**DIVISION 232**

**EMISSION STANDARDS FOR VOC POINT SOURCES**

**340-232-0010**

**Introduction**

(1) This division regulates sources of VOC which contribute to the formation of photochemical oxidant, mainly ozone.

(2) Since ozone standards are not violated in Oregon from October through April because of insufficient solar energy, natural gas-fired afterburners may be permitted, on a case-by-case basis, to lay idle during the winter months.

(3) Sources regulated by this division are new and existing sources in the Portland and Medford AQMA's and in the Salem SKATS listed in subsections (a) through (m)below:

(a) Gasoline dispensing facilities, storage tank filling;

(b) Bulk gasoline plants and delivery vessels;

(c) Bulk gasoline terminal loading;

(d) Cutback asphalt;

(e) Petroleum refineries, petroleum refinery leaks;

(f) VOC liquid storage, secondary seals;

(g) Coating including paper coating and miscellaneous painting;

(h) Aerospace component coating;

(i) Degreasers;

(j) Asphaltic and coal tar pitch in roofing;

(k) Flat wood coating;

(l) Rotogravure and Flexographic printing;

(m) Automotive Gasoline.

(4) Emissions units not covered by the source categories listed in section (3) which emit or have the potential to emit over 100 tons of VOC per year before add on controls are subject to OAR 340-232-0040.

**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.

Stat. Auth.: ORS 468.020 & 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0100; DEQ 15-2001, f. & cert. ef. 12-26-01; DEQ 3-2007, f. & cert. ef. 4-12-07; DEQ 8-2007, f. & cert. ef. 11-8-07

**340-232-0020**

**Applicability**

(1) All new and existing sources inside the following areas shall comply with the applicable requirements in this division:

(a) Portland-Vancouver Air Quality Maintenance Area;

(b) Medford-Ashland Air Quality Maintenance Area;

(c) Salem-Keizer Area Transportation Study (SKATS) Area.

(2) VOC sources located outside the areas cited in section (1) are exempt from the requirements in this division.

**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.

Stat. Auth.: ORS 468.020 & 468A.025

Stats. Implemented: ORS 468A.025

Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 13-1995, f. & cert. ef. 5-25-95; DEQ 7-1997(Temp), f. & cert. ef. 4-28-97; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0104; DEQ 3-2007, f. & cert. ef. 4-12-07

**340-232-0030**

**Definitions**

The definitions in OAR 340-200-0020, 340-204-0010 and this rule apply to this division. If the same term is defined in this rule and OAR 340-200-0020 or 340-204-0010, the definition in this rule applies to this division.

(1) "Aerospace component" means the fabricated part, assembly of parts, or completed unit of any aircraft, helicopter, missile or space vehicle.

(2) "Air dried coating" means coatings which are dried by the use of air at ambient temperature.

(3) "Applicator" means a device used in a coating line to apply coating.

(4) "Bulk gasoline plant" means a gasoline storage and distribution facility which receives gasoline from bulk terminals by railroad car or trailer transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, businesses, and gasoline dispensing facilities.

(5) "Bulk gasoline terminal" means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck.

(6) "Can coating" means any coating applied by spray, roller, or other means to the inside and/or outside surfaces of metal cans, drums, pails, or lids.

(7) "Carbon bed breakthrough" means the initial indication of depleted adsorption capacity characterized by a sudden measurable increase in VOC concentration exiting a carbon adsorption bed or column.

(8) "Certified storage device" means vapor recovery equipment for gasoline storage tanks as certified by the State of California Air Resources Board Executive Orders, copies of which are on file with DEQ, or which has been certified by other air pollution control agencies and approved by DEQ.

(9) "Class II hardboard paneling finish" means finishers which meet the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.

(10) "Clear coat" means a coating which lacks color and opacity or is transparent and uses the undercoat as a reflectant base or undertone color.

(11) "Coating" means a material applied to a surface which forms a continuous film and is used for protective and/or decorative purposes.

(12) "Coating line" means one or more apparatus or operations which include a coating applicator, flash-off area, and oven or drying station wherein a surface coating is applied, dried, and/or cured.

(13) "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

(14) "Crude oil" means a naturally occurring mixture which consists of hydrocarbons and/or sulfur, nitrogen, and/or oxygen derivatives of hydrocarbons and which is a liquid at standard conditions.

(15) "Custody transfer" means the transfer of produced petroleum and/or condensate after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

(16) "Cutback asphalt" means a mixture of a base asphalt with a solvent such as gasoline, naphtha, or kerosene. Cutback asphalts are rapid, medium, or slow curing (known as RC, MC, SC), as defined in **ASTM D2399**.

 (17) "Delivery vessel" means any tank truck or trailer used for the transport of gasoline from sources of supply to stationary storage tanks.

 (18) "External floating roof" means a cover over an open top storage tank consisting of a double deck or pontoon single deck which rests upon and is supported by the volatile organic liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

(19) "Extreme performance coatings" means coatings designed for extreme environmental conditions such as exposure to any one of the following: continuous ambient weather conditions, temperature consistently above 95°C, detergents, abrasive and scouring agents, solvents, corrosive atmosphere, or similar environmental conditions.

(20) "Extreme performance interior topcoat" means a topcoat used in interior spaces of aircraft areas requiring a fluid, stain or nicotine barrier.

(21) "Fabric coating" means any coating applied on textile fabric. Fabric coating includes the application of coatings by impregnation.

(22) "Flexographic printing" means the application of words, designs and pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.

(23) "Freeboard ratio" means the freeboard height divided by the width (not length) of the degreaser's air/solvent area.

(24) "Forced air dried coating" means a coating which is dried by the use of warm air at temperatures up to 90°C (194°F).

(25) "Gas Freed" means a marine vessel's cargo tank has been certified by a Marine Chemist as "Safe for Workers" according to the requirements outlined in the National Fire Protection Association Rule 306.

(26) "Gasoline" means any petroleum distillate having a Reid vapor pressure of 27.6 kPa (4.0 psi) or greater which is used to fuel internal combustion engines.

(27) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle, boat, or airplane gasoline tanks from stationary storage tanks.

(28) "Gaseous service" means equipment which processes, transfers or contains a volatile organic compound or mixture of volatile organic compounds in the gaseous phase.

(29) "Hardwood plywood" is plywood whose surface layer is a veneer of hardwood.

(30) "High performance architectural coating" means coatings applied to aluminum panels and moldings being coated away from the place of installation.

(31) "Internal floating roof" means a cover or roof in a fixed roof tank which rests upon or is floating upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

(32) "Large appliance" means any residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dish washers, trash compactors, air conditioners, and other similar products.

(33) "Leaking component" means any petroleum refinery source which has a volatile organic compound concentration exceeding 10,000 parts per million (ppm) when tested in the manner described in method 31 and 33 on file with DEQ. These sources include, but are not limited to, pumping seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open-ended pipes. Excluded from these sources are valves which are not externally regulated.

(34) "Lightering" means the transfer of fuel product into a cargo tank from one marine tank vessel to another.

(35) "Liquid-mounted" means a primary seal mounted so the bottom of the seal covers the liquid surface between the tank shell and the floating roof.

(36) "Liquid service" means equipment which processes, transfers or contains a volatile organic compound or mixture of volatile organic compounds in the liquid phase.

