

A GUIDE TO COMPLETING YOUR ANNUAL AIR POLLUTION EMISSIONS REPORT

Each year, the Puget Sound Clean Air Agency (Agency) requires facilities such as yours to report the kinds and quantities of airborne contaminants emitted during the previous calendar year. We've developed this guide to help you complete your emission report. If you have additional questions, please contact the permit engineer for your facility (identified in the email sent to your facility; if you received a printed Emission Inventory request via mail, please see the top of the request form).

ARE BUSINESSES LIKE MINE THE ONLY ONES THAT HAVE TO REPORT EMISSIONS?

The information you supply helps our staff create an emission inventory for our entire region — a snapshot of the types and amounts of air pollutants emitted. This inventory is an important part of our program to maintain the air quality in our region and is a necessary element of the information we report to the US EPA. In addition to the information that you and other industrial/commercial sources provide through this annual report, emissions are estimated from:

- On-road mobile sources, such as cars, trucks and buses.
- Non-road mobile sources, such as aircraft, trains and ships.
- Stationary area sources, which include indoor and outdoor burning and activities that release organic vapors.

WHO HAS TO FILE AN EMISSION REPORT?

As discussed in Agency Regulation I, Sections 5.05 and 7.09

(<http://www.pscleanair.org/regulated/reg1/reg1.pdf>), we require an emission report from each facility whose **total emissions of air contaminants** during the previous calendar year equal or exceed the thresholds in Sections 5.05(b) or 7.09(a) of Regulation I. These thresholds are also summarized in the letter or email sent to you.

To assist in your analysis, we have provided a list of the pollutants that are considered to be Hazardous Air Pollutants (HAPs), Toxic Air Contaminants (TACs), and Volatile Organic Compounds (VOCs) on our webpage, see the Chemicals Table (<http://www.pscleanair.org/regulated/businesses/emissions/chemicals.pdf>). If you received an emission report request via email, a copy of this list is part of the spreadsheet attached to the email.

You are responsible for reporting total emissions **only** for those contaminants for which you met or exceeded the thresholds. For these contaminants, you must report emissions from the entire facility except for emissions from activities described in the section titled "**WHICH EMISSIONS DO I NOT HAVE TO INCLUDE IN MY EMISSION REPORT?**" (See below). If, after reviewing this section, you find that you need to report emissions from a process that does not fit under an existing "process segment" or "emission point", please create a new "process segment" or "emission point".

HOW DETAILED DO MY REPORTS OF AIR EMISSIONS HAVE TO BE?

For air contaminants that exceed the thresholds discussed earlier, you must report how much of each air contaminant you emitted (in pounds) from each emission point or process segment.

The Chemicals Table (<http://www.pscleanair.org/regulated/businesses/emissions/chemicals.pdf>) lists pollutants as they appear in our database. If your facility emits a pollutant that is not specifically listed by name in the Chemicals Table, please use the applicable catch-all classification (e.g., “other HAP”, “other VOC”) listed in the table to ensure that all emissions are accounted for.

To assist you in preparing this year’s emission report, the Agency will provide you with a list of the pollutants reported in the past for your facility (see email or letter sent to you). However, please note that you are responsible for reporting emissions of **all air contaminants that exceed the emission reporting thresholds, even those that were not reported previously**. For example:

An existing facility begins operating a boiler in 2010. Prior to the installation of the boiler, the facility did not report NOx or CO emissions because these emissions did not exceed the reporting thresholds. However, after the installing of the boiler, emissions of NOx and CO do exceed the thresholds. The facility is now responsible for reporting NOx and CO emissions even though NOx and CO were not reported in the past.

DO I NEED TO REPORT GREENHOUSE GAS EMISSIONS?

The Agency is not authorized to collect greenhouse gas (CO2) emission information. Your facility may need to report greenhouse gas information to EPA or the WA Department of Ecology. For more information, see EPA: <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>
WA Ecology: <http://www.ecy.wa.gov/biblio/wac173441.html>.

WHAT IS A “PROCESS SEGMENT” OR AN “EMISSION POINT”?

