**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**DIVISION 230**

**INCINERATOR REGULATIONS**

**340-230-0010**

**Purpose**

The purpose of this division is to establish state of the art emission standards, design requirements, and performance standards for solid and infectious waste incinerators, hospital/medical/infectious waste incinerators, crematory incinerators, municipal waste combustors, and commercial and industrial solid waste incineration units in order to minimize air contaminant emissions and provide adequate protection of public health.

Stat. Auth.: ORS 183, ORS 468 & ORS 468A  
Stats. Implemented: ORS 468A.025  
Hist.: DEQ 9-1990, f. & cert. ef. 3-13-90; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0850; DEQ 4-2003, f. & cert. ef. 2-06-03

**340-230-0020**

**Applicability**

(1) OAR 340-230-0100 through 340-230-0150 apply to all solid and infectious waste incinerators other than:

(a) Municipal waste combustors, including those municipal waste combustors that burn some medical waste, that are subject to either OAR 340-238-0060, or 340-230-0300 through 340-230-0395; and

(b) Hospital/medical/infectious waste incinerators that are subject to OAR 340-230-0415.

(c) Commercial and industrial solid waste incinerators to OAR 340-230-0500 through 340-230-0565.

(2) OAR 340-230-0200 through 340-230-0230 apply to all new and existing crematory incinerators;

(3) OAR 340-230-0300 through 340-230-0395 apply to municipal waste combustors as specified in 340-230-0300.

(4) OAR 340-230-0415 applies to hospital/medical/infectious waste incinerators as specified in 340-230-0415.

(5) OAR 340-230-0500 through 340-230-0565 apply to commercial and industrial solid waste incineration units as specified in OAR 340-230-0502.

Stat. Auth.: ORS 468.020  
Stats. Implemented: ORS 468A.025  
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0852; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 8-2007, f. & cert. ef. 11-8-07

**340-230-0030**

**Definitions**

The definitions in OAR 340-200-0020, 340-238-0040 and this rule apply to this division. If the same term is defined in this rule and 340-200-0020 or 340-238-0040, the definition in this rule applies to this division. Applicable definitions have the same meaning as those provided in 40 CFR 60.51c including, but not limited to:

(1) "Acid Gases" means any exhaust gas that includes hydrogen chloride and sulfur dioxide.

(2) "Administrator"means the Administrator of the U.S. Environmental Protection Agency or his/her authorized representative or Administrator of a State Air Pollution Control Agency.

(3) "Affirmative defense"means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

(4) "Agricultural waste"means vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations.

(5) "Air curtain incinerator" means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of that type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(6) "Auxiliary fuel" means natural gas, liquefied petroleum gas, fuel oil, or diesel fuel.

(7) "Bag leak detection system" means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

(8) "Burn-off oven" means any rack reclamation unit, part reclamation unit, or drum reclamation unit. A burn-off oven is not an incinerator, waste-burning kiln, an energy recovery unit or a small, remote incinerator.

(9) "Bypass stack" means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(10) "Calendar quarter" means three consecutive months (non-overlapping) beginning on: January 1, April 1, July 1, or October 1.

(11) "Calendar year" means 365 consecutive days starting on January 1 and ending on December 31.

(12) "CFR" means Code of Federal Regulations and, unless otherwise expressly identified, refers to the July 1, 2013 edition.

(13) Chemical recovery unit means combustion units burning materials to recover chemical constituents or to produce chemical compounds where there is an existing commercial market for such recovered chemical constituents or compounds. A chemical recovery unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator. The following seven types of units are considered chemical recovery units:

(a) Units burning only pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.

(b) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.

(c) Units burning only wood or coal feedstock for the production of charcoal.

(d) Units burning only manufacturing byproduct streams/residue containing catalyst metals that are reclaimed and reused as catalysts or used to produce commercial grade catalysts.

(e) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds.

(f) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes.

(g) Units burning only photographic film to recover silver.

(14) Chemotherapeutic waste means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

(15) Clean lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol and creosote.

(16) "Commercial and industrial solid waste incineration unit (CISWI) means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding 6 months, any solid waste as that term is defined in 40 CFR part 241. If the operating unit burns materials other than traditional fuels as defined in 40 CFR 241.2 that have been discarded, and the owner or operator does not keep and produce records as required by OAR 340-230-0539(19), the operating unit is a CISWI unit. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the solid waste hopper (if applicable) and extends through two areas:

(a) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and

(b) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal.

The CISWI unit includes all ash handling systems connected to the bottom ash handling system.

(17) "Commercial and industrial waste" means solid waste (as defined in this rule) that is combusted at any commercial or industrial facility using controlled flame combustion in an enclosed, distinct operating unit: whose design does not provide for energy recovery (as defined in this rule); or operated without energy recovery (as defined in this rule). Commercial or industrial waste also means solid waste (as defined in this rule) combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

(18) "Contained gaseous material" means gases that are in a container when that container is combusted.

(19) "Continuous Emission Monitoring (CEM)" means a monitoring system for continuously measuring the emissions of a pollutant from an affected incinerator. Continuous emission monitoring system (CEMS) also means the total equipment that may be required to meet the data acquisition and availability requirements, used to sample, condition (if applicable), analyze, and provide a record of emissions. Continuous monitoring equipment and operation must be certified in accordance with EPA performance specifications and quality assurance procedures outlined in 40 CFR 60, Appendices B and F, and DEQ's CEM Manual.

(20) "Continuous monitoring system (CMS)" means the total equipment, required under the emission monitoring sections, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters. A particulate matter continuous parameter monitoring system (PM CPMS) is a type of CMS.

(21) "Crematory Incinerator" means an incinerator used solely for the cremation of human and nimal bodies.

(22) "Cyclonic burn barrel" means a combustion device for waste materials that is attached to a 55 gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air. A cyclonic burn barrel is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under OAR 340-230-0500 through 340-230-0565.

(23) "Deviation" means any instance in which an affected source subject to OAR 340-230-0500 through 340-230-0565, or an owner or operator of such a source:

(a) Fails to meet any requirement or obligation established by OAR 340-230-0500 through 340-230-0565, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;

(b) Fails to meet any term or condition that is adopted to implement an applicable requirement in OAR 340-230-0500 through 340-230-0565 and that is included in the operating permit for any affected source required to obtain such a permit; or

(24) "Dioxins/furans" means tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans.

(25) "Discard" means, for purposes of OAR 340-230-0500 through 340-230-0565, only, burned in an incineration unit without energy recovery.

(26) "Drum reclamation unit" means a unit that burns residues out of drums (e.g., 55 gallon drums) so that the drums can be reused.

(27) "Dry scrubber" means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

(28) "Energy recovery" means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

(29) "Energy recovery unit" means a combustion unit combusting solid waste (as that term is defined in 40 CFR part 241) for energy recovery. Energy recovery units include units that would be considered boilers and process heaters if they did not combust solid waste.

(30) "Energy recovery unit designed to burn biomass (biomass)" means an energy recovery unit that burns solid waste, biomass, and non-coal solid materials but less than 10 percent coal, on a heat input basis on an annual average, either alone or in combination with liquid waste, liquid fuel or gaseous fuels.

(31) "Energy recovery unit designed to burn coal (coal)" means an energy recovery unit that burns solid waste and at least 10 percent coal on a heat input basis on an annual average, either alone or in combination with liquid waste, liquid fuel or gaseous fuels.

(32) "Energy recovery unit designed to burn liquid waste materials and gas (liquid/gas)" means an energy recovery unit that burns a liquid waste with liquid or gaseous fuels not combined with any solid fuel or waste materials.

(33) "Energy recovery unit designed to burn solid materials (solid)" includes energy recovery units designed to burn coal and energy recovery units designed to burn biomass.

(34) "Fabric filter" means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

(35) "Fluidized bed combustion unit" means a unit where municipal waste is combusted in a fluidized bed of material. The fluidized bed material may remain in the primary combustion zone or may be carried out of the primary combustion zone and returned through a recirculation loop.

(36) "Foundry sand thermal reclamation unit" means a type of part reclamation unit that removes coatings that are on foundry sand. A foundry sand thermal reclamation unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under OAR 340-230-0500 through 340-230-0565.

(37) "Homogeneous wastes" are stable, consistent in formulation, have known fuel properties, have a defined origin, have predictable chemical and physical attributes, and result in consistent combustion characteristics and have a consistent emissions profile.

(38) "Incinerator" means any structure or furnace in which combustion takes place, the primary purpose of which is the reduction in volume and weight of unwanted material. For OAR 340-230-0500 through 340-230-0565, incinerator means any furnace used in the process of combusting solid waste (as that term is defined by the Administrator in 40 CFR part 241) for the purpose of reducing the volume of the waste by removing combustible matter. For OAR 340-230-0500 through 340-230-0565, incinerator designs include single chamber and two-chamber.

(39) "Infectious Waste" means waste as defined in ORS Chapter 763, Oregon Laws 1989, that contains or may contain any disease producing microorganism or material, and includes, but is not limited to the following:

(a) "Biological waste", which includes blood and blood products, and body fluids that cannot be directly discarded into a municipal sewer system, and waste materials saturated with blood or body fluids, but does not include soiled diapers;

(b) "Cultures and stocks", which includes etiologic agents and associated biologicals; including specimen cultures and dishes, devices used to transfer, inoculate and mix cultures, wastes from production of biologicals, and serums and discarded live and attenuated vaccines. "Cultures" does not include throat and urine cultures;

(c) "Pathological waste", which includes biopsy materials and all human tissues, anatomical parts that emanate from surgery, obstetrical procedures, autopsy and laboratory procedures and animal carcasses exposed to pathogens in research and the bedding and other waste from such animals. "Pathological wastes" does not include teeth or formaldehyde or other preservative agents;

(d) "Sharps", which includes needles, IV tubing with needles attached, scalpel blades, lancets, glass tubes that could be broken during handling and syringes that have been removed from their original sterile containers.

(40) "Infectious Waste Facility" or "Infectious Waste Incinerator" means an incinerator that is operated or utilized for the disposal or treatment of infectious waste, including combustion for the recovery of heat, and which utilizes high temperature thermal destruction technologies.

(41) "Kiln" means an oven or furnace, including any associated preheater or precalciner devices, used for processing a substance by burning, firing or drying. Kilns include cement kilns that produce clinker by heating limestone and other materials for subsequent production of Portland cement.

(42) "Laboratory analysis unit" means units that burn samples of materials for the purpose of chemical or physical analysis. A laboratory analysis unit is not an incinerator, waste burning kiln, an energy recovery unit or a small, remote incinerator under OAR 340-230-0500 through 340-230-0565.

(43) "Load fraction" means the actual heat input of an energy recovery unit divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (e.g., for 50 percent load the load fraction is 0.5).

(44) "Mass burn refractory municipal waste combustion unit" means a field-erected municipal waste combustion unit that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, that includes municipal waste combustion units with a cylindrical rotary refractory wall furnace.

(45) "Mass burn rotary waterwall municipal waste combustion unit" means a field-erected municipal waste combustion unit that combusts municipal solid waste in a cylindrical rotary waterwall furnace.

(46) "Mass burn waterwall municipal waste combustion unit" means a field-erected municipal waste combustion unit that combusts municipal solid waste in a waterwall furnace.

(47) "Minimum voltage or amperage"means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured during the most recent particulate matter or mercury performance test demonstrating compliance with the applicable emission limits.

(48) Modification or modified CISWI unit means a CISWI unit that has been changed later than August 7, 2013, and that meets one of two criteria:

(a) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

(b) Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

(49) "Modular excess-air municipal waste combustion unit" means a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements.

(50) "Modular starved-air municipal waste combustion unit" means a municipal waste combustion unit that combusts municipal solid waste, is not field-erected, and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

(51) "Municipal solid waste or municipal type solid waste" means household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste does include yard waste and refuse-derived fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff).

(52) "Municipal waste combustor plant" means one or more municipal waste combustor units at the same location.

(53) "Municipal waste combustor plant capacity" means the aggregate municipal waste combustor unit capacity of all municipal waste combustor units at a municipal waste combustor plant for which construction was commenced on or before September 20, 1994.

(54) "Operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any amount of solid waste is combusted at any time in the CISWI unit.

(55) "Oxygen analyzer system" means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler or process heater flue gas, boiler/process heater, firebox, or other appropriate location. This definition includes oxygen trim systems and certified oxygen CEMS. The source owner or operator is responsible to install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer’s recommendations.

(56) "Oxygen trim system"means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller.

(57) "Performance evaluation" means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

(58) "Performance test" means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

(59) "Process change" means any of the following physical or operational changes:

(a) A physical change (maintenance activities excluded) to the CISWI unit which may increase the emission rate of any air pollutant to which a standard applies;

(b) An operational change to the CISWI unit where a new type of nonhazardous secondary material is being combusted;

(c) A physical change (maintenance activities excluded) to the air pollution control devices used to comply with the emission limits for the CISWI unit (e.g., replacing an electrostatic precipitator with a fabric filter);

(d) An operational change to the air pollution control devices used to comply with the emission limits for the affected CISWI unit (e.g., change in the sorbent injection rate used for activated carbon injection).

(60) "Primary Combustion Chamber" means the discrete equipment, chamber or space in which drying of the waste, pyrolysis, and essentially the burning of the fixed carbon in the waste occurs.

(61) "Pyrolysis" means the endothermic gasification of waste material using external energy.

(62) "Raw mill" means a ball or tube mill, vertical roller mill or other size reduction equipment, that is not part of an in-line kiln/raw mill, used to grind feed to the appropriate size. Moisture may be added or removed from the feed during the grinding operation. If the raw mill is used to remove moisture from feed materials, it is also, by definition, a raw material dryer. The raw mill also includes the air separator associated with the raw mill.

(63) "Refuse-derived fuel" means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. That includes all classes of refuse-derived fuel including two fuels:

(a) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.

(b) Pelletized refuse-derived fuel.

(64) "Secondary" or "Final Combustion Chamber" means the discrete equipment, chamber, or space in which the products of pyrolysis are combusted in the presence of excess air such that essentially all carbon is burned to carbon dioxide.

(65) "Small, remote incinerator" means an incinerator that combusts solid waste (as that term is defined by in 40 CFR part 241) and combusts 3 tons per day or less solid waste and is more than 25 miles driving distance to the nearest municipal solid waste landfill.

(66) "Soil treatment unit" means a unit that thermally treats petroleum contaminated soils for the sole purpose of site remediation. A soil treatment unit may be direct-fired or indirect fired. A soil treatment unit is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under OAR 340-230-0500 through 340-230-0565.

(67) "Solid waste" means refuse, more than 50 percent of which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as metal, glass, and rock. For OAR 340-230-0500 through 340-230-0565, solid wastemeans the term solid waste as defined in 40 CFR 241.2.

(68) "Solid waste facility" or "solid waste incinerator" means an incinerator that is operated or utilized for the disposal or treatment of solid waste including combustion for the recovery of heat, and that utilizes high temperature thermal destruction technologies.

(69) "Solid waste incineration unit" means a distinct operating unit of any facility which combusts any solid waste (as that term is defined in 40 CFR part 241) material from commercial or industrial establishments or the general public (including single and multiple residences, hotels and motels). Such term does not include incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act. The term “solid waste incineration unit” does not include:

(a) Materials recovery facilities (including primary or secondary smelters) which combust waste for the primary purpose of recovering metals;

(b) Qualifying small power production facilities, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 769(17)(C)), or qualifying cogeneration facilities, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes; or

(c) Air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the EPA Administrator by rule.

(70) "Space heater" means a unit that meets the requirements of 40 CFR 279.23. A space heater is not an incinerator, a waste-burning kiln, an energy recovery unit or a small, remote incinerator under OAR 340-230-0500 through 340-230-0565.

(71) "Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel) combustion unit" means a municipal waste combustion unit that combusts coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

(72) "Transmissometer" means a device that measures opacity and conforms to EPA Specification Number 1 in **40 CFR 60**, **Appendix B**.

(73) "Waste-burning kiln" means a kiln that is heated, in whole or in part, by combusting solid waste (as the term is defined in 40 CFR part 241). Secondary materials used in Portland cement kilns shall not be deemed to be combusted unless they are introduced into the flame zone in the hot end of the kiln or mixed with the precalciner fuel.

(74) "Wet scrubber" means an add-on air pollution control device that uses an aqueous or alkaline scrubbing liquor to collect particulate matter (including non-vaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

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

Stat. Auth.: ORS 183, 468 & 468A  
Stats. Implemented: ORS 468A.025  
Hist.: DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 9-1990, f. & cert. ef. 3-13-90; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0750, 340-025-0855, 340-025-0950; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 8-2007, f. & cert. ef. 11-8-07; DEQ 1-2011, f. & cert. ef. 2-24-11

**Hospital, Medical, and Infectious Waste Incineration Units**

**340-230-0415**

**Adoption of Federal Plan by Reference**

**The federal plan for hospital, medical, and infectious waste incineration units constructed on or before December 1, 2008, in 40 CFR Part 60 Subpart HHH, is** by this reference adopted and incorporated herein.

**Commercial and Industrial Solid Waste Incineration Units**

**340-230-0500**

**Purpose**

OAR 340-230-0502 through 340-230-0550 establish rules to implement the emission guidelines and compliance schedules for the control of emissions from commercial and industrial solid waste incineration (CISWI) units. The pollutants addressed by OAR 340-230-0502 through 340-230-0550 are listed in Tables 6 and 10 through 13 of OAR 340-230-0518. These rules are developed in accordance with sections 111(d) and 129 of the Clean Air Act and 40 CFR part 63 subpart B.

**340-230-0502**

**Compliance Schedule**

(1) CISWI units in the incinerator subcategory that commenced construction on or before November 30, 1999, must achieve final compliance as expeditiously as practicable, but not later than three years after the effective date of State plan approval.

(2) CISWI units in the incinerator subcategory that commenced construction after November 30, 1999, but on or before June 4, 2010, and for CISWI units in the small remote incinerator, energy recovery unit, and waste-burning kiln subcategories that commenced construction before June 4, 2010, must achieve final compliance as expeditiously as practicable after approval of the state plan but not later than February 7, 2018.

