

Frequently Asked Questions About Calculating Actual Emissions for the 2005 Emissions Inventories

If EPA publishes a more recent emission factor, for example since my permit was issued, can I still calculate my emissions with the older emission factor that was used to issue my permit?

No, the department requires that you use the most recently published EPA emission factor.

Is the department going to issue instructions for how to report on parameters such as PM_{2.5}? We have not been monitoring PM_{2.5} because it is not specified in our permit.

The US Environmental Protection Agency (EPA) has developed air toxics and criteria emission estimating tools. As such, the department will defer to EPA's emission estimation tools. Please see sections below for further discussion of each tool.

EPA's Computer Tools include:

Air CHIEF CD-ROM

Factor Information and Retrieval Data Systems (FIRE)

PM Calculator

SPECIATE

TANKS

WATER 9

EPA's On-line resources include:

Compilation of Air Pollutant Emission Factors (AP-42)

What is Air-chief CD-ROM?

The Air Clearing House For Inventories And Emission Factors in CD-ROM format (*Air CHIEF CD-ROM*) is the most comprehensive tool for retrieving emission estimation data. The disc contains the *Compilation of Air Pollutant Emission Factors (AP-42)* Volume I, EPA's Emission Inventory Improvement Program (EIIP) documents, and *Locating and Estimating Documents (L & E series)* as well as instruction manuals and installation copies of *FIRE*, *PM Calculator*, *Water9*, and *TANKS*.

Please see <http://www.epa.gov/ttnchie1/software/airchief/index.html> for more information including how-to order *Air CHIEF CD-ROM*.

What is Factor Information and Retrieval Data Systems (FIRE)?

The Factor Information Retrieval (FIRE) Data System is a database containing EPA's emission estimation factors for criteria and hazardous air pollutants in an easy to use Windows program. Users can browse through records in the database or select specific emission factors by source category, source classification code (SCC), pollutant name, CAS number, or control device. FIRE 6.25 contains emission factors from the *Compilation Of Air Pollutant Emission Factors (AP-42 Fifth Edition)* for all AP42

sections posted by September 1, 2004, the Locating and Estimating (L&E) series of documents, and the retired AFSEF and XATEF documents. All EPA Source Classification Codes (SCC) through September 1, 2004 are in the FIRE database. Version 6.25 supersedes all previous versions of the FIRE program.

Please see <http://www.epa.gov/ttn/chief/software/fire/index.html> for more information.

What is *PM Calculator*?

The *PM Calculator* estimates **filterable** PM_{2.5} emissions. *PM Calculator* Version 2.0 is applicable to point sources only and requires the user to input uncontrolled emissions (either total filterable particulate or filterable PM₁₀) for each source, the source category classification (SCC) and the control device, if any. The program will then calculate controlled emissions for filterable PM_{2.5} and filterable PM₁₀ for each point source.

Be sure to use the applicable pollutant codes from the table below:

POLLUTANT_CODE	POLLUTANT_CODE_DESC
PM-PRI	PRIMARY PM (INCLUDES FILTERABLES + CONDENSIBLES)
PM-CON	PRIMARY PM CONDENSIBLE PORTION ONLY (ALL LESS THAN 1 MICRON)
PM-FIL	PRIMARY PM, FILTERABLE PORTION ONLY
PM10-PRI	PRIMARY PM10 (INCLUDES FILTERABLES + CONDENSIBLES)
PM10-FIL	PRIMARY PM10, FILTERABLE PORTION ONLY
PM25-PRI	PRIMARY PM2.5 (INCLUDES FILTERABLES + CONDENSIBLES)
PM25-FIL	PRIMARY PM2.5, FILTERABLE PORTION ONLY

Please see <http://www.epa.gov/ttn/chief/software/pmcalc/> for more information.

What is *SPECIATE*?

SPECIATE is EPA's repository of Total Organic Compound (TOC) and Particulate Matter (PM) speciated profiles for a wide variety of sources. SPECIATE Version 3.2 incorporates improvements to the function, clarifications to the display, and some minor corrections to the data. No new profiles have been added to SPECIATE in v3.2

Please see <http://www.epa.gov/ttn/chief/software/speciate/index.html> for more information.

What is *TANKS*?

TANKS is a Windows-based computer software program that estimates volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions from fixed- and floating-roof storage tanks. *TANKS* is based on the emission estimation procedures from Chapter 7 of EPA's *Compilation Of Air Pollutant Emission Factors* (AP-42).

Please see <http://www.epa.gov/ttn/chief/software/tanks/index.html> for more information.

What is WATER 9?

WATER9, the wastewater treatment model, is a Windows based computer program and consists of analytical expressions for estimating air emissions of individual waste constituents in wastewater collection, storage, treatment, and disposal facilities; a database listing many of the organic compounds; and procedures for obtaining reports of constituent fates, including air emissions and treatment effectiveness.

Please see <http://www.epa.gov/ttn/chief/software/water/index.html> for more information.

What is the *Compilation of Air Pollutant Emission Factors (AP-42)*?

AP-42 is a source of air pollutant emission factors for both criteria and toxic emissions. AP-42 Volume I addresses stationary, point, and area sources, while Volume II addresses mobile source.

An emission factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. These factors are usually expressed as the weight of pollutant divided by a unit weight, volume, distance, or duration of the activity emitting the pollutant (e. g., kilograms of particulate emitted per megagram of coal burned). Such factors facilitate estimation of emissions from various sources of air pollution.

Please see <http://www.epa.gov/ttn/chief/ap42/index.html> for more information.

In the past, we reported PM_{2.5} as equal to PM₁₀ in order to report the worst-case scenario. How should we calculate PM_{2.5} now?

Please see the EPA Technology Transfer Network (TTN) Clearinghouse for Inventories & Emission Factors - PM 2.5 Inventory Resource Center:
<http://www.epa.gov/ttn/chief/eiip/pm25inventory/software.html>.

Please also see the note above concerning the EPA emissions estimation tool *PM Calculator*.