(37) "Loading event" means the loading or lightering of gasoline into a marine tank vessel's cargo tank, or the loading of any product into a marine tank vessel's cargo tank where the prior cargo was gasoline. The event begins with the connection of a marine tank vessel to a storage or cargo tank by means of piping or hoses for the transfer of a fuel product from the storage or cargo tank(s) into the receiving marine tank vessel. The event ends with disconnection of the pipes and/or hoses upon completion of the loading process.

 (38) "Marine Tank Vessel" means any marine vessel constructed or converted to carry liquid bulk cargo that transports gasoline.

(39) "Marine Terminal" means any facility or structure used to load or unload any fuel product cargo into or from marine tank vessels.

(40) "Marine Vessel" means any tugboat, tanker, freighter, passenger ship, barge or other boat, ship or watercraft.

(41) "Maskant for chemical processing" means a coating applied directly to an aerospace component to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching and/or performing other chemical operations on the surface of the component.

(42) "Miscellaneous metal parts and products" means any metal part or metal product, even if attached to or combined with a nonmetal part or product, except cans, coils, metal furniture, large appliances, magnet wires, automobiles, ships, and airplane bodies.

(43) "Natural finish hardwood plywood panels" means panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

(44) "Operator" means any person who leases, operates, controls, or supervises a facility at which gasoline is dispensed.

(45) "Oven dried" means a coating or ink which is dried, baked, cured, or polymerized at temperatures over 90°C (194°F).

(46) "Packaging rotogravure printing" means rotogravure printing upon paper, paper board, metal foil, plastic film, and other substrates, which are, in subsequent operations, formed into packaging products and labels for articles to be sold.

(47) "Paper coating" means any coating applied on paper, plastic film, or metallic foil to make certain products, including (but not limited to)adhesive tapes and labels, book covers, post cards, office copier paper, drafting paper, or pressure sensitive tapes. Paper coating includes the application of coatings by impregnation and/or saturation.

 (48) "Petroleum refinery" means any facility engaged in producing gasoline, aromatics, kerosene, distillate fuel oils, residual fuel oils, lubricants, asphalt, or other products through distillation of petroleum, crude oil, or through redistillation, cracking, or reforming of unfinished petroleum derivatives. "Petroleum refinery" does not mean a re-refinery of used motor oils or other waste chemicals. "Petroleum refinery" does not include asphalt blowing or separation of products shipped together.

(49) "Pretreatment wash primer" means a coating which contains a minimum of 0.5% acid by weight for surface etching and is applied directly to bare metal surfaces to provide corrosion resistance and adhesion.

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(51) "Printed interior panels" means panels whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed.

(52) "Printing" means the formation of words, designs and pictures, usually by a series of application rolls each with only partial coverage.

(53) "Publication rotogravure printing" means rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

(54) "Reasonably available control technology" or "RACT" means the lowest emission limitation that a particular source or source category is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

(55) "Roll printing" means the application of words, designs and pictures to a substrate by means of hard rubber or steel rolls.

(56) "Sealant" means a coating applied for the purpose of filing voids and providing a barrier against penetration of water, fuel or other fluids or vapors.

(57 "Specialty printing" means all gravure and flexographic operations which print a design or image, excluding publication gravure and packaging printing. Specialty Printing includes printing on paper plates and cups, patterned gift wrap, wallpaper, and floor coverings.

 (58) "Submerged fill" means any fill pipe or hose, the discharge opening of which is entirely submerged when the liquid is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean any fill pipe, the discharge of which is entirely submerged when the liquid level is 18 inches, or is twice the diameter of the fill pipe, whichever is greater, above the bottom of the tank.

(71) "Thin particleboard" means a manufactured board 1/4 inch or less in thickness made of individual wood particles which have been coated with a binder and formed into flat sheets by pressure.

(59) "Thirty-day rolling average" means any value arithmetically averaged over any consecutive thirty days.

(60) "Tileboard" means paneling that has a colored waterproof surface coating.

(61) "Topcoat" means a coating applied over a primer or intermediate coating for purposes such as appearance, identification or protection.

(62) "True vapor pressure" means the equilibrium pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from Floating Roof Tanks," February, 1980.

(63) "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

(64) "Vapor-mounted" means a primary seal mounted so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the primary seal, the tank shell, the liquid surface, and the floating roof.

(65) "Vapor Tight" means, as used in OAR 340-232-0110, a condition that exists when the concentration of a volatile organic compound, measured one centimeter from any source, does not exceed 10,000 ppm (expressed as methane) above background.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0020.]

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 13-1995, f. & cert. ef. 5-25-95; DEQ 6-1996, f. & cert. ef. 3-29-96; DEQ 9-1997, f. & cert. ef. 5-9-97; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 6-1999, f. & cert. ef. 5-21-99; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0102; DEQ 2-2000, f. 2-17-00, cert. ef. 6-1-01; DEQ 15-2001, f. & cert. ef. 12-26-01

**340-232-0040**

**General Non-Categorical Requirements**

(1) All existing sources operating prior to November 15, 1990, located inside the areas cited in OAR 340-232-0020(1)(a) or (1)(c), containing emissions units or devices for which no categorical RACT requirements exist and which have potential emissions before add-on controls of over 100 tons per year of VOC per year from aggregated, non-regulated emission units, shall have RACT requirements developed on a case-by-case basis by DEQ. Sources that have complied with New Source Review requirements per OAR 340 division 224 and are subject to Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) requirements are presumed to have met RACT requirements. A source may request RACT not be applied by demonstrating to DEQ that their potential emissions before add-on controls are below 100 tons per year. Once a source becomes subject to RACT requirements under this section, it shall continue to be subject to RACT, unless VOC emissions fall below 100 tons per year and the source requests that RACT be removed, by demonstrating to DEQ that their potential VOC emissions before add-on controls are below 100 tons per year.

(2) Within 3 months of written notification by DEQ of the applicability of this rule, or, for good cause shown, up to an additional three months as approved by DEQ, the source shall submit to DEQ a complete analysis of RACT for each category of emissions unit at the source, taking into account technical and economic feasibility of available control technology, and the emission reductions each technology would provide. This analysis does not need to include any emissions units subject to a specific categorical RACT requirement under this division. These RACT requirements approved by DEQ shall be incorporated in the source's Air Contaminant Discharge Permit, and shall not become effective until approved by EPA as a source specific SIP revision. The source shall have one year from the date of notification by DEQ of EPA approval to comply with the applicable RACT requirements.

(3) Failure by a source to submit a RACT analysis required by section (2) shall not relieve the source of complying with a RACT determination established by DEQ.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 13-1995, f. & cert. ef. 5-25-95; DEQ 7-1997(Temp), f. & cert. ef. 4-28-97; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0104

**340-232-0060**

**Compliance Determination**

(1) Certification and test procedures required by this division shall be conducted in accordance with DEQ's **Source Sampling Manual**. (2) Approval by DEQ of alternative methods for demonstrating compliance where specified and allowed in this division, including approval of equivalent testing methods for determining compliance, shall be subject to review and approval by EPA.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; Renumbered from 340-22-106(3) & (4); DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0107

**340-232-0080**

**Bulk Gasoline Plants**

(1) No person shall transfer or allow the transfer of gasoline to or from a bulk gasoline plant unless:

(a) Each stationary storage tank uses submerged fill when transferring gasoline; and

(b) The displaced vapors from filling each tank are prevented from being released to the atmosphere through use of a vapor tight vapor balance system. All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order.