**340-230-0504**

**Affected CISWI Units**

(1) Incineration units that meet all of the following three criteria are affected CISWI units.

(a) CISWI units that commenced construction on or before June 4, 2010, or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013.

(b) Incineration units that meet the definition of a CISWI unit as defined in OAR 340-230-0030.

(c) Incineration units not exempt under section (4) of this rule.

(2) If the owner or operator of a CISWI unit makes changes that meet the definition of modification or reconstruction on or after June 1, 2001, the CISWI unit becomes subject to 40 CFR part 60 subpart CCCC and OAR 340-230-0502 through 340-230-0550 no longer applies to that unit.

(3) If the owner or operator of a CISWI unit makes physical or operational changes to an existing CISWI unit primarily to comply with OAR 340-230-0502 through 340-230-0550, 40 CFR part 60 subpart CCCC does not apply to that unit. Such changes do not qualify as modifications or reconstructions under 40 CFR part 60 subpart CCCC.

(4) The following types of units are exempt from OAR 340-230-0502 through 340-230-0550, but some units are required to provide notifications. Air curtain incinerators are exempt from the requirements of OAR 340-230-0502 through 340-230-0550 except for the provisions in OAR 340-230-0538, 340-230-0546, and 340-230-0550.

(a) Pathological waste incineration units*.* Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low level radioactive waste, and/or chemotherapeutic waste as defined in OAR 340-230-0030 are not subject to OAR 340-230-0502 through 340-230-0550 if the owner or operator meets the following two requirements:

(A) Notify DEQ and the EPA Administrator that the unit meets these criteria.

(B) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/ or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

(b) Municipal waste combustion units*.* Incineration units that are subject to 40 CFR part 60 subpart Ea (Standards of Performance for Municipal Waste Combustors); 40 CFR part 63 subpart Eb (Standards of Performance for Large Municipal Waste Combustors); OAR 340-230-0310 through 340-230-0359 (Large Municipal Combustors); 40 CFR part 63 subpart AAAA (Standards of Performance for Small Municipal Waste Combustion Units); or OAR 340-230-0365 through 340-230-0395 (Small Municipal Waste Combustion Units).

(c) Medical waste incineration units*.* Incineration units regulated under 40 CFR part 60 subpart Ec (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or 40 CFR part 60 subpart Ca (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).

(d) Small power production facilities*.* Units that meet the following four requirements:

(A) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(B) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(C) The owner or operator submits documentation to the EPA Administrator and DEQ that the qualifying small power production facility is combusting homogenous waste.

(D) The owner or operator maintains the records specified in OAR 340-230-0534(20).

(e) Cogeneration facilities*.* Units that meet the following three requirements:

(A) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

(B) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(C) The owner or operator submits documentation to the EPA Administrator and DEQ that the qualifying cogeneration facility is combusting homogenous waste.

(D) The owner or operator maintains the records specified in OAR 340-230-0534(21).

(f) Hazardous waste combustion units. Units for which the owner or operator is required to get a permit under section 3005 of the Solid Waste Disposal Act.

(g) Materials recovery units*.* Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.

(h) Air curtain incinerators*.* Air curtain incinerators that burn only the following materials are only required to meet the requirements under Air Curtain Incinerators (OAR 340-230-0540 through 340-230-0550).

(A) 100 percent wood waste.

(B) 100 percent clean lumber.

(B) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

(i) Sewage treatment plants. Incineration units regulated under 40 CFR part 60 subpart O (Standards of Performance for Sewage Treatment Plants).

(j) Sewage sludge incineration units*.* Incineration units combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter that are subject to 40 CFR part 60 subpart LLLL (Standards of Performance for Sewage Sludge Incineration Units) or 40 CFR part 60 subpart MMMM (Emission Guidelines for Sewage Sludge Incineration Units).

(k) Other solid waste incineration units*.* Incineration units that are subject to 40 CFR part 60 subpart (Standards of Performance for Other Solid Waste Incineration Units) or 40 CFR part 60 subpart FFFF (Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units).

**340-230-0506**

**Increments of Progress and Achieving Final Compliance**

(1) If planning to achieve compliance more than 1 year following the effective date of State plan approval, the owner or operator must meet the following two increments of progress:

(a) Submit a final control plan.

(b) Achieve final compliance.

(2) Table 5 specifies compliance dates for each of the increments of progress.

(3) For the control plan increment of progress, the owner or operator must satisfy the following two requirements.

(a) Submit the final control plan that includes the following five items:

(A) A description of the devices for air pollution control and process changes that will be used to comply with the emission limitations and other requirements of OAR 340-230-0502 through 340-230-0550.

(B) The type(s) of waste to be burned.

(C) The maximum design waste burning capacity.

(D) The anticipated maximum charge rate.

(E) If applicable, the petition for site specific operating limits under OAR 340-230-0520(10).

(b) Maintain an onsite copy of the final control plan.

(4) For the final compliance increment of progress, the owner or operator must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected CISWI unit is brought online, all necessary process changes and air pollution control devices would operate as designed.

(5) **A** notification for achievement of increments of progress must be postmarked no later than 10 business days after the compliance date for the increment, and must include the following three items:

(a) Notification that the increment of progress has been achieved.

(b) Any items required to be submitted with each increment of progress.

(c) Signature of the owner or operator of the CISWI unit.

(6) If failing to meet an increment of progress, the owner or operator must submit a notification to the EPA Administrator and DEQ postmarked within 10 business days after the date for that increment of progress in Table 5 of this rule. The owner or operator must inform the EPA Administrator and DEQ that the owner or operator did not meet the increment, and must continue to submit reports each subsequent calendar month until the increment of progress is met.

**340-230-0508**

**Closing a CISWI Unit**

(1) If closing a CISWI unit but restarting it prior to the final compliance date, the owner or operator must meet the increments of progress specified in OAR 340-230-0506.

(2) If closing a CISWI unit but restarting it after the final compliance date, the owner or operator must complete emission control retrofits and meet the emission limitations and operating limits on the date the unit restarts operation.

(3) If planning to close a CISWI unit rather than comply with OAR 340-230-0502 through 340-230-0550, submit a closure notification, including the date of closure, to the EPA Administrator and DEQ by the date the final control plan is due.

**340-230-0510**

**Waste Management Plan**

(1) A waste management plan is a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

(2)The owner or operator must submit a waste management plan no later than the date specified in Table 5 of OAR 340-230-0506 for submittal of the final control plan.

(3) A waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures, and the source must implement those measures considered practical and feasible, based on the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

**340-230-0512**

**Operator Training and Qualification Requirements**

(1) No CISWI unit can be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, the owner or operator must follow the procedures in OAR 340-230-0516.

(2) The owner or operator must obtain operator qualification by completing a training course that satisfies the criteria under section (3) of this rule.

(3) Operator training and qualification must be obtained through a State approved program or by completing the requirements included in section (4) of this rule.

(4) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the following three elements:

(a) Training on the following eleven subjects:

(A) Environmental concerns, including types of emissions.

(B) Basic combustion principles, including products of combustion.

(C) Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

(D) Combustion controls and monitoring.

(E) Operation of air pollution control equipment and factors affecting performance (if applicable).

(F) Inspection and maintenance of the incinerator and air pollution control devices.

(G) Actions to prevent and correct malfunctions or to prevent conditions that may lead to malfunctions. (H) Bottom and fly ash characteristics and handling procedures.

(I) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(J) Pollution prevention.

(K) Waste management practices.

(b) An examination designed and administered by the instructor.

(c) Written material covering the training course topics that can serve as reference material following completion of the course.

(5) The operator training course must be completed by the later of the following three dates:

(a) The final compliance date (Increment 2).

(b) Six months after CISWI unit startup.

(c) Six months after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit.

(6) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under subsection (4)(b) of this rule.

(7) To maintain qualification, the owner or operator must complete an annual review or refresher course covering, at a minimum, the following five topics:

(a) Update of regulations.

(b) Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

(c) Inspection and maintenance.

(d) Prevention and correction of malfunctions or conditions that may lead to malfunction.

(e) Discussion of operating problems encountered by attendees.

(8) The owner or operator must renew a lapsed operator qualification by one of the following two methods:

(a) For a lapse of less than 3 years, the owner or operator must complete a standard annual refresher course described in section (7) of this rule.

(b) For a lapse of 3 years or more, the owner or operator must repeat the initial qualification requirements in section (2) of this rule.

**340-230-0514**

**Site-Specific Documentation**

(1) Documentation must be available at the facility and readily accessible for all CISWI unit operators that addresses the following ten topics. The owner or operator must maintain this information and the training records required by section (3) of this rule in a manner that they can be readily accessed and are suitable for inspection upon request.

(a) Summary of the applicable standards under OAR 340-230-0502 through 340-230-0550.

(b) Procedures for receiving, handling, and charging waste.

(c) Incinerator startup, shutdown, and malfunction procedures.

(d) Procedures for maintaining proper combustion air supply levels.

(e) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart.

(f) Monitoring procedures for demonstrating compliance with the incinerator operating limits.

(g) Reporting and recordkeeping procedures.

(h) The waste management plan required under OAR 340-230-0510.

(i) Procedures for handling ash.

(j) A list of the wastes burned during the performance test.

(2) The owner or operator must establish a program for reviewing the information listed in section (1) of this rule with each incinerator operator.

(a) The initial review of the information listed in section (1) of this rule must be conducted by the later of the following three dates:

(A) The final compliance date (Increment 2).

(B) Six months after CISWI unit startup.

(C) Six months after being assigned to operate the CISWI unit.

(b) Subsequent annual reviews of the information listed in section (1) of this rule must be conducted no later than 12 months following the previous review.

(3) The owner or operator must also maintain the following:

(a) Records showing the names of CISWI unit operators who have completed review of the information in section (1) of this rule as required by section (2) of this rule, including the date of the initial review and all subsequent annual reviews.

(b) Records showing the names of the CISWI operators who have completed the operator training requirements under OAR 340-230-0512(1), (3) and (4), met the criteria for qualification under OAR 340-230-0512(2) and (6), and maintained or renewed their qualification under OAR 340-230-0512(7) or (8). Records must include documentation of training, the dates of the initial refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(c) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

**340-230-0516**

**Requirements if Qualified Operators are Temporarily Not Accessible**

If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), the owner or operator must meet one of the following two criteria, depending on the length of time that a qualified operator is not accessible.

(1) When all qualified operators are not accessible for more than 8 hours, but less than 2 weeks, the CISWI unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in OAR 340-230-0514(1) within the past 12 months. However, the owner or operator must record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under OAR 340-230-0536(5).

(2) When all qualified operators are not accessible for 2 weeks or more, the owner or operator must take the following two actions:

(a) Notify DEQ of this deviation in writing within 10 days. In the notice, state what caused this deviation, what the owner or operator is doing to ensure that a qualified operator is accessible, and when the owner or operator anticipates that a qualified operator will be accessible.

(b) Submit a status report to DEQ every 4 weeks outlining what the owner or operator is doing to ensure that a qualified operator is accessible, stating when the owner or operator anticipates that a qualified operator will be accessible and requesting approval from DEQ to continue operation of the CISWI unit. The owner or operator must submit the first status report 4 weeks after notifying DEQ of the deviation under subsection (2)(a) of this rule. If DEQ notifies the owner or operator that the request to continue operation of the CISWI unit is disapproved, the CISWI unit may continue operation for 90 days, then must cease operation. Operation of the unit may resume if the owner or operator meets the following two requirements:

(A) A qualified operator is accessible as required under OAR 340-230-0512(1).

(B) The owner or operator notifies DEQ that a qualified operator is accessible and that the owner or operator is resuming operation.

**340-230-0518**

**Emission Limitations**

(1) The owner or operator must meet the emission limitations for each CISWI unit, including bypass stack or vent, specified in Table 6 or Tables 10 through 13 by the final compliance date. The emission limitations apply at all times the unit is operating including and not limited to startup, shutdown, or malfunction.

(2) Units that do not use wet scrubbers must maintain opacity to less than or equal to the percent opacity (three 1-hour blocks consisting of ten 6-minute average opacity values) specified in Table 6 of this rule, as applicable.

**340-230-0520**

**Operating Limits**

(1) If using a wet scrubber(s) to comply with the emission limitations, the owner or operator must establish operating limits for up to four operating parameters (as specified in Table 7) as follows during the initial performance test.

(a) Maximum charge rate, calculated using one of the following two different procedures, as appropriate.

(A) For continuous and intermittent units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(B) For batch units, maximum charge rate is 110 percent of the daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(b) Minimum pressure drop across the wet particulate matter scrubber, which is calculated as the lowest 1-hour average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as the lowest 1-hour average amperage to the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(c) Minimum scrubber liquid flow rate, which is calculated as the lowest 1-hour average liquid flow rate at the inlet to the wet acid gas or particulate matter scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations.

(d) Minimum scrubber liquor pH, which is calculated as the lowest 1-hour average liquor pH at the inlet to the wet acid gas scrubber measured during the most recent performance test demonstrating compliance with the HCl emission limitation.

(2) The owner or operator must meet the operating limits established during the initial performance test on the date the initial performance test is required or completed (whichever is earlier). The owner or operator must conduct an initial performance evaluation of each continuous monitoring system and continuous parameter monitoring system within 60 days of installation of the monitoring system.

(3) If using a fabric filter to comply with the emission limitations, the owner or operator must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If taking longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

(4) If using an electrostatic precipitator to comply with the emission limitations, the owner or operator must measure the (secondary) voltage and amperage of the electrostatic precipitator collection plates during the particulate matter performance test. Calculate the average electric power value (secondary voltage × secondary current = secondary electric power) for each test run. The operating limit for the electrostatic precipitator is calculated as the lowest 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.

(5) If using activated carbon sorbent injection to comply with the emission limitations, the owner or operator must measure the sorbent flow rate during the performance testing. The operating limit for the carbon sorbent injection is calculated as the lowest 1-hour average sorbent flow rate measured during the most recent performance test demonstrating compliance with the mercury emission limitations. For energy recovery units, when the unit operates at lower loads, multiply the sorbent injection rate by the load fraction to determine the required injection rate (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5).

(6) If using selective non-catalytic reduction to comply with the emission limitations, the owner or operator must measure the charge rate, the secondary chamber temperature (if applicable to the CISWI unit), and the reagent flow rate during the nitrogen oxides performance testing. The operating limits for the selective non-catalytic reduction are calculated as the highest 1-hour average charge rate, lowest secondary chamber temperature, and lowest reagent flow rate measured during the most recent performance test demonstrating compliance with the nitrogen oxides emission limitations.

(7) If using a dry scrubber to comply with the emission limitations, the owner or operator must measure the injection rate of each sorbent during the performance testing. The operating limit for the injection rate of each sorbent is calculated as the lowest 1-hour average injection rate of each sorbent measured during the most recent performance test demonstrating compliance with the hydrogen chloride emission limitations. For energy recovery units, when the unit operates at lower loads, multiply the sorbent injection rate by the load fraction to determine the required injection rate (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5).

(8) If not using a wet scrubber, electrostatic precipitator, or fabric filter to comply with the emission limitations, and if not determining compliance with the particulate matter emission limitation with a particulate matter CEMS, the owner or operator must maintain opacity to less than or equal to ten percent opacity (1-hour block average).

(9) If using a PM CPMS to demonstrate compliance, the owner or operator must establish the PM CPMS operating limit and determine compliance with it as follows:

(a) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record all hourly average output values (milliamps) from the PM CPMS for the periods corresponding to the test runs (e.g., three 1-hour average PM CPMS output values for three 1-hour test runs).

(A) The PM CPMS must provide a 4–20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

(B) The PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to at least two times the allowable emission limit. If the PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times the allowable emission limit.

(C) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all the PM CPMS output values for three corresponding 2-hour Method 5I test runs).

(b) If the average of the three PM performance test runs are below 75% of the PM emission limit, the owner or operator must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in subsections (9)(a) through (e) of this rule.

(A) Determine the instrument zero output with one of the following procedures:

(i) Zero point data for *in-situ* instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(ii) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(iii) The zero point can also can be established obtained by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (*e.g.,* when the process is not operating, but the fans are operating or the source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

(iv) If none of the steps in paragraphs (9)(b)(A) through (D) of this rule are possible, the owner or operator must use a zero output value provided by the manufacturer.

(B) Determine the PM CPMS instrument average in milliamps, and the average of the corresponding three PM compliance test runs, using equation 1.

Where:

(Eq. 1)

X1 = the PM CPMS data points for the three runs constituting the performance test,

Y1 = the PM concentration value for the three runs constituting the performance test, and

n = the number of data points.

(C) With the instrument zero expressed in milliamps, the three run average PM CPMS milliamp value, and the three run average PM concentration from the three compliance tests, determine a relationship of lb/Mmbtu per milliamp with equation 2.

(Eq. 2)

Where:

R = the relative mg/dscm per milliamp for the PM CPMS,

Y1 = the three run average mg/dscm PM concentration,

X1 = the three run average milliamp output from the PM CPMS, and

z = the milliamp equivalent of the instrument zero paragraph (9)(b)(A) of this rule.

(D) Determine the source specific 30-day rolling average operating limit using the mg/dscm per milliamp value from Equation 2 in Equation 3, below. This sets the operating limit at the PM CPMS output value corresponding to 75% of the emission limit.

(Eq. 3)

Where:

Ol = the operating limit for the PM CPMS on a 30-day rolling average, in milliamps.

L = the source emission limit expressed in lb/Mmbtu,

z = the instrument zero in milliamps, determined from paragraph (9)(b)(A) of this rule, and

R = the relative mg/dscm per milliamp for the PM CPMS, from Equation 3.

(c) If the average of the three PM compliance test runs is at or above 75% of the PM emission limit the owner or operator must determine the operating limit by averaging the PM CPMS milliamp output corresponding to the three PM performance test runs that demonstrate compliance with the emission limit using equation 4 and must submit all compliance test and PM CPMS data according to the reporting requirements in subsection (9)(e) of this rule.

(Eq. 4)

Where:

X1 = the PM CPMS data points for all runs i,

n = the number of data points, and

Oh = the site specific operating limit, in milliamps.

(d) To determine continuous compliance, the owner or operator must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The owner or operator must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (e.g., milliamps, PM concentration, raw data signal) on a 30-day rolling average basis.

