

Chapter 173-400 WAC

GENERAL REGULATIONS FOR AIR POLLUTION SOURCES

173-400-099

173-400-060

Emission standards for general process units.

General process units are required to meet all applicable provisions of WAC 173-400-040 and, no person shall cause or allow the emission of particulate material from any general process operation in excess of 0.23 grams per dry cubic meter at standard conditions (0.1 grain/dscf) of exhaust gas. Test methods (in effect on the date in WAC 173-400-025) from 40 C.F.R. Parts 51, 60, 61, and 63 and any other approved test procedures in ecology's "Source Test Manual - Procedures For Compliance Testing" on file at ecology, will be used to determine compliance.

173-400-100

Source classifications.

(1) **Source classification list.** In counties without a local authority, or for sources under the jurisdiction of ecology, the owner or operator of each source within the following source categories shall register the source with ecology:

- (a) Agricultural chemical facilities engaging in the manufacturing of liquid or dry fertilizers or pesticides;
- (b) Agricultural drying and dehydrating operations;
- (c) Any category of stationary source that includes an emissions unit subject to a new source performance standard (NSPS) under 40 C.F.R. Part 60 (in effect on the date in WAC [173-400-025](#)), other than subpart AAA (Standards of Performance for New Residential Wood Heaters);
- (d) Any stationary source, that includes an emissions unit subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) under 40 C.F.R. Part 61 (in effect on the date in WAC [173-400-025](#)), other than:
 - (i) Subpart M (National Emission Standard for Asbestos); or
 - (ii) Sources or emission units emitting only radionuclides, which are required to obtain a license under WAC [246-247-060](#), and are subject to 40 C.F.R. Part 61, subparts H and/or I, and that are not subject to any other part of 40 C.F.R. Parts 61, 62, or 63, or any other parts of this section;
- (e) Any source, or emissions unit subject to a National Emission Standard for Hazardous Air Pollutants for Source Categories (Maximum Achievable Control Technology (MACT) standard) under 40 C.F.R. Part 63 (in effect on the date in WAC [173-400-025](#));
- (f) Any source, stationary source or emission unit with an emission rate of one or more pollutants equal to or greater than an "emission threshold" defined in WAC [173-400-030](#);
- (g) **Any source that has received an order;**
- (h) Asphalt and asphalt products production facilities;
- (i) Brick and clay manufacturing plants, including tiles and ceramics;
- (j) Casting facilities and foundries, ferrous and nonferrous;

Commented [SB(1)]: I suggest adding language to WAC 173-400-099(1)(b) that the emissions inventory 'section WAC 173-400-105(1) applies to permit program sources, as defined in RCW 70.94.030(18).

Commented [SB(2)]: 'source' and 'order' are defined in WAC 173-400-040.

(j) Cattle feedlots with operational facilities which have an inventory of one thousand or more cattle in operation between June 1 and October 1, where vegetation forage growth is not sustained over the majority of the lot during the normal growing season;

(k) Chemical manufacturing plants;

(l) Composting operations, including commercial, industrial and municipal, but exempting residential composting activities;

(m) Concrete product manufacturers and ready mix and premix concrete plants;

(n) Crematoria or animal carcass incinerators;

(o) Dry cleaning plants;

(p) Materials handling and transfer facilities that generate fine particulate, which may include pneumatic conveying, cyclones, baghouses, and industrial housekeeping vacuuming systems that exhaust to the atmosphere;

(q) Flexible vinyl and urethane coating and printing operations;

(r) Grain, seed, animal feed, legume, and flour processing operations, and handling facilities;

(s) Hay cubers and pelletizers;

(t) Hazardous waste treatment and disposal facilities;

(u) Ink manufacturers;

(v) Insulation fiber manufacturers;

(w) Landfills, active and inactive, including covers, gas collection systems or flares;

(x) Metal plating and anodizing operations;

(y) Metallic and nonmetallic mineral processing plants, including rock crushing plants;

