

3745-17-11 Restrictions on particulate emissions from industrial processes.**(A) General provisions:**

- (1) This rule applies to any operation, process, or activity which releases or may release particulate emissions into the ambient air except:
 - (a) The burning of fuel for the primary purpose of producing heat or power by indirect heating in which the products of combustion do not come into direct contact with process materials;
 - (b) The burning of refuse;
 - (c) The processing of salvageable material by burning;
 - (d) The loading of ships and the drying of grain at grain elevator operations;
 - (e) Salt glazing in a gas-fired periodic brick or tile kiln, for a period of not more than two hours during any twenty-one consecutive days of operation of said kiln;
 - (f) The generation of fugitive dust which the director has determined is subject to rule 3745-17-08 of the Administrative Code;
 - (g) Any such operation, process, or activity which is subject to a particulate emission limitation contained in rule 3745-17-12 or 3745-17-13 of the Administrative Code;
 - (h) Surface coating processes that apply only dip coatings, roll coatings, flow coatings, or brush coatings;
 - (i) Surface coating processes that use less than five gallons of coatings per day, provided the owner or operator maintains coating usage records, coating purchase records, and/or production records that clearly demonstrate the actual coating usage is less than five gallons per day;
 - (j) Surface coating processes (e.g., for sealers, adhesives, and deadeners) that employ airless spray and bead-type (extrusion) application methods;
 - (k) Surface coating processes that employ hand-held cup spray guns;
 - (l) Surface coating processes for which the owner or operator demonstrates to

the satisfaction of the director that, due to the large size of the item(s) being coated, it is technically infeasible and/or economically unreasonable (in terms of cost-effectiveness) to employ an enclosure (or hooding) and control device for the control of the particulate emissions (any such exemption approved by the Director must be approved by the United States environmental protection agency as a revision of the state implementation plan); and

(m) Jet engine test cells and stands.

(2) Emission restriction requirements for sources, which are not subject to the requirements of paragraph (B)(4), (B)(5), (B)(6) or (C) of this rule or which are not exempted under paragraph (A)(1) of this rule, are specified in "Figure II" and in "Table I" in the appendix to this rule. "Figure II" in the appendix to this rule relates uncontrolled mass rate of emission (abscissa) to maximum allowable mass rate of emission (ordinate). A source complies with the requirements of "Figure II" in the appendix to this rule if its particulate emission rate, even during operation at the maximum capacity of the source, is always equal to or less than the allowable mass rate of emission of particulate matter (A) based upon the uncontrolled mass rate of emission (U). "Table I" in the appendix to this rule relates process weight of materials introduced into any specific process (at its maximum capacity) that may result in particulate emissions to maximum allowable mass rate of emission. A source complies with the requirements of "Table I" in the appendix to this rule if its rate of particulate emission, even during operation at the process weight rate (P) which reflects the maximum capacity of the source, is always equal to or less than the allowable rate of particulate emission specified by the appropriate equation appearing at the bottom of "Table I" in the appendix to this rule and incorporating the process weight rate (P) which reflects the maximum capacity of the source. Except as otherwise indicated in paragraphs (A)(2)(a) to (A)(2)(c) of this rule, the more stringent of the two requirements shall apply.

(a) "Figure II" in the appendix to this rule shall not apply:

- (i) To any source where the uncontrolled mass rate of emission cannot be ascertained;
- (ii) To any source with an uncontrolled mass rate of emission of less than ten pounds per hour; or
- (iii) To any fluid catalytic cracking unit at a petroleum refinery.

(b) "Table I" in the appendix to this rule shall not apply:

(i) To any source where the process weight rate cannot be ascertained;
or

(ii) To any source which is located within the counties specified in paragraphs (B)(2) and (B)(3) of this rule, except as provided in paragraph (A)(2)(c) of this rule.

(c) "Table I" in the appendix to this rule shall apply to any fluid catalytic cracking unit at a petroleum refinery.

(3) For purposes of "Figure II" in the appendix to this rule, the total uncontrolled mass rate of emission from all similar process units at a plant, such units being united either physically or operationally, or otherwise located in close proximity to each other, shall be used for determining the maximum allowable mass rate of particulate emissions that pass through a stack or stacks from all such units.