(e) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g., beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.

(10) If using an air pollution control device other than a wet scrubber, activated carbon injection, selective non-catalytic reduction, fabric filter, an electrostatic precipitator, or a dry scrubber or limit emissions in some other manner, including mass balances, to comply with the emission limitations under OAR 340-230-0518, the owner or operator must petition the EPA Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. The owner or operator must submit the petition at least sixty days before the performance test is scheduled to begin. The petition must include the following five items:

(a) Identification of the specific parameters the owner or operator proposes to use as additional operating limits.

(b) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters and how limits on these parameters will serve to limit emissions of regulated pollutants.

(c) A discussion of how the owner or operator will establish the upper and/or lower values for these parameters which will establish the operating limits on these parameters.

(d) A discussion identifying the methods the owner or operator will use to measure and the instruments the owner or operator will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(e) A discussion identifying the frequency and methods for recalibrating the instruments the owner or operator will use for monitoring these parameters.

**340-230-0522**

**Affirmative Defense for Violation of Emission Standards During Malfunction.**

In response to an action to enforce the standards set forth in OAR 340-230-0518, the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 60.2. Appropriate penalties may be assessed if the owner or operator fails to meet the burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) Assertion of affirmative defense*.* To establish the affirmative defense in any action to enforce such a standard, the owner or operator must timely meet the reporting requirements in section (2) of this rule, and must prove by a preponderance of evidence that:

(a) The violation:

(A) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(b) Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(c) The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(d) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(e) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(f) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(g) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(h) At all times, the affected CISWI unit was operated in a manner consistent with good practices for minimizing emissions; and

(i) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis must also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(2) *Report.* If seeking to assert an affirmative defense, the owner or operator must submit a written report to DEQ with all necessary supporting documentation, that it has met the requirements set forth in section (1) of this rule. This affirmative defense report must be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

**340-230-0524**

**Initial and Annual Performance Testing**

(1) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations.

(2) The owner or operator must document that the waste burned during the performance test is representative of the waste burned under normal operating conditions by maintaining a log of the quantity of waste burned (as required in OAR 340-230-0534(2)(a)) and the types of waste burned during the performance test.

(3) All performance tests must be conducted using the minimum run duration specified in Tables 6 and 10 through 13 of OAR 340-230-0518.

(4) Method 1 of appendix A of 40 CFR part 60 must be used to select the sampling location and number of traverse points.

(5) Method 3A or 3B of appendix A of 40 CFR part 60 must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of appendix A of 40 CFR part 60 must be used simultaneously with each method.

(6) All pollutant concentrations, except for opacity, must be adjusted to 7 percent oxygen using Equation 5.

Cadj = Cmeas (20.9 - 7)/(20.9 - %O2) (Eq. 5)

Where: Cadj = pollutant concentration adjusted to 7 percent oxygen;

Cmeas = pollutant concentration measured on a dry basis;

(20.9 - 7) = 20.9 percent oxygen - 7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

%O2 = oxygen concentration measured on a dry basis, percent.

(7) The owner or operator must determine dioxins/furans toxic equivalency by following the following procedures:

(a) Measure the concentration of each dioxin/furan tetra- through octa-isomer emitted using EPA Method 23 at 40 CFR part 60, appendix A.

(b) Quantify isomers meeting identification criteria 2, 3, 4, and 5 in Section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. The owner or operator must quantify the isomers per Section 9.0 of Method 23. (Note: The owner or operator may reanalyze the sample aliquot or split to reduce the number of isomers not meeting identification criteria 1 or 7 of Section 5.3.2.5.)

(c) For each dioxin/furan (tetra through octa-chlorinated) isomer measured in accordance with subsections (7)(a) and (b) of this rule, multiply the isomer concentration by its corresponding toxic equivalency factor specified in Table 8.

(d) Sum the products calculated in accordance with subsection (7)(c) of this rule to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(8) Method 22 at 40 CFR part 60, appendix A–7 must be used to determine compliance with the fugitive ash emission limit in Table 6 or Tables 10 through 13 of OAR 340-230-0518.

(9) If having an applicable opacity operating limit, the owner or operator must determine compliance with the opacity limit using Method 9 at 40 CFR part 60, appendix A–4, based on three 1- hour blocks consisting of ten 6-minute average opacity values, unless the owner or operator is required to install a continuous opacity monitoring system, consistent with OAR 340-230-0528 and 0530.

(10) The owner or operator must determine dioxins/furans total mass basis by following the following procedures:

(a) Measure the concentration of each dioxin/furan tetra- through octachlorinated isomer emitted using EPA Method 23 at 40 CFR part 60, appendix A–7.

(b) Quantify isomers meeting identification criteria 2, 3, 4, and 5 in Section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. The owner or operator must quantify the isomers per Section 9.0 of Method 23. (Note: The owner or operator may reanalyze the sample aliquot or split to reduce the number of isomers not meeting identification criteria 1 or 7 of Section 5.3.2.5.)

(c) Sum the quantities measured in accordance with subsections (10)(a) and (b) of this rule to obtain the total concentration of dioxins/furans emitted in terms of total mass basis.

(11) The owner or operator uses results of performance tests to demonstrate compliance with the emission limitations in Table 6 or Tables 10 through 13 of OAR 340-230-0518.

**340-230-0526**

**Demonstrating Initial Compliance**

(1) The owner or operator must conduct a performance test, as required under OAR 340-230-0518 and 0524, to determine compliance with the emission limitations in Table 6 or Tables 10 through 13 of OAR 340-230-0518, to establish compliance with any opacity operating limits in OAR 340-230-0520, and to establish operating limits using the procedures in OAR 340-230-0520(1) through (9) or OAR 340-230-0520(10). The performance test must be conducted using the test methods listed in Table 6 or Tables 10 through 13 of OAR 340-230-0518 and the procedures in OAR 340-230-0524. The use of the bypass stack during a performance test shall invalidate the performance test. The owner or operator must conduct a performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system.

(2) The initial performance test must be conducted no later than 180 days after the final compliance date. The final compliance date is specified in Table 5 of OAR 340-230-0506.

(3) If commencing or recommencing the combustion of solid waste at an existing combustion unit at any commercial or industrial facility and having conducted a test consistent with the provisions of OAR 340-230-0502 through 340-230-0550 while combusting the given solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, the owner or operator does not need to retest until 6 months from the date the owner or operator reintroduces that solid waste.

(4) If commencing or recommencing the combustion of solid waste at an existing combustion unit at any commercial or industrial facility and having not conducted a performance test consistent with the provisions of OAR 340-230-0502 through 340-230-0550 while combusting the given solid waste within the 6 months preceding the reintroduction of that solid waste in the combustion chamber, the owner or operator must conduct a performance test within 60 days commencing or recommencing solid waste combustion.

(5) The initial air pollution control device inspection must be conducted within 60 days after installation of the control device and the associated CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after the final compliance date for meeting the amended emission limitations.

(6) Within 10 operating days following an air pollution control device inspection, all necessary repairs must be completed unless the owner or operator obtains written approval from the state agency establishing a date whereby all necessary repairs of the designated facility must be completed.

**340-230-0528**

**Demonstrating Continuous Compliance**

(1) Compliance with standards.

(a) The emission standards and operating requirements set forth in OAR 340-230-0502 through 340-230-0550 apply at all times.

(b) If ceasing the combustion of solid waste, the owner or operator may opt to remain subject to the provisions of OAR 340-230-0502 through 340-230-0550. Consistent with the definition of CISWI unit, the owner or operator is subject to the requirements of OAR 340-230-0502 through 340-230-0550 at least 6 months following the last date of solid waste combustion. Solid waste combustion is ceased when solid waste is not in the combustion chamber (*i.e.,* the solid waste feed to the combustor has been cut off for a period of time not less than the solid waste residence time).

(c) If ceasing the combustion of solid waste, the owner or operator must be in compliance with any newly applicable standards on the effective date of the waste-to-fuel switch. The effective date of the waste-to-fuel switch is a date selected by the owner or operator, that must be at least 6 months from the date that the owner or operator ceased combusting solid waste, consistent with OAR 340-230-0528(1)(b). The owner or operator must remain in compliance with OAR 340-230-0502 through 340-230-0550 until the effective date of the waste-to-fuel switch.

(d) If owning or operating an existing commercial or industrial combustion unit that combusted a fuel or non-waste material, and commencing or recommencing the combustion of solid waste, the owner or operator is subject to the provisions of OAR 340-230-0502 through 340-230-0550 as of the first day of introducing or reintroducing solid waste to the combustion chamber, and this date constitutes the effective date of the fuel-to-waste switch. The owner or operator must complete all initial compliance demonstrations for any Section 112 standards that are applicable to the facility before commencing or recommencing combustion of solid waste. The owner or operator must provide 30 days prior notice of the effective date of the waste-to-fuel switch. The notification must identify:

(A) The name of the owner or operator of the CISWI unit, the location of the source, the emissions unit(s) that will cease burning solid waste, and the date of the notice;

(B) The currently applicable subcategory under OAR 340-230-0502 through 340-230-0550, and any 40 CFR part 63 subpart and subcategory that will be applicable after ceasing the combustion of solid waste;

(C) The fuel(s), non-waste material(s) and solid waste(s) the CISWI unit is currently combusting and has combusted over the past 6 months, and the fuel(s) or non-waste materials the unit will commence combusting;

(D) The date on which the owner or operator became subject to the currently applicable emission limits;

(E) The date upon which the owner or operator will cease the combustion of solid waste, and the date (if different) that the owner or operator intends for any new requirements to become applicable (*i.e.,* the effective date of the waste-to-fuel switch), consistent with subsections (1)(b) and (c) of this rule.

(e) All air pollution control equipment necessary for compliance with any newly applicable emissions limits which apply as a result of the cessation or commencement or recommencement of combusting solid waste must be installed and operational as of the effective date of the waste-to-fuel, or fuel-to-waste switch. All monitoring systems necessary for compliance with any newly applicable monitoring requirements which apply as a result of the cessation or commencement or recommencement of combusting solid waste must be installed and operational as of the effective date of the waste-to-fuel, or fuel-to-waste switch. All calibration and drift checks must be performed as of the effective date of the waste-to-fuel, or fuel-to-waste switch. Relative accuracy tests must be performed as of the performance test deadline for PM CEMS (if PM CEMS are elected to demonstrate continuous compliance with the particulate matter emission limits). Relative accuracy testing for other CEMS need not be repeated if that testing was previously performed consistent with section 112 monitoring requirements or monitoring requirements under OAR 340-230-0502 through 340-230-0550.

(2) The owner or operator must conduct an annual performance test for the pollutants listed in Table 6 or Tables 10 through 13 of OAR 340-230-0518 and opacity for each CISWI unit as required under OAR 340-230-0524. The annual performance test must be conducted using the test methods listed in Table 6 or Tables 10 through 13 of OAR 340-230-0518 and the procedures in OAR 340-230-0524. Opacity must be measured using EPA Reference Method 9 at 40 CFR part 60. Annual performance tests are not required if using CEMS or continuous opacity monitoring systems to determine compliance.

(3) The owner or operator must continuously monitor the operating parameters specified in OAR 340-230-0520(1) through (9) or established under OAR 340-230-0520(10) and as specified in OAR 340-230-0532. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour block average values are used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under OAR 340-230-0520(10) or, for energy recovery units, where the averaging time for each operating parameter is a 30-day rolling, calculated each hour as the average of the previous 720 operating hours. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in section (1) of this rule constitutes a deviation from the operating limits established under OAR 340-230-0502 through 340-230-0550, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.

(4) The owner or operator must burn only the same types of waste and fuels used to establish subcategory applicability (for ERUs) and operating limits during the performance test.

(5) For energy recovery units, incinerators, and small remote units, the owner or operator must perform annual visual emissions test for ash handling.

(6) For energy recovery units, the owner or operator must conduct an annual performance test for opacity using EPA Reference Method 9 at 40 CFR part 60 (except where particulate matter continuous monitoring system or continuous parameter monitoring systems are used) and the pollutants listed in Table 11 of OAR 340-230-0518.

(7) For facilities using a CEMS to demonstrate compliance with the carbon monoxide emission limit, compliance with the carbon monoxide emission limit may be demonstrated by using the CEMS according to the following requirements:

(a) The owner or operator must measure emissions according to 40 CFR 60.13 to calculate 1-hour arithmetic averages, corrected to 7 percent oxygen. CEMS data during startup and shutdown are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The owner or operator must demonstrate initial compliance with the carbon monoxide emissions limit using a 30-day rolling average of the 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, calculated using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7.

(b) Operate the carbon monoxide continuous emissions monitoring system in accordance with the applicable requirements of performance specification 4A of appendix B and the quality assurance procedures of appendix F of 40 CFR part 60.

(8) Coal and liquid/gas energy recovery units with annual average heat input rates greater than 250 MMBtu/hr may elect to demonstrate continuous compliance with the particulate matter emissions limit using a particulate matter CEMS according to the procedures in OAR 340-230-0530(18) instead of the continuous opacity monitoring system specified in section (9) of this rule. Coal and liquid/gas energy recovery units with annual average heat input rates less than 250 MMBtu/hr, incinerators, and small remote incinerators may also elect to demonstrate compliance using a particulate matter CEMS according to the procedures in OAR 340-230-0530(18) instead of particulate matter testing with EPA Method 5 at 40 CFR part 60, appendix A–3 and, if applicable, the continuous opacity monitoring requirements in section (9) of this rule.

(9) For energy recovery units with annual average heat input rates greater than or equal to 10 MMBTU/hour but less than 250 MMBtu/hr, the owner or operator must install, operate, certify and maintain a continuous opacity monitoring system (COMS) according to the procedures in OAR 340-230-0530.

(10) For waste-burning kilns, the owner or operator must conduct an annual performance test for the pollutants (except mercury and particulate matter, and hydrogen chloride if no acid gas wet scrubber is used) listed in Table 12 of OAR 340-230-0518. If the waste-burning kiln is not equipped with a wet scrubber or dry scrubber, the owner or operator must determine compliance with the hydrogen chloride emission limit using a CEMS as specified in OAR 340-230-0530. The owner or operator must determine compliance with particulate matter using CPMS. The owner or operator must determine compliance with the mercury emissions limit using a mercury CEMS according to the following requirements:

(a) Operate a CEMS in accordance with performance specification 12A at 40 CFR part 60, appendix B or a sorbent trap based integrated monitor in accordance with performance specification 12B at 40 CFR part 60, appendix B. The duration of the performance test must be a calendar month. For each calendar month in which the waste-burning kiln operates, hourly mercury concentration data and stack gas volumetric flow rate data must be obtained. The owner or operator must demonstrate compliance with the mercury emissions limit using a 30-day rolling average of these 1-hour mercury concentrations, including CEMS data during startup and shutdown, calculated using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7 40 CFR part 60. CEMS data during startup and shutdown are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

(b) If using a mercury continuous emissions monitoring system, the owner or operator must install, operate, calibrate and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A at 40 CFR part 60, appendix B and quality assurance procedure 5 at 40 CFR part 60, appendix F.

(c) The owner or operator of a waste-burning kiln must demonstrate initial compliance by operating a mercury CEMS while the raw mill of the in-line kiln/raw mill is operating under normal conditions and including at least one period when the raw mill is off.

(11) If using an air pollution control device to meet the emission limitations in OAR 340-230-0502 through 340-230-0550, the owner or operator must conduct an initial and annual inspection of the air pollution control device. The inspection must include, at a minimum, the following:

(a) Inspect air pollution control device(s) for proper operation.

(b) Develop a site-specific monitoring plan according to the requirements in section (12) of this rule. This requirement also applies if the owner or operator petitions the EPA Administrator for alternative monitoring parameters under 40 CFR 60.13(i).

(12) For each CMS required in this rule, the owner or operator must develop and submit to DEQ for approval a site-specific monitoring plan according to the requirements of this section that addresses the following:

(a) The owner or operator must submit this site-specific monitoring plan at least 60 days before the initial performance evaluation of the continuous monitoring system.

(A) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.,* on or downstream of the last control device).

(B) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.

(C) Performance evaluation procedures and acceptance criteria (*e.g.,* calibrations).

(D) Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 60.11(d).

(E) Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 60.13.

(F) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR 60.7(b),(c), (c)(1), (c)(4), (d), (e), (f) and (g).

(b) The owner or operator must conduct a performance evaluation of each continuous monitoring system in accordance with the site-specific monitoring plan.

(c) The owner or operator must operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

(13) If having an operating limit that requires the use of a flow monitoring system, the owner or operator must meet the requirements in section (12) of this rule and the following:

(a) Install the flow sensor and other necessary equipment in a position that provides a representative flow.

(b) Use a flow sensor with a measurement sensitivity at full scale of no greater than 2 percent.

(c) Minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(d) Conduct a flow monitoring system performance evaluation in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

(14) If having an operating limit that requires the use of a pressure monitoring system, the owner or operator must meet the requirements in section (12) of this rule and the following:

(a) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (*e.g.,* PM scrubber pressure drop).

(b) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(c) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(d) Perform checks at the frequency outlined in the site-specific monitoring plan to ensure pressure measurements are not obstructed (e.g., check for pressure tap pluggage daily).

(e) Conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

(f) If at any time the measured pressure exceeds the manufacturer’s specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in the monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(15) If having an operating limit that requires a pH monitoring system, the owner or operator must meet the requirements in section (12) of this rule and the following:

(a) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(b) Ensure the sample is properly mixed and representative of the fluid to be measured.

(c) Conduct a performance evaluation of the pH monitoring system in accordance with the monitoring plan at least once each process operating day.

(d) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than quarterly.

(16) If having an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator, the owner or operator must meet the requirements in section (12) of this rule and the following:

(a) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.

(b) Conduct a performance evaluation of the electric power monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

(17) If having an operating limit that requires the use of a monitoring system to measure sorbent injection rate (*e.g.,* weigh belt, weigh hopper, or hopper flow measurement device), the owner or operator must meet the requirements in section (12) of this rule and the following:

(a) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(b) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

(18) If electing to use a fabric filter bag leak detection system to comply with the requirements of OAR 340-230-0502 through 340-230-0550, the owner or operator must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in section (12) of this rule and the following:

(a) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.

