



Instructions for Completing the Annual Air Quality Emission Inventory

The *Emission Inventory Detail (Inventory)* report is comprised of two parts. The Summary Page, and the subsequent Detail Page(s). Completing the *Inventory* requires you to review and edit both of these pages, and then submit the edited forms to the Montana Department of Environmental Quality (Department). The following instructions briefly summarize the *Inventory* completion process in three stages: I. the Summary Page; II. the Detail Page(s); and, III. Inventory Submittal. If you have questions of any kind through this process, please contact the Department representative that sent you the *Inventory* document.

I. The SUMMARY PAGE

The Summary Page looks like the following example:

| EMISSIONS INVENTORY DETAIL | | | |
|--|---------------|---------------------------------------|--|
| DEQ Air Resources Management Bureau | | | |
| 11/25/2008 | | Year of Emissions: 2008 | |
| Airs Number 049-1234 | | XYZ COMPANY | |
| Plant Location XYZ Company 123 Oro e Plata Lane Anytown, MT 59000 | | Mailing Address XYZ COMPANY | |
| Geographic Detail Latitude: 46.585742 Longitude: -112.018420 | | | |
| Township | Range: | Section: | |
| 10N | 3W | 32 | |
| SIC/NAIC 1234 - Manufacturing Activity 1234456 - Manufacturing Activity | | | |
| Emissions Contact | | | |
| E-Mail Address | | | |
| Plant Comment | | | |

| Airs Number | Year of Inventory |
|-------------|-------------------|
| 049-1234 | 2008 |

| SPT Type | Emissions |
|----------|-----------|
| CO | 0.1852 |
| PT | 12.2372 |
| NO2 | 0.4292 |
| SO2 | 0.0468 |
| VOC | 0.0314 |
| PM10 | 5.4492 |

Edit the Summary Page as follows:

- Carefully review the listed location and mailing addresses, the Geographic Detail information, and the listed SIC and NAICS codes. Update or complete these fields as necessary. Do not ignore any field or leave any blanks.
- In the **Emission Contact** field, list the individual that the Department may contact for information about the contents of the edited *Inventory*. Include telephone number and e-mail information, as well as a mailing address if it is different from the facility mailing address.

II. The Detail Pages

The Detail Pages look like the following example. The information listed on the Detail Pages displays the data that your facility submitted for the last reporting year. It is broken down by the process or type of equipment that emits air pollutants at your facility (the emitting points), and the air pollutants that each point emits. For most facilities, the three most significant columns on the page are identified by numbered arrows as follows:

| EMISSIONS INVENTORY DETAIL | | | | | | | | | | | |
|-------------------------------------|-------|----------|---------------------------|-----------------------|--------------------|-----------------------------|----------------|------------------------------|-----------------------|--------|-----------|
| DEQ Air Resources Management Bureau | | | | | | | | | | | |
| 11/25/2008 | | | Year of Emissions: 2008 | | | | | | | | |
| Airs Number: 049-1234 | | | XYZ COMPANY | | | | | | | | |
| Point Name/ Segment Description | Point | SCC | Annual Process Rate | Process Rate Units | Emission Factor | Emission Factor Units | Calc Method | Emission Factor Source | Control Efficiency | Tons | Pollutant |
| PROPANE | | | | | | | | | | | |
| | 1 | | | | | | | | | | |
| PROPANE | | 10201001 | 9 | 1000 Gallons | 0.1000 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0005 | SO2 |
| | | | | 1000 Gallons | 0.2600 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0012 | PM10 |
| | | | | 1000 Gallons | 0.6000 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0027 | PT |
| | | | | 1000 Gallons | 3.2000 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0144 | CO |
| | | | | 1000 Gallons | 19.0000 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0855 | NO2 |
| CRUSHERS | | | | | | | | | | | |
| | 2 | | | | | | | | | | |
| CRUSHERS | | 30504050 | 62532 | Ton | 0.0090 | lb/Ton | U | STD | 0.0000 | 0.2834 | PM10 |
| | | | | Ton | 0.0200 | lb/Ton | U | STD | 0.0000 | 0.6253 | PT |

- ① The names of the processes or emitting Points.
- ② The Annual Process Rate at which each point operated.
- ③ The units defining each of the Process Rates.

In the example above, the XYZ Company reported that Point 1 combusted 9,000 gallons of propane during the last reported calendar year. At Point 2, crushers at the facility processed 62,532 tons of material during the last reported calendar year.

