, complete Section 7, "**Fuel Material Location**" and assign a unique number for this FML.
- 3) **For other cases:** For all other cases that do not involve a FML, the restrictions can be made directly by providing the lower % Sulfur, % Ash, or the BTU value in this section.

#### **4.5 Limitations on Source Operation (Not to be completed by Natural Minor Sources)**

This sub-section is to be completed only if this source is seeking to place a restriction on the hour of operation, the maximum throughput rate, a limitation on emissions, or a control device . Do not complete the table in part (e) if this source is accepting the maximum operational hours of 8760 a year and operates at the maximum throughput rate provided previously in Section 4.3, "**Maximum Throughput (Production) Rate**". Remember, all limitations and or restriction proposed must be practically enforceable and will be placed in the permit.

There are 5 parts in this table (Item a through e):

- a) **Maximum Hours of Source Operation:** Provide the proposed hours of operation for this source.
- b) **Maximum Throughput Rate:** For limiting the throughput rate, provide the restricted throughput rate per unit time; (per hour, day, week, month, year).
- c) **Emission Limitation:** Provide the name of the pollutant and give the emission limit per unit time in space provided.

- d) **Control Device Efficiency:** If the proposed restriction involves the use of a control device, provide the control device Component ID as well as the associated control device efficiency.
- e) **Fuel Usage Restriction Table:** The first column asks for the SCC or the type of fuels used in this source. The next four columns in this table are related to taking a restriction on the hours of operation. Restrictions on hours of operation can be taken for the following case: hours per day, days per week, days per year, and hours per year.

#### 4.6 Compliance Method

Refer to Section 2.3, “**Compliance Method for the Site**”, for information on how to complete this section.

#### 4.7 Source Potential to Emit Estimates (For Synthetic Minor Source Only)

**Note:** Natural Minor Facilities do not have to complete this section.

For Synthetic Minor Facilities, provide an estimate for the potential emissions for all pollutants emitted for this source. The following information is requested in this table:

- **Pollutant/CAS #:** Give the name and/or the CAS number of the pollutant in the space given. CAS number means Chemical Abstract Services. These number are listed in Appendix D, “**HAPs Table**”.
- **Fuel/SCC:** If there are multiple fuels or processes utilized in this source, provide the SCC number for each type of fuel and/or material separately in each row of the table.
- **Allowable/Unit; Emis./Activity:** Provide the allowable emission rate for this source here. This number can either be an allowable emission rate stemming from an applicable requirement or a limitation taken through the use of a piece of air pollution control device and/or any other established and/or proposed restrictions. In the absence of an emission standard limitation, this would be the emission activity factor such as an emission factor, stack test, etc.
- **Calc Method:** Provide the method for calculating the potential to emit for this source. See Appendix B for a listing of acceptable codes.
- **Maximum Capacity:** List the maximum capacity for the source in the space provided. This rated capacity may be lower than the stated maximum rated if a restriction is voluntarily taken in Section 4.5, “**Limitations on Operation**”.

- **Total Hours:** Give the total hours of operation here. Be sure to use the restricted hours of operation given in Section 4.5 relating to “*Limitations on Operation.*”
- **Emission (TPY):** The applicant should be able to calculate the potential to emit in tons per year in this column, provided all of the previous columns were completed.

**Notes:** For more complicated calculations such as storage tanks or landfills, it may be necessary to attach detailed calculation sheets.

## **B.5 Section 5: Control Device Information**

This section needs to be completed once per control device. The information requested in this section is designed to capture only the essential information about a piece of control equipment.

### **5.1 General Control Device Information**

The following information is required in this sub-section:

- a) **Control Device Component ID:** Assign a unique Component ID for this control device.
- b) **Company Designation:** Give the name of the control device as designated by the facility.
- c) **Type:** Describe the type of control equipment being used (scrubber, fabric filter, ESP, etc.)
- d) **Pressure Drop in H<sub>2</sub>O:** Provide this information if applicable
- e) **Capture Efficiency:** This information is optional as long as the applicable standard does not specify a capture efficiency. However, if available, please provide the capture efficiency for this control equipment.
- f) **Scrubber Flow Rate:** Provide this information, if applicable.
- g & h) **Manufacturer & Model:** Provide this information if available. For grandfathered source(s), these are optional.
- I) **Installation Date:** Provide this information, if available
- j) **Used by Source:** List and briefly explain all sources controlled through this control equipment.