(b) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(c) Conduct a performance evaluation of the bag leak detection system in accordance with the monitoring plan and consistent with the guidance provided in EPA–454/R–98– 015 (incorporated by reference, *see* 40 CFR 60.17).

(d) Use a bag leak detection system equipped with a device to continuously record the output signal from the sensor.

(e) Use a bag leak detection system equipped with a system that will sound an alarm when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is observed readily by plant operating personnel.

(19) For facilities using a CEMS to demonstrate compliance with the sulfur dioxide emission limit, compliance with the sulfur dioxide emission limit may be demonstrated by using the CEMS specified in OAR 340-230-0530 to measure sulfur dioxide. CEMS data during startup and shutdown are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The owner or operator must calculate a 30-day rolling average of the 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7. The sulfur dioxide CEMS must be operated according to performance specification 2 in appendix B 40 CFR part 60 and must follow the procedures and methods specified in this section. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide CEMS should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the CEMS, whichever is greater.

(a) During each relative accuracy test run of the CEMS required by performance specification 2 in appendix B 40 CFR part 60, collect sulfur dioxide and oxygen (or carbon dioxide) data concurrently (or within a 30- to 60-minute period) with both the CEMS and the following test methods:

(A) For sulfur dioxide, EPA Reference Method 6 or 6C, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see 40 CFR 60.17) must be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see 40 CFR 60.17), as applicable, must be used.

(b) The span value of the CEMS at the inlet to the sulfur dioxide control device must be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this rule. The span value of the CEMS at the outlet of the sulfur dioxide control device must be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the unit subject to this rule.

(c) Conduct accuracy determinations quarterly and calibration drift tests daily in accordance with procedure 1 in appendix F 40 CFR part 60.

(20) For facilities using a CEMS to demonstrate continuous compliance with the nitrogen oxides emission limit, compliance with the nitrogen oxides emission limit may be demonstrated by using the CEMS specified in OAR 340-230-0530 to measure nitrogen oxides. CEMS data during startup and shutdown are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The owner or operator must calculate a 30-day rolling average of the 1-hour arithmetic average emission concentration using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7. The nitrogen oxides CEMS must be operated according to performance specification 2 in appendix B 40 CFR part 60 and must follow the following procedures and methods:

(a) During each relative accuracy test run of the CEMS required by performance specification 2 of appendix B 40 CFR part 60, collect nitrogen oxides and oxygen (or carbon dioxide) data concurrently (or within a 30- to 60-minute period) with both the CEMS and the following test methods:

(A) For nitrogen oxides, EPA Reference Method 7 or 7E at 40 CFR part 60, appendix A–4 must be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see 40 CFR 60.17), as applicable, must be used.

(b) The span value of the CEMS must be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of unit.

(c) Conduct accuracy determinations quarterly and calibration drift tests daily in accordance with procedure 1 in appendix F 40 CFR part 60.

(d) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established during the initial performance test according to the following procedures and methods. This relationship may be reestablished during performance compliance tests.

(A) The fuel factor equation in Method 3B must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3A, 3B, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see 40 CFR 60.17), as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(B) Samples must be taken for at least 30 minutes in each hour.

(C) Each sample must represent a 1-hour average.

(D) A minimum of 3 runs must be performed.

(21) For facilities using a continuous emissions monitoring system to demonstrate continuous compliance with any of the emission limits, the owner or operator must complete the following:

(a) Demonstrate compliance with the appropriate emission limit(s) using a 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, calculated using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7. CEMS data during startup and shutdown are not corrected to 7 percent oxygen, and are measured at stack oxygen content.

(b) Operate all CEMS in accordance with the applicable procedures under appendices B and F 40 CFR part 60.

(22) Use of the bypass stack at any time is an emissions standards deviation for particulate matter, HCl, Pb, Cd, Hg, NOX, SO2, and dioxin/furans.

(23) For energy recovery units with a design heat input capacity of 100 MMBtu per hour or greater that do not use a carbon monoxide CEMS, the owner or operator must install, operate, and maintain an oxygen analyzer system according to the following procedures:

(a) The oxygen analyzer system must be installed by the initial performance test date specified in OAR 340-230-0520.

(b) The owner or operator must operate the oxygen trim system within compliance with subsection (23)(c) of this rule at all times.

(c) The owner or operator must maintain the oxygen level such that the 30-day rolling average that is established as the operating limit for oxygen is not below the lowest hourly average oxygen concentration measured during the most recent CO performance test.

(d) The owner or operator must calculate and record a 30-day rolling average oxygen concentration using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 of Appendix A–7 40 CFR part 60.

(24) For energy recovery units with annual average heat input rates greater than or equal to 250 MMBtu/hour and waste-burning kilns, the owner or operator must install, calibrate, maintain, and operate a PM CPMS and record the output of the system as follows. For other energy recovery units, the owner or operator may elect to use PM CPMS operated in accordance with this section. PM CPMS are suitable in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure).

(a) Install, calibrate, operate, and maintain the PM CPMS according to the procedures in the approved site-specific monitoring plan developed in accordance with section (12) of this rule and the following:

(A) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation of the exhaust gas or representative sample. The reportable measurement output from the PM CPMS must be expressed as milliamps.

(B) The PM CPMS must have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(C) The PM CPMS must be capable of detecting and responding to particulate matter concentrations of no greater than 0.5 mg/actual cubic meter.

(b) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, the owner or operator must adjust the site-specific operating limit in accordance with the results of the performance test according to the procedures specified in OAR 340-230-0520.

(c) Collect PM CPMS hourly average output data for all energy recovery unit or waste-burning kiln operating hours. Express the PM CPMS output as milliamps.

(d) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output collected during all energy recovery unit or waste-burning kiln operating hours data (milliamps).

(e) The owner or operator must collect data using the PM CPMS at all times the energy recovery unit or waste-burning kiln is operating and at the intervals specified in paragraph (24)(a)(B) of this rule, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), and any scheduled maintenance as defined in the site-specific monitoring plan.

(f) The owner or operator must use all the data collected during all energy recovery unit or waste-burning kiln operating hours in assessing the compliance with the operating limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions are not used in calculations (report any such periods in the annual deviation report);

(B) Any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods are not used in calculations (report emissions or operating levels and report any such periods in the annual deviation report);

(C) Any PM CPMS data recorded during periods of CEMS data during startup and shutdown.

(g) The owner or operator must record and make available upon request results of PM CPMS system performance audits, as well as the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with the site-specific monitoring plan.

(h) For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, the owner or operator must:

(A) Within 48 hours of the deviation, visually inspect the air pollution control device;

(B) If inspection of the air pollution control device identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(C) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify. Within 45 days of the deviation, the owner or operator must reestablish the CPMS operating limit. The owner or operator is not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph.

(D) PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a violation of OAR 340-230-0502 through 340-230-0550.

(25) The owner or operator must conduct annual performance tests between 11 and 13 months of the previous performance test.

(26) On an annual basis (no more than 12 months following the previous annual air pollution control device inspection), the owner or operator must complete the air pollution control device inspection as described in OAR 340-230-0526(5) and (6).

(27) The owner or operator must conduct annual performance tests according to the schedule specified in section (25) of this rule, with the following exceptions:

(a) The owner or operator may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward, as specified in sections (29) and (30) of this rule. DEQ may request a repeat performance test at any time.

(b) The owner or operator must repeat the performance test within 60 days of a process change.

(c) If the initial or any subsequent performance test for any pollutant in Table 6 or Tables 10 through 13 of OAR 340-230-0518, as applicable, demonstrates that the emission level for the pollutant is no greater than the emission level specified in paragraph (27)(c)(A) or (B) of this rule, as applicable, and the owner or operator is not required to conduct a performance test for the pollutant in response to a request by DEQ in subsection (27)(a) of this rule or a process change in subsection (27)(b) of this rule, the owner or operator may elect to skip conducting a performance test for the pollutant for the next 2 years. The owner or operator must conduct a performance test for the pollutant during the third year and no more than 37 months following the previous performance test for the pollutant. For cadmium and lead, both cadmium and lead must be emitted at emission levels no greater than their respective emission levels specified in paragraph (27)(c)(A) of this rule for the owner or operator to qualify for less frequent testing.

(A) For particulate matter, hydrogen chloride, mercury, carbon monoxide, nitrogen oxides, sulfur dioxide, cadmium, lead, and dioxins/furans, the emission level equal to 75 percent of the applicable emission limit in Table 6 or Tables 10 through 13 of OAR 340-230-0518, as applicable.

(B) For fugitive emissions, visible emissions (of combustion ash from the ash conveying system) for 2 percent of the time during each of the three 1-hour observation periods.

(d) If conducting less frequent testing for a pollutant as provided in subsection (27)(c) of this rule and a subsequent performance test for the pollutant indicates that the CISWI unit does not meet the emission level specified in paragraph (27)(c)(A) or (B) of this rule, as applicable, the owner or operator must conduct annual performance tests for the pollutant according to the schedule specified in section (27) of this rule until the owner or operator qualifies for less frequent testing for the pollutant as specified in subsection (27)(c) of this rule.

(28) If a performance test shows a deviation from an emission limitation for particulate matter, hydrogen chloride, or opacity, the owner or operator must conduct annual performance tests for that pollutant until all performance tests over a 3- year period show compliance.

(29) The owner or operator may conduct a repeat performance test at any time to establish new values for the operating limits. DEQ may request a repeat performance test at any time.

(30) The owner or operator must repeat the performance test if the feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

**340-230-0530**

**Monitoring Equipment and Parameters**

(1) If using a wet scrubber to comply with the emission limitation under OAR 340-230-0518, the owner or operator must install, calibrate (to manufacturers’ specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 7 of OAR 340-230-0520. These devices (or methods) must measure and record the values for these operating parameters at the frequencies indicated in Table 7 of OAR 340-230-0520 at all times except as specified in OAR 340-230-0532(1).

(2) If using a fabric filter to comply with the requirements of OAR 340-230-0502 through 340-230-0550, the owner or operator must install, calibrate, maintain, and continuously operate a bag leak detection system as follows:

(a) The owner or operator must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(b) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer’s written specifications and recommendations.

(c) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(d) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(e) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(f) The bag leak detection system must be equipped with an alarm system that will alert automatically an operator when an increase in relative particulate matter emission over a preset level is detected. The alarm must be located where it is observed easily by plant operating personnel.

(g) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

(h) Where multiple detectors are required, the system’s instrumentation and alarm may be shared among detectors.

(3) If using something other than a wet scrubber, activated carbon, selective non-catalytic reduction, an electrostatic precipitator, or a dry scrubber to comply with the emission limitations under OAR 340-230-0518, the owner or operator must install, calibrate (to the manufacturers’ specifications), maintain, and operate the equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in OAR 340-230-0520(10).

(4) If using activated carbon injection to comply with the emission limitations, the owner or operator must measure the minimum sorbent flow rate once per hour.

(5) If using selective non-catalytic reduction to comply with the emission limitations, the owner or operator must complete the following:

(a) Following the date on which the initial performance test is completed or is required to be completed under OAR 340-230-0524, whichever date comes first, ensure that the affected facility does not operate above the maximum charge rate, or below the minimum secondary chamber temperature (if applicable to the CISWI unit) or the minimum reagent flow rate measured as 3-hour block averages at all times.

(b) Operation of the affected facility above the maximum charge rate, below the minimum secondary chamber temperature and below the minimum reagent flow rate simultaneously constitute a violation of the nitrogen oxides emissions limit.

(6) If using an electrostatic precipitator to comply with the emission limits, the owner or operator must monitor the secondary power to the electrostatic precipitator collection plates and maintain the 3-hour block averages at or above the operating limits established during the mercury or particulate matter performance test.

(7) For waste-burning kilns not equipped with a wet scrubber or dry scrubber, in place of hydrogen chloride testing with EPA Method 321 at 40 CFR part 63, appendix A, the owner or operator must install, calibrate, maintain, and operate a CEMS for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system. To demonstrate continuous compliance with the hydrogen chloride emissions limit for units other than waste-burning kilns not equipped with a wet scrubber or dry scrubber, a facility may substitute use of a hydrogen chloride CEMS for conducting the hydrogen chloride annual performance test, monitoring the minimum hydrogen chloride sorbent flow rate, monitoring the minimum scrubber liquor pH.

(8) To demonstrate continuous compliance with the particulate matter emissions limit, a facility may substitute use of a particulate matter CEMS for conducting the particulate matter annual performance test and other CMS monitoring for PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure).

(9) To demonstrate continuous compliance with the dioxin/furan emissions limit, a facility may substitute use of a continuous automated sampling system for the dioxin/furan annual performance test. The owner or operator must record the output of the system and analyze the sample according to EPA Method 23 at 40 CFR part 60, appendix A–7. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from continuous monitors is published in the **Federal Register**. If electing to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Method 23 at 40 CFR part 60, appendix A–7, the owner or operator must install, calibrate, maintain and operate a continuous automated sampling system and must comply with the requirements specified in 40 CFR 60.58b(p) and (q). A facility may substitute continuous dioxin/furan monitoring for the minimum sorbent flow rate, if activated carbon sorbent injection is used solely for compliance with the dioxin/furan emission limit.

(10) To demonstrate continuous compliance with the mercury emissions limit, a facility may substitute use of a continuous automated sampling system for the mercury annual performance test. The owner or operator must record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet performance specification 12B criteria. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to mercury from monitors is published in the **Federal Register**. If electing to continuously sample mercury emissions instead of sampling and testing using EPA Method 29 or 30B at 40 CFR part 60, appendix A–8, ASTM D6784–02 (Reapproved 2008) (incorporated by reference, see 40 CFR 60.17), or an approved alternative method for measuring mercury emissions, must install, calibrate, maintain and operate a continuous automated sampling system and must comply with the requirements specified in 40 CFR 60.58b(p) and (q). A facility may substitute continuous mercury monitoring for the minimum sorbent flow rate, if activated carbon sorbent injection is used solely for compliance with the mercury emission limit.

(11) To demonstrate continuous compliance with the nitrogen oxides emissions limit, a facility may substitute use of a CEMS for the nitrogen oxides annual performance test to demonstrate compliance with the nitrogen oxides emissions limits and monitoring the charge rate, secondary chamber temperature and reagent flow for selective non-catalytic reduction, if applicable.

(a) Install, calibrate, maintain and operate a CEMS for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix B 40 CFR part 60, the quality assurance procedure 1 of appendix F 40 CFR part 60 and the procedures under 40 CFR 60.13 must be followed for installation, evaluation and operation of the CEMS.

(b) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under OAR 340-230-0524, compliance with the emission limit for nitrogen oxides required under 40 CFR 60.52b(d) must be determined based on the 30-day rolling average of the hourly emission concentrations using CEMS outlet data. The 1-hour arithmetic averages must be expressed in parts per million by volume corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average concentrations. CEMS data during startup and shutdown are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages must be calculated using the data points required under 40 CFR 60.13(e)(2).

(12) To demonstrate continuous compliance with the sulfur dioxide emissions limit, a facility may substitute use of a continuous automated sampling system for the sulfur dioxide annual performance test to demonstrate compliance with the sulfur dioxide emissions limits.

(a) Install, calibrate, maintain and operate a CEMS for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 2 of appendix B 40 CFR part 60, the quality assurance requirements of procedure 1 of appendix F 40 CFR part 60 and the procedures under 40 CFR 60.13 must be followed for installation, evaluation and operation of the CEMS.

(b) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under OAR 340-230-0524, compliance with the sulfur dioxide emission limit may be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations using CEMS outlet data. The 1-hour arithmetic averages must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages must be calculated using the data points required under 40 CFR 60.13(e)(2).

(13) For energy recovery units that do not use a wet scrubber, fabric filter with bag leak detection system, or particulate matter CEMS, the owner or operator must install, operate, certify and maintain a continuous opacity monitoring system according to the following procedures by the compliance date specified in OAR 340-230-0518. Energy recovery units that use a particulate matter CEMS to demonstrate initial and continuing compliance according to the procedures in section (14) of this rule are not required to install a continuous opacity monitoring system and must perform the annual performance tests for opacity consistent with OAR 340-230-0528(6).

(a) Install, operate and maintain each continuous opacity monitoring system according to performance specification 1 at 40 CFR part 60, appendix B.

(b) Conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in 40 CFR 60.13 and according to performance specification 1 at 40 CFR part 60, appendix B.

(c) As specified in 40 CFR 60.13(e)(1), each continuous opacity monitoring system must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(d) Reduce the continuous opacity monitoring system data as specified in 40 CFR 60.13(h)(1).

(e) Determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected.

(14) For coal and liquid/gas energy recovery units, incinerators, and small remote incinerators, the owner or operator may elect to install, calibrate, maintain and operate a CEMS for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. If continuously monitors particulate matter emissions instead of conducting performance testing using EPA Method 5 at 40 CFR part 60, appendix A–3 or, as applicable, monitor with a particulate matter CPMS according to section (18) of this rule, the owner or operator must install, calibrate, maintain and operate a CEMS and must comply with the following requirements:

(a) Notify DEQ 1 month before starting use of the system.

(b) Notify DEQ 1 month before stopping use of the system.

(c) The monitor must be installed, evaluated and operated in accordance with the requirements of performance specification 11 of appendix B 40 CFR part 60 and quality assurance requirements of procedure 2 of appendix F 40 CFR part 60 and 40 CFR 60.13.

(d) The initial performance evaluation must be completed no later than 180 days after the final compliance date for meeting the amended emission limitations, as specified under OAR 340-230-0524 or within 180 days of notification to DEQ of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 at 40 CFR part 60, appendix A–3 performance tests, whichever is later.

(e) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established according to the procedures and methods specified in OAR 340-230-0528(19)(e)(A) through (D).

(f) The owner or operator of an affected facility must conduct an initial performance test for particulate matter emissions as required under OAR 340-230-0524. Compliance with the particulate matter emission limit, if PM CEMS are elected for demonstrating compliance, must be determined by using the CEMS specified in section (14) of this rule to measure particulate matter. The owner or operator must calculate a 30-day rolling average of 1- hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7 40 CFR part 60.

