

NR 154.11 Control of particulate emissions. (1) GENERAL LIMITATIONS. No person shall cause, allow, or permit particulate matter to be emitted into the ambient air which substantially contributes to exceeding of an air standard, or creates air pollution.

(2) **FUGITIVE DUST.** No person shall cause, allow, or permit any materials to be handled, transported, or stored without taking precautions to prevent particulate matter from becoming airborne. Nor shall a person allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted or demolished without taking such precautions.

(a) Such precautions shall include, but not be limited to:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations.

2. Application of asphalt, oil, water, suitable chemicals, or plastic covering on dirt roads, material stockpiles, and other surfaces which can

create airborne dust, provided such application does not create a hydrocarbon, odor, or water pollution problem.

3. Installation and use of hoods, fans, and air cleaning devices to enclose and vent the areas where dusty materials are handled.

4. Covering or securing of materials likely to become airborne while being moved on public roads, railroads, or navigable waters.

5. Conduct of agricultural practices such as tilling of land or application of fertilizers in such manner as not to create air pollution.

6. The paving or maintenance of roadways or parking lots so as not to create air pollution.

(b) In addition to meeting the requirements of par. (a), any direct or portable source located in a nonattainment area identified under s. NR 154.03 (1) for suspended particulate matter; and any direct or portable source located near such areas whose aggregate fugitive dust emissions may cause an impact on the ambient air quality in such areas equal to or greater than one microgram per cubic meter (annual concentration) or 5 micrograms per cubic meter (maximum 24-hour concentration), as determined by the analysis under s. NR 154.03 shall meet the following RACT requirements:

1. Industrial and commercial private roadways and areas subject to traffic of more than 10 vehicles in any hour shall be paved with asphalt, concrete, or other surface approved by the department and shall be periodically cleaned in order to be kept free of loose material. Where paving is shown to be unreasonable, or where the roadway or area is to be used for less than one year, dust shall be controlled by other methods approved by the department such as watering, chemical suppression, or stabilizers.

2. Storage piles having a material transfer greater than 100 tons in any year: a. Storage piles of material having a silt content of 5% to 20% shall be treated with water, surfactants, stabilizers, or chemicals; draped; or enclosed on a minimum of 3 sides. Access areas surrounding storage piles shall be watered, cleaned, or treated with stabilizers as needed to prevent fugitive dust from vehicle traffic.

b. Storage piles of material having a silt content of 20% or more shall be completely enclosed or draped except any part being worked, loaded or unloaded. Access areas surrounding storage piles shall be watered, cleaned or treated with stabilizers as needed to prevent fugitive dust from vehicle traffic.

3. Materials handling operations: a. Materials handling operations, including but not limited to crushing, grinding, mixing, screening, compacting, conveying, handling of waste material with more than 5% silt, and loading and unloading of railcar, truck, ship or barge shall have fugitive emissions controlled to 20% opacity when wind speeds are less than 25 miles per hour except for 3 minutes in any hour when fugitive emissions may equal 50% opacity.

b. Any device used to control fugitive emissions from materials handling operations which has a discharge to the ambient air shall be con-

trolled equal to or less than 0.20 pounds of particulate matter per 1000 pounds of exhaust gas.

4. Process fugitive emissions: a. Any device used to control fugitive particulate emissions from processes which has a discharge to the ambient air shall be controlled to an exhaust gas concentration equal to or less than 0.20 pounds of particulate matter per 1000 pounds of exhaust gas.

b. Emissions from any building or structure egress other than a stack shall be controlled such that visible emissions shall not exceed 20% opacity except for 3 minutes in any hour when fugitive emissions may equal 50% opacity.

(c) When a direct or portable source is subject to the emission limitations of par. (b) the owner or operator may not exceed the following increments of progress in achieving compliance commencing with the nonattainment determination under s. NR 154.03 (1):

1. Submit plans for compliance within 8 months.
2. Award any necessary contracts within 15 months.
3. Commence construction, installation or modification of emission control techniques required under par. (b) 1., 2. and 3.a. within 18 months.
4. Commence construction, installation or modification of emission control techniques required under par. (b) 3.b. and 4. within 24 months.
5. Complete construction, installation or modification of emission control techniques required under par. (b) 1., 2. and 3.a. achieve compliance, and so certify to the department within 21 months.
6. Complete construction, installation or modification of emission control techniques required under par. (b) 3.b. and 4. within 30 months and achieve final compliance and so certify to the department within 33 months.

(3) PARTICULATE EMISSION LIMITS FOR PROCESSES. No person shall cause, allow, or permit the emission of particulate matter to the ambient air from a direct or portable source involving a process in excess of the following limitations:

(a) All direct and portable sources on which construction or modification is commenced after April 1, 1972 shall meet the emission limitations of this paragraph.

1. Direct or portable sources other than those specified in sub. (3) (a) 2.; emissions in excess of:

a. Any process not otherwise covered by sub. (3) (a): emissions calculated by the use of the equation, $E = 3.59 P^{.75}$ for process weight rates up to 60,000 pounds per hour; by use of the equation $E = 17.31 P^{.75}$ for process weight rates of 60,000 pounds per hour or more; (E is the allowable emissions in pounds per hour and P is the process weight rate in tons per hour) or in concentrations greater than those listed in NR 154.11 (3) (b), whichever is more restrictive. Some examples of these calculations are given in the following table.

Process Weight Rate (Lbs/Hr.)	Emission Rate (Lbs/Hr.)
50.....	0.36
100.....	0.56
500.....	1.52
1,000.....	2.33
5,000.....	6.33
10,000.....	9.74
20,000.....	14.96
60,000.....	29.57
80,000.....	31.23
120,000.....	33.33
160,000.....	34.90
200,000.....	36.16
400,000.....	40.41
1,000,000.....	46.79

b. Cement kilns: 0.30 pounds of particulate per ton of feed to the kiln.

c. Cement clinker coolers: 0.10 pounds of particulate per ton of feed to the kiln.