***k) Control Efficiency Estimates:***

- ***Pollutant/CAS No.:*** Give the name or CAS Number of the pollutant controlled by this control device.
- ***Efficiency Estimated & Basis for efficiency estimated:*** Provide the estimated control efficiency and indicate the basis for this estimation.

**B.6 Section 6: Stack/Flue Information**

This section is to be filled out once per stack. Provide all information as requested. Since the information requested in this section is self-explanatory, no detailed instructions are provided except for a few items. Up to three (3) stacks can be completed in this section. Duplicate this section if there are more than three stacks in this facility.

**6.1 General Stack Information**

- a) Component ID:*** Assign a unique Component ID for this stack and be sure to use this same ID throughout the application.
- b) Stack Name:*** This would be the company's designation for this stack.
- c) Discharge Type:*** An example of discharge type would be vertical and unobstructed opening.
- d) Used by Source:*** List any Component ID assigned previously in the space provided.

**B.7 Section 7: Fuel Material Location Information (FML) (Optional)**

As previously mentioned in Section 4.4, "***Source Standard Fuel Physical Characteristics***", the FML is provided to decrease the amount of repetition employed in this application. This section needs to be completed only if applicable. There are enough spaces to complete three (3) FML in this section. If needed, duplicate this section as necessary.

- a) Component ID:*** For new FML, assign a unique Component ID for this FML. (Ex: FML 01)
- b) Name:*** Provide a name or a description of this FML. (Example: No. 2 Oil Storage Tank)
- c) Capacity:*** Indicate the capacity of this FML. (Example: 30,000 gallons)
- d) Fuel:*** Provide the type of fuel this FML stores.

*e) %Ash, %Sulfur, and BTU:* Give these fuel characteristics according to fuel purchasing specifications.

*f) Used by source(s):* List all sources that use this FML.

## **B.8 Section 8: Alternative Operating Scenario (Optional)**

The format for this section is similar to Section 4, “Source Information”. All of the required information is requested in the following order:

- Section 8.1: General Information
- Section 8.2: Operational Flexibility Request
- Section 8.3: Exhaust System Components
- Section 8.4: Source Classification Code (SCC) Listing for Alternative Operation
- Section 8.5: Alternative Fuel Physical Characteristics
- Section 8.6: Alternative Process/Product Description
- Section 8.7: Source Potential to Emit

### **Notes:**

- The alternative operation for a source must encompass the entire operation of the source.
- Only one alternative operation per source is allowed to be active at a time.
- This section addresses only one source per scenario at a time. If there is more than one scenario for this source or for any other source(s), duplicate this section and complete accordingly.

### **8.1: General Information**

The following information is requested in this sub-section:

- a) Alternative Operating Scenario Name or ID Number:* Assign a unique name or ID Number for proposed alternative operating scenario.
- b) Source Component ID:* Provide the Source Component ID as assigned previously in Section 4.
- c) Source Name:* List the source name as given in Section 4.
- d) Source Type:* Check the type of source provided in the box.

- e) **Alternative Description:** Briefly describe the proposed alternative operating scenario. Explain how it is different from the standard operation.

## **8.2 Operational Flexibility Request**

This section directs the applicant to complete one or more additional sections within this addendum. The applicant needs to complete only those sections that are applicable to the proposed scenario. Check all possible alternative changes for this scenario. Note that for each corresponding change checked, different sections within this section need to be completed. The Section Number within the parenthesis will tell you which of these sections have to be completed.

## **8.3 Exhaust System Component**

Complete this sub-section if this alternative operating scenario involves a change from the standard exhaust system configuration. Complete the given table as requested. For more information, refer to instructions given in Section 4.2, "**Exhaust System Components**", of this guide.

## **8.4 Source Classification Code (SCC) Listing for Alternative Operation**

Give a complete listing of all fuels burned, processes, or waste incinerated for this alternative operating scenario in the table provided.