(g) Compliance with the particulate matter emission limit must be determined based on the 30-day rolling average calculated using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, Appendix A–7 of the part from the 1-hour arithmetic average of the CEMS outlet data.

(h) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified OAR 340-230-0538.

(i) The 1-hour arithmetic averages required under subsection (14)(g) of this rule must be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (or carbon dioxide)(dry basis) and must be used to calculate the 30-day rolling average emission concentrations. CEMS data during startup and shutdown, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages must be calculated using the data points required under 40 CFR 60.13(e)(2).

(j) All valid CEMS data must be used in calculating average emission concentrations even if the minimum CEMS data requirements of subsection (14)(h) of this rule are not met.

(k) The CEMS must be operated according to performance specification 11 in appendix B 40 CFR part 60.

(l) During each relative accuracy test run of the CEMS required by performance specification 11 in appendix B 40 CFR part 60, particulate matter and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30-to 60-minute period) by both the CEMS and the following test methods.

(A) For particulate matter, EPA Reference Method 5 at 40 CFR part 60, appendix A–3 must be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3A or 3B at 40 CFR part 60, appendix A–2, as applicable, must be used.

(m) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with procedure 2 in appendix F 40 CFR part 60.

(15) To demonstrate continuous compliance with the carbon monoxide emissions limit, a facility may substitute use of a continuous automated sampling system for the carbon monoxide annual performance test to demonstrate compliance with the carbon monoxide emissions limits.

(a) Install, calibrate, maintain, and operate a CEMS for measuring carbon monoxide emissions discharged to the atmosphere and record the output of the system. The requirements under performance specification 4B of appendix B 40 CFR part 60, the quality assurance procedure 1 of appendix F 40 CFR part 60 and the procedures under 40 CFR 60.13 must be followed for installation, evaluation, and operation of the CEMS.

(b) Following the date that the initial performance test for carbon monoxide is completed or is required to be completed under OAR 340-230-0524, compliance with the carbon monoxide emission limit may be determined based on the 30-day rolling average of the hourly arithmetic average emission concentrations, including CEMS data during startup and shutdown, using CEMS outlet data. Except for CEMS data during startup and shutdown, the 1-hour arithmetic averages must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 30-day rolling average emission concentrations. CEMS data collected during startup or shutdown, are not corrected to 7 percent oxygen, and are measured at stack oxygen content. The 1-hour arithmetic averages must be calculated using the data points required under 40 CFR 60.13(e)(2).

(16) The owner or operator of an affected source with a bypass stack must install, calibrate (to manufacturers’ specifications), maintain and operate a device or method for measuring the use of the bypass stack including date, time and duration.

(17) For energy recovery units with a design heat input capacity of 100 MMBtu per hour or greater that do not use a carbon monoxide CEMS, the owner or operator must install, operate, and maintain a oxygen analyzer system according to the following procedures:

(a) The oxygen analyzer system must be installed by the initial performance test date specified in OAR 340-230-0520.

(b) The owner or operator must operate the oxygen trim system within compliance with subsection (17)(c) of this rule at all times.

(c) The owner or operator must maintain the oxygen level such that the 30-day rolling average that is established as the operating limit for oxygen according to subsection (17)(d) of this rule is not below the lowest hourly average oxygen concentration measured during the most recent CO performance test.

(d) The owner or operator must calculate and record a 30-day rolling average oxygen concentration using Equation 19–19 in section 12.4.1 of EPA Reference Method 19 of Appendix A–7 40 CFR part 60.

(18) For energy recovery units with annual average heat input rates greater than or equal to 250 MMBtu/hour and waste-burning kilns, the owner or operator must install, calibrate, maintain, and operate a PM CPMS and record the output of the system as follows. For other energy recovery units, the owner or operator may elect to use PM CPMS operated in accordance with this section. PM CPMS are suitable in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure).

(a) Install, calibrate, operate, and maintain the PM CPMS according to the procedures in the site-specific monitoring plan developed in accordance with OAR 340-230-0528(12) and the following:

(A) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation of the exhaust gas or representative sample. The reportable measurement output from the PM CPMS must be expressed as milliamps.

(B) The PM CPMS must have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(C) The PM CPMS must be capable of detecting and responding to particulate matter concentrations of no greater than 0.5 mg/actual cubic meter.

(b) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, the owner or operator must adjust the site-specific operating limit in accordance with the results of the performance test according to the procedures specified in OAR 340-230-0520.

(c) Collect PM CPMS hourly average output data for all energy recovery unit or waste-burning kiln operating hours. Express the PM CPMS output as milliamps.

(d) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output collected during all energy recovery unit or waste-burning kiln operating hours data (milliamps).

(e) The owner or operator must collect data using the PM CPMS at all times the energy recovery unit or waste-burning kiln is operating and at the intervals specified in paragraph (18)(a)(B) of this rule, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), and any scheduled maintenance as defined in the site-specific monitoring plan.

(f) The owner or operator must use all the data collected during all energy recovery unit or waste-burning kiln operating hours in assessing the compliance with the operating limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions are not used in calculations (report any such periods in the annual deviation report);

(B) Any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of- control periods are not used in calculations (report emissions or operating levels and report any such periods in the annual deviation report);

(C) Any PM CPMS data recorded during periods of CEMS data during startup and shutdown.

(g) The owner or operator must record and make available upon request results of PM CPMS system performance audits, as well as the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with the site-specific monitoring plan.

(h) For any deviation of the 30-day rolling average PM CPMS average value from the established operating parameter limit, the owner or operator must:

(A) Within 48 hours of the deviation, visually inspect the air pollution control device;

(B) If inspection of the air pollution control device identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(C) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify. Within 45 days of the deviation, the owner or operator must reestablish the CPMS operating limit. The owner or operator is not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph.

(D) PM CPMS deviations leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a violation of this subpart.

(19) If using a dry scrubber to comply with the emission limits, the owner or operator must monitor the injection rate of each sorbent and maintain the 3-hour block averages at or above the operating limits established during the hydrogen chloride performance test.

**340-230-0532**

**Monitoring Data**

For each continuous monitoring system required or optionally allowed under OAR 340-230-0530, the owner or operator must monitor and collect data according to this rule:

(1) The owner or operator must operate the monitoring system and collect data at all required intervals at all times compliance is required except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods (as specified in OAR 340-230-0536(5)(o)), and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator is required to effect monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(2) The owner or operator may not use data recorded during the monitoring system malfunctions, repairs associated with monitoring system malfunctions or out-of control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The owner or operator must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(3) Except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation of the monitoring requirements.

**340-230-0534**

**Recordkeeping**

The owner or operator must maintain the following items (as applicable) for a period of at least 5 years:

(1) Calendar date of each record.

(2) Records of the following data:

(a) The CISWI unit charge dates, times, weights, and hourly charge rates.

(b) Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

(c) Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

(d) Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

(e) For affected CISWI units that establish operating limits for controls other than wet scrubbers under OAR 340-230-0520(4) through (7) or OAR 340-230-0520(10), the owner or operator must maintain data collected for all operating parameters used to determine compliance with the operating limits. For energy recovery units using activated carbon injection or a dry scrubber, the owner or operator must also maintain records of the load fraction and corresponding sorbent injection rate records.

(f) If a fabric filter is used to comply with the emission limitations, the owner or operator must record the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. The owner or operator must also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in OAR 340-230-0520(3).

(3) Identification of calendar dates and times for which data show a deviation from the operating limits in Table 7 of OAR 340-230-0520 or a deviation from other operating limits established under OAR 340-230-0520(4) through (7) or OAR 340-230-0520(10) with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

(4) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete test report including calculations.

(5) Records showing the names of CISWI unit operators who have completed review of the information in OAR 340-230-0514(1) as required by OAR 340-230-0514(2), including the date of the initial review and all subsequent annual reviews.

(6) Records showing the names of the CISWI operators who have completed the operator training requirements under OAR 340-230-0512, met the criteria for qualification under OAR 340-230-0512(2) and (6), and maintained or renewed their qualification under OAR 340-230-0512(7) or 340-230-0512(8). Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

(7) For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

(8) Records of calibration of any monitoring devices as required under OAR 340-230-0530.

(9) Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

(10) The information listed in OAR 340-230-0514(1).

(11) On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).

(12) Maintain records of the annual air pollution control device inspections that are required for each CISWI unit subject to the emissions limits in Table 6 or Tables 10 through 13 of OAR 340-230-0518, any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the state regulatory agency.

(13) For continuously monitored pollutants or parameters, the owner or operator must document and keep a record of the following parameters measured using continuous monitoring systems.

(a) All 6-minute average levels of opacity.

(b) All 1-hour average concentrations of sulfur dioxide emissions. The owner or operator must indicate which data are CEMS data during startup and shutdown.

(c) All 1-hour average concentrations of nitrogen oxides emissions. The owner or operator must indicate which data are CEMS data during startup and shutdown.

(d) All 1-hour average concentrations of carbon monoxide emissions. The owner or operator must indicate which data are CEMS data during startup and shutdown.

(e) All 1-hour average concentrations of particulate matter emissions. The owner or operator must indicate which data are CEMS data during startup and shutdown.

(f) All 1-hour average concentrations of mercury emissions. The owner or operator must indicate which data are CEMS data during startup and shutdown.

(g) All 1-hour average concentrations of hydrogen chloride emissions. The owner or operator must indicate which data are CEMS data during startup and shutdown.

(h) All 1-hour average percent oxygen concentrations.

(i) All 1-hour average PM CPMS readings or particulate matter CEMS outputs.

(14) Records indicating use of the bypass stack, including dates, times and durations.

(15) If choosing to stack test less frequently than annually, consistent with OAR 340-230-0528(27) and (2), the owner or operator must keep annual records that document that the emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(16) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(17) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(18) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 60.11(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(19) For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), the owner or operator must keep a record which documents how the secondary material meets each of the legitimacy criteria under 40 CFR 241.3(d)(1). If combusting a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(4), the owner or operator must keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2 and each of the legitimacy criteria in 40 CFR 241.3(d)(1). If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the owner or operator must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust nonhazardous secondary materials as fuel per 40 CFR 241.4, the owner or operator must keep records documenting that the material is a listed non-waste under 40 CFR 241.4(a).

(20) Records of the criteria used to establish that the unit qualifies as a small power production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)) and that the waste material the unit is proposed to burn is homogeneous.

(21) Records of the criteria used to establish that the unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)) and that the waste material the unit is proposed to burn is homogeneous.

(22) All records must be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by DEQ.

**340-230-0536**

**Reports**

(1) See Table 9 for a summary of the reporting requirements.

(2) The owner or operator must submit the waste management plan no later than the date specified in Table 5 of OAR 340-230-0506 for submittal of the final control plan.

(3) The owner or operator must submit the following information no later than 60 days following the initial performance test. All reports must be signed by the facilities manager.

(a) The complete test report for the initial performance test results obtained under OAR 340-230-0526, as applicable.

(b) The values for the site-specific operating limits established in OAR 340-230-0520(1) through (9) or OAR 340-230-0520(10).

(c) If using a fabric filter to comply with the emission limitations, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by OAR 340-230-0530(2).

(4) The owner or operator must submit an annual report no later than 12 months following the submission of the information in section (3) of this rule. The owner or operator must submit subsequent reports no more than 12 months following the previous report. (If the unit is subject to permitting requirements under title V of the Clean Air Act, the owner or operator may be required by the permit to submit these reports more frequently.)

(5) The annual report required under section (4) of this rule must include the following ten items. If having a deviation from the operating limits or the emission limitations, the owner or operator must also submit deviation reports as specified in sections (6) through (10) of this rule.

(a) Company name and address.

(b) Statement by a responsible official, with that official’s name, title, and signature, certifying the accuracy of the content of the report.

(c) Date of report and beginning and ending dates of the reporting period.

(d) The values for the operating limits established pursuant to OAR 340-230-0520(1) through (9) or OAR 340-230-0520(10).

(e) If no deviation from any emission limitation or operating limit that applies to the owner or operator has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period.

(f) The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

(g) Information recorded under OAR 340-230-0534(2)(f) and (3) through (5) for the calendar year being reported.

(h) If a performance test was conducted during the reporting period, the results of that test.

(i) If meeting the requirements of OAR 340-230-0528(27) or (28), and did not conduct a performance test during the reporting period, the owner or operator must state that the owner or operator met the requirements of OAR 340-230-0528(27) or (28), and, therefore, the owner or operator was not required to conduct a performance test during the reporting period.

(j) Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

(k) If the owner or operator had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 60.11(d), including actions taken to correct a malfunction.

(l) For each deviation from an emission or operating limitation that occurs for a CISWI unit for which the owner or operator is not using a CMS to comply with the emission or operating limitations, the annual report must contain the following information.

(A) The total operating time of the CISWI unit at which the deviation occurred during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(m) If there were periods during which the continuous monitoring system, including the CEMS, was out of control as specified in subsection (5)(o) of this rule, the annual report must contain the following information for each deviation from an emission or operating limitation occurring for a CISWI unit for which the owner or operator is using a continuous monitoring system to comply with the emission and operating limitations.

(A) The date and time that each malfunction started and stopped.

(B) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(C) The date, time, and duration that each continuous monitoring system was out-of-control, including start and end dates and hours and descriptions of corrective actions taken.

(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(E) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(G) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI unit at which the continuous monitoring system downtime occurred during that reporting period.

(H) An identification of each parameter and pollutant that was monitored at the CISWI unit.

(I) A brief description of the CISWI unit.

(J) A brief description of the continuous monitoring system.

(K) The date of the latest continuous monitoring system certification or audit.

(L) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

(n) If there were periods during which the continuous monitoring system, including the CEMS, was not out of control as specified in subsection (5)(o) of this rule, a statement that there were not periods during which the continuous monitoring system was out of control during the reporting period.

(o) A continuous monitoring system is out of control if any of the following occur.

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard.

(B) The continuous monitoring system fails a performance test audit (*e.g.*, cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(C) The continuous opacity monitoring system calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard.

(p) For energy recovery units, include the annual heat input and average annual heat input rate of all fuels being burned in the unit to verify which subcategory of energy recovery unit applies.

(6) The owner or operator must submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under OAR 340-230-0502 through 340-230-0550, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6- month reporting period, or if a performance test was conducted that deviated from any emission limitation.

(7) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data collected during the second half of the calendar year (July 1 to December 31).

(8) In each report required under sections (6) and (7) of this rule, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in OAR 340-230-0502 through 340-230-0550, include the following six items:

(a) The calendar dates and times the unit deviated from the emission limitations or operating limit requirements.

(b) The averaged and recorded data for those dates.

(c) Durations and causes of the following:

(A) Each deviation from emission limitations or operating limits and corrective actions.

(B) Bypass events and corrective actions.

(d) A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

(e) The dates, times, number, duration, and causes for monitoring downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

(f) Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

(9) If all qualified operators are not accessible for 2 weeks or more, the owner or operator must take the following two actions:

(a) Submit a notification of the deviation within 10 days that includes the following three items:

(A) A statement of what caused the deviation.

(B) A description of what the owner or operator is doing to ensure that a qualified operator is accessible.

(C) The date when the owner or operator anticipates that a qualified operator will be available.

(b) Submit a status report to DEQ every 4 weeks that includes the following three:

(A) A description of what the owner or operator is doing to ensure that a qualified operator is accessible.

(B) The date when the owner or operator anticipates that a qualified operator will be accessible.

(C) Request approval from DEQ to continue operation of the CISWI unit.

(10) If the unit was shut down by DEQ, under the provisions of OAR 340-0230-0516(2)(b), due to a failure to provide an accessible qualified operator, the owner or operator must notify DEQ that the owner or operator is resuming operation once a qualified operator is accessible.

(11) The owner or operator must submit notifications as provided by 40 CFR 60.7.

(12) If ceasing to combust solid waste but continue to operate, the owner or operator must provide 30 days prior notice of the effective date of the waste-to-fuel switch, consistent with OAR 340-230-0528(1). The notification must identify:

(a) The name of the owner or operator of the CISWI unit, the location of the source, the emissions unit(s) that will cease burning solid waste, and the date of the notice;

(b) The currently applicable subcategory under OAR 340-230-0502 through 340-230-0550, and any 40 CFR part 63 subpart and subcategory that will be applicable after the owner or operator ceases to combust solid waste;

(c) The fuel(s), non-waste material(s) and solid waste(s) the CISWI unit is currently combusting and has combusted over the past 6 months, and the fuel(s) or non-waste materials the unit will commence combusting;

(d) The date on which the owner or operator became subject to the currently applicable emission limits;

(e) The date upon which the owner or operator will cease combusting solid waste, and the date (if different) that the owner or operator intends for any new requirements to become applicable (i.e., the effective date of the waste-to-fuel switch), consistent with subsections (12)(b) and (c) of this rule.

(13) Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

(14) Submit results of performance tests and CEMS performance evaluation tests as follows.

(a) Within 60 days after the date of completing each performance test, the owner or operator must submit the results of the performance tests required to EPA’s WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA’s Central Data Exchange (CDX)(*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of EPA’s Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive, or other commonly used electronic storage media to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of DEQ, the owner or operator must also submit these reports, including the confidential business information, to DEQ in the format specified by DEQ. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator must submit the results of the performance test in paper submissions to DEQ.

(b) Within 60 days after the date of completing each CEMS performance evaluation test, the owner or operator must submit the relative accuracy test audit (RATA) data electronically into EPA’s Central Data Exchange by using CEDRI as mentioned in subsection (14)(a) of this rule. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator must submit the results of the performance evaluation in paper submissions to DEQ.

(15) If DEQ agrees, the owner or operator may change the semiannual or annual reporting dates. See 40 CFR 60.19(c) for procedures to seek approval to change the reporting date.

TITLE V OPERATING PERMITS

**340-230-0538**

**Title V Operating Permit**

Each CISWI unit and air curtain incinerator subject to standards under OAR 340-230-0502 through 340-230-0550 must operate pursuant to a permit issued under Clean Air Act sections 129(e) and Title V.

**340-230-0540**

**Air Curtain Incinerator**

(1) An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(2) Air curtain incinerators that burn only the following materials are only required to meet the requirements under Air Curtain Incinerators (OAR 340-230-0540 through 340-230-0550).