2. Direct or portable sources specified hereunder on which construction or modification is commenced after February 1, 1975; emissions in excess of:

a. Asphalt concrete plants (any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler; systems for mixing asphalt concrete; and the loading, transfer, and storage systems associated with emission control systems): 0.04 grains per dry cubic foot at standard conditions (90 milligrams per dry cubic meter at standard conditions).

b. Petroleum refineries (fluid catalytic cracking unit catalyst regenerators or fluid catalytic cracking unit incinerator-waste heat boilers):

1) 1.0 pound per 1,000 pounds (1.0 kilogram per 1,000 kilograms) of coke burn-off in the catalyst regenerator.

2) In those instances in which auxiliary liquid or solid fossil fuels are burned in the fluid catalytic cracking unit incinerator-waste heat boiler, particulate matter in excess of that permitted by par. (a) 2.b.1) may be emitted to the atmosphere, except that the incremental rate of particulate emissions shall not exceed 0.10 pounds per million BTU (0.18 grams per million calories) of heat input attributable to such liquid or solid fuel.

c. Secondary lead smelters (blast or cupola furnaces and reverberatory furnaces): 0.022 grains per dry cubic foot at standard conditions (50 milligrams per dry cubic meter at standard conditions).

d. Secondary brass and bronze ingot production plants (reverberatory furnaces of 2.205 pounds or greater production capacity): 0.022 grains per dry cubic foot at standard conditions (50 milligrams per dry cubic meter at standard conditions).

e. Iron and steel plants (basic oxygen process furnaces): 0.022 grains per dry cubic foot at standard conditions (50 milligrams per dry cubic meter at standard conditions).

(b) All direct and portable sources on which construction or modification was commenced on or before April 1, 1972 shall meet the emission limitations of this paragraph.

1. Direct or portable sources specified hereunder; emissions in excess of:

a. Cupolas melting more than 200 tons of metal in any year: 0.45 pounds of particulate matter per 1,000 pounds of gas.

b. Electric arc or induction furnaces: 0.1 pounds of particulate matter per 1,000 pounds of gas.

c. Open hearth furnaces: 0.2 pounds of particulate matter per 1,000 pounds of gas.

d. Basic oxygen furnaces: 0.1 pounds of particulate matter per 1,000 pounds of gas.

e. Sintering plants: 0.2 pounds of particulate matter per 1,000 pounds of gas.

f. Air melting furnaces: 0.3 pounds of particulate matter per 1,000 pounds of gas.

g. Heating or preheating furnaces: 0.3 pounds of particulate matter per 1,000 pounds of gas.

h. Blast furnaces: 0.2 pounds of particulate matter per 1,000 pounds of gas.

i. Asphalt, concrete, or aggregate mix plants: 0.3 pounds of particulate matter per 1,000 pounds of gas.

j. Cement kilns: 0.2 pounds of particulate matter per 1,000 pounds of gas.

k. Lime kilns: 0.2 pounds of particulate matter per 1,000 pounds of gas.

l. Cement clinker coolers: 0.3 pounds of particulate matter per 1,000 pounds of gas.

m. Grinding, drying, mixing, conveying, sizing, or blending: 0.2 pounds of particulate matter per 1,000 pounds of gas.

n. Grain processing or handling: 0.4 pounds of particulate matter per 1,000 pounds of gas.

o. Any other process not enumerated: 0.4 pounds of particulate matter per 1,000 pounds of gas.

(c) In addition to meeting the requirements of par. (a) or (b), any direct or portable source located in or near a nonattainment area identified under s. NR 154.03(1) for suspended particulate matter whose aggregate particulate emissions (excluding fugitive dust) may cause an impact on the ambient air quality in such areas equal to or greater than

one microgram per cubic meter (annual concentration) or 5 micrograms per cubic meter (maximum 24-hour concentration) as determined by the analysis under s. NR 154.03 shall meet the following RACT emissions limitations:

1. Sources on which construction or modification was commenced after April 1, 1972 may not emit more than the emissions limits of par. (a) or 0.20 pounds of particulate matter per 1000 pounds of exhaust gas, whichever is more restrictive.

2. Sources on which construction or modification was commenced on or before April 1, 1972 may not emit more than 0.20 pounds of particulate matter per 1000 pounds of exhaust gas.

(d) When a direct or portable source is subject to the emission limitations of par. (c) or (e), the owner or operator may not exceed the following increments of progress in achieving compliance commencing with the nonattainment determination under s. NR 154.03 (1):

1. Submit plans for compliance within 6 months.

2. Award any necessary contracts within 12 months.

3. Commence construction, installation or modification of any emission control system within 24 months.

4. Complete construction, installation or modification of any emission control system within 30 months.

5. Achieve final compliance with the applicable emission limitations and so certify to the department within 33 months.

(e) Notwithstanding par. (c), any cupola may emit up to, but not more than 0.25 pounds of particulate matter per 1000 pounds of exhaust gas.

(4) PARTICULATE EMISSION LIMITS FOR FUEL BURNING INSTALLATIONS. No person shall cause, allow, or permit the emission of particulate matter to the ambient air from any indirect heat exchanger, power or heating plant, fuel-burning installation, or pulp recovery furnace with maximum heat input more than one million BTU per hour in excess of one of the following limitations:

(a) All installations on which construction or modification is commenced after April 1, 1972 shall meet the emission limitations of this paragraph.

1. Installations of 250 million BTU per hour or less except as provided in subd. 2. hereof: 0.15 pounds of particulate matter per million BTU input to any stack.

2. Installations of 100 million BTU per hour or less which are not located in the Southeast Wisconsin Intrastate AQCR and which burn only wood, or wood simultaneously with liquid or gaseous fossil fuel: 0.5 pounds of particulate matter per million BTU input to any stack except that installations located in subregion 1 of the Lake Michigan Intrastate AQCR shall meet the requirements of NR 154.11 (4) (b) 2.a.

3. Installations of more than 250 million BTU per hour: 0.10 pounds of particulate matter per million BTU input to any stack.

(b) All installations on which construction or modification was commenced on or before April 1, 1972 shall meet the emission limitations of this paragraph.