This table is similar to the table requested in Section 4.3, "**Source Classification Code (SCC)**". If needed, refer to previous instructions in Section 4.3 of this guide.

## **8.5 Alternative Fuel Physical Characteristics**

Again, please refer to Section 5.4, "**Maximum Fuel Physical Characteristics**", for specific instructions.

## **8.6 Alternative Process/Product Description**

- a) If there is a change in the process method and/or material used in this alternative scenario, provide an explanation in the space provided
- b) Provide the alternative SCC number and a description in the spaces provided.
- c) If a new product is produced in this scenario, give or briefly explain the type of products generated from this scenario. Indicate the old product(s) in the standard operation.

## **8.7 Potential to Emit**

Refer to instructions given in Section 4.7 relating to “Potential to Emit Estimates”.

## **B.9 Section 9: Compliance Certification for Synthetic Minor Sources**

**Note:** In order for this synthetic minor facility to avoid the Title V operating permit requirements, the applicant must agree to be bound by the emissions limitations and/or restrictions contained in this application. In addition, the applicant must agree that these emission limitations are enforceable by AMS, the Environmental Protection Agency, and the citizens.

### **9.1 Schedule for Compliance Certification Submission**

Provide the frequency and begin date of submittal in the spaces provided.

### **9.2 Certification of Compliance (For Synthetic Minor Facility Only)**

This certification must be signed by a responsible official. Refer to Part A, Item A.3, “Certification” on page 3 of this guide for a definition of “*responsible official*”.

## **Appendix A: Air Management Services Contact Information**

### **Chief of Source Registration**

Air Management Services  
Department of Public Health  
321 University Avenue  
Philadelphia, PA 19104-4543

Source Registration General Telephone: (215) 685-7572

## Appendix B: Calculation Codes

**TABLE 2: POTENTIAL EMISSION CALCULATION CODES**

<b>CODE</b>	<b>CODE DESCRIPTION</b>
1	Maximum Allowable Emission Limit
2	Company EPA SCC Factor
3	Company Stack Test
4	Company Material Balance
5	Company Efficiency of Control Device
6	AMS Stack Test
7	AMS Material Balance
8	AMS Efficiency of Control Device
9	See Comment

**Notes:** If Code Number 9 is selected for the Potential Emission Calculation Method, please attach comments immediately following the appropriate section(s) within the application. Additional sample calculation and/or method used to calculate the Potential to Emit may be required.

## Appendix C: Insignificant Activities Listing

### SOURCE CATEGORY & INSIGNIFICANT ACTIVITIES EXEMPTION

At present, there are only two permanently exempted source categories. These categories include residential wood stoves and asbestos demolition/renovation sites. (Ref. Section 127.504(d))

Insignificant activities are those located within a facility which do not create air pollution in significant amounts. These insignificant activities need not be described in the application. Insignificant activities include, but are not limited to, operation of the following types of equipment and the conducting of the following activities:

(Note: This listing may be revised as additional insignificant activities are identified)

#### TABLE A - INSIGNIFICANT ACTIVITIES

1. Air conditioning and ventilation systems not designed to remove pollutants generated by or released from other sources.
2. Portable space heaters, electrically heated furnaces, ovens and heaters, and other electrically operated equipment from which no emissions of air contaminants occur.
3. The emissions from the internal combustion engines powering mobile air contamination sources. The term "mobile" means it is capable of moving by its own power. The term does not include a source mounted on a vehicle, whether the mounting is permanent or temporary, which source is not used to supply power to the vehicle.
4. Routine office equipment, such as copier, printer, communication equipment, etc.
5. Any equipment, machine or device from which emission of air contaminant does not occur.
6. Paper trimmers or binders.
7. Detergent washing of metal parts, except those using VOCs or air toxic.
8. Cafeteria equipment used for employee meal preparation.
9. Stationary storage tanks or containers, which are not used for storage of volatile organic liquids or hazardous air pollutants.