Some process segments and emission points group similar equipment or activities at your facility for purposes of estimating emissions and ease of reporting. Other process segments and emission points are for single pieces of equipment that may be unique and/or have unique emissions. Your emission report provides details about what is included in each emission point and process segment. One example of the process segment/emission point structure is: toluene from primer (*process segment*) during spray coating (*emission point*).

If you have a piece of equipment or activity that requires reporting but does not fit under an existing process segment or emission point, **please create a new process segment or emission point**. (For details about which equipment and activities do not require reporting, see “WHICH EMISSIONS DO I NOT HAVE TO INCLUDE IN MY EMISSION REPORT” below.)

WHAT IS A “PROCESS QUANTITY”?

The process quantity listed on your emission report for each emission point/process segment is the amount of raw material used, or the activity level (such as hours per year), in that segment of your operation for the calendar year. For a surface coating operation, it may be the gallons of topcoat applied. For a boiler, it may be cubic feet of gas used. The data you provided last year is included for reference. You must supply the process quantity for this year on this report.

Please **check the units** used for reporting process quantities. Using incorrect units is a common error and causes confusion when process data is used in later calculations. One common error is the use of “M” to signify 1000, in units like Mgal of coating usage. If you choose to use the unit “Mgal”, please make sure that you correctly convert the units. For example, 20,000 gal is equal to 20 Mgal.

WHICH EMISSIONS DO I NOT HAVE TO INCLUDE IN MY EMISSION REPORT?

You may omit emissions from any of the following activities in your annual emission report:

- Greenhouse gas emissions (CO₂) should not be reported to the Puget Sound Clean Air Agency. (*Note that the EPA (<http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>) and the WA Dept. of Ecology (<http://www.ecy.wa.gov/biblio/wac173441.html>) may have greenhouse gas reporting requirements.*)
- Personal use by employees or other persons of foods, drugs, cosmetics, tobacco products, and other personal items, including supplies of such products within the facility in an on-site cafeteria, store, or infirmary;
- Office and administrative use of products including ink, marking pens, ink pads, glue, correction fluid, and correction fluid thinner;
- Use of products for routine janitorial or facility grounds maintenance;
- Use of products for architectural coating, i.e. painting building structures;
- Use of products for minor maintenance and repair of process and industrial equipment, including lubricants and sealants;
- Use of products for the purpose of maintaining motor vehicles operated by the facility;
- Use of process water or non-contact cooling water that is drawn from municipal water supplies or from other local ground or surface water sources but is not drawn from activities at the facility;
- Emissions from mobile sources; or
- Any other activity for which the facility has demonstrated, in writing, that the potential air contaminant emissions are insignificant. The Agency must approve this exclusion in writing.

WHAT METHOD DO I USE TO CALCULATE MY EMISSIONS?

1. If an Order of Approval from the Agency specifies a method for calculating actual emissions from your facility, you must use that method.
2. The method used must reflect the best available methods and data, and must produce an accurate representation of the types and quantities of air contaminants released at the facility (emission factors based on representative process source tests or continuous emission monitors are ideal, but not required).
3. The method used must reflect “full disclosure” about all aspects of the applicable emitting process. In other words, no portion of the process may be omitted from the calculation and the calculation must reflect actual operating characteristics of the process and materials.
4. Standard calculations for mass balance, emission factor application, and engineering calculations and models must comply with the following requirements:
 - (i) Mass balance calculations must account for all routes of consumption, losses, and all accumulations sufficiently to characterize air contaminant releases. Mass balance calculations are acceptable when no adequate emission factors are available or when a more accurate estimate will be obtained by using a mass balance than by using available emission factors.
 - (ii) Proposed emission factors must have been generated under similar conditions for similar facilities or equipment as those to which the emission factors will be applied, to the extent technologically feasible. For purposes of this section, if EPA has published an emission factor for an air contaminant that is applicable to the emitting process at your facility (see <http://www.epa.gov/ttn/chief/ap42/index.html>), and if you use published emissions factors to estimate the emissions at your facility, you must use the most recently published emission factor in your estimates. You will need to quantify the effects of all air pollution control equipment or process conditions that are adjusted to control air emissions for each air contaminant affected by the equipment or conditions. Make sure you have sufficient documentation to justify the control’s effectiveness under actual operating conditions.
 - (iii) Engineering calculations and emission estimation models must be based on sufficient data about the emission characteristics of the specific air contaminant at all relevant conditions.
5. EPA and state/local air quality agencies, with input and sponsorship from industry, have developed preferred and alternative methods for estimating emissions from several categories of emission sources.