(2) Each stationary gasoline storage tank may release vapor to the atmosphere through a pressure relief valve set to release at the highest possible pressure in accordance with state or local fire codes, or the National Fire Prevention Association guidelines and no less than 3.4 kPa (0.50 psi).

(3) Gasoline shall be handled in a manner to prevent spillage, discharging into sewers, storage in open containers, or handled in any other manner that would result in evaporation. If more than five gallons are spilled, the operator shall report the spillage in accordance with OAR 340-214-0300 to 340-214-0350.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0120

**340-232-0085**

**Gasoline Delivery Vessel(s)**

(1) No person shall transfer or allow the transfer of gasoline to a delivery vessel from a bulk gasoline terminal; or a bulk gasoline plant, with a daily throughput of 4,000 or more gallons based on a 30-day rolling average, located in the Portland-Vancouver AQMA, unless:

(a) Each delivery vessel uses submerged fill when receiving gasoline; and

(b) The displaced vapors from filling each tank are prevented from being released to the atmosphere through use of a vapor tight vapor balance system. All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order.

(2) Gasoline shall be handled in a manner to prevent spillage, discharge into sewers, storage in open containers, or handled in any other manner that would result in evaporation. If more than five gallons are spilled, the operator shall report the spillage in accordance with OAR 340-214-0300 to 340-214-0350.

(3) Compliance with subsection (1)(a) and section (2) shall be determined by visual inspection to ensure minimal spillage of gasoline and proper installation of bottom loading couples.

(4) Compliance with subsection (1)(b) shall be determined by verification of use of equipment approved by DEQ and/or by testing and monitoring in accordance with applicable portions of OAR 340-232-0100 and/or Method 31 and/or 32 on file with DEQ.

(5) The owner or operator of a gasoline delivery vessel shall maintain the vessel to be vapor tight at all times, in accordance with OAR 340- 232-0100(1), if such vessel is part of a vapor balance system required by subsection (1)(b).

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0125; DEQ 4-2013, f. & cert. ef. 3-27-13

**340-232-0090**

**Bulk Gasoline Terminals**

(1) No terminal owner or operator, shall allow volatile organic compounds (VOC) to be emitted into the atmosphere in excess of 80 milligrams of VOC per liter of gasoline loaded from the operation of loading truck tanks, and truck trailers at bulk gasoline terminals with a daily throughputs of greater than 76,000 liters (20,000 gallons) per day of gasoline (determined by a thirty-day rolling average):

(a) The owner or operator of a gasoline loading terminal shall only allow the transfer of gasoline between the facility and a truck tank or a truck trailer when a current leak test certification for the delivery vessel is on file with the terminal or a valid permit as required by OAR 340-232-0100(1)(c) is displayed on the delivery vessel;

(b) The owner or operator of a truck tank or a truck trailer shall not make any connection to the terminal's gasoline loading rack unless the gasoline delivery vessel has been tested in accordance with OAR 340-232-0100(1);

(c) The truck driver or other operator who fills a delivery truck tank and/or trailer tank shall not take on a load of gasoline unless the vapor return hose is properly connected;

(d) All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order.

(2) Compliance with section (1) shall be determined by testing in accordance with Method 33 on file with DEQ. The method for determining compliance with section (1) are delineated in **40 CFR Part 60, Subpart XX, §60.503**.

(3) Bulk Gasoline terminals shall comply with the following within the limits of section (1):

(a) All displaced vapors and gases during tank truck gasoline loading operations shall be vented only to the vapor control system;

(b) The loading device must not leak when in use. The loading device shall be designed and operated to allow no more than 10 cubic centimeters drainage per disconnect on the basis of 5 consecutive disconnects;

(c) All loading liquid lines shall be equipped with fittings which make vapor-tight connections and which close automatically and immediately when disconnected;

(d) All vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically and immediately when disconnected or which contain vapor tight unidirectional valves;

(e) Gasoline shall be handled in a manner to prevent its being discarded in sewers or stored in open containers or handled in any manner that would result in evaporation. If more than 5 gallons are spilled, the operator shall report the spillage in accordance with OAR 340-214-0300 through 340-214-0350;

(f) The vapor balance system shall be operated in a manner to prevent the pressure therein from exceeding the tank truck or trailer pressure relief settings.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468.020 & ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; Sections (2) and (3) renumbered from 340-22-133 and 340-22-136; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 25-1994, f. & cert. ef. 11-22-94; DEQ 26-1995, f. & cert. ef. 12-6-95; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0130

**340-232-0100**

**Testing Vapor Transfer and Collection Systems**

(1) No person shall allow a vapor-laden delivery vessel subject to OAR 340-232-0080(5) to be filled or emptied unless the delivery vessel:

(a) Is tested annually according to the test Method 32 on file with DEQ, or **CFR Part 60**, EPA Method 21 or 27, or **California Air Resources Board Method 2-5**;

(b) Sustains a pressure change of no more than 750 pascals (3 inches of H2O) in five minutes when pressurized to a gauge pressure of 4,500 pascals (18 inches of H2O) or evacuated to a gauge pressure of 1,500 pascals (6 inches of H2O) during the testing required in subsection (1)(a); and

(c) Displays a valid permit near the Department of Transportation test date markings required by **49 CFR 177.824h**, which:

(A) Shows the year and month that the gasoline tank truck last passed the test required in subsections (1)(a) and (b);

(B) Shows the identification of the permit; and

(C) Expires not more than one year from the date of the leak-test test, or if tested in California, on the expiration date so specified.

(d) Has its vapor return hose connected by the truck operator so that gasoline vapor is not expelled to the atmosphere.

(2) The owner or operator of a vapor collection system subject to this regulation shall design and operate the vapor collection system and the gasoline loading equipment in a manner that prevents:

(a) Gauge pressure from exceeding 4,500 pascals (18 inches of H2O) and vacuum from exceeding 1,500 pascals (6 inches of H2O) in the gasoline tank truck being loaded;

(b) A reading equal to or greater than 100 percent of the lower explosive limit (LEL, measured as propane) at 2.5 centimeters from all points on the perimeter of a potential leak source when measured by the Method 31 and 33 on file with DEQ, or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals; and

(c) Visible liquid leaks during loading or unloading operations at gasoline dispensing facilities, bulk plants and bulk terminals.

(3) DEQ may, at any time, monitor a gasoline tank truck, vapor collection system, or vapor control system, by the methods on file with DEQ, to confirm continuing compliance with section (1) or (2).

(4) Recordkeeping and Reporting:

(a) The owner or operator of a source of volatile organic compounds subject to this rule shall maintain records of all certification testing and repairs. The records must identify the gasoline tank truck, vapor collection system, or vapor control system; the date of the test or repair; and if applicable, the type of repair and the date of retest. The records must be maintained in a legible, readily available condition for at least two years after the date of testing or repair was completed;

(b) Copies of all records and reports under subsection (4)(a) shall be submitted to DEQ within 30 days of certification testing.