1. Installations throughout the state shall meet the following emission limitations:

a. All installations: emissions determined by use of figure 2 of the ASME Standard number APS-1 with the maximum emission irrespective of stack height of 0.60 pounds of particulate matter per million BTU input to any stack.

Note: See American Society of Mechanical Engineers standard number APS-1, second edition, November, 1968, copyright 1969. Copies of standard number APS-1 are available for inspection in the offices of department of natural resources, the secretary of state and revisor of statutes, Madison, Wisconsin and may be obtained for personal use from the American Society of Mechanical Engineers, 345 East 47th Street, New York, New York 10017.

2. Installations located in subregion 1 of the Lake Michigan Intrastate AQCR; in addition to meeting the emission limitations of sub. (4) (b) 1.a. of this section, these installations shall, by July 31, 1975, meet the following emission limitations:

a. All installations: emissions determined by use of figure 2 of the ASME Standard number APS-1 with the maximum emission irrespective of stack height of 0.30 pounds of particulate matter per million BTU input to any stack.

3. Installations located in the Southeast Wisconsin Intrastate AQCR, in addition to meeting the emission limitations of sub. (4) (b) 1.a., shall meet the following requirements:

a. Installations of 250 million BTU per hour or less (heat input of an installation shall follow ASME Standard number APS-1); maximum emission defined by the equation, $E = 0.3 - 0.0006I$ where I is heat input in millions of BTU per hour and E is maximum allowable particulate emissions in pounds per million BTU to any stack.

b. Installations of more than 250 million BTU per hour: maximum emission of 0.15 pounds of particulate matter per million BTU input to any stack.

(c) In addition to meeting the requirements of par. (a) or (b), all installations located in or near a nonattainment area identified under s. NR 154.03 (1) for suspended particulate matter whose aggregate particulate emissions (excluding fugitive dust) may cause an impact on the ambient air quality in such areas equal to or greater than one microgram per cubic meter (annual concentration) or 5 micrograms per cubic meter (maximum 24-hour concentration) as determined by the analysis under s. NR 154.03 shall meet the following RACT emission limitations:

1. Installations of 100 million BTU per hour or less: maximum emission of 0.24 pounds of particulate matter per million BTU input to any stack.

2. Installations of more than 100 million BTU per hour on which construction or modification commenced on or before April 1, 1972: maximum emission of 0.15 pounds of particulate matter per million BTU input to any stack.

3. Installations of more than 100 million BTU per hour but of not more than 250 million BTU on which construction or modification commenced after April 1, 1972: maximum emission of 0.15 pounds of particulate matter per million BTU input to any stack.

4. Installations of more than 250 million BTU per hour on which construction or modification commenced after April 1, 1972: maximum emission of 0.10 pounds of particulate matter per million BTU input to any stack.

(d) When an installation is subject to the emission limitations of par. (c) the owner or operator may not exceed the following increments of progress in achieving compliance commencing with the nonattainment determination under s. NR 154.03 (1):

1. Submit plans for compliance within 6 months.
2. Award any necessary contracts within 12 months.
3. Commence construction, installation or modification of any emission control system within 24 months.
4. Complete construction, installation or modification of any emission control system within 30 months.
5. Achieve final compliance with the applicable emission limitations and so certify to the department within 33 months.

(e) Notwithstanding par. (c) 1. or 2., any fuel burning installation of 250 million BTU per hour or less on which construction or modification was commenced on or before April 1, 1972 may emit up to, but not more than, an emission rate defined by the equation $E = 0.3 - 0.0006I$ (where I is the heat input in millions of BTU per hour and E is the maximum allowable particulate emissions in pounds per million BTU to any stack) if, as of March 1, 1980 for installations which may cause an impact on primary or associated secondary nonattainment areas, or as of March 1, 1982 for installations which may cause an impact on any other secondary nonattainment area, the installation has an emission rate based on original design or equipment performance test conditions (whichever is more restrictive) which is less than the limit set by the above equation, and the emission control system of such installations has not been allowed to degrade more than 0.05 pounds per million BTU from original design or acceptance performance test conditions.

(5) PARTICULATE EMISSION LIMITS FOR INCINERATORS. No person shall cause, suffer, allow, or permit particulate matter, concentrations corrected to 12% carbon dioxide, to be emitted to the ambient air from any incinerator in excess of one of the following limitations:

(a) All incinerators on which construction or modification is commenced after April 1, 1972 shall meet the emission limits of this paragraph.

1. Incinerators other than those specified in (5) (a) 2. of this section; emissions in excess of:

a. Incinerators rated at 4,000 pounds of waste per hour or more: 0.15 pounds of particulate per 1,000 pounds of exhaust gas.

b. Incinerators rated at over 500 pounds of waste per hour and less than 4,000 pounds of waste per hour: 0.20 pounds of particulate per 1,000 pounds of exhaust gas.

c. Incinerators rated at 500 pounds of waste per hour or less other than prefabricated domestic incinerators below 5 cubic feet capacity: 0.30 pounds of particulate matter per 1,000 pounds of exhaust gas.

d. Prefabricated domestic incinerators below 5 cubic feet capacity shall not exceed the performance emission requirements prescribed by the United States of America Standards Institute for domestic incinerators, standard Z21.6.

e. United States of America Standards Institute Approval Requirements for Domestic Gas-Fired Incinerators, number Z21.6, approved December 28, 1966, copyright 1967. Copies of Approval Requirements Z21.6 are available for inspection in the office of department of natural resources, Pyare Square Building, and secretary of state and revisor of statutes, State Capitol, Madison, Wisconsin and may be obtained for personal use from American Gas Association, Inc., 605 Third Avenue, New York, N.Y. 10016.

2. Sewage treatment plant sludge and grit incinerators on which construction or modification is commenced after February 1, 1975; emissions shall not exceed 1.30 pounds per ton of dry sludge or grit input (0.65 grams per kilogram of dry sludge or grit input).

(b) All incinerators on which construction or modification was commenced on or before April 1, 1972 shall meet the emission limits of this paragraph.