(a) 100 percent wood waste.

(b) 100 percent clean lumber.

(c) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

**340-230-0542**

**Increments of Progress and Achieving Final Compliance**

(1) If planning to achieve compliance more than 1 year following the effective date of State plan approval, the owner or operator must meet the following two increments of progress:

(a) Submit a final control plan.

(b) Achieve final compliance.

(2) Table 5 of OAR 340-230-0506 specifies compliance dates for each of the increments of progress.

(3) For the control plan increment of progress, the owner or operator must satisfy the following two requirements:

(a) Submit the final control plan, including a description of any devices for air pollution control and any process changes that the owner or operator will use to comply with the emission limitations and other requirements of OAR 340-230-0502 through 340-230-0550.

(b) Maintain an onsite copy of the final control plan.

(4) For the final compliance increment of progress, the owner or operator must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected incinerator is brought online, all necessary process changes and air pollution control devices would operate as designed.

(5) Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

(6) The notification of achievement of increments of progress must include the following three items:

(a) Notification that the increment of progress has been achieved.

(b) Any items required to be submitted with each increment of progress (see section (3) of this rule).

(c) Signature of the owner or operator of the incinerator.

(7) If failing to meet an increment of progress, the owner or operator must submit a notification to DEQ postmarked within 10 business days after the date for that increment of progress in Table 5 of OAR 340-230-0506. The owner or operator must inform DEQ that the increment was not met, and must continue to submit reports each subsequent calendar month until the increment of progress is met.

**340-230-0544**

**Closing an Air Curtain Incinerator**

(1) If closing the incinerator but will reopen it prior to the final compliance date, the owner or operator must meet the increments of progress specified in OAR 340-230-0542.

(2) If closing incinerator but will restart it after the final compliance date, the owner or operator must complete emission control retrofits and meet the emission limitations on the date the incinerator restarts operation.

(3) If planning to close the incinerator rather than comply with OAR 340-230-0502 through 340-230-0550, submit a closure notification, including the date of closure, to DEQ by the date the final control plan is due.

**340-230-0546**

**Emission Limitations for Air Curtain Incinerators**

After the date the initial stack test is required or completed (whichever is earlier), the owner or operator must meet the following limitations:

(1) Maintain opacity to less than or equal to 10 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values), except as described in section (2) of this rule.

(2) Maintain opacity to less than or equal to 35 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) during the startup period that is within the first 30 minutes of operation.

**340-230-0548**

**Monitoring Opacity for Air Curtain Incinerators**

(1) Use Method 9 of appendix A of 40 CFR part 60 to determine compliance with the opacity limitation.

(2) Conduct an initial test for opacity as specified in 40 CFR 60.8 no later than 180 days after the final compliance date.

(3) After the initial test for opacity, conduct annual tests no more than 12 calendar months following the date of the previous test.

**340-230-0550**

**Recordkeeping and Reporting Requirements for Air Curtain Incinerators**

(1) Keep records of results of all initial and annual opacity tests onsite in either paper copy or electronic format, unless the DEQ approves another format, for at least 5 years.

(2) Make all records available for submittal to DEQ or for an inspector’s onsite review.

(3) Submit an initial report no later than 60 days following the initial opacity test that includes the following information:

(a) The types of materials the owner or operator plans to combust in the air curtain incinerator.

(b) The results (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) of the initial opacity tests.

(4) Submit annual opacity test results within 12 months following the previous report.

(5) Submit initial and annual opacity test reports as electronic or paper copy on or before the applicable submittal date and keep a copy onsite for a period of 5 years.

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| **Table 5**  **OAR 340-230-0506**  **Increments of Progress and Compliance Schedules** | |
| **Comply with these increments of progress** | **By these dates** |
| Increment 1—Submit final control plan | February 7, 2017 |
| Increment 2—Final compliance | February 7, 2018 |
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| **Table 6**  **OAR 340-230-0518**  **Emission Limitations That Apply to Incinerators Before February 7, 2018b** | | | | | |
| **For the air pollutant** | **The owner or operator must meet this emission limitationa** | **Using this averaging time** | | **And determining compliance using this method** | |
| Cadmium | 0.004 milligrams per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 29 of appendix A of this part) | |
| Carbon monoxide | 157 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 10, 10A, or 10B, of appendix A of this part) | |
| Dioxins/furans (toxic equivalency basis) | 0.41 nanograms per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 23 of appendix A of this part) | |
| Hydrogen chloride | 62 parts per million by dry volume | 3-run average (For Method 26, collect a minimum volume of 120 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run) | | Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8). | |
| Lead | 0.04 milligrams per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 29 of appendix A of this part) | |
| Mercury | 0.47 milligrams per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008). | |
| Opacity | 10 percent | Three 1-hour blocks consisting of ten 6-minute average opacity values | | Performance test (Method 9 at 40 CFR part 60, appendix A-4) | |
| Oxides of nitrogen | 388 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | | Performance test (Methods 7 or 7E at 40 CFR part 60, appendix A-4). | |
| Particulate matter | 70 milligrams per dry standard cubic meter | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 5 or 29 of appendix A of ths part) | |
| Sulfur dioxide | 20 parts per million by dry volume | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 6 or 6c of appendix A of this part) | |
| a All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.  b Applies only to incinerators subject to the CISWI standards through the Federal plan prior to June 4, 2010. | | | | | |
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| **Table 7**  **OAR 340-230-0520**  **Operating Limits for Wet Scrubbers** | | | | | |
| **For these operating parameters** | **The owner or operator must establish these operating limits** | **And monitor using these minimum frequencies** | | | |
| **Data measurement** | **Data recording** | | **Averaging time** |
| Charge rate | Maximum charge rate | Continuous | Every hour | | Daily (batch units). 3-hour rolling (continuous and intermittent units)a |
| Pressure drop across the wet scrubber or amperage to wet scrubber | Minimum pressure drop or amperage | Continuous | Every 15 minutes | | 3-hour rollinga |
| Scrubber liquor flow rate | Minimum flow rate | Continuous | Every 15 minutes | | 3-hour rollinga |
| Scrubber liquor pH | Minimum pH | Continuous | Every 15 minutes | | 3-hour rollinga |
| a Calculated each hour as the average of the previous 3 operating hours. | | | | | |

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| **Table 8**  **OAR 340-230-0524**  **Toxic Equivalency Factors** | |
| **Dioxin/furan isomer** | **Toxic equivalency factor** |
| 2,3,7,8-tetrachlorinated dibenzo-p-dioxin | 1 |
| 1,2,3,7,8-pentachlorinated dibenzo-p-dioxin | 0.5 |
| 1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin | 0.01 |
| octachlorinated dibenzo-p-dioxin | 0.001 |
| 2,3,7,8-tetrachlorinated dibenzofuran | 0.1 |
| 2,3,4,7,8-pentachlorinated dibenzofuran | 0.5 |
| 1,2,3,7,8-pentachlorinated dibenzofuran | 0.05 |
| 1,2,3,4,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzofuran | 0.1 |
| 2,3,4,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzofuran | 0.01 |
| 1,2,3,4,7,8,9-heptachlorinated dibenzofuran | 0.01 |
| octachlorinated dibenzofuran | 0.001 |

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| **Table 9**  **OAR 340-230-0536**  **Summary of Reporting Requirementsa** | | | |
| **Report** | **Due date** | **Contents** | **OAR Reference** |
| Waste Management Plan | No later than the date specified in Table 5 of OAR 340-230-0506 for submittal of the final control plan | Waste management plan | 340-230-0542 |
| Initial Test Report | No later than 60 days following the initial performance test | • Complete test report for the initial performance test  • The values for the site-specific operating limits  • Installation of bag leak detection systems for fabric filters | 340-230-0543 |
| Annual Report | No later than 12 months following the submission of the initial test report. Subsequent reports are to be submitted no more than 12 months following the previous report | • Name and address  • Statement and signature by responsible official  • Date of report  • Values for the operating limits  • Highest recorded 3-hour average and the lowest 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported  • If a performance test was conducted during the reporting period, the results of the test  • If a performance test was not conducted during the reporting period, a statement that the requirements of OAR 340-230-0535(1) were met  • Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours but less than 2 weeks  • If conducting performance tests once every 3 years consistent with OAR 340-230-0535(1), the date of the last 2 performance tests, a comparison of the emission level the owner or operator achieved in the last 2 performance tests to the 75 percent emission limit threshold required in OAR 340-230-0535(1) and a statement as to whether there have been any operational changes since the last performance test that could increase emissions | 340-230-0544 and  340-230-0545 |
| Emission Limitation or Operating Limit Deviation Report | By August 1 of that year for data collected during the first half of the calendar year. By February 1 of the following year for data collected during the second half of the calendar year | • Dates and times of deviations  • Averaged and recorded data for those dates  • Duration and causes for each deviation and the corrective actions taken  • Copy of operating limit monitoring data and any test reports  • Dates, times, and causes for monitor downtime incidents | 340-230-0546 and  340-230-0547 |
| Qualified Operator Deviation Notification | Within 10 days of deviation | • Statement of cause of deviation  • Description of efforts to have an accessible qualified operator  • The date a qualified operator will be accessible | 340-230-0548(1)(a) |
| Qualified Operator Deviation Status Report | Every 4 weeks following deviation | • Description of efforts to have an accessible qualified operator  • The date a qualified operator will be accessible  • Request for approval to continue operation | 340-230-0548(1)(b) |
| Qualified Operator Deviation Notification of Resumed Operation | Prior to resuming operation | Notification that the owner or operator is resuming operation | 340-230-0548(2) |
| a This table is only a summary, see the referenced sections of the rule for the complete requirements. | | | |
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| **Table 10**  **OAR 340-230-0518**  **Emission Limitations That Apply to Incinerators On and After February 7, 2018** | | | | | | | | |
| **For the air pollutant** | **The owner or operator must meet this emission limitationa** | | | **Using this averaging time** | | | | **And determining compliance using this method** |
| Cadmium | 0.0026 milligrams per dry standard cubic meter | | | 3-run average (collect a minimum volume of 2 dry standard cubic meters) | | | | Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish. |
| Carbon monoxide | 17 parts per million dry volume | | | 3-run average (1 hour minimum sample time per run) | | | | Performance test (Method 10 at 40 CFR part 60, appendix A-4). |
| Dioxins/furans (total mass basis) | 4.6 nanograms per dry standard cubic meter | | | 3-run average (collect a minimum volume of 2 dry standard cubic meters) | | | | Performance test (Method 23 at 40 CFR part 60, appendix A-7). |
| Dioxins/furans (toxic equivalency basis) | 0.13 nanograms per dry standard cubic meter | | | 3-run average (collect a minimum volume of 2 dry standard cubic meters) | | | | Performance test (Method 23 at 40 CFR part 60, appendix A-7). |
| Hydrogen chloride | 29 parts per million dry volume | | | 3-run average (For Method 26, collect a minimum volume of 60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run) | | | | Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8). |
| Lead | 0.015 milligrams per dry standard cubic meterb | | | 3-run average (collect a minimum volume of 2 dry standard cubic meters) | | | | Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish. |
| Mercury | 0.0048 milligrams per dry standard cubic meter | | | 3-run average (For Method 29 an ASTM D6784-02 (Reapproved 2008), collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A) | | | | Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008). |
| Oxides of nitrogen | 53 parts per million dry volume | | | 3-run average (for Method 7E, 1 hour minimum sample time per run) | | | | Performance test (Method 7 or 7E at 40 CFR part 60, appendix A-4). |
| Particulate matter filterable | 34 milligrams per dry standard cubic meter | | | 3-run average (collect a minimum volume of 1 dry standard cubic meter) | | | | Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8). |
| Sulfur dioxide | 11 parts per million dry volume | | | 3-run average (1 hour minimum sample time per run) | | | | Performance test (Method 6 or 6c at 40 CFR part 60, appendix A-4). |
| Fugitive ash | Visible emissions for no more than 5% of the hourly observation period | | | Three 1-hour observation periods | | | | Visible emission test (Method 22 at 40 CFR part 60, appendix A-7). |
| a All emission limitations are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, the owner or operator must meet either the total mass basis limit or the toxic equivalency basis limit.  b If conducting stack tests to demonstrate compliance and the performance tests for this pollutant for at least 2 consecutive years show that emissions are at or below this limit, the owner or operator can skip testing according to OAR 340-230-0535 if all of the other provisions of OAR 340-230-0535 are met. For all other pollutants that do not contain a footnote “b”, the performance tests for this pollutant for at least 2 consecutive years must show that emissions are at or below 75 percent of this limit in order to qualify for skip testing. | | | | | | | | |
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| **Table 11**  **OAR 340-230-0518**  **Emission Limitations That Apply to Energy Recovery Units After February 7, 2018** | | | | | | | | |
| **For the air pollutant** | **The owner or operator must meet this emission limitationa** | | | | | **Using this averaging time** | | **And determining compliance using this method** |
| **Liquid/Gas** | | **Solids** | | |
| Cadmium | 0.023 milligrams per dry standard cubic meter | | Biomass—0.0014 milligrams per dry standard cubic meterb  Coal—0.0095 milligrams per dry standard cubic meter | | | 3-run average (collect a minimum volume of 2 dry standard cubic meters) | | Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish. |
| Carbon monoxide | 35 parts per million dry volume | | Biomass—260 parts per million dry volume  Coal—95 parts per million dry volume | | | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 10 at 40 CFR part 60, appendix A-4). |
| Dioxins/furans (total mass basis) | 2.9 nanograms per dry standard cubic meter | | Biomass—0.52 nanograms per dry standard cubic meterb  Coal—5.1 nanograms per dry standard cubic meterb | | | 3-run average (collect a minimum volume of 4 dry standard cubic meter) | | Performance test (Method 23 at 40 CFR part 60, appendix A-7). |
| Dioxins/furans (toxic equivalency basis) | 0.32 nanograms per dry standard cubic meter | | Biomass—0.12 nanograms per dry standard cubic meter  Coal—0.075 nanograms per dry standard cubic meterb | | | 3-run average (collect a minimum volume of 4 dry standard cubic meter) | | Performance test (Method 23 at 40 CFR part 60, appendix A-7). |
| Hydrogen chloride | 14 parts per million dry volume | | Biomass—0.20 parts per million dry volume  Coal—13 parts per million dry volume | | | 3-run average (for Method 26, collect a minimum of 120 liters, for Method 26A, collect a minimum volume of 1 dry standard cubic meter) | | Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8). |
| Lead | 0.096 milligrams per dry standard cubic meter | | Biomass—0.014 milligrams per dry standard cubic meterb  Coal—0.14 milligrams per dry standard cubic meterb | | | 3-run average (collect a minimum volume of 2 dry standard cubic meters) | | Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish. |
| Mercury | 0.0024 milligrams per dry standard cubic meter | | Biomass—0.0022 milligrams per dry standard cubic meter  Coal—0.016 milligrams per dry standard cubic meter | | | 3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008), collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A) | | Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008). |
| Oxides of nitrogen | 76 parts per million dry volume | | Biomass—290 parts per million dry volume  Coal—340 parts per million dry volume | | | 3-run average (for Method 7E, 1 hour minimum sample time per run) | | Performance test (Method 7E at 40 CFR part 60, appendix A-4). |
| Particulate matter filterable | 110 milligrams per dry standard cubic meter | | Biomass—11 milligrams per dry standard cubic meter  Coal—160 milligrams per dry standard cubic meter | | | 3-run average (collect a minimum volume of 1 dry standard cubic meter) | | Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8) if the unit has an annual average heat input rate less than or equal to 250 MMBtu/hr; or PM CEMS (as specified in OAR 340-230-0532(24)) if the unit has a design capacity greater than 250 MMBtu/hr. |
| Sulfur dioxide | 720 parts per million dry volume | | Biomass—7.3 parts per million dry volume  Coal—650 parts per million dry volume | | | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 6 or 6c at 40 CFR part 60, appendix A-4. |
| Fugitive ash | Visible emissions for no more than 5 percent of the hourly observation period | | Visible emissions for no more than 5 percent of the hourly observation period | | | Three 1-hour observation periods | | Visible emission test (Method 22 at 40 CFR part 60, appendix A-7). |
| a All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, the owner or operator must meet either the total mass basis limit or the toxic equivalency basis limit.  b If conducting stack tests to demonstrate compliance and the performance tests for this pollutant for at least 2 consecutive years show that emissions are at or below this limit, the owner or operator can skip testing according to OAR 340-230-0535 if all of the other provisions of OAR 340-230-0535 are met. For all other pollutants that do not contain a footnote “b”, the performance tests for this pollutant for at least 2 consecutive years must show that emissions are at or below 75 percent of this limit in order to qualify for skip testing, with the exception of annual performance tests to certify a CEMS or PM CEMS. | | | | | | | | |
| **Table 12**  **OAR 340-230-0518**  **Emission Limitations That Apply to Waste-Burning Kilns After February 7, 2018** | | | | | | | | |
| **For the air pollutant** | | **The owner or operator must meet this emission limitationa** | | | **Using this averaging time** | | **And determining compliance using this method** | |
| Cadmium | | 0.0014 milligrams per dry standard cubic meterb | | | 3-run average (collect a minimum volume of 2 dry standard cubic meters) | | Performance test (Method 29 at 40 CFR part 60, appendix A-8). | |
| Carbon monoxide | | 110 (long kilns)/790 (preheater/precalciner) parts per million dry volume | | | 3-run average (1 hour minimum sample time per run) | | Performance test (Method 10 at 40 CFR part 60, appendix A-4). | |
| Dioxins/furans (total mass basis) | | 1.3 nanograms per dry standard cubic meterb | | | 3-run average (collect a minimum volume of 4 dry standard cubic meter) | | Performance test (Method 23 at 40 CFR part 60, appendix A-7). | |
| Dioxins/furans (toxic equivalency basis) | | 0.075 nanograms per dry standard cubic meterb | | | 3-run average (collect a minimum volume of 4 dry standard cubic meter) | | Performance test (Method 23 at 40 CFR part 60, appendix A-7). | |
| Hydrogen chloride | | 3.0 parts per million dry volumeb | | | 3-run average (collect a minimum volume of 1 dry standard cubic meter) or 30-day rolling average if HCl CEMS is being used | | Performance test (Method 321 at 40 CFR part 63, appendix A) or HCl CEMS if a wet scrubber is not used. | |
| Lead | | 0.014 milligrams per dry standard cubic meterb | | | 3-run average (collect a minimum volume of 2 dry standard cubic meters) | | Performance test (Method 29 at 40 CFR part 60, appendix A-8). | |
| Mercury | | 0.011 milligrams per dry standard cubic meter | | | 30-day rolling average | | Mercury CEMS or sorbent trap monitoring system (performance specification 12A or 12B, respectively, of appendix B of this part.) | |
| Oxides of nitrogen | | 630 parts per million dry volume | | | 3-run average (for Method 7E, 1 hour minimum sample time per run) | | Performance test (Method 7 or 7E at 40 CFR part 60, appendix A-4). | |
| Particulate matter filterable | | 4.6 milligrams per dry standard cubic meter | | | 30-day rolling average | | PM CEMS (as specified in OAR 340-230-0532(24)). | |
| Sulfur dioxide | | 600 parts per million dry volume | | | 3-run average (for Method 6, collect a minimum of 20 liters; for Method 6C, 1 hour minimum sample time per run) | | Performance test (Method 6 or 6c at 40 CFR part 60, appendix A-4). | |
| a All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, the owner or operator must meet either the total mass basis limit or the toxic equivalency basis limit.  b If conducting stack tests to demonstrate compliance and the performance tests for this pollutant for at least 2 consecutive years show that emissions are at or below this limit, the owner or operator can skip testing according to OAR 340-230-0535 if all of the other provisions of OAR 340-230-0535 are met. For all other pollutants that do not contain a footnote “b”, the performance tests for this pollutant for at least 2 consecutive years must show that emissions are at or below 75 percent of this limit in order to qualify for skip testing, with the exception of annual performance tests to certify a CEMS or PM CEMS. | | | | | | | | |