The Emission Inventory Improvement Program (EIIP) website (www.epa.gov/ttn/chief/eip/techreport/volume02/index.html) includes information for sources like:

- Boilers
- Hot Mix Asphalt Plants
- Equipment Leaks
- Wastewater Collection and Treatment
- Semiconductors
- Surface Coating Operations
- Paint and Ink Manufacturing
- Secondary Metal Processing
- Oil and Gas Field Production and Processing
- Plastics Products Manufacturing
- Stone Mining and Quarrying Operations
- Printing, Packaging, and Graphic Arts Operations
- Chemical Manufacturing

EIIP methods are recommended to standardize emission calculations nationwide. If you are unable to obtain these documents, you may contact the engineer assigned to you (identified in the email sent to your facility; if you received a printed Emission Inventory request via mail, please see the top of the emission report).

HOW DO I REPORT MIXTURES OR CATEGORIES OF CONTAMINANTS?

If your facility has emissions from any mixture or substance group, **you must report the emissions of the components by their individual CAS numbers**. The best sources for these component ingredients are Material Safety Data Sheets (MSDSs) or technical support documents from manufacturers. For example, cellosolve (CAS #110-80-5) or methyl cellosolve (CAS #109-86-4) should be listed by their individual CAS numbers and not by their category of glycol ethers. If your facility has emissions of any **metal compounds**, report your total emissions of the compound using the identification number provided in the spreadsheet sent to you or refer to the Chemical Table on our website (<http://www.pscleanair.org/regulated/businesses/todo.aspx>).

HOW DO I REPORT EMISSIONS OF A NEW AIR CONTAMINANT?

If an emission point/process segment is emitting an air contaminant that you have not previously reported, record the contaminant's CAS number and chemical name and the quantity of emissions on the blank lines provided for that point/segment. If you need more space, add new lines to the spreadsheet or, if submitting a written form, attach additional pages and list the applicable emission point/process segment, a description of the contaminant, and its quantities. If emissions do not fit under an existing point/segment, please create a new point/segment.

WHAT DO I REPORT FOR A FACILITY LOCATION THAT IS NOW CLOSED OR THAT OPENED PART WAY THROUGH THE YEAR?

You must report emission estimates for locations that are presently closed if 2010 emissions for the facility exceeded the emission thresholds while the location was open/operating. If you opened a new location, report all emissions that exceed the thresholds even if the reporting period covers only a partial year of operation.

HOW CAN I CORRECT AN ERROR IN LAST YEAR'S REPORT?

If you have determined that last year's data was reported incorrectly, please mark up the previous year's data on the appropriate page for the emission point/process segment to reflect the correct data. Include a brief explanation in an attachment that explains the reason for your changes. If the report you receive does not reflect the information you provided last year, please contact the engineer assigned to you (identified in the email sent to your facility; if you received a printed Emission Inventory request via mail, please see top of the emission report) or contact Agata McIntyre at 206-689-4061.

HOW DO I REPORT PM2.5 EMISSIONS?

As part of our efforts to ensure that our region complies with EPA's PM2.5 fine particulate standard, we are requiring estimates for your emissions of PM2.5 as well as PM10. You may use EPA's particulate matter calculator to estimate PM2.5 and PM10 emissions. To obtain this software calculator, go to www.epa.gov/ttn/chief/software/pmcalc.

WHAT RECORDS DO I NEED TO KEEP?

We recommend, and for Operating Permit and Synthetic Minor sources we require, that you maintain documentation that provides a comprehensive and detailed description of the methods used to quantify emissions of air contaminants. Please also retain any documentation needed to replicate the emission estimates you reported.

WHAT DO I DO IF I AM NOT ABLE TO SUBMIT THE EMISSION REPORT ON TIME?

Your emission report is due on or before June 30, 2011. If you are unable to meet this date, please contact the engineer assigned to you (identified in the email sent to your facility; if you received a printed Emission Inventory request via mail, please see top of the emission report) or Agata McIntyre at 206-689-4061.