(c) Persons applying for a permit required by this rule shall at the time of application pay a fee of $25.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 25-1994, f. & cert. ef. 11-2-94; DEQ 25-1994, f. & cert. ef. 11-22-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0137

**340-232-0110**

**Loading Gasoline onto Marine Tank Vessels**

(1) Applicability. This rule applies to loading events at any location within the Portland air quality maintenance area when gasoline is placed into a marine tank vessel cargo tank; or where any liquid is placed into a marine tank vessel cargo tank that had previously held gasoline. The owner or operator of each marine terminal and marine tank vessel is responsible for and must comply with this rule.

(2) Exemptions. The following activities are exempt from the marine vapor control emission limits of this rule:

(a) Marine vessel bunkering;

(b) Lightering when neither vessel is berthed at a marine terminal dock,

(c) Loading when both of the following conditions are met:

(A) The vessel has been gas freed (regardless of the prior cargo), and

(B) When loading any products other than gasoline.

(3) Vapor Collection System. The owner or operator of a marine terminal subject to this rule must equip each loading berth with a vapor collection system that is designed to collect all displaced VOC vapors during the loading of marine tank vessels. The owner or operator of a marine tank vessel subject to this rule must equip each marine tank vessel with a vapor collection system that is designed to collect all displaced VOC vapors during the loading of marine tank vessels. The collection system must be designed such that all displaced VOC vapors collected during any loading event are vented only to the control device.

(4) Marine Vapor Control Emission Limits. Vapors that are displaced and collected during marine tank vessel loading events must be reduced from the uncontrolled condition by at least 95 percent by weight, as determined by EPA Method 25 or limited to 5.7 grams per cubic meter (2 lbs. per 1000 bbls) of liquid loaded.

(5) Operating Practice and Maintenance.

(a) All hatches, pressure relief valves, connections, gauging ports and vents associated with the loading of fuel product into marine tank vessels must be maintained to be leak free and vapor tight.

(b) The owner or operator of any marine tank vessel must certify to DEQ that the vessel is leak free, vapor tight, and in good working order based on an annual inspection using EPA Method 21.

(c) Gaseous leaks must be detected using EPA Method 21.

(d) Loading must cease anytime gas or liquid leaks are detected. Loading may continue only after leaks are repaired or if documentation is provided to DEQ that the repair of leaking components is technically infeasible without dry-docking the vessel or cannot otherwise be undertaken safely. Subsequent loading events involving the leaking components are prohibited until the leak is repaired. Any liquid or gaseous leak detected by DEQ staff is a violation of this rule.

(6) Monitoring and Record-Keeping.

(a) Marine terminal operators must maintain operating records for at least five years of each loading event at their terminal. Marine tank vessel owners and operators are responsible for maintaining operating records for at least five years for all loading events involving each of their vessels. Records must be made available to DEQ upon request. These records must include but are not limited to:

(A) The location of each loading event.

(B) The date of arrival and departure of the vessel.

(C) The name, registry and legal owner of each marine tank vessel participating in the loading event.

(D) The type and amount of fuel product loaded into the marine tank vessel.

(E) The prior cargo carried by the marine tank vessel. If the marine tank vessel has been gas freed, then the prior cargo can be recorded as gas freed.

(F) The description of any gaseous or liquid leak, date and time of leak detection, leak repair action taken and screening level after completion of the leak repair.

(7) Lightering exempted from controls by subsection 2 (b) must be curtailed from 2:00 a.m. until 2:00 p.m. when DEQ declares a Clean Air Action day. If DEQ declares a second Clean Air Action day before 2:00 p.m. of the first curtailment period, then such uncontrolled lightering must be curtailed for an additional 24 hours until 2:00 p.m. on the second day. If a third Clean Air Action day in a row is declared, then uncontrolled lightering is permissible for a 12-hour period starting at 2 p.m. on the second Clean Air Action day and ending at 2 a.m. on the third Clean Air Action day. Uncontrolled lightering must be curtailed from 2 a.m. until 2 p.m. on the third Clean Air Action day. If DEQ continues to declare Clean Air Action days consecutively after the third day, the curtailment and loading pattern used for the third Clean Air Action day will apply.

(8) Safety/Emergency Operations. Nothing in this rule is intended to:

(a) Require any act or omission that would be in violation of any regulation or other requirement of the United States Coast Guard; or

(b) Prevent any act that is necessary to secure the safety of a vessel or the safety of passengers or crew.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468A.035
Stats. Implemented: ORS 468A.025
Hist.: DEQ 2-2000, f. 2-17-00, cert. ef. 6-1-01

**340-232-0140**

**Petroleum Refinery Leaks**

(1) All persons operating petroleum refineries shall comply with this section concerning leaks:

(a) The owner or operator of a petroleum refinery complex, upon detection of a leaking component, which has a volatile organic compound concentration exceeding 10,000 ppm when tested in the manner described below shall:

(A) Include the leaking component on a written list of scheduled repairs; and

(B) Repair and retest the component within 15 days.

(b) Except for safety pressure relief valves, no owner or operator of a petroleum refinery shall install or operate a valve at the end of a pipe or line containing volatile organic compounds unless the pipe or line is sealed with a second valve, a blind flange, a plug, or a cap. The sealing device may be removed only when a sample is being taken during maintenance operations;

(c) Pipeline valves and pressure relief valves in gaseous volatile organic compound service shall be marked in some manner that will be readily obvious to both refinery personnel performing monitoring and DEQ.

(2) Testing Procedures: Testing and calibration procedures to determine compliance with this rule shall be done in accordance with EPA Method 21.

(3) Monitoring, Recordkeeping, Reporting:

(a) The owner or operator of a petroleum refinery shall maintain, as a minimum, records of all testing conducted under this rule; plus records of all monitoring conducted under subsections (b) and (c);

(b) The owner or operator of a petroleum refinery subject to this rule shall:

(A) Monitor yearly by the methods referenced in section (2) all:

(i) Pump seals;

(ii) Pipeline valves in liquid service; and

(iii) Process drains.

(B) Monitor quarterly by the methods referenced in section (2) all:

(i) Compressor seals;

(ii) Pipeline valves in gaseous service; and

(iii) Pressure relief valves in gaseous service.

(C) Monitor weekly by visual methods all pump seals;

(D) Monitor immediately any pump seal from which liquids are observed dripping;

(E) Monitor any relief valve within 24 hours after it has vented to the atmosphere; and

(F) Monitor immediately after repair of any component that was found leaking.

(c) Pressure relief devices which are connected to an operating flare header, vapor recovery device, inaccessible valves, storage tank valves, or valves that are not externally regulated are exempt from the monitoring requirements in subsection (b);

(d) The owner or operator of a petroleum refinery, upon the detection of a leaking component, shall affix a weatherproof and readily visible tag bearing an identification number and the date the leak is located to the leaking component. This tag shall remain in place until the leaking component is repaired;

(e) The owner or operator of a petroleum refinery, upon the completion of each yearly and/or quarterly monitoring procedure, shall:

(A) Submit a report to DEQ on the 15th day of January, April, July, and September, listing the leaking components that were located but not repaired within the required time limit in subsection (1)(a);

(B) Submit a signed statement attesting to the fact that, with the exception of those leaking components listed in paragraph (A), all monitoring and repairs were performed as stipulated.