(z) Mills such as lumber, plywood, shake, shingle, woodchip, veneer operations, dry kilns, pulpwood insulating board, or any combination thereof;

(aa) Mineralogical processing plants;

(bb) Other metallurgical processing plants;

(cc) Paper manufacturers;

(dd) Petroleum refineries;

(ee) Petroleum product blending operations;

(ff) Plastics and fiberglass product fabrication facilities;

(gg) Rendering plants;

(hh) Soil and groundwater remediation projects;

(ii) Surface coating manufacturers;

(jj) Surface coating operations including: Automotive, metal, cans, pressure sensitive tape, labels, coils, wood, plastic, rubber, glass, paper and other substrates;

(kk) Synthetic fiber production facilities;

(ll) Synthetic organic chemical manufacturing industries;

(mm) Tire recapping facilities;

(nn) Wastewater treatment plants;

(oo) Any source that has elected to opt-out of the operating permit program by limiting its potential-to-emit (synthetic minor) or is required to report periodically to demonstrate nonapplicability to EPA requirements under Sections 111 or 112 of Federal Clean Air Act.

(2) **Equipment classification list.** In counties without a local authority, the owner or operator of the following equipment shall register the source with ecology:

(a) Boilers, all solid and liquid fuel burning boilers with the exception of those utilized for residential heating;

(b) Boilers, all gas fired boilers above 10 million British thermal units per hour input;

- (c) Chemical concentration evaporators;
- (d) Degreasers of the cold or vapor type in which more than five percent of the solvent is comprised of halogens or such aromatic hydrocarbons as benzene, ethylbenzene, toluene or xylene;
- (e) Ethylene oxide (ETO) sterilizers;
- (f) Flares utilized to combust any gaseous material;
- (g) Fuel burning equipment with a heat input of more than 1 million Btu per hour; except heating, air conditioning systems, or ventilating systems not designed to remove contaminants generated by or released from equipment;
- (h) Incinerators designed for a capacity of one hundred pounds per hour or more;
- (i) Ovens, burn-out and heat-treat;
- (j) Stationary internal combustion engines and turbines rated at five hundred horsepower or more;
- (k) Storage tanks for organic liquids associated with commercial or industrial facilities with capacities equal to or greater than 40,000 gallons;
- (l) Vapor collection systems within commercial or industrial facilities;
- (m) Waste oil burners above 0.5 mm Btu heat output;
- (n) Woodwaste incinerators;
- (o) Commercial and industrial solid waste incineration units subject to WAC [173-400-050\(4\)](#);
- (p) Small municipal waste combustion units subject to WAC [173-400-050\(5\)](#).

173-400-101

Registration issuance.

(1) **General.** Any person operating or responsible for the operation of an air contaminant source for which registration and reporting are required shall register the source emission unit with the permitting authority. The owner or operator shall make reports containing information as may be required by the permitting authority concerning location, size and height of contaminant outlets, processes employed, nature and quantity of the air contaminant emission and such other information as is relevant to air pollution and available or reasonably capable of being assembled.

(2) **Registration form.** Registration information shall be provided on forms supplied by the permitting authority and shall be completed and returned within the time specified on the form. Emission units within the facility shall be listed separately unless the permitting authority determines that certain emission units may be combined into process streams for purposes of registration and reporting.

(3) **Signatory responsibility.** The owner, operator, or their designated management representative shall sign the registration form for each source. The owner or operator of the source shall be responsible for notifying the permitting authority of the existence of the source, and for the accuracy, completeness, and timely submittal of registration reporting information and any accompanying fee.

(4) **Operational and maintenance plan.** Owners or operators of registered sources within ecology's jurisdiction shall maintain an operation and maintenance plan for process and control equipment. The plan shall reflect good industrial practice and shall include a record of performance and periodic inspections of process and control equipment. In most instances, a

manufacturer's operations manual or an equipment operation schedule may be considered a sufficient operation and maintenance plan. The plan shall be reviewed and updated by the source owner or operator at least annually. A copy of the plan shall be made available to ecology upon request.