1. Incinerators located throughout the state; emissions in excess of:

a. Incinerators rated at over 500 pounds of waste per hour: 0.50 pounds of particulate per 1,000 pounds of exhaust gas.

b. Incinerators rated at 500 pounds of waste per hour or less: 0.60 pounds of particulate per 1,000 pounds of exhaust gas.

2. Incinerators located in subregion 1 of the Lake Michigan Intrastate AQCR or in the Southeast Wisconsin Intrastate AQCR; in addition to meeting the emission limits of (5) (b) 1. of this section these incinerators shall, by July 31, 1975, meet the following emission limits:

a. Incinerators of 5 cubic feet capacity or more: 0.30 pounds of particulate per 1,000 pounds of exhaust gas.

b. Prefabricated domestic incinerators below 5 cubic feet capacity shall not exceed the performance emission requirements prescribed by the United States of America Standards Institute for domestic incinerators, standard Z21.6.

~~(6) VISIBLE EMISSIONS. No person shall cause, suffer, allow, or permit emissions into the ambient air from any direct or portable source in excess of one of the following limitations: Where the presence of uncombined water is the only reason for failure to meet the requirements of this subsection, such failure shall not be a violation of this section.~~

WISCONSIN ADMINISTRATIVE CODE

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(84) "Fugitive dust" means solid airborne particles emitted from any source other than a flue or stack.

(155) "Process weight" means the total weight of all materials introduced into any direct source operation, except liquid fuels, gaseous fuels and air.

(159m) "Public trafficable area" means any trafficable area which is owned, operated, maintained or controlled by a municipality, interstate agency, state agency or federal agency.

(174) "Silt content" means that portion by weight of a particulate material which will pass through a no. 200 (75 micron) wire sieve as determined by the dry method in ASTM C136-76 or other method approved by the department.

(193m) "Trafficable area" means any area, including but not limited to a parking lot or storage area, which is external to a building or structure, is reasonably capable of being traveled by a motor vehicle, and is accessible to a motor vehicle.

History: Cr. Register, March, 1972, No. 195, eff. 4-1-72, renum. (41) (a) 6 to be (41) (c); am. (41) (c) 3. and 4., Register, December, 1972, No. 204, eff. 1-1-73; r. and recr., Register, June, 1976, No. 234, eff. 7-1-76; renum. (3) (b) and (c) to be (3) (c) and (d), renum. (3) (a) 3. to be (3) (b) and an. an. (38) (intro.), Register, April, 1977, No. 266, eff. 6-1-77; r. and recr., Register, July, 1979, No. 283, err. B-1-79; an. Register, March, 1981, No. 303, eff. 4-1-81; er. (118n) and (193n), Register, March, 1982, No. 316, eff. 4-1-82; cr. (94n), (118n), (169n) and (166n), Register, October, 1982, No. 322, eff. 11-1-82.

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AIR POLLUTION CONTROL

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History: Chapter NR 154 as it existed on March 31, 1972 was repealed and a new chapter NR 154 was created, Register, March, 1972, No. 195, effective April 1, 1972.

NR 154.11 Control of particulate emissions.

(c) In addition to meeting the requirements of par. (a), private industrial or commercial trafficable areas, roads and driveways which are located in or within one mile of a nonattainment area identified under s. NR 154.03 (1) for suspended particulate matter, are 20,000 square feet or more in total area, are on contiguous property under common ownership or control, and are subject on 3 separate days during any 14 consecutive day period to motor vehicle traffic at any point within the roads, driveways or trafficable areas at a rate equal to or greater than 10 motor vehicles per 60 minute period, shall meet the following RACT emission limitations:

1. Be paved with asphalt, concrete or other material approved by the department, or use other methods of dust control which the department approves as representing RACT for the particular road, driveway or trafficable area. Such other methods of dust control which may be approved by the department include but are not limited to periodic application of water, oil or suitable chemicals. In reviewing and acting upon plans required by par. (d) for compliance with this paragraph, the department shall consider the effects of the use of paving or other methods of dust control upon the rate and volume of surface water runoff and water quality.
2. If paved, be kept reasonably free of material likely to become airborne, through a program of periodic cleaning.

(e) In addition to meeting the requirements of par. (a), any roadway or public trafficable area which is located in or within one mile of a nonattainment area identified under s. NR 154.03 (1) for suspended particulate matter and which is subject on 3 separate days during any 14 consecutive day period to motor vehicle traffic at any point within the roadway or public trafficable area at a rate equal to or greater than 10 motor vehicles per 60 minute period shall meet the RACT emission limitations of this paragraph. For purposes of this paragraph, ownership or control of different portions of a roadway or public trafficable area by different municipalities, interstate agencies, state agencies or federal agencies may not be considered in determining the contiguous area of the roadway or public trafficable area.

1. If paved, roadways and public trafficable areas covered by this paragraph shall be kept, through a program of periodic cleaning, reasonably free of material likely to become airborne. This subdivision does not apply to a public trafficable area of less than 20,000 contiguous square feet in area unless the public trafficable area is also a roadway.

2. If unpaved, roadways and public trafficable areas covered by this paragraph shall be paved with asphalt, concrete or other material approved by the department, or use other methods of dust control which the department approves as representing RACT for the particular roadway or public trafficable area. Such other methods of dust control which may be approved by the department include but are not limited to periodic application of water, oil or suitable chemicals. In reviewing and acting upon plans required by par. (d) for compliance with this paragraph, the department shall consider the effects of the use of paving or other methods of dust control upon the rate and volume of surface water runoff and water quality. This subdivision does not apply to roadways or to public trafficable areas which have less than 20,000 contiguous square feet of unpaved surface area.

