

# **ARTICLE 9: EMISSION STANDARDS**

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## **SECTION 9.03 EMISSION OF AIR CONTAMINANT: VISUAL STANDARD**

Adopted 03/13/68 (12)

Revised 07/08/70 (126), 04/11/73 (186), 06/09/88 (621) 05/11/89 (643), 09/08/94 (798), 04/09/98 (865), 03/11/99 (881), 03/25/04 (1024)

- (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour, which is:
  - (1) Darker in shade than that designated as No. 1 (20% density) on the Ringelmann Chart, as published by the United States Bureau of Mines; or
  - (2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 9.03(a)(1).
- (b) The density or opacity of an air contaminant shall be measured at the point of its emission, except when the point of emission cannot be readily observed, it may be measured at an observable point of the plume nearest the point of emission.
- (c) This section shall not apply when the presence of uncombined water is the only reason for the failure of the emission to meet the requirements of this section.
- (d) This section shall not apply to solid fuel burning devices, permitted fire training facilities, permitted obscurant usage during military training operations, outdoor fires, motor vehicles when operated on public roads, aircraft, or equipment subject to Section 9.04 of this regulation.
- (e) This section shall not apply to equipment with an alternate opacity standard issued under Section 3.03 or Article 6 of this regulation that is based upon a correlation with the particulate concentration and that accurately indicates a violation of the applicable particulate emission standards in Section 9.09 of this regulation.

## **SECTION 9.04 OPACITY STANDARDS FOR EQUIPMENT WITH CONTINUOUS OPACITY MONITORING SYSTEMS**

Adopted 04/09/98 (865)

Revised 03/25/04 (1024)

- (a) Applicability. This section shall apply to all equipment required to be equipped with a continuous emission monitoring system for opacity.
- (b) It shall be unlawful for any person to cause or allow the operation of any of the following equipment unless equipped with a continuous emission monitoring system for opacity:
  - (1) Cement kilns;
  - (2) Clinker coolers;

- (3) Glass furnaces, rated at greater than 1 ton per hour, that burn fuel;
  - (4) Fuel burning equipment, rated at 100 million Btu per hour or greater, that burns wood, coal, or residual oil; and
  - (5) Refuse burning equipment rated at greater than 12 tons per day.
- (c) It shall be unlawful for any person to cause or allow the emission of any air contaminant from any equipment subject to this section during any hour that:
- (1) Averages greater than 5% opacity; or
  - (2) Contains any consecutive 6-minute period averaging greater than 20% opacity.
- (d) Section 9.04(c)(1) shall not apply to:
- (1) Glass furnaces that are tested annually for compliance with the applicable particulate emission standard in Section 9.09 of this regulation; or
  - (2) Equipment with an alternate opacity standard issued under Section 3.03 or Article 6 of this regulation that is based upon a correlation with the particulate concentration and that accurately indicates a violation of the applicable particulate emission standards in Section 9.09 of this regulation.
- (e) This section shall not apply to sources controlled by a venturi scrubber, provided that:
- (1) The source is tested annually for compliance with the applicable particulate emission standard in Section 9.09 of this regulation;
  - (2) The pressure drop across the scrubber is continuously monitored and recorded; and
  - (3) The scrubbing liquid flow rate and temperature are continuously monitored and recorded.
- (f) This section shall not apply to fuel burning equipment that burns residual oil less than 31 days per year, provided that the source implements an alternate opacity monitoring plan issued under Section 3.03 or Article 6 of this regulation.

**SECTION 9.05 REFUSE BURNING** Adopted 03/13/68 (12)  
 Revised 06/09/88 (621), 12/09/93 (769)

- (a) It shall be unlawful for any person to cause or allow the burning of combustible refuse except in a multiple chamber incinerator provided with control equipment.
- (b) It shall be unlawful for any person to cause or allow the operation of refuse burning equipment any time other than daylight hours.

**SECTION 9.07 SULFUR DIOXIDE EMISSION STANDARD** Adopted 03/13/68 (12)  
 Revised 07/08/70 (126), 02/21/74 (230), 02/13/86 (597), 06/09/88 (621), 04/14/94 (784)

It shall be unlawful for any person to cause or allow the emission of sulfur dioxide from any source in excess of 1,000 parts per million by volume on a dry basis, 1-hour average (corrected to 7% oxygen for fuel burning equipment and refuse burning equipment).