(5) **Report of closure.** A report of closure shall be filed with the permitting authority within ninety days after operations producing emissions permanently cease at any applicable source under this section.

(6) **Report of change of ownership.** ~~The previous owner or operator and~~ A new owner or operator shall report to the permitting authority within ninety days of any change of ownership or change in operator.

(7) **Operating permit program source exemption.** Permit program sources, as defined in RCW 70.94.030(18), are not required to comply with the registration requirements of WAC 173-400-100 through 173-400-104.

173-400-102

Scope of registration and reporting requirements.

(1) **Initial notification.** The owner or operator of any source required to register with ecology per WAC 173-400-100 shall notify ecology of its existence. ~~An initial notification must be received shall be submitted within ninety30 days from start of source operation and include information directly related to the registration program as requested by ecology. from start of operation of any new or recommissioned stationary source, and shall include the following information:~~

- ~~(a) Owner name, address and phone number;~~
- ~~(b) Source location;~~
- ~~(c) Name, address and phone number of on-site contact person;~~
- ~~(d) Identification and brief description in terms of type, location and size or capacity, of each stationary source subject to registration;~~
- ~~(e) Date each source was constructed, installed or established;~~
- ~~(f) Date each source commenced operation;~~
- ~~(g) If subject to pre-construction review and approval by ecology, the date and number of the issued approval order.~~

(2) Reports.

(a) Owners or operators of source classifications required to register with ecology shall, upon request, make annual and/or periodic reports to ecology regarding ~~any or all of the~~ following:

- (i) emission sources;
- (ii) types and amounts of raw materials and fuels used;
- (iii) types, amounts and concentrations of air contaminants emitted;
- (iv) data on emission units and control devices;
- (v) data on emission points;
- (vi) any other information directly related to the registration program as requested by ecology.

Commented [SB(3): staff comment. Important for portable sources.

Commented [SB(4): This section should apply to ecology or counties without an active local authority to be consistent with how it was applied previously

Commented [SB(5): WG#2 GK requested 90-days.

Commented [SB(6): Staff comment

Commented [SB(7): Facilities that receive an order will be automatically included in the registration program.

Commented [SB(8): WG#2 comment

Commented [SB(9): Source classifications required to register with ecology are listed in WAC 173-400-100. This language allows for flexibility in the frequency of emissions reporting. (ORCAA Rule 4.3) Check this against WAC 173-400-101

(b) ~~The owner or lessee of the source, or an agent, shall make annual and periodic reports on forms provided by ecology or in an ecology approved format. Reports shall be submitted in an ecology approved format.~~

Commented [SB(10): Allows for electronic submittal when/if available.

~~(c) This reporting requirement is in addition to reporting requirements contained in an approval order.~~

Commented [SB(11): WG#2 comment – clarification needed for ‘ecology approved format’?

Commented [SB(12): WG#2 – wanted this clarification

(3) Procedure for estimating emissions. In counties without an active local air pollution control authority, registration may include an estimate of actual emissions taking into account equipment, operating conditions, and air pollution control measures. Registration may also include a flowchart of plant processes, operational parameters, and specifications of air pollution control equipment. The emissions estimate shall be based upon actual test data or, in the absence of such data, upon procedures acceptable to ecology. Any emission data submitted to ecology shall be verifiable using currently accepted engineering criteria. The following procedures may be used to estimate emissions from individual sources or emissions units:

- (a) Source-specific testing data;
- (b) Mass balance calculations;
- (c) A published, verifiable emission factor that is applicable to the source;
- (d) Other engineering calculations; or
- (e) Other procedures to estimate emissions that are acceptable to ecology.

(4) Owner or operator review. Ecology will provide the owner or operator of the source an opportunity to review any emission estimates prepared by ecology upon request. An owner or operator may submit additional information and any justification for not using the methods listed in section (3) above. Ecology will evaluate this information to determine whether it is based on currently accepted engineering criteria. If none of the above methods are available or applicable to the source, an appropriate method will be established and approved by ecology on a case-by-case basis.