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| **Table 13**  **OAR 340-230-0518**  **Emission Limitations That Apply to Small, Remote Incinerators After February 7, 2018** | | | |
| **For the air pollutant** | **The owner or operator must meet this emission limitationa** | **Using this averaging time** | **And determining compliance using this method** |
| Cadmium | 0.95 milligrams per dry standard cubic meter | 3-run average (collect a minimum volume of 1 dry standard cubic meter) | Performance test (Method 29 at 40 CFR part 60, appendix A-8). |
| Carbon monoxide | 64 parts per million dry volume | 3-run average (1 hour minimum sample time per run) | Performance test (Method 10 at 40 CFR part 60, appendix A-4). Use a span gas with a concentration of 50 ppm or less. |
| Dioxins/furans (total mass basis) | 4,400 nanograms per dry standard cubic metera | 3-run average (collect a minimum volume of 1 dry standard cubic meter) | Performance test (Method 23 at 40 CFR part 60, appendix A-7). |
| Dioxins/furans (toxic equivalency basis) | 180 nanograms per dry standard cubic metera | 3-run average (collect a minimum volume of 1 dry standard cubic meter) | Performance test (Method 23 at 40 CFR part 60, appendix A-7). |
| Fugitive ash | Visible emissions for no more than 5 percent of the hourly observation period | Three 1-hour observation periods | Visible emission test (Method 22 at 40 CFR part 60, appendix A-7). |
| Hydrogen chloride | 300 parts per million dry volume | 3-run average (For Method 26, collect a minimum volume of 120 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run) | Performance test (Method 26 or 26A at 40 CFR part 60, appendix A-8). |
| Lead | 2.1 milligrams per dry standard cubic meter | 3-run average (collect a minimum volume of 1 dry standard cubic meter) | Performance test (Method 29 at 40 CFR part 60, appendix A-8). Use ICPMS for the analytical finish. |
| Mercury | 0.0053 milligrams per dry standard cubic meter | 3-run average (For Method 29 and ASTM D6784-02 (Reapproved 2008), collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A) | Performance test (Method 29 or 30B at 40 CFR part 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008). |
| Oxides of nitrogen | 190 parts per million dry volume | 3-run average (for Method 7E, 1 hour minimum sample time per run) | Performance test (Method 7 or 7E at 40 CFR part 60, appendix A-4). |
| Particulate matter (filterable) | 270 milligrams per dry standard cubic meter | 3-run average (collect a minimum volume of 1 dry standard cubic meter) | Performance test (Method 5 or 29 at 40 CFR part 60, appendix A-3 or appendix A-8). |
| Sulfur dioxide | 150 parts per million dry volume | 3-run average (for Method 6, collect a minimum of 20 liters per run; for Method 6C, 1 hour minimum sample time per run) | Performance test (Method 6 or 6c at 40 CFR part 60, appendix A-4). |
| a All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans the owner or operator must meet either the total mass basis limit or the toxic equivalency basis limit. | | | |

**DIVISION 238**

**NEW SOURCE PERFORMANCE STANDARDS**

**340-238-0040**

**Definitions**

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

(1) "Administrator" means the Administrator of the EPA or authorized representative.

(2) “Affected facility” means, with reference to a stationary source, any apparatus to which a standard is applicable.

(3) "Capital expenditures" means an expenditure for a physical or operational change to an existing facility that exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in **Internal Revenue Service** (**IRS**) **Publication 534** and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

(4) "CFR" means Code of Federal Regulations and, unless otherwise expressly identified, refers to the July 1, 2013 edition.

(5) "Closed municipal solid waste landfill" (closed landfill) means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under 40 CFR 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A landfill is considered closed after meeting the criteria of 40 CFR 258.60.

(6) "Commenced", with respect to the definition of "new source" in section 111(a)(2) of the federal Clean Air Act, means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

(7) "Existing municipal solid waste landfill" (existing landfill) means a municipal solid waste landfill that began construction, reconstruction or modification before 5/30/91 and has accepted waste at any time since 11/08/87 or has additional design capacity available for future waste deposition.

(8) "Existing facility", with reference to a stationary source, means any apparatus of the type for which a standard is promulgated in 40 CFR Part 60, and the construction or modification of which commenced before the date of proposal by EPA of that standard; or any apparatus that could be altered in such a way as to be of that type.

(9) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(10) "Large municipal solid waste landfill" (large landfill) means a municipal solid waste landfill with a design capacity greater than or equal to 2.5 million megagrams or 2.5 million cubic meters.

(11) "Modification:"

(a) except as provided in subsection (b) of this section, means any physical change in, or change in the method of operation of, an existing facility that increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or that results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted;

(b) As used in OAR 340-238-0100 means an action that results in an increase in the design capacity of a landfill.

(12) "Municipal solid waste landfill" (landfill) means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads and may be publicly or privately owned. A municipal solid waste landfill may be a new municipal solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion (modification).

(13) "New municipal solid waste landfill" (new landfill) means a municipal solid waste landfill that began construction, reconstruction or modification or began accepting waste on or after 5/30/91.

(14) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

(a) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility; and

(b) It is technologically and economically feasible to meet the applicable standards set forth in 40 CFR Part 60.

(15) "Reference method" means any method of sampling and analyzing for an air pollutant as specified in 40 CFR Part 60.

(16) "Small municipal solid waste landfill" (small landfill) means a municipal solid waste landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters.

(17) "Standard" means a standard of performance proposed or promulgated under 40 CFR Part 60.

(18) "State Plan" means a plan developed for the control of a designated pollutant provided under 40 CFR Part 60.

Stat. Auth.: ORS 468.020  
Stats. Implemented: ORS 468A.025  
Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0510; DEQ 22-2000, f. & cert. ef. 12-18-00; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 15-2008, f. & cert. ef 12-31-08; DEQ 8-2009, f. & cert. ef. 12-16-09; DEQ 1-2011, f. & cert. ef. 2-24-11

**340-238-0060**

**Federal Regulations Adopted by Reference**

(1) Except as provided in section (2) of this rule, **40 CFR Part 60 Subparts A**, **D through XX**, **BBB through AAAA**, **CCCC**, **EEEE**, **LLLL**, and **KKKK** are by this reference adopted and incorporated herein, and 40 CFR Part 60 Subpart OOO is by this reference adopted and incorporated herein for major sources only.

(2) Where "Administrator" or "EPA" appears in 40 CFR Part 60, "DEQ" is substituted, except in any section of 40 CFR Part 60 for which a federal rule or delegation specifically indicates that authority must not be delegated to the state.

(3) 40 CFR Part 60 Subparts adopted by this rule are titled as follows:

(a) Subpart A — General Provisions;

(b) Subpart D — Fossil-fuel-fired steam generators for which construction is commenced after August 17, 1971;

(c) Subpart Da — Electric utility steam generating units for which construction is commenced after September 18, 1978;

(d) Subpart Db — Industrial-commercial-institutional steam generating units;

(e) Subpart Dc — Small industrial-commercial-institutional steam generating units;

(f) Subpart E — Incinerators;

(g) Subpart Ea — Municipal waste combustors for which construction is commenced after December 20, 1989 and on or before September 20, 1994;

(h) Subpart Eb — Municipal waste combustors for which construction is commenced after September 20, 1994;

(i) Subpart Ec — Hospital/Medical/Infectious waste incinerators that commenced construction after June 20, 1996, or for which modification is commenced after March 16, 1998;

(j) Subpart F — Portland cement plants;

(k) Subpart G — Nitric acid plants;

(l) Subpart Ga — Nitric acid plants for which construction, reconstruction, or modification commenced after October 14, 2011;

(m) Subpart H — Sulfuric acid plants;

(n) Subpart I — Hot mix asphalt facilities;

(o) Subpart J — Petroleum refineries;

(p) Subpart K — Storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after June 11, 1973, and before May 19, 1978;

(q) Subpart Ka — Storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978, and before July 23, 1984;

(r) Subpart Kb — Volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984;

(s) Subpart L — Secondary lead smelters;

(t) Subpart M — Secondary brass and bronze production plants;

(u) Subpart N — Primary emissions from basic oxygen process furnaces for which construction is commenced after June 11, 1973;

(v) Subpart Na — Secondary emissions from basic oxygen process steelmaking facilities for which construction is commenced after January 20, 1983;

(w) Subpart O — Sewage treatment plants;

(x) Subpart P — Primary copper smelters;

(y) Subpart Q — Primary Zinc smelters;

(z) Subpart R — Primary lead smelters;

(aa) Subpart S — Primary aluminum reduction plants;

(bb) Subpart T — Phosphate fertilizer industry: wet-process phosphoric acid plants;

(cc) Subpart U — Phosphate fertilizer industry: superphosphoric acid plants;

(dd) Subpart V — Phosphate fertilizer industry: diammonium phosphate plants;

(ee) Subpart W — Phosphate fertilizer industry: triple superphosphate plants;

(ff) Subpart X — Phosphate fertilizer industry: granular triple superphosphate storage facilities;

(gg) Subpart Y — Coal preparation plants;

(hh) Subpart Z — Ferroalloy production facilities;

(ii) Subpart AA — Steel plants: electric arc furnaces constructed after October 21, 1974 and on or before August 17, 1983;

(jj) Subpart AAa — Steel plants: electric arc furnaces and argon-oxygen decarburization vessels constructed after august 7, 1983;

(kk) Subpart BB — Kraft pulp mills;

(ll) Subpart CC — Glass manufacturing plants;

(mm) Subpart DD — Grain elevators.

(nn) Subpart EE — Surface coating of metal furniture;

(oo) Subpart GG — Stationary gas turbines;

(pp) Subpart HH — Lime manufacturing plants;

(qq) Subpart KK — Lead-acid battery manufacturing plants;

(rr) Subpart LL — Metallic mineral processing plants;

(ss) Subpart MM — Automobile and light-duty truck surface coating operations;

(tt) Subpart NN — Phosphate rock plants;

(uu) Subpart PP — Ammonium sulfate manufacture;

(vv) Subpart QQ — Graphic arts industry: publication rotogravure printing;

(ww) Subpart RR — pressure sensitive tape and label surface coating operations;

(xx) Subpart SS — Industrial surface coating: large appliances;

(yy) Subpart TT — Metal coil surface coating;

(zz) Subpart UU — Asphalt processing and asphalt roofing manufacture;

(aaa) Subpart VV — Equipment leaks of VOC in the synthetic organic chemicals manufacturing industry;

(bbb) Suppart VVa — Equipment leaks of VOC in the synthetic organic chemicals manufacturing industry;

(ccc) Subpart WW — Beverage can surface coating industry;

(ddd) Subpart XX — Bulk gasoline terminals;

(eee) Subpart BBB — Rubber tire manufacturing industry;

(fff) Subpart DDD — Volatile organic compound (VOC) emissions for the polymer manufacture industry;

(ggg) Subpart FFF — Flexible vinyl and urethane coating and printing;

(hhh) Subpart GGG — Equipment leaks of VOC in petroleum refineries;

(iii) Subpart GGGa — Equipment leaks of VOC in petroleum refineries;

(jjj) Subpart HHH — Synthetic fiber production facilities;

(kkk) Subpart III — Volatile organic compound (VOC) emissions from the synthetic organic chemical manufacturing industry (SOCMI) air oxidation unit processes;

(lll) Subpart JJJ — Petroleum dry cleaners;

(mmm) Subpart KKK — Equipment leaks of VOC from onshore natural gas processing plants;

(nnn) Subpart LLL — Onshore natural gas processing; SO2 emissions;

(ooo) Subpart NNN — Volatile organic compound (VOC) emissions from synthetic organic chemical manufacturing industry (SOCMI) distillation operations;

(ppp) Subpart OOO — Nonmetallic mineral processing plants (adopted by reference for major sources only);

(qqq) Subpart PPP — Wool fiberglass insulation manufacturing plants;

(rrr) Subpart QQQ — VOC emissions from petroleum refinery wastewater systems;

(sss) Subpart RRR — Volatile organic compound emissions from synthetic organic chemical manufacturing industry (SOCMI) reactor processes;

(ttt) Subpart SSS — Magnetic tape coating facilities;

(uuu) Subpart TTT — Industrial surface coating: surface coating of plastic parts for business machines;

(vvv) Subpart UUU — Calciners and dryers in mineral industries;

(www) Subpart VVV — Polymeric coating of supporting substrates facilities;

(xxx) Subpart WWW — Municipal solid waste landfills, as clarified by OAR 340-238-0100;

(yyy) Subpart AAAA — Small municipal waste combustion units;

(zzz) Subpart CCCC — Commercial and industrial solid waste incineration units;

(aaaa) Subpart EEEE — Other solid waste incineration units;

(bbbb) Subpart IIII — Stationary compression ignition internal combustion engines, excluding the requirements for engine manufacturers (40 CFR 60.4201 through 60.4203, 60.4210, 60.4215, and 60.4216);

(cccc) Subpart JJJJ — Stationary spark ignition internal combustion engines, excluding the requirements for engine manufacturers (40 CFR 60.4231 through 60.4232, 60.4238 through 60.4242, and 60.4247);

(dddd) Subpart KKKK — Stationary combustion turbines;

(eeee) Subpart LLLL — Sewage sludge incineration units;

(ffff) Subpart OOOO — Crude oil and natural gas production, transmission and distribution.

Stat. Auth.: ORS 468.020  
Stats. Implemented: ORS 468A.025  
Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; sections (1) thru (12) of this rule renumbered to 340-025-0550 thru 340-025-0605; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0535; DEQ 22-2000, f. & cert. ef. 12-18-00; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 15-2008, f. & cert. ef 12-31-08; DEQ 1-2011, f. & cert. ef. 2-24-11

**DIVISION 244**

**OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM**

**General Provisions for Stationary Sources**

**340-244-0030**

**Definitions**

The definitions in OAR 340-200-0020, 340-218-0030 and this rule apply to this division. If the same term is defined in this rule and OAR 340-200-0020 or 340-218-0030, the definition in this rule applies to this division.

(1) “Affected source” is as defined in 40 CFR 63.2.

(2) "Annual throughput" means the amount of gasoline transferred into a gasoline dispensing facility during 12 consecutive months.

(3) "Area Source" means any stationary source which has the potential to emit hazardous air pollutants but is not a major source of hazardous air pollutants.

(4) "CFR" means Code of Federal Regulations and, unless otherwise expressly identified, refers to the July 1, 2013 edition.

(5) "Construct a major source" means to fabricate, erect, or install at any greenfield site a stationary source or group of stationary sources which is located within a contiguous area and under common control and which emits or has the potential to emit 10 tons per year of any HAPs or 25 tons per year of any combination of HAP, or to fabricate, erect, or install at any developed site a new process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, unless the process or production unit satisfies criteria in paragraphs (a) through (f) of this definition:

(a) All HAP emitted by the process or production unit that would otherwise be controlled under the requirements of 40 CFR Part 63, Subpart B will be controlled by emission control equipment which was previously installed at the same site as the process or production unit;

(b) DEQ has determined within a period of 5 years prior to the fabrication, erection, or installation of the process or production unit that the existing emission control equipment represented the best available control technology (BACT), lowest achievable emission rate (LAER) under 40 CFR part 51 or 52, toxics-best available control technology (T-BACT), or MACT based on State air toxic rules for the category of pollutants which includes those HAP to be emitted by the process or production unit; or DEQ determines that the control of HAP emissions provided by the existing equipment will be equivalent to that level of control currently achieved by other well-controlled similar sources (i.e., equivalent to the level of control that would be provided by a current BACT, LAER, T-BACT, or State air toxic rule MACT determination).

(c) DEQ determines that the percent control efficiency for emission of HAP from all sources to be controlled by the existing control equipment will be equivalent to the percent control efficiency provided by the control equipment prior to the inclusion of the new process or production unit;

(d) DEQ has provided notice and an opportunity for public comment concerning its determination that criteria in paragraphs (a), (b), and (c) of this definition apply and concerning the continued adequacy of any prior LAER, BACT, T-BACT, or State air toxic rule MACT determination;

(e) If any commenter has asserted that a prior LAER, BACT, T-BACT, or State air toxic rule MACT determination is no longer adequate, DEQ has determined that the level of control required by that prior determination remains adequate; and

(f) Any emission limitations, work practice requirements, or other terms and conditions upon which the above determinations by DEQ are predicated will be construed by DEQ as applicable requirements under section 504(a) and either have been incorporated into any existing Title V permit for the affected facility or will be incorporated into such permit upon issuance.