(4) For purposes of "Table I" in the appendix to this rule, process weight per hour is the total weight of all materials introduced into any single, specific process (at its maximum capacity) that may cause any emission of particulate matter. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. For a cyclical or batch operation, the process weight per hour will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle. For a continuous operation, the process weight per hour will be derived by dividing the process weight for a given period of time by the number of hours in that period. For fluid catalytic cracking units at petroleum refineries, "process weight" shall mean the total weight of recirculated catalyst and cold catalyst introduced into the catalyst regenerator.

(5) An air contaminant source can be subject to both of the requirements of rule 3745-17-08 of the Administrative Code and this rule if it is a fugitive dust source, as defined in paragraph (B)(7) of 3745-17-01 of the Administrative Code, and also emits, by means of one or more stacks, particulate matter that is subject to a limitation(s) in rule 3745-17-08 of the Administrative Code.

(B) Emission limitations:

- (1) Except as specified in paragraph (B)(4) , (B)(5), (B) (6) or (C) of this rule, any owner or operator of a source of particulate emissions which is located within the following counties shall operate said source so that the particulate emissions do not exceed the allowable emission rate specified by "curve P-1" of "Figure II" or by "Table I" in the appendix to this rule, whichever is applicable under paragraph (A)(2) of this rule: Adams, Allen, Ashtabula, Athens, Belmont, Brown, Butler, Clark, Clermont, Clinton, Columbiana, Coshocton, Cuyahoga, Darke, Defiance, Delaware, Fairfield, Franklin, Gallia, Geauga, Greene, Hamilton, Henry, Jackson, Jefferson, Lake, Lawrence, Licking, Lorain, Lucas, Madison, Mahoning, Medina, Meigs, Miami, Monroe, Montgomery, Morgan, Muskingum, Noble, Perry, Pickaway, Portage, Preble, Richland, Ross, Sandusky, Scioto, Seneca, Shelby, Stark, Summit, Trumbull, Union, Warren, Washington, Wyandot and Wood.
- (2) Except as otherwise provided in paragraph (B)(4), (B)(5) or (C) of this rule, any owner or operator of a source of emissions which is located within the following counties shall operate said source so that the particulate emissions do not exceed the allowable emission rate specified by "curve P-2" of "Figure II" in the appendix to this rule: Ashland, Auglaize, Carroll, Champaign, Crawford, Fulton, Guernsey, Hancock, Hardin, Harrison, Holmes, Knox, Logan, Marion, Mercer, Morrow, Paulding, Putnam, Tuscarawas, Van Wert, Wayne and Williams.
- (3) Except as otherwise provided in paragraph (B)(4), (B)(5) or (C) of this rule, any owner or operator of a source of particulate emissions which is located within the following counties shall operate said source so that the particulate emissions do not exceed the allowable emission rate specified by "curve P-3" of "Figure II" in the appendix to this rule: Erie, Fayette, Highland, Hocking, Huron, Ottawa, Pike and Vinton.
- (4) Any owner or operator of a stationary gas turbine shall not cause or permit the particulate emissions from the turbine's exhaust to exceed 0.040 pound per million Btu of actual heat input.
- (5) Any owner or operator of a stationary internal combustion engine shall not cause or permit the particulate emissions from the engine's exhaust to exceed the following:
 - (a) 0.310 pound per million Btu of actual heat input for a stationary small internal combustion engine; and
 - (b) 0.062 pound per million Btu of actual heat input for a stationary large

internal combustion engine.

- (6) The "LTV Steel Company" (OEPA premise number 1318001613) or any subsequent owner or operator of the "LTV Steel Company" facility located at 3100 East 45th street, Cleveland, Ohio shall not cause or permit the particulate emissions from the 84-inch hot strip mill reheat furnaces (OEPA source numbers P046 through P048) to exceed 19.8 pounds per hour per furnace.