10. Laundry operations that are used for cleaning employee uniforms or other clothing, except for those using VOCs or HAPs.
11. Construction or demolition of building or structures.
12. Clearing of land.
13. Maintenance activities and the equipment and supplies used therein.
14. Machine shop and maintenance shop equipment used for routine maintenance, such as lathe, drilling and boring machine, cutter, grinder, welder, reaming machine, milling machine, planer and shaper, etc. This list does not include casting operations.
15. Fire protection equipment and activities involved in fire protection training, first aid or emergency medical training.
16. Garbage compactors and waste barrels.
17. Stationary material handling systems from which no emissions of air contaminant occur.
18. Electrically operated equipment from which no emissions of air contaminant occur.
19. Portable water treatment equipment, but not including air stripper.
20. Service and maintenance shop for mobile sources, such as car, truck, etc., except where they include degreasing operations that are large enough to be regulated under 25 Pa. Code 129.63.
21. Sources emitting inert gases only, such as argon, helium, krypton, neon, and xenon; pure constituents of air such as nitrogen, oxygen, or carbon dioxide; or the organic aliphatic hydrocarbon gases methane and ethane.
22. Propane or natural gas tanks or containers.

## Appendix D: HAPs Table

**TABLE A: HAZARDOUS AIR POLLUTANTS**

CAS #	POLLUTANT
75-07-0	<b>Acetaldehyde</b>
60-35-5	<b>Acetamide</b>
75-05-8	<b>Acetonitrile</b>
98-86-2	<b>Acetophenone</b>
53-96-3	<b>2 Acetylaminofluorene</b>
107-02-8	<b>Acrolein</b>
79-06-1	<b>Acrylamide</b>
79-10-7	<b>Acrylic acid</b>
107-13-1	<b>Acrylonitrile</b>
107-05-1	<b>Allyl chloride</b>
92-67-1	<b>4 Aminobiphenyl</b>
62-53-3	<b>Aniline</b>
90-04-0	<b>o-Anisidine</b>
1332-21-4	<b>Asbestos</b>
71-43-2	<b>Benzene</b>
92-87-5	<b>p-Benzidine</b>
98-07-7	<b>Benzotrichloride</b>
100-44-7	<b>Benzyl chloride</b>
92-52-4	<b>Biphenyl</b>
117-81-7	<b>Bis(2 ethylhexyl)phthalate (DEHP)</b>
542-88-1	<b>Bis(chloromethyl)ether</b>
75-25-2	<b>Bromoform</b>
106-99-0	<b>1,3 Butadiene</b>
156-62-7	<b>Calcium cyanamide</b>
133-06-2	<b>Captan</b>
63-25-2	<b>Carbaryl</b>
75-15-0	<b>Carbon disulfide</b>
56-23-5	<b>Carbon tetrachloride</b>
463-58-1	<b>Carbonyl sulfide</b>
120-80-9	<b>Catechol</b>
133-90-4	<b>Chloramben</b>
57-74-9	<b>Chlordane</b>
7782-50-5	<b>Chlorine</b>
79-11-8	<b>Chloroacetic acid</b>
532-27-4	<b>2 Chloroacetophenone</b>
108-90-7	<b>Chlorobenzene</b>
510-15-6	<b>Chlorobenzilate</b>
67-66-3	<b>Chloroform</b>
CAS #	POLLUTANT