(6) “Dual-point vapor balance system” means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

(7) "Emissions Limitation" and "Emissions Standard" mean a requirement adopted by DEQ or Regional Agency, or proposed or promulgated by the Administrator of the EPA, which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

(8) "Equipment leaks" means leaks from pumps, compressors, pressure relief devices, sampling connection systems, open ended valves or lines, valves, connectors, agitators, accumulator vessels, and instrumentation systems in hazardous air pollutant service.

(9) "Existing Source" means any source, the construction of which commenced prior to proposal of an applicable standard under sections 112 or 129 of the FCAA.

(10) "Facility" means all or part of any public or private building, structure, installation, equipment, or vehicle or vessel, including but not limited to ships.

(11) “Gasoline” means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals (4.0 psi) or greater, which is used as a fuel for internal combustion engines.

(12) “Gasoline cargo tank” means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

(13) “Gasoline dispensing facility (GDF)” means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline fueled engines and equipment. In Clackamas, Multnomah and Washington Counties, the Medford-Ashland Air Quality Maintenance Area, and the Salem-Keizer Area Transportation Study area, “gasoline dispensing facility” includes any stationary facility which dispenses gasoline into the fuel tank of an airplane.

(14) "Hazardous Air Pollutant" (HAP) means an air pollutant listed by the EPA pursuant to section 112(b) of the FCAA or determined by the Commission to cause, or reasonably be anticipated to cause, adverse effects to human health or the environment.

(15) "Major Source" means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The EPA may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.

(16) "Maximum Achievable Control Technology (MACT)" means an emission standard applicable to major sources of hazardous air pollutants that requires the maximum degree of reduction in emissions deemed achievable for either new or existing sources.

(17) “Monthly throughput” means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

(18) “Motor vehicle” means any self-propelled vehicle designed for transporting persons or property on a street or highway.

(19) “Nonroad engine” means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

(20) “Nonroad vehicle” means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

(21) "New Source" means a stationary source, the construction of which is commenced after proposal of a federal MACT or January 3, 1993 of this Division, whichever is earlier.

(22) "Potential to Emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the EPA. This section does not alter or affect the use of this section for any other purposes under the Act, or the term "capacity factor" as used in Title IV of the Act or the regulations promulgated thereunder. Secondary emissions shall not be considered in determining the potential to emit of a source.

(23) "Reconstruct a Major Source" means the replacement of components at an existing process or production unit that in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, whenever: the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable process or production unit; and; it is technically and economically feasible for the reconstructed major source to meet the applicable maximum achievable control technology emission limitation for new sources established under 40 CFR Part 63 Subpart B.

(24) "Regulated Air Pollutant" as used in this Division means:

(a) Any pollutant listed under OAR 340-244-0040; or

(b) Any pollutant that is subject to a standard promulgated pursuant to Section 129 of the Act.

(25) "Section 112(n)" means that subsection of the FCAA that includes requirements for the EPA to conduct studies on the hazards to public health prior to developing emissions standards for specified categories of hazardous air pollutant emission sources.

(26) "Section 112(r)" means that subsection of the FCAA that includes requirements for the EPA promulgate regulations for the prevention, detection and correction of accidental releases.

(27) "Solid Waste Incineration Unit" as used in this Division shall have the same meaning as given in Section 129(g) of the FCAA.

(28) "Stationary Source", as used in OAR 340 division 244, means any building, structure, facility, or installation which emits or may emit any regulated air pollutant;

(29) “Submerged filling” means the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in OAR 340-244-0240(3) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

(30) “Topping off” means, in the absence of equipment malfunction, continuing to fill a gasoline tank after the nozzle has clicked off.

(31) “Vapor balance system” means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

(32) “Vapor-tight” means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

(33) “Vapor-tight gasoline cargo tank” means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in 40 CFR 63.11092(f).

[Publications: Publications referenced are available from DEQ.]

Stat. Auth.: ORS 468.020 & 468A.025  
Stats. Implemented: ORS 468A.040  
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 26-1996, f. & cert. ef. 11-26-96; DEQ 20-1997, f. & cert. ef. 9-25-97; DEQ 18-1998, f. & cert. ef. 10-5-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0120; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 15-2008, f. & cert. ef 12-31-08; DEQ 8-2009, f. & cert. ef. 12-16-09; DEQ 1-2011, f. & cert. ef. 2-24-11

**340-244-0220**

**Federal Regulations Adopted by Reference**

(1) Except as provided in sections (2) and (3) of this rule, **40 CFR Part 61, Subparts A, C through F, J, L, N through P, V, and Y through FF and 40 CFR Part 63, Subparts A, F through J, L through O, Q through Y, AA through EE, GG through MM, OO through YY, CCC through EEE, GGG through JJJ, LLL through RRR, TTT through VVV, XXX, AAAA, CCCC through KKKK, MMMM through ZZZZ, AAAAA through NNNNN, PPPPP through UUUUU, WWWWW , YYYYY, ZZZZZ, BBBBBB, DDDDDD through HHHHHH, JJJJJJ, LLLLLL through TTTTTT, VVVVVV through EEEEEEE, and HHHHHHH** are adopted by reference and incorporated herein.

(2) Where "Administrator" or "EPA" appears in 40 CFR Part 61 or 63, "DEQ" is substituted, except in any section of 40 CFR Part 61 or 63, for which a federal rule or delegation specifically indicates that authority will not be delegated to the state.

(3) 40 CFR Part 63 Subpart M -- Dry Cleaning Facilities using Perchloroethylene: The exemptions in 40 CFR 63.320(d) and (e) do not apply.

(4) 40 CFR Part 61 Subparts adopted by this rule are titled as follows:

(a) Subpart A -- General Provisions;

(b) Subpart C -- Beryllium;

(c) Subpart D -- Beryllium Rocket Motor Firing;

(d) Subpart E -- Mercury;

(e) Subpart F -- Vinyl Chloride;

(f) Subpart J -- Equipment Leaks (Fugitive Emission Sources) of Benzene;

(g) Subpart L -- Benzene Emissions from Coke By-Product Recovery Plants;

(h) Subpart N -- Inorganic Arsenic Emissions from Glass Manufacturing Plants;

(i) Subpart O -- Inorganic Arsenic Emissions from Primary Copper Smelters;

(j) Subpart P -- Inorganic Arsenic Emissions from Arsenic Trioxide and Metal Arsenic Facilities;

(k) Subpart V -- Equipment Leaks (Fugitive Emission Sources);

(l) Subpart Y -- Benzene Emissions from Benzene Storage Vessels;

(m) Subpart BB -- Benzene Emissions from Benzene Transfer Operations; and

(n) Subpart FF -- Benzene Waste Operations.

(5) 40 CFR Part 63 Subparts adopted by this rule are titled as follows:

(a) Subpart A -- General Provisions;

(b) Subpart F -- SOCMI;

(c) Subpart G -- SOCMI -- Process Vents, Storage Vessels, Transfer Operations, and Wastewater;

(d) Subpart H -- SOCMI -- Equipment Leaks;

(e) Subpart I -- Certain Processes Subject to the Negotiated Regulation for Equipment Leaks;

(f) Subpart J -- Polyvinyl Chloride and Copolymers Production;

(g) Subpart L -- Coke Oven Batteries;

(h) Subpart M -- Perchloroethylene Air Emission Standards for Dry Cleaning Facilities;

(i) Subpart N -- Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks;

(j) Subpart O -- Ethylene Oxide Emissions Standards for Sterilization Facilities;

(k) Subpart Q -- Industrial Process Cooling Towers;

(l) Subpart R -- Gasoline Distribution (Bulk Gasoline Terminals and Pipeline Breakout Stations);

(m) Subpart S -- Pulp and Paper Industry;

(n) Subpart T -- Halogenated Solvent Cleaning;

(o) Subpart U -- Group I Polymers and Resins;

(p) Subpart W -- Epoxy Resins and Non-Nylon Polyamides Production;

(q) Subpart X -- Secondary Lead Smelting;

(r) Subpart Y -- Marine Tank Vessel Loading Operations;

(s) Subpart AA -- Phosphoric Acid Manufacturing Plants;

(t) Subpart BB -- Phosphate Fertilizer Production Plants;

(u) Subpart CC -- Petroleum Refineries;

(v) Subpart DD -- Off-Site Waste and Recovery Operations;

(w) Subpart EE -- Magnetic Tape Manufacturing Operations;

(x) Subpart GG -- Aerospace Manufacturing and Rework Facilities;

(y) Subpart HH -- Oil and Natural Gas Production Facilities;

(z) Subpart II -- Shipbuilding and Ship Repair (Surface Coating);

(aa) Subpart JJ -- Wood Furniture Manufacturing Operations;

(bb) Subpart KK -- Printing and Publishing Industry;

(cc) Subpart LL -- Primary Aluminum Reduction Plants;

(dd) Subpart MM -- Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite and Stand-Alone Semi-Chemical Pulp Mills;

(ee) Subpart OO -- Tanks -- Level 1;

(ff) Subpart PP -- Containers;

(gg) Subpart QQ -- Surface Impoundments;

(hh) Subpart RR -- Individual Drain Systems;

(ii) Subpart SS -- Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process;

(jj) Subpart TT -- Equipment Leaks -- Control Level 1;

(kk) Subpart UU -- Equipment Leaks -- Control Level 2;

(ll) Subpart VV -- Oil-Water Separators and Organic-Water Separators;

(mm) Subpart WW -- Storage Vessels (Tanks) -- Control Level 2;

(nn) Subpart XX -- Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations;

(oo) Subpart YY -- Generic Maximum Achievable Control Technology Standards;

(pp) Subpart CCC -- Steel Pickling -- HCl Process Facilities and Hydrochloric Acid Regeneration Plants;

(qq) Subpart DDD -- Mineral Wool Production;

(rr) Subpart EEE -- Hazardous Waste Combustors;

(ss) Subpart GGG -- Pharmaceuticals Production;

(tt) Subpart HHH -- Natural Gas Transmission and Storage Facilities;

(uu) Subpart III -- Flexible Polyurethane Foam Production;

(vv) Subpart JJJ -- Group IV Polymers and Resins;

(ww) Subpart LLL -- Portland Cement Manufacturing Industry;

(xx) Subpart MMM -- Pesticide Active Ingredient Production;

(yy) Subpart NNN -- Wool Fiberglass Manufacturing;

(zz) Subpart OOO -- Manufacture of Amino/Phenolic Resins;

(aaa) Subpart PPP -- Polyether Polyols Production;

(bbb) Subpart QQQ -- Primary Copper Smelting;

(ccc) Subpart RRR -- Secondary Aluminum Production;

(ddd) Subpart TTT -- Primary Lead Smelting;

(eee) Subpart UUU -- Petroleum Refineries -- Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units;

(fff) Subpart VVV -- Publicly Owned Treatment Works;

(ggg) Subpart XXX -- Ferroalloys Production: Ferromanganese and Silicomanganese;

(hhh) Subpart AAAA -- Municipal Solid Waste Landfills;

(iii) Subpart CCCC -- Manufacturing of Nutritional Yeast;

(jjj) Subpart DDDD -- Plywood and Composite Wood Products;

(kkk) Subpart EEEE -- Organic Liquids Distribution (non-gasoline);

(lll) Subpart FFFF -- Miscellaneous Organic Chemical Manufacturing;

(mmm) Subpart GGGG -- Solvent Extraction for Vegetable Oil Production;

(nnn) Subpart HHHH -- Wet Formed Fiberglass Mat Production;

(ooo) Subpart IIII -- Surface Coating of Automobiles and Light-Duty Trucks;

(ppp) Subpart JJJJ -- Paper and Other Web Coating;

(qqq) Subpart KKKK -- Surface Coating of Metal Cans;

(rrr) Subpart MMMM -- Surface Coating of Miscellaneous Metal Parts and Products;

(sss) Subpart NNNN -- Surface Coating of Large Appliances;

(ttt) Subpart OOOO -- Printing, Coating, and Dyeing of Fabrics and Other Textiles;

(uuu) Subpart PPPP -- Surface Coating of Plastic Parts and Products;

(vvv) Subpart QQQQ -- Surface Coating of Wood Building Products;

(www) Subpart RRRR -- Surface Coating of Metal Furniture;

(xxx) Subpart SSSS -- Surface Coating of Metal Coil;

(yyy) Subpart TTTT -- Leather Finishing Operations;

(zzz) Subpart UUUU -- Cellulose Production Manufacturing;

(aaaa) Subpart VVVV -- Boat Manufacturing;

(bbbb) Subpart WWWW -- Reinforced Plastics Composites Production;

(cccc) Subpart XXXX -- Rubber Tire Manufacturing;

(dddd) Subpart YYYY -- Stationary Combustion Turbines;

(eeee) Subpart ZZZZ -- Reciprocating Internal Combustion Engines;

(ffff) Subpart AAAAA -- Lime Manufacturing;

(gggg) Subpart BBBBB -- Semiconductor Manufacturing;

(hhhh) Subpart CCCCC -- Coke Ovens: Pushing, Quenching & Battery Stacks;

(iiii) Subpart DDDDD – Industrial, Commercial, and Institutional Boilers and Process Heaters;

(jjjj) Subpart EEEEE -- Iron and Steel Foundries;

(kkkk) Subpart FFFFF -- Integrated Iron and Steel Manufacturing Facilities;

(llll) Subpart GGGGG -- Site Remediation;

(mmmm) Subpart HHHHH -- Misc. Coating Manufacturing;

(nnnn) Subpart IIIII -- Mercury Cell Chlor-Alkali Plants;

(oooo) Subpart JJJJJ -- Brick and Structural Clay Products Manufacturing;

(pppp) Subpart KKKKK -- Clay Ceramics Manufacturing;

(qqqq) Subpart LLLLL -- Asphalt Processing & Asphalt Roofing Manufacturing;

(rrrr) Subpart MMMMM -- Flexible Polyurethane Foam Fabrication Operations;

(ssss) Subpart NNNNN -- Hydrochloric Acid Production;

(tttt) Subpart PPPPP -- Engine Tests Cells/Stands;

(uuuu) Subpart QQQQQ -- Friction Materials Manufacturing Facilities;

(vvvv) Subpart RRRRR -- Taconite Iron Ore Processing;

(wwww) Subpart SSSSS -- Refractory Products Manufacturing;

(xxxx) Subpart TTTTT -- Primary Magnesium Refining;

(yyyy) Subpart UUUUU -- Coal- and Oil-Fired Electric Utility Steam Generating Units;

(zzzz) Subpart WWWWW -- Area Sources: Hospital Ethylene Oxide Sterilization;

(aaaaa) Subpart YYYYY -- Area Sources: Electric Arc Furnace Steelmaking Facilities;

(bbbbb) Subpart ZZZZZ -- Area Sources: Iron and Steel Foundries;

(ccccc) Subpart BBBBBB -- Area Sources: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities;

(ddddd) Subpart DDDDDD -- Area Sources: Polyvinyl Chloride and Copolymers Production;

(eeeee) Subpart EEEEEE -- Area Sources: Primary Copper Smelting;

(fffff) Subpart FFFFFF -- Area Sources: Secondary Copper Smelting;

(ggggg) Subpart GGGGGG -- Area Sources: Primary Nonferrous Metals -- Zinc, Cadmium, and Beryllium;

(hhhhh) Subpart HHHHHH -- Area Sources: Paint Stripping and Miscellaneous Surface Coating Operations;

(iiiii) Subpart JJJJJJ -- Area Sources: Industrial, Commercial, and Institutional Boilers;

(jjjjj) Subpart LLLLLL -- Area Sources: Acrylic and Modacrylic Fibers Production;

(kkkkk) Subpart MMMMMM -- Area Sources: Carbon Black Production;

(lllll) Subpart NNNNNN -- Area Sources: Chemical Manufacturing: Chromium Compounds;

(mmmmm) Subpart OOOOOO -- Area Sources: Flexible Polyurethane Foam Production;

(nnnnn) Subpart PPPPPP -- Area Sources: Lead Acid Battery Manufacturing;

(ooooo) Subpart QQQQQQ -- Area Sources: Wood Preserving;

(ppppp) Subpart RRRRRR -- Area Sources: Clay Ceramics Manufacturing;

(qqqqq) Subpart SSSSSS -- Area Sources: Glass Manufacturing;

(rrrrr) Subpart TTTTTT -- Area Sources: Secondary Nonferrous Metals Processing;

(sssss) Subpart VVVVVV – Area Sources: Chemical Manufacturing;

(ttttt) Subpart WWWWWW -- Area Source: Plating and Polishing Operations;

(uuuuu) Subpart XXXXXX -- Area Source: Nine Metal Fabrication and Finishing Source Categories;

(vvvvv) Subpart YYYYYY -- Area Sources: Ferroalloys Production Facilities;

(wwwww) Subpart ZZZZZZ -- Area Sources: Aluminum, Copper, and Other Nonferrous Foundries;

(xxxxx) Subpart AAAAAAA – Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing;

(yyyyy) Subpart BBBBBBB -- Area Sources: Chemical Preparations Industry;

(zzzzz) Subpart CCCCCCC -- Area Sources: Paints and Allied Products Manufacturing;

(aaaaaa) Subpart DDDDDDD -- Area Sources: Prepared Feeds Manufacturing;

(bbbbbb) Subpart EEEEEEE -- Area Sources: Gold Mine Ore Processing and Production;

(cccccc) Subpart HHHHHHH -- Polyvinyl Chloride and Copolymers Production.

Stat. Auth.: ORS 468.020  
Stats. Implemented: ORS 468A.025  
Hist.: [DEQ 16-1995, f. & cert. ef. 6-21-95; DEQ 28-1996, f. & cert. ef. 12-19-96; DEQ 18-1998, f. & cert. ef. 10-5-98]; [DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 32-1994, f. & cert. ef. 12-22-94]; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0510, 340-032-5520; DEQ 11-2000, f. & cert. ef. 7-27-00; DEQ 15-2001, f. & cert. ef. 12-26-01; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 15-2008, f. & cert. ef 12-31-08; DEQ 8-2009, f. & cert. ef. 12-16-09; DEQ 1-2011, f. & cert. ef. 2-24-11