Commented [SB(13): Staff comment – clarifies that the opportunity for review is done upon owner/operator request.

Commented [SB(14): These sections were moved over from WAC 173-400-102 as written – changes to (4) made upon staff request. Since these have to do with emissions reporting, it makes sense to move them here.

173-400-103

Source Registration ~~Tiers~~Class

(1) All sources requiring registration with ecology shall be in one of the registration ~~tiers~~classes listed below. A source will be placed in the most appropriate ~~tier~~class as determined by ecology. The most current emissions inventory available for each source may be used. If this is not available, the enforceable emissions limitations for the source and maximum capacities and production rates shall be used. For purposes of classification, ecology will consider the pollutants listed in Table 173-400-103(1).

Commented [SB(15R14): Jason commented that this is passive voice and fails to identify the responsible party. The responsible party isn’t identified here because this identifies a tiered approach of the most accurate (source specific test data) to least accurate means of determining emissions, regardless of who proposes it.

Commented [SB(16): Staff preferred a term that was better differentiated from ‘classification’

Table 173-400-103(1)

Pollutant	tons per year
carbon monoxide (CO)	20
nitrogen oxides (NOx)	8
sulfur oxides (SOx)	8
total suspended particulates (TSP)	5
fine particulate matter (PM10)	3
volatile organic compounds (VOC)	8

Commented [SB(17): WG#2 – question re: including TSP here. TSP is a pollutant that is listed and evaluated for permitting in WAC 173-400-110(5); also found in definitions WAC 173-400-030(28), (63) which defines particulate matter, (64) particulate matter emissions and (90) TSP, & air contaminant (3). Since TSP is an air pollutant it should be considered for source grouping.

toxic air pollutants (TAP)	- any single TAP	1
	- combination of TAP	2.5

(2) Registration ~~classes~~ **Tiers**

- (a) **Class-Tier 1** source. A source with actual emissions less than 5 tons per year of any combination of pollutants listed in Table 173-400-103(1).
- (b) **Class-Tier 2** source. A source with actual emissions of each pollutant less than those listed in Table 173-400-103(1) and above **Class-Tier 1** source levels.
- (c) **Class-Tier 3** source. A source with actual emissions of any pollutant greater than those listed in Table 173-400-103(1).
- (d) **Class-Tier 4** source – synthetic minor. A source that has requested and received a federally enforceable emissions limit that limits the total potential-to-emit of the facility to less than one hundred tons per year of any criteria pollutant, ten tons per year of any single hazardous air pollutant, or twenty five tons per year of any combination of hazardous air pollutants.

Commented [SB(18)]: Staff comment - Need to add something to limit or point to AOP thresholds?

173-400-105

Records, monitoring, and reporting.

The owner or operator of a source shall upon notification by the director of ecology, maintain records on the type and quantity of emissions from the source and other information deemed necessary to determine whether the source is in compliance with applicable emission limitations and control measures.

Commented [TM(19)]: Instead of Opening section 105 for clarification that emission inventory due date is relevant to AOP only and not registration, put language in section 103 that says "Section 105.1 does not apply for registration." And copy and paste what is in 105 to 103 and change dates.

(1) **Emission inventory.** The owner(s) or operator(s) of any air contaminant source shall submit an inventory of emissions from the source each year. The inventory will include stack and fugitive emissions of particulate matter, PM-10, PM-2.5, sulfur dioxide, oxides of nitrogen, carbon monoxide, total reduced sulfur compounds (TRS), fluorides, lead, VOCs, ammonia, and other contaminants. The format for the submittal of these inventories will be specified by the permitting authority or ecology. When submittal of emission inventory information is requested, the emissions inventory shall be submitted no later than one hundred five days after the end of the calendar year. The owner(s) or operator(s) shall maintain records of information necessary to substantiate any reported emissions, consistent with the averaging times for the applicable standards. Emission estimates used in the inventory may be based on the most recent published EPA emission factors for a source category, or other information available to the owner(s) or operator(s), whichever is the better estimate.