A. All Facilities

Follow these steps to edit the *Inventory* Detail Pages:

1. Identify or calculate the process rate at which each emitting point operated through the year. Make sure the units match the listings in the column titled **Process Rate Units** (Arrow ③). Cross out the value printed in the **Annual Process Rate** column (Arrow ②) and write in the rate for the last calendar year for each point. (See the example on the following page).
2. Make sure all the applicable equipment that emits air pollutants is listed. If you have added emitting points in the last year through the de minimis process, write them in at the bottom of the page. Include the Process Rate and Process Rate Units for each point. If you have worked with the Department to identify an Emission Factor for the point, and if you know the SCC code for the process, include that information as well.

For most facilities the *Inventory* is complete at this point. Scan sections B and C below to see if they apply to your facility. If not, submit your edited *Inventory* to the Department as described in Section III.

B. Facilities with Emission Rate Changes

For more complex facilities or facilities where a stack test has been conducted, an additional *Inventory* editing step will be required. The column titled **Emission Factor** contains values that predict the amount of each air pollutant emitted per unit of process rate. These values may only be modified if you have documentation that justifies the change. For example, if the facility in the example above had performed and reported a stack test in the last year on the propane combustion process, the Emission Factors should be changed to reflect the results of the test and more accurately report the year's total emissions. Changes to the Emission Factors can also result when the Federal Environmental Protection Agency (EPA) updates its databases of emission factors (referred to as AP-42 and the FIRE databases). If you can document a change to any of the emission factors, do the following:

1. Cross out the factor to be changed and write in the new emission factor.
2. Write in the corresponding emission factor units in the appropriate column.
3. Write in the source of the emission factor information in the **Emission Factor Source** column. (For example, "FIRE" refers to the EPA FIRE database. "STD" refers to stack test data).

C. Facilities with Control Equipment Changes

If your facility operates equipment to control certain air pollutants and the equipment has experienced a documented modification in its efficiency, you may write in a change in the column titled **Control Efficiency**. The values are listed as decimal percentages, so a 50% control efficiency would be listed as 0.5000. Quite frequently the *Inventories* do not list control efficiencies here, even when control equipment is functioning at the facility. In these cases the effects of the control equipment are built in to the Emission Factor, rather than listed as a separate Control Efficiency. It is recommended that you discuss any potential changes to reported Control Efficiencies with the Department.

An edited Detail Page might look like this:

| EMISSIONS INVENTORY DETAIL | | | | | | | | | | | |
|-------------------------------------|-------|----------|---------------------------|-----------------------|--------------------|-----------------------------|----------------|------------------------------|-----------------------|--------|-----------|
| DEQ Air Resources Management Bureau | | | | | | | | | | | |
| 11/25/2008 | | | Year of Emissions: 2008 | | | | | | | | |
| Airs Number: 049-1234 | | | XYZ COMPANY | | | | | | | | |
| Point Name/ Segment Description | Point | SCC | Annual Process Rate | Process Rate Units | Emission Factor | Emission Factor Units | Calc Method | Emission Factor Source | Control Efficiency | Tons | Pollutant |
| PROPANE | 1 | | 12 | | 0.090 | | | STD | | | |
| PROPANE | | 10201001 | 9 | 1000 Gallons | 0.1000 | lbs/1000 Gallons | U | ERE | 0.0000 | 0.0005 | SO2 |
| | | | | 1000 Gallons | 0.2600 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0012 | PM10 |
| | | | | 1000 Gallons | 0.6000 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0027 | PT |
| | | | | 1000 Gallons | 3.2000 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0144 | CO |
| | | | | 1000 Gallons | 19.0000 | lbs/1000 Gallons | U | FIRE | 0.0000 | 0.0855 | NO2 |
| CRUSHERS | 2 | | 7000 | | | | | | | | |
| CRUSHERS | | 30504030 | 6253 | Ton | 0.0090 | lb-Ton | U | STD | 0.0000 | 0.2814 | PM10 |
| | | | | Ton | 0.0200 | lb-Ton | U | STD | 0.0000 | 0.6253 | PT |

III. Inventory Submittal

When you have completed all of your edits, send the *Inventory* back to the Department at the address listed below. To allow you the greatest amount of time to review and ensure the accuracy of the updated emission inventory after it has been compiled, please submit the requested information as soon possible after January 1. However, the information must be received by the Department **no later than February 15**. Please submit your *Inventory* information to the attention of the individual who originally sent it to you at the following address:

Montana Department of Environmental Quality
Air Resources Management Bureau
P.O. Box 200901
Helena, Montana 59620-0901

Once the Department receives and validates your 2008 Emission Inventory changes and information, air emission totals for each pollutant at your facility will be calculated, and then an updated copy will be returned to you for your review. **Your annual operating fees for the next year will be assessed based on this report.** In order to maintain your air quality permit these fees must be paid, even if your facility did not operate in the last calendar year.