(f) The owner or operator of a petroleum refinery shall maintain a leaking component monitoring log which shall contain, at a minimum, the following data:

(A) The name of the process unit where the component is located;

(B) The type of component (e.g., valve, seal);

(C) The tag number of the component;

(D) The date on which a leaking component is discovered;

(E) The date on which a leaking component is repaired;

(F) The date and instrument reading of the recheck procedure after a leaking component is repaired;

(G) A record of the calibration of the monitoring instrument;

(H) Those leaks that cannot be repaired until turnaround, (exceptions to the 15-day requirement of paragraph (1)(a)(B)); and

(I) The total number of components checked and the total number of components found leaking.

(g) Copies of all records and reports required by this section shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted;

(h) Copies of all records and reports required by this section shall immediately be made available to DEQ upon verbal or written request at any reasonable time;

(i) DEQ may, upon written notice, modify the monitoring, recordkeeping and reporting requirements.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0153

**340-232-0150**

**Liquid Storage**

(1) Owners or operators which have tanks storing methanol or other volatile organic compound liquids with a true vapor pressure, as stored, greater than 10.5 kPa (kilo Pascals) (1.52 psia), at actual monthly average storage temperatures, and having a capacity greater than 150,000 liters (approximately 39,000 gallons) shall comply with one of the following:

(a) Meet the equipment specifications and maintenance requirements of the federal standards of performance for new stationary sources -- Storage Vessels for Petroleum Liquids, **40 CFR, 60 Subpart K** and **Ka**;

(b) Be retrofitted with a floating roof or internal floating cover using at least a nonmetallic resilient seal as the primary seal meeting the equipment specifications in the federal standards referred to in subsection (a) or its equivalent.

(2) All seals used in subsections (1)(b) and (c) are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears or other openings.

(3) All openings, except stub drains and those related to safety (such as slotted gage wells), are to be sealed with suitable closures. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place; except for slotted gage wells which must have floating seals with one-half inch edge gaps or less.

(4) Secondary Seals:

(a) Applicability: Subsection (c) applies to all VOC liquid storage vessels equipped with external floating roofs, having capacities greater than 150,000 liters (39,000 gallons) except as indicated in subsection (c) and paragraph (c)(H);

(b) Exemptions: Subsection (c) does not apply to petroleum liquid storage vessels which:

(A) Are used to store waxy, heavy pour crude oil;

(B) Have capacities less than 1,600,000 liters (420,000 gallons) and are used to store produced crude oil and condensate prior to lease custody transfer;

(C) Contain a VOC liquid with a true vapor pressure of less than 10.5 kPa (1.5 psia) where the vapor pressure is measured at the storage temperature;

(D) Contain a VOC liquid with a true vapor pressure less than 27.6 kPa (4.0 psia); and

(i) Are of welded construction; and

(ii) Presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or other closure device of demonstrated equivalence approved by DEQ; or

(E) Are of welded construction, equipped with a metallic-type shoe primary seal and has a secondary seal from the top of the shoe seal to the tank wall (shoemounted secondary seal).

(c) No owner of a VOC liquid storage vessel subject to this rule shall store VOC liquid in that vessel unless:

(A) The vessel has been fitted with:

(i) A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or

(ii) A closure or other device which controls VOC emissions with an effectiveness equal to or greater than a seal required under subparagraph (A)(i) as approved in writing by DEQ.

(B) All seal closure devices meet the following requirements:

(i) There are no visible holes, tears, or other openings in the seal(s) or seal fabric;

(ii) The seal(s) are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and

(iii) For vapor mounted seals, the accumulated area of gaps exceeding 0.32 cm (1/8 inch) in width between the secondary seal and the tank wall are determined by the method in subsection (d) and shall not exceed 21.2 cm2 per meter of tank diameter (1.0 in2 per foot of tank diameter).

(C) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are:

(i) Equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and

(ii) Equipped with projections into the tank which remain below the liquid surface at all times.

(D) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;

(E) Rim vents are set to open only when the roof is being floated off the leg supports or at the manufacturer's recommended setting;

(F) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90 percent of the area of the opening; and

(G) The owner or operator of a VOC liquid storage vessel with an external floating roof subject to subsection (c) shall:

(i) Perform routine inspections semi-annually in order to ensure compliance with paragraphs (A) through (F) and the inspections shall include a visual inspection of the secondary seal gap;

(ii) Measure the secondary seal gap annually in accordance with subsection (d) when the floating roof is equipped with a vapor-mounted primary seal; and

(iii) Maintain records of the types of VOC liquids stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed in subparagraphs (G)(i) and (ii).

(H) The owner or operator of a VOC liquid storage vessel having a capacity equal to or less than 150,000 liters (39,000 gallons) with an external floating roof, but containing a VOC liquid with a true vapor pressure greater than 7.00 kPa (1.0 psi), shall maintain records of the average monthly storage temperature, the type of liquid, and the maximum true vapor pressure for all VOC liquids with a true vapor pressure greater than 7.0 kPa;

(I) The owner or operator of a VOC liquid storage vessel subject to this rule, shall submit to DEQ, as a minimum, annual reports summarizing the inspections;

(J) Copies of all records and reports under paragraphs (G) (H), and (I) shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report submitted;

(K) Copies of all records and reports under this section shall immediately be made available to DEQ, upon verbal or written request, at any reasonable time;

(L) DEQ may, upon written notice, require more frequent reports or modify the monitoring and recordkeeping requirements, when necessary to accomplish the purposes of this rule.

(d) Secondary Seal Compliance Determination:

(A) The owner or operator of any volatile organic compound source required to comply with section (4) shall demonstrate compliance by the methods of this section;

(B) A person proposing to conduct a volatile organic compound emissions test shall notify DEQ of the intent to test not less than 30 days before the proposed initiation of the tests so DEQ may observe the test. The notification shall contain the information required by, and be in a format approved by DEQ;

(C) Compliance with subparagraph (4)(c)(B)(iii) shall be determined by:

(i) Physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (1/8 inch) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and tank wall; and

(ii) Summing the area of the individual gaps.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0160

**340-232-0160**

**Surface Coating in Manufacturing**

(1) No person shall operate a coating line which emits into the atmosphere volatile organic compounds in excess of the limits in section (5), expressed as pounds VOC per gallon of coating applied, excluding water and exempt solvents, unless an alternative emission limit is approved by DEQ pursuant to section (3) or emissions are controlled to an equivalent level pursuant to section (7).

(2) Exemptions:

(a) This rule does not apply to airplanes painted out of doors in open air; automobile and truck refinishing; customized top coating of automobiles and trucks, if production is less than 35 vehicles per day; marine vessels and vessel parts painted out in the open air; flat wood coating; wood furniture and wood cabinets; wooden doors, mouldings, and window frames; machine staining of exterior wood siding; high temperature coatings (for service above 500° F.); lumber marking coatings; potable water tank inside coatings; high performance inorganic zinc coatings, air dried, applied to fabricated steel; and markings by stencil for railroad cars;

(b) This rule does not apply to:

(A) Sources whose potential to emit before add on controls from activities identified in section (5) of volatile organic compounds are less than 10 tons per year (or 3 lb. VOC/hr or 15 lb. VOC/day actual); or

(B) Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance (such as research facilities, pilot plant operations, and laboratories) unless:

(i) The operation of the source is an integral part of the production process; or

(ii) The emissions from the source exceed 363 kilograms (800 pounds) in any calendar month.