**SECTION 9.08 FUEL OIL STANDARDS** Adopted 06/13/85 (579)  
 Revised 02/13/86 (597), 04/14/94 (784), 03/25/04 (1024)

(a) It shall be unlawful for any person to cause or allow the combustion of oil in fuel burning equipment or refuse burning equipment that exceeds any of the following limits unless that person has obtained an Order of Approval from the Agency in accordance with Article 6 of this regulation:

Ash.....	0.1% (maximum)
Sulfur .....	1.0% (maximum for used oil)
Sulfur .....	2.00% (maximum for fuel oil)
Lead .....	100 ppm (maximum)
Arsenic.....	5 ppm (maximum)
Cadmium .....	2 ppm (maximum)
Chromium.....	10 ppm (maximum)
Total Halogens .....	1,000 ppm (maximum)
Polychlorinated Biphenyls (PCBs) .....	2 ppm (maximum)
Flash Point.....	100°F (minimum)

(b) It shall be unlawful for any person to sell or make available for sale any oil in excess of the limits of this section to any person who has not obtained an Order of Approval from the Agency in accordance with Article 6 of this regulation. Any person who sells or makes available for sale such oil shall submit a report to the Agency within 15 days of the end of the month that includes the name and address of the recipient, the amount of oil delivered, and the concentration of contaminants therein.

(c) The provisions of this section shall not apply to:

- (1) Ocean-going vessels;
- (2) Used oil burned in space heaters that have a maximum heat output of not greater than 0.5 million Btu per hour; and
- (3) Persons in the business of collecting used oil from residences when under authorization by a city, county, or the utilities and transportation commission.

## SECTION 9.09 PARTICULATE MATTER EMISSION STANDARDS

Adopted 03/13/68 (12)

Revised 07/08/70 (126), 11/10/71 (135), 10/10/73 (214), 02/13/86 (597), 06/09/88 (621), 05/11/89 (643), 02/10/94 (777), 04/09/98 (865)

It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:

### Refuse Burning Equipment:

1. Rated at 12 tons per day or less without heat recovery and without hydrochloric acid control equipment ..... 0.10 gr/dscf @ 7% O<sub>2</sub>
2. Rated at 12 tons per day or less without heat recovery and with hydrochloric acid control equipment ..... 0.05 gr/dscf @ 7% O<sub>2</sub>
3. Rated at 12 tons per day or less with heat recovery ..... 0.02 gr/dscf @ 7% O<sub>2</sub>
4. Rated at greater than 12 tons per day ..... 0.01 gr/dscf @ 7% O<sub>2</sub>

### Fuel Burning Equipment:

1. Burning wood ..... 0.20 gr/dscf @ 7% O<sub>2</sub>
2. Burning wood and installed after March 13, 1968 or located within the urbanized area..... 0.10 gr/dscf @ 7% O<sub>2</sub>
3. Burning wood, rated at 100 million Btu per hour or greater, and located within the urbanized area..... 0.04 gr/dscf @ 7% O<sub>2</sub>
4. Burning wood and installed after March 1, 1986..... 0.02 gr/dscf @ 7% O<sub>2</sub>
5. Burning fuel other than wood..... 0.05 gr/dscf @ 7% O<sub>2</sub>
6. Burning coal or other solid fossil fuel and installed after March 1, 1986..... 0.01 gr/dscf @ 7% O<sub>2</sub>

**Equipment Used in a Manufacturing Process:** ..... 0.05 gr/dscf

## SECTION 9.10 EMISSION OF HYDROCHLORIC ACID Adopted 06/09/88 (621)

- (a) It shall be unlawful for any person to cause or allow the emission of hydrochloric acid from any equipment in excess of 100 ppm on a dry basis, 1-hour average corrected to 7% oxygen for combustion sources.
- (b) It shall be unlawful for any person to cause or allow the emission of hydrochloric acid from any refuse burning equipment rated at greater than 12

tons per day in excess of 30 ppm on a dry basis, 1-hour average corrected to 7% oxygen.

**SECTION 9.11 EMISSION OF AIR CONTAMINANT: DETRIMENT TO PERSON OR PROPERTY** Adopted 03/13/68 (12)

Revised 06/09/83 (536), 03/11/99 (882)

- (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.
- (b) With respect to odor, the Agency may take enforcement action under this section if the Control Officer or a duly authorized representative has documented all of the following:
  - (1) The detection by the Control Officer or a duly authorized representative of an odor at a level 2 or greater, according to the following odor scale:
    - level 0 – no odor detected;
    - level 1 – odor barely detected;
    - level 2 – odor is distinct and definite, any unpleasant characteristics recognizable;
    - level 3 – odor is objectionable enough or strong enough to cause attempts at avoidance; and
    - level 4 – odor is so strong that a person does not want to remain present;
  - (2) An affidavit from a person making a complaint that demonstrates that they have experienced air contaminant emissions in sufficient quantities and of such characteristics and duration so as to unreasonably interfere with their enjoyment of life and property; and
  - (3) The source of the odor.
- (c) Nothing in this Regulation shall be construed to impair any cause of action or legal remedy of any person, or the public for injury or damages arising from the emission of any air contaminant in such place, manner or concentration as to constitute air pollution or a common law nuisance.

