



Illinois Environmental Protection Agency

Data and Information – Air Pollution Control Equipment - Adsorption

Illinois Environmental Protection Agency
Bureau of Air – Permit Section
2520 West Iles Ave
P.O. Box 19276
Springfield, IL 62794-9276

Date Form Received

Applicant Information

Name of Owner: _____
Name of Corporate Division or Plant (If different from owner): _____
Street Address of Emission Source: _____
City of Emission Source: _____
Bureau of Air ID (If Applicable): _____

Instructions

1. This information form is to be completed for an emission source other than a fuel combustion emission source or an incinerator.
2. A single form may be used for multiple control equipment where the information contained on this form is identical between the control equipment.
3. Complete the sections below. Be certain that the arrangement of various units in a control system is made clear in the process flow diagram.
4. Efficiency values should be supported with a detailed explanation of the method of calculation, the manner of estimation, or the source of information. Reference to this form for any relevant information or explanation included in this permit application.
5. Efficiency values and certain other items of information are to be given for average and maximum operation or the source equipment.

Definitions

- **Fuel combustion emission source:** furnace, boiler, or similar equipment used primarily for producing heat or power by indirect heat transfer.
- **Incinerator:** An apparatus in which refuse is burned.
- **Average:** the value that summarizes or represents the general condition of the emission source, or the general state of production of the emission source.
- **Maximum:** the greatest value attainable or attained for the emission source, or the period of greatest or utmost production of the emission source.

The Illinois EPA is authorized to require, and you must disclose, the requested information on this form pursuant to the Environmental Protection Act ("Act"), 415 ILCS 5/1 et seq., and its implementing regulations. This information shall be provided using either this form or in an alternative manner at your discretion. Failure to disclose the information may result in an incomplete application and other penalties as provided for in the Act, 415 ILCS 5/42-45. Intentional falsification of the information in this form may result in significant criminal and civil penalties as provided by law.

Adsorption Unit

Name of Control Equipment or Control System: _____

Flow Diagram Designation(s) of Adsorption Unit: _____

Manufacturer: _____

Model Name and Number: _____

Adsorbent:

☐ Activated Charcoal - Type: _____

☐ Other (Specify): _____

Number of Beds Per Unit: _____

Weight of Adsorbent Per Bed: _____ lb

Dimensions of Bed: _____ Thickness: _____ in Surface Area: _____ in²

Inlet Gas Temperature: _____ °F

Pressure Drop Across Unit: _____ Inch H₂O Gauge

Type of Regeneration:

☐ Replacement

☐ Steam

☐ Other (Specify): _____

Method of Regeneration:

☐ Alternate Use of _____ Entire Units

☐ Alternate Use of _____ Beds in a Single Unit

☐ Source Shut Down

☐ Other (Specify): _____

Average Time On Line Before Regeneration: _____ min/bed

Maximum Time On Line Before Regeneration: _____ min/bed

Average Efficiency of Adsorber: _____ %

Maximum Efficiency of Adsorber: _____ %

Emission Information

Number of Identical Sources (Describe as Required):

Average Operation

Contaminant	Concentration OR Emission Rate Per Identical Source	Method Used to Determine Concentration or Emission Rate
Particulate Matter	☐ gr/scf ☐ lb/hr	
Carbon Monoxide	☐ ppm (vol) ☐ lb/hr	
Nitrogen Oxides	☐ ppm (vol) ☐ lb/hr	
Volatile Organic Material	☐ ppm (vol) ☐ lb/hr	
Sulfur Dioxide	☐ ppm (vol) ☐ lb/hr	
Other (Specify): _____	☐ ppm (vol) ☐ lb/hr	

Maximum Operation

Contaminant	Concentration OR Emission Rate Per Identical Source	Method Used to Determine Concentration or Emission Rate
Particulate Matter	☐ gr/scf ☐ lb/hr	
Carbon Monoxide	☐ ppm (vol) ☐ lb/hr	
Nitrogen Oxides	☐ ppm (vol) ☐ lb/hr	
Volatile Organic Material	☐ ppm (vol) ☐ lb/hr	
Sulfur Dioxide	☐ ppm (vol) ☐ lb/hr	
Other (Specify): _____	☐ ppm (vol) ☐ lb/hr	

Possible other contaminants are asbestos, beryllium, mercury, vinyl chloride, lead, etc.

Exhaust Point Information

Flow Diagram Designation(s) of Exhaust Point: _____

Description of Exhaust Point (Location in Relation to Buildings, Direction, Hooding, etc.):

Exit Height Above Grade: _____

Exit Diameter: _____

Greatest Height of Nearby Buildings: _____

Exit Distance from Nearest Plant Boundary: _____

Exhaust Point Operation	Exit Gas Temperature (°F)	Gas Flow Rate Through Exit (acfm)
Average Operation		
Maximum Operation		