(3) Exceptions:

(a) On a case-by-case basis, DEQ may approve exceptions to the emission limits specified in section (5), upon documentation by the source that an alternative emission limit would satisfy the federal criteria for reasonably available control technology (RACT);

(b) Included in this documentation must be a complete analysis of technical and economic factors which:

(A) Prevent the source from using both compliance coatings and pollution control equipment; and

(B) Justify the alternative emission limit sought by the source.

(c) The alternative emission limit approved by DEQ shall be incorporated into the source's Air Contaminant Discharge Permit, or Title V operating permit, and shall not become effective until approved by EPA as a source specific SIP revision.

(4) Applicability: This rule applies to each coating line, which includes the application area(s), flashoff area(s), air and forced air drier(s), and oven(s) used in the surface coating of the parts and products in subsections (5)(a) through (j).

(5) Process and Limitation: These emission limitations shall be based on a daily average except subsection (5)(e) shall be based on a monthly average. If more than one emission limitation in this rule applies to a specific coating, then the most stringent emission limitation shall be applied:

(a) Can Coating:

(A) Sheet basecoat (exterior and interior) and over-varnish; two-piece can exterior (basecoat and over-varnish) 2.8 lb/gal;

(B) Two- and three-piece can interior and exterior body spray, two-piece can exterior end (spray or roll coat) 4.2 lb/gal;

(C) Three-piece can side-seam spray 5.5 lb/gal;

(D) End sealing compound 3.7 lb/gal;

(E) End Sealing Compound for fatty foods 3.7 lb/gal.

(b) Fabric Coating 2.9 lb/gal;

(c) Vinyl Coating 3.8 lb/gal;

(d) Paper Coating 2.9 lb/gal;

(e) Existing Coating of Paper and Film in the Medford-Ashland AQMA 55 lb.\*

[**NOTE:** \*55 lb VOC per 1000 sq. yds. of material per pass.]

(f) Auto and Light Duty Truck Coating:

(A) Prime 1.9 lb/gal;

(B) Topcoat 2.8 lb/gal;

(C) Repair 4.8 lb/gal.

(g) Metal Furniture Coating 3.0 lb/gal;

(h) Magnet Wire Coating 1.7 lb/gal;

(i) Large Appliance Coating 2.8 lb/gal;

(j) Miscellaneous Metal Parts and Products:

(A) Clear Coatings 4.3 lb/gal;

(B) Forced Air Dried or Air Dried 3.5 lb/gal;

(C) Extreme Performance Coatings 3.5 lb/gal;

(D) Other Coatings (i.e., Powder, oven dried) 3.0 lb/gal;

(E) High Performance Architectural Coatings 3.5 lb/gal.

(6) Compliance Determination: Compliance with this rule shall be determined by testing in accordance with **40 CFR Part 60 EPA Method 18, 24, 25**, a material balance method, or an equivalent plant specific method approved by and on file with DEQ. The limit in section (1) of VOC in the coating is based upon an assumed solvent density, and other assumptions unique to a coating line; where conditions differ, such as a different solvent density, a plant specific limit developed pursuant to the applicable Control Technology Guideline document may be submitted to DEQ for approval.

(7) Reduction Method: The emission limits of sections (3) and (5) shall be achieved by:

(a) The application of low solvent content coating technology;

(b) An incineration system which oxidizes at least 90.0 percent of the nonmethane volatile organic compounds entering the incinerator (VOC measured as total combustible carbon) to carbon dioxide and water; or

(c) An equivalent means of VOC removal. The equivalent means must be approved by DEQ and will be incorporated in the source's Air Contaminant Discharge Permit or Title V Permit, and shall not become effective until approved by EPA as a source-specific SIP revision. Other alternative emission controls approved by DEQ and allowed by EPA may be used to provide an equivalent means of VOC removal.

(8) Recordkeeping Requirements:

(a) A current list of coatings shall be maintained which provides all the coating data necessary to evaluate compliance, including the following information, where applicable:

(A) Coating catalyst and reducer used;

(B) Mix ratio of components used;

(C) VOC content of coating as applied; and

(D) Oven temperature.

(b) Where applicable, a monthly record shall be maintained indicating the type and amount of solvent used for cleanup and surface preparation;

(c) Such records shall be retained and available for inspection by DEQ for a period of two years.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468.020 & ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; Section (5) Renumbered from 340-22-173; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 22-1996, f. & cert. ef. 10-22-96; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0170

**340-232-0170**

**Aerospace Component Coating Operations**

(1) No owner or operator of an aerospace component coating facility shall emit into the atmosphere volatile organic compounds in excess of the following limits, expressed as pounds VOC per gallon of coating applied, excluding water and exempt solvents, unless an alternative emission limit is approved by DEQ pursuant to section (4) or emissions to the atmosphere are controlled to an equivalent level pursuant to section (10)of this rule:

(a) Primer -- 2.9 lb./gal.;

(b) Interior Topcoat -- 2.8 lb./gal.;

(c) Electric or Radiation Effect Coating -- 6.7 lb./gal.;

(d) Extreme Performance Interior Topcoat -- 3.5 lb./gal.;

(e) Fire Insulation Coating -- 5.0 lb./gal.;

(f) Fuel Tank Coating -- 6.0 lb./gal.;

(g) High Temperature Coating\* -- 6.0 lb./gal.;

(h) Sealant -- 5.0 lb./gal.;

(i) Self-Priming Topcoat -- 3.5 lb./gal.;

(j) Topcoat -- 3.5 lb./gal.;

(k) Pretreatment Wash Primer -- 3.5 lb./gal.;

(l) Sealant Bonding Primer -- 6.0 lb./gal.;

(m) Temporary Protective Coating -- 2.1 lb./gal.

\*(For conditions between 350° F. - 500° F.)

(2) Exemptions: This rule does not apply to the following:

(a) The exterior of fully assembled airplanes painted out of doors, high temperature coatings (for conditions over 500° F.), adhesive bonding primer, flight test coatings, and space vehicle coatings;

(b) Sources whose potential emit from activities identified in section (1) before add on controls of volatile organic compounds are less than ten tons per year (or 3 lb. VOC/hr or 15 lb. VOC/day actual);

(c) The use of separate coating formulations in volumes of less than 20 gallons per calendar year. No source shall use more than a combined total of 250 gallons per calendar year of exempt coatings. Records of coating usage shall be maintained as per section (8); or

(d) Sources used exclusively for chemical or physical analysis or determination of product quality and coating performance (such as research facilities and laboratories) unless:

(A) The operation of the source is an integral part of the production process; or

(B) The emissions from the source exceed 363 kilograms (800 pounds) in any calendar month.

(3) Exceptions:

(a) On a case-by-case basis, DEQ may approve exceptions to the emission limits specified in section (1), upon documentation by the source that an alternative emission limit would satisfy the federal criteria for reasonably available control technology (RACT);

(b) Included in this documentation must be a complete analysis of technical and economic factors which:

(A) Prevent the source from using both compliance coatings and pollution control equipment; and

(B) Justify the alternative emission limit sought by the source.

(c) The alternative emission limit approved by DEQ shall be incorporated into the source's Air Contaminant Discharge Permit and shall not become effective until approved by EPA as a source-specific SIP revision.