History: Cr. Register, March, 1972, No. 195, eff. 4-1-72; r. and recr. (3) to (6), r. (7), Register, June, 1975, No. 234, eff. 7-1-75; emerg. am. (4) (b) 3, eff. 12-3-75; am. (4) (a) 1. a. and (4) (b) 3. (intro.), r. and recr. (4) (b) 3. a., Register, April, 1976, No. 244, eff. 5-1-76; am. (4) (a), Register, November, 1976, No. 251, eff. 12-1-76; r. and recr. (1) to (4), Register, September, 1979, No. 285, eff. 10-1-79; cr. (2) (d) and (e), (3) (f), (g) and (h), (4) (g), (h) and (i), Register, February, 1981, No. 302, eff. 3-1-81; am. (2) (b) and (c), (3) (c) to (e), (4) (c), (d) and (f), r. (2) (d) and (e), (3) (f) to (h), (4) (e) and (g) to (i), cr. (7), Register, August, 1981, No. 308, eff. 9-1-81; r. (2) (b) 1., ren. (2) (b) 2., 3. and 4. to be (2) (b) 1. to 3., renum. (2) (c) to be (2) (d) and am., cr. (2) (c), Register, March, 1982, No. 315, eff. 4-1-82; am. (2) (d) (intro.), 3. and 5., cr.

ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD REPEALING, RENUMBERING,
RENUMBERING AND AMENDING, AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board adopts an order to **repeal** NR 400.02(61m), 405.02(5), 405.04(3), 415.09(1)(a) to (e), 417.06(3), 417.07(6)(a)1. to 5. and (b) to (d) and (9), 418.025(2)(intro.) and (a) to (e), 418.03(2)(intro.) and (a) to (e), 418.04(2)(a) to (e), 418.05(2), (3)(a) to (e), 418.06(2)(b) to (e), 418.07(2)(intro.) and (a) to (e), 421.04(4), 422.05(3), 422.09(2)(c), (3)(a), (c), (e), (f) and (h) and (4)(a), (c) and (e), 423.03(6)(b)1. to 5., 424.03(2)(b)1. and 2., 425.03(2)(a)1. to 5. and (b), (3)(a)1. to 7., (c)2., (d)1. to 4., (e)1. to 6. and (f), (4)(a)1. to 5. and (b), (5)(a)1. to 4., (b) and (c) and (6)(b)1. to 3., 439.095(2)(a) and (b), 447.02(4), 484.03(5) and (6), 484.11(1)(c), 485.045(1)(a), 488.06(1)(d) Note and 493.02(2); to **renumber** NR 400.02(100)(u), 411.02(6) and Note, 418.06(2)(f), 419.02(1m), (1p), (1s), (1t), (1u), (2), (3), (3c), (3e), (3m), (4), (6), (6m) and (7), 420.02(28), 421.02(2e) to (13), 422.02(1e) to (6), (7m) to (11m), (12d) to (33j), (34) to (47e), (48) to (52) and 499.07(2)(a) to (m); to **renumber and amend** NR 417.07(6)(a)(intro.), 418.025(2)(f), 418.03(2)(f), 418.07(2)(f), 419.02(8), 422.02(7), (12), (33m) and (47m), 424.03(2)(b)(intro.), 425.03(2)(a)(intro.), (4)(a)(intro.) and (5)(a)(intro.) and 499.07(2)(n)(intro.); to **amend** NR 30.03(2)(f), 30.04(2)(f), 400 Note, 400.02(41), (77), (79), (90) and (100)(t), 400.03(2), 401.04, 404.04(2)(a)1. and 2. and (6), 404.06(1)(a) and (4)(b), 405.01(2) Note, 405.02(1)(d), (2)(intro.), (3)(intro.) and (a), (4)(a)(intro.), 1. and 2. and (b)1. and 2., (7), (12), (21)(intro.), (b)3. and 5.a. and b., 6. and 8.a., (22)(a)1. and 2., (24)(d), (25g)(b) and (d), (25m)(a) and (c), (25s)(intro.) and (a), (27)(c) and (28), 405.04(1)(a) and (e), (4)(intro.) and (a), 405.05(1), (4)(intro.), (5) and (6), 405.07(3), (4)(intro.) and (b)27. and (5), 405.08(3), 405.10(4), 405.14(1), (2) and (4) 405.15(2)(d), 406.04(1)(intro.), (g), (h), (j) and (2)(intro.), (c), (f)3m., (h) and (i), (4)(a)6., 406.11(1)(f), 407.03(1)(g), (h), (o), (2)(b) and (4), 407.05(4)(c)1. and Table 2 footnote 8, 407.09(4)(a)3.c., 408.02(4), (20)(e)5.a. and b. and (21)(intro.), 409.02(76)(intro.), 409.06(8)(d), 415.02(5), 415.04(1)(b), (2)(a)(intro.), (b)(intro.) and (c)(intro.), (3)(a) and (4)(b), 415.05(2), 415.07(1)(a)(intro.), (b)(intro.) and 2., 415.075(2)(a)5., 415.08(1), 415.09(1)(intro.) and (3), 417.01(1), 417.02(intro.), 417.06(1) and (2), 417.07(7)(a)(intro.) and 1. to 3., 418.01(1), 418.04(1)(a)2. and (2)(intro.), 418.05(3)(intro.) and (4)(intro.), 418.06(2)(intro.), 419.02(intro.), 420.02(intro.), 420.03(1)(b), 420.035(2)(b) and (3)(c), 420.04(2)(a)(intro.) and 2., 420.045(1)(a), (b)(title), (c), (d)1.(intro.) and (e) and (10)(intro.), 421.02(intro.), 421.05(2)(a)(intro.), (2)(e)1. and 2., 421.06(2)(e)1. and 2., 422.03(intro.), (2), (3), (4), (4m)(b) and (c) and (5)(intro.), 422.04(1)(a), (2)(intro.) and (3)(b)(intro.), 422.132(1)(intro.) and (2)(b), 422.14(2)(c)(intro.), 423.02(intro.), 423.03(4)(intro.) and (m), (5)(intro.), (6)(a)(intro.) and (b)(intro.) and (9), 424.03(1)(a)3. and 4., 425.03(3)(a)(intro.), (b), (d)(intro.), (e)(intro.), (6)(b)(intro.), (7)(e), (7m)(intro.) and (a) and (8), 425.035(2)(f) and (3)(a)3. Note, 425.04(1)(b), 426.04, 429.02(intro.) and (1), 436.02(intro.), 436.05(2)(b) and (5), 438.03(1)(b) and Table 1, 439.03(1)(c) and (4)(a)(intro.), 439.075(2)(a)(intro.) and 4., 439.095(2)(intro.), 445.01(1), 445.02(intro.), (2) and (6), 445.04(3)(c)6., (4r)(a)Note and (b)4., (6)(a)(intro.), (b)4. and Tables 2, 3 and 5, 445.05(3)(a) and (c)7., (4r)(b)4. and (6)(bm)4.(intro.), (c) and (e), 447.02(intro.), (16) and (18) Note, 447.07(3)(a) and (d)(intro.), 447.12(3)(b) Note, 447.16(2) 447.18(1) Note, 448.02(intro.), 448.04(2), 449.02(intro.), 449.09(6)(a)3. and 4., (d)2. and (e)1.(intro.), 449.12(3)(a) and (b)5., 484.04(18), 484.05(3), 484.11(1)(a), 488.02(2) Note, 488.03(3)(b) Note, 488.04(3) Note, 488.08, 488.11(1)(b), 493.02(intro.), 493.04(2) and (3), 499.06(2)(intro.), (e) and (g) and 499.07(2)(intro.); and to **create** NR 400.02(53s) Note, (100)(u) and (v), 405.02(21m), (22m), 406.04(7), 419.02(10), 421.05(2)(e)3., 421.06(2)(e)3., 422.03(7), 424.03(2)(c), 425.03(14), 436.05(2)(bm) and 484.04(18m) relating to clarification and cleanup changes in NR 30 and throughout the NR 400 series.