107-30-2	<b>Chloromethyl methyl ether</b>
126-99-8	<b>Chloroprene (2 chloro 1,3 butadiene)</b>
1319-77-3	<b>Cresols/wCresylic acid (isomers and mixture)</b>
95-48-7	<b>o-Cresol</b>
108-39-4	<b>m-Cresol</b>
106-44-5	<b>p-Cresol</b>
98-82-8	<b>Cumene (Isopropylbenzene)</b>
94-75-7	<b>2,4 D, salts,esters (Dichlorophenoxyacetic acid)</b>
72-55-9	<b>DDE (p,p' Dichlorodiphenyldichloroethylene)</b>
334-88-3	<b>Diazomethane</b>
132-64-9	<b>Dibenzofuran</b>
96-12-8	<b>1,2 Dibromo 3 chloropropane</b>
84-74-2	<b>Dibutylphthalate</b>
106-46-7	<b>1,4 Dichlorobenzene</b>
91-94-1	<b>3,3' Dichlorobenzidine</b>
111-44-4	<b>Dichloroethyl ether (Bis(2 chloroethyl)ether)</b>
542-75-6	<b>1,3 Dichloropropene (mixture)</b>
62-73-7	<b>Dichlorvos</b>
111-42-2	<b>Diethanolamine</b>
121-69-7	<b>N,N Dimethylaniline</b>
64-67-5	<b>Diethyl sulfate</b>
119-90-4	<b>3,3' Dimethoxybenzidine</b>
60-11-7	<b>Dimethyl aminoazobenzene</b>
119-93-7	<b>3,3' Dimethyl benzidine</b>
79-44-7	<b>Dimethyl carbamoyl chloride</b>
68-12-2	<b>Dimethyl formamide</b>
57-14-7	<b>1,1 Dimethyl hydrazine</b>
131-11-3	<b>Dimethyl phthalate</b>
77-78-1	<b>Dimethyl sulfate</b>
534-52-1	<b>4,6 Dinitro o cresol, and salts</b>
51-28-5	<b>2,4 Dinitrophenol</b>
121-14-2	<b>2,4 Dinitrotoluene</b>
123-91-1	<b>1,4 Dioxane (1,4 Diethyleneoxide)</b>
122-66-7	<b>1,2 Diphenylhydrazine</b>
106-89-8	<b>Epichlorohydrin (1 chloro 2,3 epoxypropane)</b>
106-88-7	<b>1,2 Epoxybutane (1,2 Butylene oxide)</b>
140-88-5	<b>Ethyl acrylate</b>
100-41-4	<b>Ethyl benzene</b>
51-79-6	<b>Ethyl carbamate (Urethane)</b>
75-00-3	<b>Ethyl chloride (Chloroethane)</b>
106-93-4	<b>Ethylene dibromide (1,2 Dibromoethane)</b>

CAS #	POLLUTANT
107-06-2	<b>Ethylene dichloride (1,2 Dichloroethane)</b>
107-21-1	<b>Ethylene glycol</b>

151-56-4	<b>Ethylene imine (Aziridine)</b>
75-21-8	<b>Ethylene oxide</b>
96-45-7	<b>Ethylene thiourea</b>
75-34-3	<b>Ethylidene dichloride (1,1 Dichloroethane)</b>
50-00-0	<b>Formaldehyde</b>
76-44-8	<b>Heptachlor</b>
118-74-1	<b>Hexachlorobenzene</b>
87-68-3	<b>Hexachlorobutadiene</b>
77-47-4	<b>Hexachlorocyclopentadiene</b>
67-72-1	<b>Hexachloroethane</b>
822-06-0	<b>Hexamethylene 1,6 diisocyanate</b>
680-31-9	<b>Hexamethylphosphoramide</b>
110-54-3	<b>Hexane</b>
302-01-2	<b>Hydrazine</b>
7647-01-0	<b>Hydrochloric acid</b>
7664-39-3	<b>Hydrogen fluoride (Hydrofluoric acid)</b>
7783-06-4	<b>Hydrogen Sulfide</b>
123-31-9	<b>Hydroquinone</b>
78-59-1	<b>Isophorone</b>
58-89-9	<b>Lindane (gamma hexachlorocyclohexane)</b>
108-31-6	<b>Maleic anhydride</b>
67-56-1	<b>Methanol</b>
72-43-5	<b>Methoxychlor</b>
74-83-9	<b>Methyl bromide (Bromomethane)</b>
74-87-3	<b>Methyl chloride (Chloromethane)</b>
71-55-6	<b>Methyl chloroform (1,1,1 Trichloroethane)</b>
78-93-3	<b>Methyl ethyl ketone (2 Butanone)</b>
60-34-4	<b>Methyl hydrazine</b>
74-88-4	<b>Methyl iodide (Iodomethane)</b>
108-10-1	<b>Methyl isobutyl ketone (4 methyl 2 pentanone)</b>
624-83-9	<b>Methyl isocyanate</b>
80-62-6	<b>Methyl methacrylate</b>
1634-04-4	<b>Methyl tert butyl ether</b>
101-14-4	<b>4,4' Methylene bis(2 chloroaniline)</b>
75-09-2	<b>Methylene chloride (Dichloromethane)</b>
101-68-8	<b>Methylene diphenyl diisocyanate (MDI)</b>
101-77-9	<b>4,4' Methylene dianiline</b>
91-20-3	<b>Naphthalene</b>