**SECTION 9.13 EMISSION OF AIR CONTAMINANT: CONCEALMENT AND MASKING RESTRICTED** Adopted 03/13/68 (12)

Revised 06/09/88 (621)

- (a) It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means which, without resulting in a reduction in the total amount of air contaminant emitted, conceals an emission of air contaminant which would otherwise violate this article.

- (b) It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

## **SECTION 9.15 FUGITIVE DUST CONTROL MEASURES**

Adopted 03/13/68 (12)  
Revised 06/09/83 (536), 06/09/88 (621), 08/10/89 (644), 03/11/99 (882)

- (a) It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:
  - (1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
  - (2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;
  - (3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or
  - (4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.
- (b) Compliance with the provisions of this section shall not relieve any person from the responsibility to comply with Section 9.11 of this regulation.

## **SECTION 9.16 SPRAY-COATING OPERATIONS** Adopted 06/13/91 (700)

Revised 07/08/99 (886), 07/12/01 (944), 02/22/07 (1089), 10/28/10 (1200)

- (a) **Applicability.** This section applies to indoor and outdoor spray-coating operations when a coating that protects or beautifies a surface is applied with spray-coating equipment, except as exempted in Section 9.16(b) of this regulation. Mobile spray-coating operations for motor vehicles or motor vehicle components are subject to Section 9.16(e) of this regulation.
- (b) **Exemptions.** The following activities are exempt from the provisions of Sections 9.16(c), (d), and (e) of this regulation. Persons claiming any of the following exemptions shall have the burden of demonstrating compliance with the claimed exemption.
  - (1) Application of architectural or maintenance coatings to stationary structures (e.g., bridges, water towers, buildings, stationary machinery, or similar structures);
  - (2) Aerospace coating operations subject to 40 CFR Part 63, Subpart GG. This includes all activities and materials listed in 40 CFR 63.741(f);

- (3) Use of high-volume, low-pressure (HVLP) spray guns when:
    - (A) spray-coating operations do not involve motor vehicles or motor vehicle components;
    - (B) the gun cup capacity is 8 fluid ounces or less;
    - (C) the spray gun is used to spray-coat less than 9 square feet per day per facility;
    - (D) coatings are purchased in containers of 1 quart or less; and
    - (E) spray-coating is allowed by fire department, fire marshal, or other government agency requirements.
  - (4) Use of air-brush spray equipment with 0.5 to 2.0 CFM airflow and a maximum cup capacity of 2 fluid ounces, provided that persons claiming exemption from Section 9.16(e) of this regulation register with the Agency in accordance with Article 5 of this regulation and provide a copy of the current Agency registration document to each new customer before starting work at a site;
  - (5) Use of hand-held aerosol spray cans with a capacity of 1 quart or less; or
  - (6) Indoor application of automotive undercoating materials using organic solvents having a flash point in excess of 100°F.
- (c) General Requirements for Indoor Spray-Coating Operations. It shall be unlawful for any person subject to the provisions of this section to cause or allow spray-coating inside a structure, or spray-coating of any motor vehicles or motor vehicle components, unless all of the following requirements are met:
- (1) Spray-coating is conducted inside an enclosed spray area;
  - (2) The enclosed spray area employs either properly seated paint arresters, or water-wash curtains with a continuous water curtain to control the overspray; and
  - (3) All emissions from the spray-coating operation are vented to the atmosphere through an unobstructed vertical exhaust vent.
- (d) General Requirements for Outdoor Spray-Coating Operations. It shall be unlawful for any person subject to the provisions of this section to cause or allow spray-coating outside an enclosed structure unless reasonable precautions are employed to minimize the overspray. Reasonable precautions include, but are not limited to the use of:
- (1) Enclosures and curtailment during high winds; and
  - (2) High-volume low-pressure (HVLP), low-volume low-pressure (LVLP), electrostatic, or air-assisted airless spray equipment. Airless spray equipment may be used where low viscosity and high solid coatings preclude the use of higher-transfer efficiency spray equipment.