AM-9-95

Analysis Prepared by the Department of Natural Resources

Authorizing statutes: ss. 144.31(1)(a), 144.391(6) and 227.11(2)(a), Stats.

Statutes interpreted: s. 144.31(1)(f), Stats. The State Implementation Plan developed under that provision is revised.

These rule changes affect Wisconsin's existing environmental protection air pollution control rules. Changes affecting most elements of the air pollution control program are made, including; definition of terms, permitting, compliance schedules, emission testing, emission limitations, emission monitoring and incorporation by reference. These changes also affect diverse source categories and pollutants. However, these changes are of a cleanup nature, and are intended to correct errors in content or style, or to improve consistency or clarify existing policy or procedures.

The consent of the Attorney General and the Revisor of Statutes will be sought for the incorporation by reference of two appendicies in Title 40 of the Code of Federal Regulations containing test methods and the incorporation by reference of a previously approved document from the American Conference of Governmental Industrial Hygienists for two additional citations.

SECTION 43. NR 415.02(5) is amended to read:

NR 415.02(5) "Process weight" means the total weight of all materials that can be introduced into any direct source operation based on the design capacity of the source or a capacity level approved by the department, except liquid fuels, gaseous fuels and air.

SECTION 44. NR 415.04(1)(b), (2)(a)(intro.), (b)(intro.) and (c)(intro.), (3)(a) and (4)(b) are amended to read:

NR 415.04(1)(b) Application of asphalt, ~~oil~~, water, suitable chemicals or plastic covering on dirt roads, material stockpiles and other surfaces which can create airborne dust, provided such application does not create a hydrocarbon, odor or water pollution problem.

(2)(a)(intro.) Storage piles having a material transfer greater than 100 tons in any year are subject to the following requirements:

(b)(intro.) Materials handling operations are subject to the following requirements:

(c)(intro.) Process fugitive emissions are subject to the following control requirements:

(3)(a) Be paved with asphalt, concrete or other material approved by the department, or use other methods of dust control which the department approves as representing RACT for the particular road, driveway or trafficable area. Such other methods of dust control which may be approved the department include but are not limited to periodic application of water, ~~oil~~ or suitable chemicals. In reviewing and acting upon plans required by sub. (5) for compliance with this subsection, the department shall consider the effects of the use of paving or other methods of dust control upon the rate and volume of surface water runoff and water quality.

(4)(b) If unpaved, roadways and public trafficable areas covered by this subsection shall be paved with asphalt, concrete or other material approved by the department, or use other methods of dust control which the department approves as representing RACT for the particular roadway or public trafficable area. Such other methods of dust control which may be approved by the department include but are not limited to periodic application of water, ~~oil~~ or suitable chemicals. In reviewing and acting upon plans required by sub. (5) for compliance with this subsection, the department shall consider the effects of the use of paving or other methods of dust control upon the rate and volume of surface water runoff and water quality. This paragraph does not apply to roadways or to public trafficable areas which have less than 20,000 contiguous square feet of unpaved surface area.

SECTION 45. NR 415.05(2) is amended to read:

NR 415.05(2) All direct and portable sources on which construction or modification is commenced after April 1, 1972 shall meet the emission limitations of this subsection. The allowable emissions of particulate matter are calculated by the use of the equation

$$E = 3.59 P^{0.62}$$

for process weight rates up to 60,000 pounds per hour and by use of the equation

$$E = 17.31 P^{0.16}$$

for process weight rates of 60,000 pounds per hour or more, where E is the allowable emissions in pounds per hour and P is the process weight rate in tons per hour. If the calculated emission rate is less restrictive than the applicable concentration specified under sub. (1) based on the maximum exhaust flow rate and normal exhaust gas temperature, the limitation under sub. (1) shall apply.

SECTION 46. NR 415.07(1)(a)(intro.), (b)(intro.) and 2. are amended to read:

NR 415.07(1)(a)(intro.) Incinerators located throughout the state; emissions ~~in excess~~ of:

(b)(intro.) Incinerators located in subregion 1 of the Lake Michigan Intrastate AQCR or in the Southeastern Wisconsin Intrastate AQCR; in addition to meeting the emission limits of par. (a) these incinerators shall, ~~by July 31, 1975,~~ meet the following emission limits:

2. Prefabricated domestic incinerators below 5 cubic feet capacity may not exceed the performance emission requirements prescribed by the American National Standards Institute for domestic incinerators, standard Z21.6, incorporated by reference in ~~ch. NR-484~~ s. NR 484.11.