CAS #	POLLUTANT
98-95-3	<b>Nitrobenzene</b>
92-93-3	<b>4 Nitrobiphenyl</b>
100-02-7	<b>4 Nitrophenol</b>
79-46-9	<b>2 Nitropropane</b>
684-93-5	<b>N Nitroso N methylurea</b>
62-75-9	<b>N Nitrosodimethylamine</b>
59-89-2	<b>N Nitrosomorpholine</b>
56-38-2	<b>Parathion</b>
82-68-8	<b>Pentachloronitrobenzene (Quintobenzene)</b>
87-86-5	<b>Pentachlorophenol</b>
108-95-2	<b>Phenol</b>
106-50-3	<b>p Phenylenediamine</b>
75-44-5	<b>Phosgene</b>
7803-51-2	<b>Phosphine</b>
7723-14-0	<b>Phosphorus</b>
85-44-9	<b>Phthalic anhydride</b>
1336-36-3	<b>Polychlorinated biphenyls (PCB's)</b>
1120-71-4	<b>1,3 Propane sultone</b>
57-57-8	<b>beta Propiolactone</b>
123-38-6	<b>Propionaldehyde</b>
114-26-1	<b>Propoxur (Baygon)</b>
78-87-5	<b>Propylene dichloride (1,2 Dichloropropane)</b>
75-56-9	<b>Propylene oxide</b>
75-55-8	<b>1,2 Propylenimine (2 Methyl aziridine)</b>
91-22-5	<b>Quinoline</b>
106-51-4	<b>Quinone (1,4 benzoquinone)</b>
100-42-5	<b>Styrene</b>
96-09-3	<b>Styrene oxide</b>
1746-01-6	<b>2,3,7,8 Tetrachlorodibenzo p dioxin</b>
79-34-5	<b>1,1,2,2 Tetrachloroethane</b>
127-18-4	<b>Tetrachloroethylene (Perchloroethylene)</b>
7550-45-0	<b>Titanium tetrachloride</b>
108-88-3	<b>Toluene</b>
95-80-7	<b>2,4 Toluene diamine</b>
584-84-9	<b>2,4 Toluene diisocyanate</b>
95-53-4	<b>o Toluidine</b>
8001-35-2	<b>Toxaphene (chlorinated camphene)</b>
120-82-1	<b>1,2,4 Trichlorobenzene</b>
79-00-5	<b>1,1,2 Trichloroethane</b>
79-01-6	<b>Trichloroethylene</b>
CAS#	POLLUTANT

88-06-2	<b>2,4,6 Trichlorophenol</b>
121-44-8	<b>Triethylamine</b>
1582-09-8	<b>Trifluralin</b>
540-84-1	<b>2,2,4 Trimethylpentane</b>
108-05-4	<b>Vinyl acetate</b>
593-60-2	<b>Vinyl bromide (bromoethene)</b>
75-01-4	<b>Vinyl chloride</b>
75-35-4	<b>Vinylidene chloride (1,1 Dichloroethylene)</b>
1330-20-7	<b>Xylenes (isomers and mixture)</b>
95-47-6	<b>o Xylene</b>
108-38-3	<b>m Xylene</b>
<b>106-42-3</b>	<b>p Xylene</b>

**TABLE B: COMPOUNDS**

Antimony Compounds  
 Arsenic Compounds (inorganic including arsine)  
 Beryllium Compounds  
 Cadmium Compounds  
 Chromium Compounds  
 Cobalt Compounds  
 Coke Oven Emissions  
 Cyanide Compounds  
 Fine mineral fibers  
 Glycol ethers  
 Lead Compounds  
 Manganese Compounds  
 Mercury Compounds  
 Nickel Compounds (subsulfide)  
 Polycyclic Organic Matter  
 Radionuclides (including radon)  
 Selenium Compounds