- (e) General Requirements for Mobile Spray-Coating Operations. It shall be unlawful for any person to cause or allow the spray-coating of any motor vehicle or motor vehicle component outside of a structure required by Section 9.16(c) of this regulation, unless all the following requirements are met:
- (1) Conduct all spray-coating in a portable frame-and-fabric shelter consisting of a fabric roof and three fabric sides or similar portable shelter consisting of a roof and three sides.
    - (A) Disassemble and remove the portable shelter from the site at the end of each day.
    - (B) Do not conduct mobile spray-coating operations for more than 5 consecutive calendar days at any site and not more than 14 days during any calendar month at the same site.
  - (2) Do not apply more than 8 ounces of coating to any single vehicle.
  - (3) Do not apply coating to more than 9 square feet of any single vehicle.
  - (4) Do not prepare a surface area for spray-coating greater than 9 square feet per any single vehicle. The measured surface area prepared for spray-coating shall include, but is not limited to all areas that are filled, ground, sanded, or inside masking.
  - (5) Use only HVLP spray guns or spray equipment with equivalent transfer efficiency (greater than or equal to 65%) and with a paint cup capacity less than or equal to 3.0 fluid ounces.
  - (6) Minimize evaporative emissions by collecting all organic solvents used for cleanup of equipment in a closed-loop or contained system; keeping all containers of paints and organic solvents closed except when materials are being added, mixed, or removed; and storing solvent rags in closed containers.
  - (7) Post a sign that is visible to the public and shows the name of the company and current telephone contact information for complaints. Record information regarding complaints received and investigate complaints regarding odor, overspray, or nuisance as soon as possible, but no later than 1 hour after receipt of a complaint. As part of the investigation, determine the wind direction during the time of the complaint. If the cause of a valid complaint cannot be corrected within 2 hours of the time the complaint was received, shut down the operation until corrective action is completed.
  - (8) Complete the following records for each vehicle when finished with that vehicle:
    - (A) Customer identification, address where work was performed, date, time, and the name of the person completing the record;
    - (B) Identification of each vehicle and vehicle component repaired; and
    - (C) Quantity (in ounces) of each VOC-containing material used on each vehicle.



All records must be kept current, retained for at least 2 years, and made available to Agency representatives upon request.

- (9) Provide a copy of the current Agency registration document to each customer prior to starting work at a site.
- (f) Compliance with Other Regulations. Compliance with this regulation does not exempt any person from compliance with Regulation I, Section 9.11 and all other applicable regulations including those of other agencies.

## **SECTION 9.18 CRUSHING OPERATIONS** Adopted 01/26/12 (1232)

- (a) This section shall apply to all equipment processing nonmetallic minerals located at a source crushing nonmetallic minerals as defined in 40 CFR 60.671.
- (b) General Requirements. It shall be unlawful for any person subject to the provisions of this section to cause or allow the emission of any air contaminant in excess of the following emission limits:
  - (1) The visible emission limits in (A), (B), and (C) are applicable for any period or periods aggregating more than 3 minutes in any one hour.
    - (A) Each grinding mill, screening operation, bucket elevator, transfer points on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station with operating control equipment shall not exhibit greater than 7 percent opacity.
    - (B) Each crusher with operating control equipment shall not exhibit greater than 12 percent opacity.
    - (C) Each crusher, grinding mill, screening operation, bucket elevator, transfer points on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station exhausting particulate through a stack equipped with an operating fabric filter or operating wet scrubber exhaust shall not exhibit greater than 7 percent opacity.
  - (2) Each crusher, grinding mill, screening operation, bucket elevator, transfer points on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station exhausting particulate through a stack shall meet a particulate matter limit of 0.01 grains per dry standard cubic foot of exhaust as measured by EPA Method 5.
  - (3) Each crusher, grinding mill, screening operation, bucket elevator, transfer point on a conveyor belt, bagging operation, storage bin, enclosed truck or railcar loading station without operating control equipment shall not exhibit visible emissions.
  - (4) For the purpose of this section, “Control Equipment” shall mean either fabric filter, wet scrubber, water sprays, or other dust suppression techniques which effectively reduce visible emissions from the emission units observed.

- (c) Testing conducted to verify compliance with the requirements of this section shall be performed in accordance with the Puget Sound Clean Air Agency Regulation I, Section 3.07.
- (d) Compliance with Other Regulations. Compliance with this regulation does not exempt any person from compliance with Regulation I, Sections 9.03, 9.11, 9.15 and all other applicable regulations including those of other agencies.

**SECTION 9.20 MAINTENANCE OF EQUIPMENT** Adopted 12/09/82 (531)  
Revised 06/09/88 (621)

- (a) It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.
- (b) It shall be unlawful for any person to cause or allow the operation of any equipment as defined in Section 1.07 or control equipment not subject to Section 9.20(a) unless the equipment or control equipment is maintained in good working order.