Commented [SB(20R19)]: Instead of above - add language to WAC 173-400-099(1)(b) that the emissions inventory 'section WAC 173-400-105(1) applies to permit program sources, as defined in RCW 70.94.030(18)'.

(2) **Monitoring.** Ecology shall conduct a continuous surveillance program to monitor the quality of the ambient atmosphere as to concentrations and movements of air contaminants. As a part of this program, the director of ecology or an authorized representative may require any source under the jurisdiction of ecology to conduct stack and/or ambient air monitoring and to report the results to ecology.

(3) **Investigation of conditions.** Upon presentation of appropriate credentials, for the purpose of investigating conditions specific to the control, recovery, or release of air contaminants into the atmosphere, personnel from ecology or an authority shall have the power

to enter at reasonable times upon any private or public property, excepting nonmultiple unit private dwellings housing one or two families.

(4) **Source testing.** To demonstrate compliance, ecology or the authority may conduct or require that a test be conducted of the source using approved test methods from 40 C.F.R. Parts 51, 60, 61 and 63 (in effect on the date in WAC 173-400-025) or procedures contained in "Source Test Manual - Procedures for Compliance Testing," state of Washington, department of ecology, , on file at ecology. The operator of a source may be required to provide the necessary platform and sampling ports for ecology personnel or others to perform a test of an emissions unit. Ecology shall be allowed to obtain a sample from any emissions unit. The operator of the source shall be given an opportunity to observe the sampling and to obtain a sample at the same time.

(5) **Continuous monitoring and recording.** Owners and operators of the following categories of sources shall install, calibrate, maintain and operate equipment for continuously monitoring and recording those emissions specified.

(a) Fossil fuel-fired steam generators.

(i) Opacity, except where:

(A) Steam generator capacity is less than two hundred fifty million BTU per hour heat input;
or

(B) Only gaseous fuel is burned.

(ii) Sulfur dioxide, except where steam generator capacity is less than two hundred fifty million BTU per hour heat input or if sulfur dioxide control equipment is not required.

(iii) Percent oxygen or carbon dioxide where such measurements are necessary for the conversion of sulfur dioxide continuous emission monitoring data.

(iv) General exception. These requirements do not apply to a fossil fuel-fired steam generator with an annual average capacity factor of less than thirty percent, as reported to the Federal Power Commission for calendar year 1974, or as otherwise demonstrated to ecology or the authority by the owner(s) or operator(s).

(b) Sulfuric acid plants. Sulfur dioxide where production capacity is more than three hundred tons per day, expressed as one hundred percent acid, except for those facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

(c) Fluid bed catalytic cracking units catalyst regenerators at petroleum refineries. Opacity where fresh feed capacity is more than twenty thousand barrels per day.

(d) Wood residue fuel-fired steam generators.

(i) Opacity, except where steam generator capacity is less than one hundred million BTU per hour heat input.

(ii) Continuous monitoring equipment. The requirements of (e) of this subsection do not apply to wood residue fuel-fired steam generators, but continuous monitoring equipment required by (d) of this subsection shall be subject to approval by ecology.

(e) Owners and operators of those sources required to install continuous monitoring equipment under this subsection shall demonstrate to ecology or the authority, compliance with the equipment and performance specifications and observe the reporting requirements contained in 40 C.F.R. Part 51, Appendix P, Sections 3, 4 and 5 (in effect on the date in WAC 173-400-025).

(f) Special considerations. If for reason of physical plant limitations or extreme economic situations, ecology determines that continuous monitoring is not a reasonable requirement, alternative monitoring and reporting procedures will be established on an individual basis. These will generally take the form of stack tests conducted at a frequency sufficient to establish the emission levels over time and to monitor deviations in these levels.

(g) Exemptions. This subsection (5) does not apply to any emission unit which is:

(i) Required to continuously monitor emissions due to a standard or requirement contained in 40 C.F.R. Parts 60, 61, 62, 63, or 75 (all in effect on the date in WAC 173-400-025) or a permitting authority's adoption by reference of such federal standards. Emission units and sources subject to those standards shall comply with the data collection requirements that apply to those standards.