(4) Applicability: This rule applies to each coating line, which includes the application area(s), flashoff area(s), air and force air drier(s), and oven(s) used in the surface coating of aerospace components in subsections (1)(a) through (m). If more than one emission limitation in this rule applies to a specific coating, then the most stringent emission limitation shall be applied.

(5) Solvent Evaporation Minimization:

(a) Closed containers shall be used for the storage or disposal of cloth or paper used for solvent surface preparation and cleanup;

(b) Fresh and spent solvent shall be stored in closed containers;

(c) Organic compounds shall not be used for the cleanup of spray equipment unless equipment is used to collect the cleaning compounds and to minimize their evaporation;

(d) Containers of coating, catalyst, thinner, or solvent shall not be left open to the atmosphere when not in use.

(6) Stripper Limitations: No stripper shall be used which contains more than 400 grams/liter (3.3 lbs./gal.) of VOC or which has a true vapor pressure of 1.3 kPa (0.19 psia) at actual usage temperature.

(7) Maskant for Chemical Processing Limitation: No maskant shall be applied for chemical processing unless the VOC emissions from coating operations are reduced by 85 percent, or the coating contains less than 600 grams of VOC per liter (5.0 lbs./gal.) of coating excluding water, as applied.

(8) Compliance determination: Compliance with this rule shall be determined by testing in accordance with **40 CFR, Part 60, Appendix A**, Method 24 for determining the VOC content of the coating materials. Emissions from the coating processes and/or VOC emissions control efficiencies shall be determined by testing in accordance with **40 CFR, Part 60, Appendix A**, Method 18, 25, California Method ST-7, a material balance method, or an equivalent plant specific method approved by EPA and DEQ and on file with DEQ. The limit in section (1) of VOC in the coating is based upon an assumed solvent density, and other assumptions unique to a coating line; where conditions differ, such as a different solvent density, a plant specific limit may be submitted to DEQ and EPA for approval.

(9) Reduction Method: The emission limits of section (1) shall be achieved by:

(a) The application of a low solvent content coating technology;

(b) A vapor collection and disposal system; or

(c) An equivalent means of VOC removal. The equivalent means must be approved by DEQ and will be incorporated in the source's Air Contaminant Discharge Permit or Title V Operating Permit, and shall not become effective until approved by EPA as a source-specific SIP revision. Other alternative emission controls approved by DEQ and allowed by EPA may be used to provide an equivalent means of VOC removal.

(10) Recordkeeping Requirements:

(a) A current list of coatings shall be maintained which provides all of the coating data necessary to evaluate compliance, including the following information, where applicable:

(A) A daily record indicating the mix ratio of components used; and

(B) The VOC content of the coating as applied.

(b) A monthly record shall be maintained indicating the type and amount of solvent used for cleanup and surface preparation;

(c) A monthly record shall be maintained indicating the amount of stripper used;

(d) Such records shall be retained and available for inspection by DEQ for a period of two years.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0175

**340-232-0180**

**Degreasers**

Cold cleaners, open top vapor degreasers, and conveyorized degreasers are exempt from this rule if they use fluids which are not photochemically reactive. These fluids are defined in the definition of Volatile Organic Compound (VOC) under OAR 340-200-0020.

(1) The owner or operator of dip tank cold cleaners shall comply with the equipment specifications in this section:

(a) Be equipped with a cover that is readily opened and closed. This is required of all cold cleaners, whether a dip tank or not;

(b) Be equipped with a drainrack, suspension basket, or suspension hoist that returns the drained solvent to the solvent bath;

(c) Have a freeboard ratio of at least 0.5;

(d) Have a visible fill line.

(2) An owner or operator of a cold cleaner shall be responsible for following the required operating parameters and work practices. The owner shall post and maintain in the work area of each cold cleaner a pictograph or instructions clearly explaining the work practices in this section:

(a) The solvent level shall not be above the fill line;

(b) The spraying of parts to be cleaned shall be performed only within the confines of the cold cleaner;

(c) The cover of the cold cleaner shall be closed when not in use or when parts are being soaked or cleaned by solvent agitation;

(d) Solvent-cleaned parts shall be rotated to drain cavities or blind holes and then set to drain until dripping has stopped;

(e) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste by weight can evaporate into the atmosphere. Handling of the waste must also be done in accordance with DEQ's solid and Hazardous Waste Rules, OAR Chapter 340, Division 100.

(3) The owner or operator shall maintain cold cleaners in good working condition and free of solvent leaks.

(4) If the solvent has a volatility greater than 2.0 kPa (0.3 psi) measured at 38° C. (100° F.), or if the solvent is agitated or heated, then the cover must be designed so that it can be easily operated with one hand or foot.

(5) If the solvent has a volatility greater than 4.3 kPa (0.6 psi) measured at 38° C. (100° F.), then the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(6) If the solvent has a volatility greater than 4.3 kPa (0.6 psi) measured at 38° C. (100° F.), or if the solvent is heated above 50° C. (120° F.), then one of the following solvent vapor control systems must be used:

(a) The freeboard ratio must be equal to or greater than 0.70; or

(b) Water must be kept over the solvent, which must be insoluble in and heavier than water; or

(c) Other systems of equivalent control, such as a refrigerated chiller.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0180

**340-232-0190**

**Open Top Vapor Degreasers**

(1) The owner or operator of all open top vapor degreasers shall comply with the following equipment specifications:

(a) Be equipped with a cover that may be readily opened and closed. When a degreaser is equipped with a lip exhaust, the cover shall be located below the lip exhaust. The cover shall move horizontally or slowly so as not to agitate and spill the solvent vapor. The degreaser shall be equipped with at least the following three safety switches:

(A) Condenser flow switch and thermostat to shut off sump heat if coolant is either not circulating or too warm;

(B) Spray safety switch to shut off spray pump or conveyor if the vapor level drops excessively, (e.g., greater than 10 cm (4 inches));

(C) Vapor level control thermostat to shut off sump heat when vapor level rises too high.

(b)(A) A closed design such that the cover opens only when the part enters or exits the degreaser and when the degreaser starts up, forming a vapor layer, the cover may be opened to release the displaced air, and either;

(B) A freeboard ratio equal to or greater than 0.75; or

(C) A freeboard, refrigerated or cold water, chiller.

(c) Post a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:

(A) Do not degrease porous or absorbent materials such as cloth, leather, wood or rope;

(B) The cover of the degreaser should be closed at all times except when processing workloads;

(C) When the cover is open the lip of the degreaser should not be exposed to steady drafts greater than 15.3 meters per minute (50 feet/minute);

(D) Rack parts so as to facilitate solvent drainage from the parts;

(E) Workloads should not occupy more than one-half of the vapor-air interface area;

(F) When using a powered hoist, the vertical speed of parts in and out of the vapor zone should be less than 3.35 meters per minute (11 feet/minute);

(G) Degrease the workload in the vapor zone until condensation ceases;

(H) Spraying operations should be done within the vapor layer;

(I) Hold parts in the degreaser until visually dry;

(J) When equipped with a lip exhaust, the fan should be turned off when the cover is closed;

(K) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser;

(L) Water shall not be visible in the solvent stream from the water separator.

(2) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses, as for example, from dripping drain taps, cracked gaskets, and malfunctioning equipment. Leaks must be repaired immediately.

(3) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leakproof couplings.

(4) Still and sump bottoms shall be kept in closed containers.

