

**Commonwealth of Pennsylvania**



**Department of Environmental Protection**

**Bureau of Information Technology**

**Bureau of Air Quality**

**Spreadsheet Reporting Guide for Conventional and Unconventional  
Natural Gas Pigging Station Emissions Reporting System**

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## Spreadsheet Reporting Guide

Using the steps and procedures specified in this document, you can report Oil and Gas Natural Gas Off-Site Pigging Station air emissions by filling out the supplied spreadsheet and emailing it to the Pennsylvania Department of Environmental Protection's (DEP) Bureau of Air Quality. You must use Microsoft Excel 2007 or more recent versions of the spreadsheet.

The *Basic Steps* section of this document outlines the typical procedure that must be followed to both download your spreadsheet and to email the completed spreadsheet to DEP for validation of data and final report submittal.

The *Workbook Structure* section of this document describes the procedures that should be used to validate and accept your data.

The *Do's and Don'ts* section provides guidelines that are essential to understand as you enter your Air Emissions data to the spreadsheet.

## Contacts

Questions related to the emission inventory may be directed to the following:

Mark Houser, Chief  
Air Information Section  
Bureau of Air Quality  
P.O. Box 8468  
Harrisburg, PA 17105-8468  
Telephone: 717-783-9241  
E-mail: [mahouser@pa.gov](mailto:mahouser@pa.gov)

or

Sherry Bogart, Air Quality Program Specialist  
Air Information Section  
Bureau of Air Quality  
P.O. Box 8468  
Harrisburg, PA 17105-8468  
Telephone: 717-783-5974  
E-mail: [sbogart@pa.gov](mailto:sbogart@pa.gov)

## Basic Steps

1. Begin by navigating to the following link and downloading the blank spreadsheet:
2. <http://www.dep.pa.gov/Business/Air/BAQ/BusinessTopics/Emission>
3. Your browser should present you with a dialog box from which you can save the workbook to the location of your choice on your computer. If your browser allows you to open the workbook directly without saving it to your local computer, **do not open it** because you would only be opening a temporary copy of the workbook. It is also a safe browsing practice to not open such files directly in your web browser. Always save the file to your local computer.
4. Open your local copy of the file using Microsoft Excel 2007 or a more recent version. Other spreadsheet products are not compatible with regards to dropdown lists inside the workbook.

5. Add data to your workbook according to the procedures listed here in the section titled *Spreadsheet Procedures and Tool Tips* located at each cell of workbook. Save your workbook file locally on your computer.
6. When ready to email your completed Air Emissions spreadsheet to the DEP, email the spreadsheet to the following address:

[RA-EPUncConventionalMidstream@pa.gov](mailto:RA-EPUncConventionalMidstream@pa.gov)

# Workbook Structure

The following fields are present in the pigging worksheet, and their meanings are described:


Column Name	Description
<b>Client/ Company</b>	This is the name of the either the parent company or a wholly-owned subsidiary of a parent company.
<b>Station Name</b>	This is the name of the pigging station, as designated by the company. You may enter any alphanumeric or special character text that is normally used by your company.
<b>Chamber ID</b>	Enter the company's name for the pigging station.
<b>Type</b>	Pick either Launch or Receiving from the drop-down menu.
<b>County</b>	Enter the county in which the Launch or Receiving point is located.
<b>Municipality</b>	Enter the municipality name in which the Launch or Receiving point is located. If it is a township, please make sure you type that in. There are some towns and townships with the same names.
<b>Latitude Decimal Degrees</b>	Enter the latitude of the Launch or Receiving Station. Please use decimal only, <b>NOT</b> degrees/ minutes, seconds. This will be a positive number, i.e., 40.9999.
<b>Longitude Decimal Degrees</b>	Enter the longitude of the Launch or Receiving Station. Please use decimal only, <b>NOT</b> degrees/ minutes, seconds. This will be a negative number, i.e. -79.9999.
<b>Volume of Chamber (Ft<sup>3</sup>)</b>	The volume (cubic feet) of the chamber is calculated for you in the spreadsheet.
<b>PSIG of Chamber</b>	Enter the pounds per square inch, gage (PSIG).
<b>Temp. of Chamber</b>	Enter the average yearly temperature of the chamber.
<b>Molecular Weight of gas mixture (lb/lb-mole)</b>	Enter the molecular weight of the gas mixture in pounds per pound-mole.
<b>Compressibility Factor</b>	Enter the compressibility factor.
<b>Pressurized Density (lb/ft<sup>3</sup>)</b>	The pressurized density is calculated for you in the spreadsheet.
<b>Atmospheric Density (lb/ft<sup>3</sup>)</b>	The atmospheric density is calculated for you in the spreadsheet.