(ii) Not subject to an applicable emission standard.

(6) No person shall make any false material statement, representation or certification in any form, notice or report required under chapter 70.94 or 70.120 RCW, or any ordinance, resolution, regulation, permit or order in force pursuant thereto.

(7) Continuous emission monitoring system operating requirements. All continuous emission monitoring systems (CEMS) required by 40 C.F.R. Parts 60, 61, 62, 63, or 75 (all in effect on the date in WAC 173-400-025), or a permitting authority's adoption of those federal standards must meet the continuous emission monitoring systems (CEMS) performance specifications and data recovery requirements imposed by those standards. All CEMS required under an order, PSD permit, or regulation issued by a permitting authority and not subject to CEMS performance specifications and data recovery requirements imposed by 40 C.F.R. Parts 60, 61, 62, 63, or 75 must follow the continuous emission monitoring rule of the permitting authority, or if the permitting authority does not have a continuous emission monitoring rule, must meet the following requirements:

(a) The owner or operator shall recover valid hourly monitoring data for at least 95 percent of the hours that the equipment (required to be monitored) is operated during each calendar month except for periods of monitoring system downtime, provided that the owner or operator demonstrated that the downtime was not a result of inadequate design, operation, or maintenance, or any other reasonable preventable condition, and any necessary repairs to the monitoring system are conducted in a timely manner.

(b) The owner or operator shall install a continuous emission monitoring system that meets the performance specification in 40 C.F.R. Part 60, Appendix B in effect at the time of its installation, and shall operate this monitoring system in accordance with the quality assurance procedures in Appendix F of 40 C.F.R. Part 60 (in effect on the date in WAC 173-400-025), and EPA's "Recommended Quality Assurance Procedures for Opacity Continuous Monitoring Systems" (EPA) 340/ 1-86-010.

(c) Monitoring data commencing on the clock hour and containing at least forty-five minutes of monitoring data must be reduced to one hour averages. Monitoring data for opacity is to be reduced to six minute block averages unless otherwise specified in the order of approval or permit. All monitoring data will be included in these averages except for data collected during calibration drift tests and cylinder gas audits, and for data collected subsequent to a failed quality assurance test or audit. After a failed quality assurance test or audit, no valid data is collected until the monitoring system passes a quality assurance test or audit.

(d) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under subsection (a) of this section, all continuous monitoring systems shall be in continuous operation.

(i) Continuous monitoring systems for measuring opacity shall complete a minimum of one cycle of sampling and analyzing for each successive ten second period and one cycle of data recording for each successive six minute period.

(ii) Continuous monitoring systems for measuring emissions other than opacity shall complete a minimum of one cycle of sampling, analyzing, and recording for each successive fifteen minute period.

(e) The owner or operator shall retain all monitoring data averages for at least five years, including copies of all reports submitted to the permitting authority and records of all repairs, adjustments, and maintenance performed on the monitoring system.

(f) The owner or operator shall submit a monthly report (or other frequency as directed by terms of an order, air operating permit or regulation) to the permitting authority within thirty days after the end of the month (or other specified reporting period) in which the data were recorded. The report required by this section may be combined with any excess emission report required by WAC 173-400-108. This report shall include:

(i) The number of hours that the monitored emission unit operated each month and the number of valid hours of monitoring data that the monitoring system recovered each month;

(ii) The date, time period, and cause of each failure to meet the data recovery requirements of (a) of this subsection and any actions taken to ensure adequate collection of such data;

(iii) The date, time period, and cause of each failure to recover valid hourly monitoring data for at least 90 percent of the hours that the equipment (required to be monitored) was operated each day;

(iv) The results of all cylinder gas audits conducted during the month; and

(v) A certification of truth, accuracy, and completeness signed by an authorized representative of the owner or operator.

(8) No person shall render inaccurate any monitoring device or method required under chapter 70.94 or 70.120 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.