(5) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Handling of the waste must also be done in accordance with DEQ's Solid and Hazardous Waste Rules, OAR Chapter 340, Division 100.

(6) Exhaust ventilation shall not exceed 20 m3/minute per m2 (65 cfm per foot2) of degreaser open area, unless necessary to meet OSHA requirements. Ventilation fans shall not be used near the degreaser opening.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0183

**340-232-0200**

**Conveyorized Degreasers**

(1) The owner or operator of conveyorized cold cleaners and conveyorized vapor degreasers shall comply with the following operating requirements:

(a) Exhaust ventilation should not exceed 20 cubic meters per minute of square meter (65 cfm per foot2) of degreaser opening, unless necessary to meet OSHA requirements. Workplace fans should not be used near the degreaser opening;

(b) Post in the immediate work area a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:

(A) Rack parts for best drainage;

(B) Maintain vertical speed of conveyored parts to less than 3.35 meters per minute (11 feet/minute);

(C) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser.

(2) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses, as for example, from dripping drain taps, cracked gaskets, and malfunctioning equipment. Leaks must be repaired immediately.

(3) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leakproof couplings.

(4) Still and sump bottoms shall be kept in closed containers.

(5) Waste solvent shall be stored in covered containers and returned to the supplier or a disposal firm handling solvents for final disposal, such that no greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Handling of the waste must also be done in accordance with DEQ's Solid and Hazardous Waste Rules, OAR Chapter 340, Division 100.

(6) All conveyorized cold cleaners and conveyorized vapor degreasers with air/vapor interfaces of 2.0 m2 or greater shall have one of the following major control devices installed and operating:

(a) Carbon adsorption system, exhausting less than 25 ppm of solvent averaged over a complete adsorption cycle, based on exhaust ventilation of 15 m3/minutes per m2 of air/vapor area, when down-time covers are open; or

(b) Refrigerated chiller with control effectiveness equal to or better than subsection (a); or

(c) A system with control effectiveness equal to or better than subsection (a).

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0186

**340-232-0220**

**Flat Wood Coating**

(1) This rule applies to all flat wood manufacturing and surface finishing facilities, that manufacture the following products:

(a) Printed interior panels made of hardwood plywood and thin particleboard;

(b) Natural finish hardwood plywood panels; or

(c) Hardboard paneling with Class II finishes.

(2) This rule does not apply to the manufacture of exterior siding, tileboard, particleboard used as a furniture component, or paper or plastic laminates on wood or wood-derived substrates.

(3) No owner or operator of a flat wood manufacturing facility subject to this rule shall emit volatile organic compounds from a coating application system in excess of:

(a) 2.9 kg per 100 square meters of coated finished product (6.0 lb./1,000 square feet) from printed interior panels, regardless of the number of coats applied;

(b) 5.8 kg per 100 square meters of coated finished product (12.0 lb./1,000 square feet) from natural finish hardwood plywood panels, regardless of the number of coats applied; and

(c) 4.8 kg per 100 square meters of coated finished product (10.0 lb./1,000 square feet) from Class II finishes on hardboard panels, regardless of the number of coats applied.

(4) The emission limits in section (3) shall be achieved by:

(a) The application of low solvent content coating technology; or

(b) An incineration system which oxidizes at least 90.0 percent of the nonmethane volatile organic compounds entering the incinerator (VOC measured as total combustible carbon) to carbon dioxide and water; or

(c) An equivalent means of VOC removal. The equivalent means must be approved in writing by DEQ. The time period used to determine equivalency shall not exceed 24 hours.

(5) A capture system must be used in conjunction with the air pollution control devices in subsections (4)(b) and (c). The design and operation of a capture system must be consistent with good engineering practice and shall be required to provide for an overall emission reduction sufficient to meet the emission limitations in section (3).

(6) Compliance Demonstration:

(a) The owner or operator of a volatile organic compound source required to comply with this rule shall demonstrate compliance by the methods of subsection (c), or an alternative method approved by DEQ;

(b) A person proposing to conduct a volatile organic compound emissions test shall notify DEQ of the intent to test not less than 30 days before the proposed initiation of the tests so DEQ may observe the test;

(c) Test procedures in **40 CFR, Part 60, EPA Method 18, 24,** or **25** shall be used to determine compliance with section (3);

(d) DEQ may accept, instead of the coating analysis required by paragraph (c)(A), a certification by the coating manufacturer of the composition of the coating, if supported by actual batch formulation records. In the event of any inconsistency between a Method 18, 24, or 25 test and a facility's formulation data, the Method 18, 24, or 25 test will govern;

(e) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:

(A) Exhaust gas temperature of all incinerators;

(B) Temperature rise across a catalytic incinerator bed; and

(C) Breakthrough of VOC on a carbon absorption unit.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0200

**340-232-0230**

**Rotogravure and Flexographic Printing**

(1) No owner or operator of a packaging rotogravure, publication rotogravure, flexographic or specialty printing facility, with the potential to emit before add on controls greater than 90 mg/year (100 ton/year), employing ink containing solvent may operate, cause, allow or permit the operation of the press unless:

(a) The volatile fraction of ink, as it is applied to the substrate contains 25.0 percent by volume or less of organic solvent and 75 percent by volume or more of water; or

(b) The ink as it is applied to the substrate, less water, contains 60.0 percent by volume or more nonvolatile material; or

(c) The owner or operator installs and operates:

(A) A carbon absorption system which reduces the volatile organic emissions from the capture system by at least 90.0 percent by weight; or

(B) An incineration system which oxidizes at least 90.0 percent of the nonmethane volatile organic compounds (VOC measured as total combustible carbon) to carbon dioxide and water; or

(C) An alternative volatile organic compound pollution control device demonstrated to have at least a 90.0 percent removal efficiency, measured across the air pollution control device, and has been approved by DEQ.

(2) A capture system must be used in conjunction with the air pollution control devices in subsection (1)(c). The design and operation of a capture system must be consistent with good engineering practice, and shall be required to provide for a control efficiency in volatile organic compound emissions of at least:

(a) 75.0 percent where a publication rotogravure process is employed;

(b) 65.0 percent where a packaging rotogravure process is employed; or

(c) 60.0 percent where a flexographic printing process is employed.

(3) Compliance Demonstration:

(a) Upon request of DEQ, the owner or operator of a volatile organic compound source shall demonstrate compliance by the methods of this section or an alternative method approved by DEQ. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing;

(b) A person proposing to conduct a volatile organic compound emissions test shall notify DEQ of the intent to test not less than 30 days before the proposed initiation of the tests so DEQ may observe the test. The notification shall contain the information required by, and be in a format approved by, DEQ;

(c) Test procedures to determine compliance with this rule must be approved by DEQ and consistent with:

(A) EPA test Method 18, 24, or 25, **40 CFR, Part 60**; or California Method ST-7;

(B) DEQ may accept, instead of ink-solvent analysis, a certification by the ink manufacturer of the composition of the ink-solvent, if supported by actual batch formulation records. In the event of any inconsistency between an EPA Method test and a facility's formulation data, the EPA Method test will govern.

(d) If add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:

(A) Exhaust gas temperature of all incinerators;

(B) Breakthrough of VOC on a carbon adsorption unit; and

(C) Temperature rise across a catalytic incinerator bed.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 23-1980, f. & ef. 9-26-80; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0210