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Minnesota Criteria Air Pollutant Emission Inventory

Criteria pollutants are air pollutants for which the U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS).

Criteria Pollutant List

- carbon monoxide (CO)
- nitrogen oxides (NO)
- lead (Pb)
- total particulate matter (PT)
- particulate matter less than 10 microns in diameter (PM)
- sulfur dioxides (SO)
- volatile organic compounds (VOC) *



* Ozone is a criteria pollutant that is not directly emitted. It forms through photochemical reactions in the air from VOCs and NOx in the presence of sunlight. This is why MPCA calculates the inventory of VOC emissions.

The Minnesota criteria pollutant emission inventory includes emissions from three principal source categories:

- Point Source: large stationary sources that are typically required to have an air permit, for example, power plants and refineries. The <u>Minnesota Rules parts 7019.3000-7019.3100</u> (the emission inventory rule) requires all facilities in Minnesota that have an air emissions permit to submit an annual emission inventory report of criteria pollutants to the Minnesota Pollution Control Agency (MPCA). The emission inventory is used to track the actual pollutant emissions of each facility and then used to calculate an annual emission fee for each facility.
- 2. Area Source: typically stationary sources, but are generally smaller sources of emissions compared with point sources. Examples include dry cleaners, gasoline service stations and residential wood combustion.
- 3. **Mobile Source**: segregated into on-road and non-road sources. On-road mobile sources are vehicles operated on highways, streets and roads. Nonroad mobile sources include lawn and garden equipment, construction equipment, aircraft and locomotives.

With each new inventory, improvements are made in terms of pollutants covered, source and source categories included, emission estimation methods and the accuracy of emission estimates. Still, it is important to understand data uncertainties and limitations when using the inventories.

Note to Facilities: Air Emissions Inventory Redesign

The MPCA is transitioning to a new air emissions inventory data management system that consolidates its current criteria, toxics and greenhouse gas inventories. One key feature of this system will be electronic reporting. (Date posted: 9/15/09)

Please visit the Air Emissions Inventory Redesign Web page for additional information.

More Information

For more information, please contact Michael Smith at 651-757-2733

Related Links

<u>Minnesota Air</u>

- <u>Air toxics in Minnesota</u>
- <u>National Emissions Inventories</u>

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