

## Chapter NR 415

## CONTROL OF PARTICULATE EMISSIONS

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NR 415.01 **Applicability; purpose.** (1) **APPLICABILITY.** This chapter applies to all air contaminant sources and to all owners or operators of an air contaminant source.

(2) **PURPOSE.** This chapter is adopted under ss. 144.31, and 144.38, Stats., to categorize particulate matter air contaminant sources and to establish emission limitations for these sources in order to protect air quality.

History: Cr. Register, September, 1986, No. 369, eff. 10-1-86.

NR 415.02 **Definitions.** The definitions in this section apply to the terms used in chs. NR 415 and 431. In addition, the definitions in ch. NR 400 apply to the terms used in this chapter.

(1) "Equivalent opacity" means an opacity of 20% per Ringlemann number.

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

(3) "Opacity" means the state of a substance which renders it partially or wholly impervious to rays of light. (20% opacity equals one unit on the Ringlemann Chart.)

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

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

(6) "Ringlemann Chart" means the chart published by the U.S. bureau of mines in which are illustrated graduated shades of grey to black for use in estimating the shade or density of smoke. (One unit on the Ringlemann Chart equals 20% opacity).

Note: See Ringlemann Chart published December, 1950, by the U.S. bureau of mines. Copies of "Fundamentals of Smoke Abatement," December, 1950, Ringlemann Chart, Information Circular 7688, are available for inspection at the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin, and may be obtained for personal use from the U.S. department of interior, Washington, D.C.

(7) "Roadway areas" means any surface on which motor vehicles travel including, but not limited to, highways, roads, streets, parking areas and driveways.

(8) "Silt content" means that portion by weight of a particulate material which will pass through a no. 200 (75 micron) wire sieve as deter-

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mined by the dry method in ASTM C136-76 or other method approved by the department.

(9) "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: Renum. from NR 154.01, cr. (intro.) and (7), Register, September, 1986, No. 369, eff. 10-1-86.

**NR 415.03 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.

History: Renum. from NR 154.11 (1), Register, September, 1986, No. 369, eff. 10-1-86.

**NR 415.04 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.

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

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

(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.

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

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

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

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

(2) In addition to meeting the requirements of sub. (1), any direct or portable source located in a nonattainment area identified under s. NR 401.025 (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 ch. NR 401 shall meet the following RACT requirements:

(a) *Storage piles having a material transfer greater than 100 tons in any year:* 1. Storage piles of material having a silt content of 5% to 20% shall

NR 415.08 RACT requirements for coking operations. (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.

(2) Visible emissions from charging procedures shall be limited by the application of RACT. RACT includes:

a. The use and maintenance of suitable jumper pipes and leveling bar smoke boots,

b. The use and maintenance of suitable seals on larry car drop sleeves and leveling bar smoke boots,

c. The use and maintenance of a steam aspiration system which provides maximum safe levels of negative pressure on the oven chamber during the charging operation, and

d. The completion of each charging procedure (including sweeping excess coal into the oven just charged) as quickly as possible.

(3) Fugitive emissions from pushing operations shall be captured by a traveling hood and controlled to not more than 0.08 pounds of particulate matter per 1000 pounds of exhaust gas. Any emissions escaping capture may not exceed 20% opacity for each pushing operation, as determined by the average of 6 consecutive observations made at 15 second intervals.

(4) There may be no visible emissions from 90% of the doors of all coke ovens in use; 95% of all coke oven charging port lids on ovens in use; and 90% of all offtake piping on ovens in use, except those open for charging, pushing, cleaning, and maintenance as determined by a one pass observation.

(5) Quench towers for the application of water on hot coke shall be equipped with grit arrestors or equivalent equipment approved by the department. Water used in quenching shall not include coke by-product plant effluent, and total dissolved solids in make-up quenching water shall be less than 750 milligrams per liter.

(6) Coke oven combustion stacks may not emit more than 0.10 pounds of particulate matter per 1000 pounds of exhaust gas or have visible emissions greater than 20% opacity.

History: Renum. from NR 164.11 (7) and am. Register, September, 1986, No. 369, eff. 10-1-86.

NR 415.09 Compliance schedule for sources of condensible particulate matter. (1) COMPLIANCE SCHEDULE. If a source which was constructed or modified on or before July 1, 1975 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:

(a) Submit plans for achieving compliance by July 1, 1988.

(b) Award any necessary contracts by December 31, 1988.

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(c) Commence construction, installation or modification of any control system by December 31, 1989.

(d) Complete construction, installation or modification of any emission control system by July 1, 1990.

(e) Achieve final compliance with the applicable limitation by October 1, 1990.

(2) VARIANCE. Notwithstanding sub. (1), 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.

(a) The department may grant a variance under this paragraph and set an alternate emission limitation under the criteria and procedures outlined in s. NR 436.05 (2) and (3) if compliance with the emission limitation is shown to be technologically or economically infeasible.

(b) The department shall grant a variance under this paragraph and set an alternate emission limitation if the following criteria are met:

1. The variance will not delay attainment or prevent maintenance of any ambient air quality standard, as determined by methods acceptable to the department.

2. The applicable particulate emission limitation for the air contaminant source for which a variance is requested was promulgated on or before October 1, 1987.

3. The request for variance includes the report of a test conducted according to the methods and procedures of s. NR 439.07, for the air contaminant source for which the variance is requested, which demonstrates noncompliance with the applicable particulate emission limitation.

4. The air contaminant source for which a variance is requested is not reasonably capable of complying with the applicable emission limitation except by means of the installation and operation of an electrostatic precipitator, fabric filter baghouse or wet scrubber for particulates or the source is equipped with such a control device and demonstrates to the department's satisfaction that compliance is still not achievable.

(c) The department may revoke or modify any variance granted under this subsection in accordance with the provisions of s. NR 436.05 (4).

History: Cr. Register, September, 1987, No. 381, eff. 10-1-87.