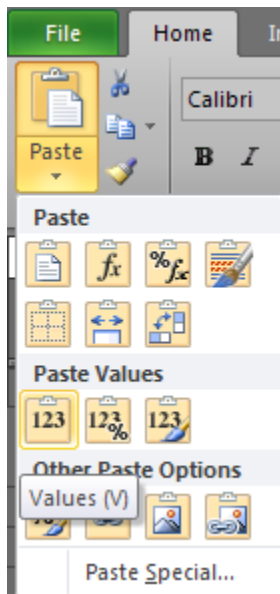
<b>Delta Density (lb/ft<sup>3</sup>)</b>	The delta density is calculated for you in the spreadsheet.
<b>Amount Gas Vented (lbs) Per Event</b>	The amount of gas vented is calculated for you.
<b># of Events</b>	Enter the number of gas venting event during the calendar year.
<b># of Purges Per Event</b>	Enter the average number of purges for each gas venting event.
<b>Controlled?</b>	Use the pulldown to choose Y or N for whether this controlled or not.
<b>Control Type</b>	Enter the type of control installed.
<b>Control Efficiency</b>	Enter the control efficiency percentage as a whole number, not a decimal.
<b>Total Amount Gas Vented (lbs)</b>	The total amount of gas vented is calculated for you in the spreadsheet.
<b>Methane Weight Fraction</b>	Enter weight fraction of gas that contains methane. Enter as a decimal, not a number and % symbol.
<b>Ethane Weight Fraction</b>	Enter weight fraction of gas that contains ethane. Enter as a decimal, not a number and % symbol.
<b>Total VOC Weight Fraction</b>	Enter weight fraction of gas that contains Volatile Organic Compounds (VOC). Enter as a decimal, not a number and % symbol.
<b>Total HAP Weight Fraction</b>	Enter weight fraction of gas that contains Hazardous Air Pollutants (HAP). Enter as a decimal, not a number and % symbol.
<b>Total Tons of Gas Vented</b>	This is calculated for you in the spreadsheet.
<b>Tons of Methane</b>	Tons of methane is calculated for you in the spreadsheet.
<b>Tons of Ethane</b>	Tons of ethane is calculated for you in the spreadsheet.
<b>Tons of VOC</b>	Tons of VOC are calculated for you in the spreadsheet.
<b>Tons of HAPs</b>	Tons of HAPs are calculated for you in the spreadsheet.



## Do's and Don'ts

- **Do not** add columns or modify column headers in any worksheet.
- **Do not** add data anywhere outside the provided columns. It will be ignored.
- **Do not** expect Microsoft Excel to validate your data when you copy and paste cell values from one worksheet to another. The product does not support data validations on copy/paste operations.
- **Do not** use Microsoft Excel standard copy/paste. If you do so, you will lose all local validations and dropdown list values. Instead, **do** use copy/paste values. This is represented (in Microsoft

Excel 2010) as the paste icon with a simple 123 symbol on a clipboard, as in:  See the Paste Values section:



- **Do not** edit your workbook using multiple versions of Microsoft Excel. If you begin editing using Excel 2010, for instance, do not later try to use it in an earlier version such as Excel 2007. The versions are not compatible.
- **Do** use either Microsoft Excel 2010 for Windows (recommended) or Microsoft Excel 2007 for Windows. Those are the only versions for which the workbook export/import has been tested. Earlier versions will not work. Versions for other operating systems and spreadsheet products other than Microsoft Excel are not supported as they are not compatible with the data validations that have been built into your workbook.