SECTION 47. NR 415.075(2)(a)5. is amended to read:

NR 415.075(2)(a)5. The use of blast hole stemming materials that have been approved by either the department or the department of industry, labor and human relations.

SECTION 48. NR 415.08(1) is amended to read:

NR 415.08(1) This section applies to all coking operations ~~upon which construction or modification commenced before September 1, 1981. Notwithstanding any other provision of chs. NR 415 and 431, all requirements of this section shall be met on or before September 1, 1981.~~

SECTION 49. NR 415.09(1)(intro.) is amended to read:

NR 415.09(1)(intro.) GENERAL COMPLIANCE SCHEDULE. If a source on which construction or modification was last commenced on or before July 1, 1975, other than a heatset web offset press, fails to meet a particulate emission limitation in this chapter because of the inclusion of condensible particulate matter, as defined in s. NR 439.02(4), in the determination of emission rates or concentrations, the owner or operator of the source ~~may not exceed the following increments of progress in achieving compliance with that limit:~~ shall achieve final compliance with the applicable limitation by October 1, 1990.

SECTION 50. NR 415.09(1)(a) to (e) are repealed.

SECTION 51. NR 415.09(3)(intro.) is amended to read:

NR 415.09(3)(intro.) VARIANCE. Notwithstanding sub. ~~(1)~~ or (2), the owner or operator of a source constructed or modified on or before July 1, 1975 which fails to meet a particulate emission limitation in this chapter because of the inclusion of condensible particulate matter, as defined in s. NR 439.02(4), in the determination of emission rates or concentrations may request in writing a variance from the emission limitation from the department ~~under par. (a) or (b) on or before October 1, 1990 if the source is other than a heatset web offset press; or~~ under par. (a) on or before July 1, 1993 if the source is a heatset web offset press.

Chapter NR 415

CONTROL OF PARTICULATE EMISSIONS

NR 415.01	Applicability; purpose.	NR 415.07	Particulate matter emission limits for incinerators.
NR 415.02	Definitions.	NR 415.075	Particulate matter emission limitations for ledge rock quarries and industrial sand mines.
NR 415.03	General limitations.	NR 415.076	Particulate matter emission limitations for crushed stone and sand and gravel plants.
NR 415.035	Specific geographic areas for additional particulate emission control.	NR 415.08	RACT requirements for coking operations.
NR 415.04	Fugitive dust.	NR 415.09	Compliance schedule for sources of condensable particulate matter.
NR 415.05	Particulate matter emission limits for processes.		
NR 415.06	Particulate matter emission limits for fuel burning installations.		

NR 415.035 Specific geographic areas for additional particulate emission control. (1) FUGITIVE DUST CONTROL AREAS. The requirements of s. NR 415.04 (2), (3) and (4) apply for the following areas:

(a) A portion of the city of Beloit within a line extending from the intersection of the Chicago and Northwestern railroad tracks and the body of water identified as Lennigan creek, east to the intersection of Washburn avenue and Wisconsin avenue, south on Wisconsin avenue to the intersection of Wisconsin avenue and Grand avenue, continuing southeast on Grand avenue to the intersection of Grand avenue and Dearborn avenue, continuing south on Dearborn avenue to the intersection of Dearborn avenue and the Wisconsin-Illinois border, west along the Wisconsin-Illinois border to the intersection of the Wisconsin-Illinois border and the Chicago and Northwestern railroad tracks, and north along the Chicago and Northwestern railroad tracks to the body of water identified as Lennigan creek.

(b) A portion of the city of Milwaukee within a line extending from the intersection of 55th street and Center street east on Center street to the shoreline of Lake Michigan, south along the shoreline of Lake Michigan to a point east of Morgan avenue, west to Morgan avenue, continuing west along Morgan avenue to the intersection of Morgan avenue and 6th street, north on 6th street to Oklahoma avenue, west on Oklahoma avenue to 55th street, and north on 55th street to Center street.

(c) A portion of the city of Waukesha within a line extending from the intersection of North street and an extension of Margaret street, east to Margaret street, continuing along Margaret street to the intersection of Margaret street and Highland boulevard, south on Highland boulevard to the intersection of Highland boulevard and Moreland boulevard, southwest on Moreland boulevard to the intersection of Moreland boulevard and Waukesha avenue, south on Waukesha avenue extended to the intersection of Main street and the railroad tracks and Arcadian avenue, west on Arcadian avenue to the intersection of Arcadian avenue and East avenue, north on East avenue to the intersection of East avenue and Buckley street, northwest across the Fox river to Union street, continuing northwest on Union street to the intersection of Union street and North street, and northeast on North street to the extension of Margaret street.

(2) DIRECT OR PORTABLE SOURCE CONTROL AREAS. The requirements of ss. NR 415.05 (3), 415.06 (3) and (4) and 415.075 (3) apply for the following areas:

(a) The portion of the city of Beloit within the boundaries specified in sub. (1) (a).

(b) The portion of the city of Milwaukee within the boundaries specified in sub. (1) (b).

(c) The portion of the city of Waukesha within the boundaries specified in sub. (1) (c).

History: CR 01-002: cr. Register October 2001 No. 550, eff. 11-1-01.

NR 415.04 Fugitive dust.

(2) In addition to meeting the requirements of sub. (1), any direct or portable source located in an area identified in s. NR 415.035 (1); and any direct or portable source located near the areas whose aggregate fugitive dust emissions may cause an impact on the ambient air quality in the areas equal to or greater than an annual concentration of one microgram per cubic meter or a maximum 24-hour concentration of 5 micrograms per cubic meter as determined by the analysis under ch. NR 401, shall meet the following RACT requirements:

(3) In addition to meeting the requirements of sub. (1), private industrial or commercial trafficable areas, roads and driveways which are located in or within one mile of an area identified in s. NR 415.035 (1), are 20,000 square feet or more in total area, are on contiguous property under common ownership or control, and are subject on 3 separate days during any 14 consecutive day period to motor vehicle traffic at any point within the roads, driveways or trafficable areas at a rate equal to or greater than 10 motor vehicles per 60 minute period, shall meet the following RACT requirements:

(a) Be paved with asphalt, concrete or other material approved by the department, or use other methods of dust control which the department approves as representing RACT for the particular road, driveway or trafficable area. The other methods of dust control which may be approved by the department include but are not limited to periodic application of water or suitable chemicals. In assessing compliance with this subsection, the department shall consider the effects of the use of paving or other methods of dust control upon the rate and volume of surface water runoff and water quality.