(C) Requirements for surface coating processes:

- (1) Any surface coating process not exempt under paragraphs (A)(1)(h) to (A)(1)(l) of this rule shall be controlled by a dry particulate filter, waterwash, or equivalent control device or devices.
- (2) Any surface coating process not exempt under paragraphs (A)(1)(h) to (A)(1)(k) of this rule shall follow all of these work practices:
 - (a) The owner or operator shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the control devices with any modifications deemed necessary by the owner or operator during the time period in which the control devices are utilized.
 - (b) The owner or operator shall operate the control devices in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the owner or operator.
 - (c) The owner or operator shall conduct periodic inspections of the control devices to determine whether the devices are operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the owner or operator. The periodic inspections of each control device shall be performed at a frequency that is based upon the recommendation of the manufacturer of the control device, and the owner or operator shall maintain a copy of the manufacturer's recommended inspection frequency. In addition to these periodic inspections, not less than once each calendar year the owner or operator shall conduct a comprehensive inspection of the control device while the emissions unit is shut down and perform any needed maintenance and repair for the control device to ensure that it is able to routinely operate in accordance with the manufacturer's recommendations.

- (d) The owner or operator shall document each inspection of a control device by maintaining a record that includes the date of the inspection, a description of each problem identified and the date it was corrected, a description of the maintenance and repairs performed, and the name of the person who performed the inspection.
 - (e) In the event that the control devices are not operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the owner or operator, the control devices shall be expeditiously repaired or otherwise returned to operation in accordance with such requirements. The owner or operator shall maintain documentation of those periods when the control devices are not operating in accordance with such requirements.
 - (f) Any documentation required under paragraphs (C)(2)(d) and (C)(2)(e) of this rule shall be maintained for not less than five years.
 - (g) Any documentation required under paragraphs (C)(2)(a) to (C)(2)(e) of this rule shall be maintained at the facility and shall be made available to Ohio EPA upon request.
- (3) Any surface coating process with a permit-to-install issued after January 1, 1990 that identifies particulate emission limitations and control measures based on best available technology, best available control technology, or the lowest achievable emission rate shall comply with such limitations and measures instead of paragraphs (C)(1) and (C)(2) of this rule.

Effective: 12/23/2011

R.C. 119.032 review dates: 10/06/2011 and 02/01/2013

CERTIFIED ELECTRONICALLY

Certification

12/13/2011

Date

Promulgated Under: 119.03
Statutory Authority: 3704.03(E)
Rule Amplifies: 3704.03(A), 3704.03(E)
Prior Effective Dates: 2/17/72, 6/18/80, 6/14/91, 1/31/98, 4/14/03, 2/01/08

3745-17-11

Page 1

Appendix

TABLE I AND FIGURE II

TABLE I

Allowable Rate of Particulate Emissions Based
On Process Weight At Maximum Capacity (P)

Process Weight At Maximum Capacity (P)		Allowable Rate Of Particulate Emission (E)		Process Weight At Maximum Capacity (P)		Allowable Rate of Rate Particulate Emission (E)	
Lb/Hr	Tons/Hr	Lb/Hr		Lb/Hr	Tons/Hr	Lb/Hr	
100	0.05	0.551		16,000	8	16.5	
200	0.10	0.877		18,000	9	17.9	
400	0.20	1.40		20,000	10	19.2	
600	0.30	1.83		30,000	15	25.2	
800	0.40	2.22		40,000	20	30.5	
1,000	0.50	2.58		50,000	25	35.4	
1,500	0.75	3.38		60,000	30	40.0	
2,000	1	4.10		70,000	35	41.3	
2,500	1.25	4.76		80,000	40	42.5	
3,000	1.50	5.38		90,000	45	43.6	
3,500	1.75	5.96		100,000	50	44.6	
4,000	2	6.52		120,000	60	46.3	
5,000	2.50	7.58		140,000	70	47.8	
6,000	3	8.56		160,000	80	49.0	
7,000	3.50	9.49		200,000	100	51.2	
8,000	4	10.4		1,000,000	500	69.0	
9,000	4.50	11.2		2,000,000	1,000	77.6	
10,000	5	12.0		6,000,000	3,000	92.7	
12,000	6	13.6					

The allowable rate of particulate emission (E) for process weight rates (P) not specifically listed in this table shall be obtained by use of the following equations: For $0 < (P) \leq 0.05$, $(E) = 0.551$; for $0.05 < (P) \leq 30$, $(E) = 4.10 (P)^{0.67}$; and for $(P) > 30$, $(E) = 55.0 (P)^{0.11} - 40.0$.

FIGURE II