(b) If paved, be kept reasonably free of material likely to become airborne, through a program of periodic cleaning.

(4) In addition to meeting the requirements of sub.(1), any roadway or public trafficable area which is located in or within one mile of an area identified in s. NR 415.035(1) and which is subject on 3 separate days during any 14 consecutive day period to motor vehicle traffic at any point within the roadway or public trafficable area at a rate equal to or greater than 10 motor vehicles per 60 minute period shall meet the RACT requirements of this subsection. For purposes of this subsections, ownership or control of different portions of a roadway or public trafficable area by different municipalities, interstate agencies, state agencies or federal agencies may not be considered in determining the contiguous area of the roadway or public trafficable area.

(b) If unpaved, roadways and public trafficable areas subject to this subsection shall be paved with asphalt, concrete or other material approved by the department, or use other methods of dust control which the department approves as representing RACT for the particular roadway or public trafficable area. The other methods of dust control which may be approved by the department include but are not limited to periodic application of water or suitable chemicals. In assessing compliance with this subsection, the department shall consider the effects of the use of paving or other methods of dust control upon the rate and volume of surface water runoff and water quality. This paragraph does not apply to roadways or to public trafficable areas which have less than 20,000 contiguous square feet of unpaved surface area.

History: Renum. from NR 154.11 (2) and am. Register, September, 1986, No. 369, eff. 10-1-86; am. (intro.), (1) (f) and (2) (c) 2., Register, May, 1992, No. 437, eff. 6-1-92; am. (1) (b), (2) (a) (intro.), (b) (intro.), and (c) (intro.), (3) (a) and (4) (b), Register, December, 1995, No. 480, eff. 1-1-96; am. (4) (a) and (b), Register, October, 1999, No. 526, eff. 11-1-99; **CR 01-002: am. (2) (intro.), (3) (intro.) and (a), (4) (intro.) and (b), r. (5), Register October 2001 No. 550, eff. 11-1-01.**

NR 415.05 Particulate matter emission limits for processes.

(3) In addition to meeting the requirements of subs. (1) and (2), any direct or portable source located in or near an area identified in s. NR 415.035(2) whose aggregate particulate emissions, excluding fugitive dust, may cause an impact on the ambient air quality in the areas equal to or greater than an annual concentration of one microgram per cubic meter or a maximum 24-hour concentration of 5 micrograms per cubic meter shall meet the following RACT emission limitations:

History: Renum. from NR 154.11 (3) and am. Register, September, 1986, No. 369, eff. 10-1-86; correction in (2) (a) 1. made under s. 13.93 (2m) (b) 7., Stats., Register, April, 1989; am. (intro.), (1) (b) to (o), (2) (a) (intro.) and 1., (3) (b), (5) (intro.), r. (2) (a) 2. and 3., (b), Register, May, 1992, No. 437, eff. 6-1-92; am. (2), Register, December, 1995, No. 480, eff. 1-1-96; **CR 01-002: am. (3) (intro.), r. (5), Register, October 2001 No. 550, eff. 11-1-01.**

NR 415.06 Particulate matter emission limits for fuel burning installations.

(3) In addition to meeting the requirements of sub. (1) or (2), all installations located in or near an area identified in s. NR 415.035(2) whose aggregate particulate emissions, excluding fugitive dust, may cause an impact on the ambient air quality in the areas equal to or greater than an annual concentration of one microgram per cubic meter or a maximum 24-hour concentration of 5 micrograms per cubic meter shall meet the following RACT emission limitations:

(4) Notwithstanding sub. (3) (a) or (b), any fuel burning installation of 250 million Btu per hour or less on which construction or modification was commenced on or before April 1, 1972 may emit up to, but not more than, an emission rate defined by the equation

$$E = 0.3 - 0.0006I$$

where I is the heat input in millions of Btu per hour and E is the maximum allowable particulate matter emissions from any stack in pounds per million Btu heat input, if the installation has an emission rate based on original design or equipment performance test conditions, which ever is more restrictive, which is less than the limit set by the above equation, and the emission control system of the installations has not been allowed to degrade more than 0.05 pound per million Btu heat input from original design or acceptance performance test conditions.

History: Renum. from NR 154.11 (4) and am. Register, September, 1986, No. 369, eff. 10-1-86; correction in (2) (b) made under s. 13.93 (2m) (b) 7., Stats., Register, April, 1989; am. (intro.), (1) (a), (b), (c) 1. and 2., (2) (a) to (c), (3) (a) to (d) and (4), Register, May, 1992, No. 437, eff. 6-1-92; am. (1) (a), (b), (c) (intro.), 1., Register, February, 1995, No. 470, eff. 3-1-95; am. (1) (c) 1. and (4), Register, October, 1999, No. 526, eff. 11-1-99; **CR 01-002: am. (3) (intro.) and (4), r. (5), Register October 2001 No. 550, eff. 11-1-01.**

NR 415.075 Particulate matter emission limitations for ledge rock quarries and industrial sand mines.

(3) PARTICULATE EMISSIONS LIMITATIONS FOR OPERATIONS IN SPECIFIC GEOGRAPHIC AREAS. In addition to meeting the limitations of sub. (2), the owner or operator of any ledge rock quarry or industrial sand mine located in an area identified in s. NR 415.035(1) shall do all of the following:

History: Cr. Register, June, 1994, No. 462, eff. 7-1-94; am. (2) (a) 5. and (3) (c), Register, December, 1995, No. 480, eff. 1-1-96; **CR 01-002: am. (3) (intro.), Register, October 2001 No. 550, eff. 11-1-01.**