

## Chapter NR 431

## CONTROL OF VISIBLE EMISSIONS

NR 431.01	Applicability; purpose	NR 431.06	Emission limitations; after February 1, 1975
NR 431.02	Definitions	NR 431.07	Establishing alternate opacity limits
NR 431.03	General limitations		
NR 431.04	Emission limitations; on or before April 1, 1972		
NR 431.05	Emission limitations; after April 1, 1972		

**NR 431.01 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 air contaminant sources and to establish visible emission limitations for these sources in order to protect air quality.

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

**NR 431.02 Definitions.** In addition to the definitions in this section, the definitions contained in chs. NR 400 and 415 apply to the terms used in this chapter.

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

**NR 431.03 General limitations.** 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 chapter, such failure shall not be a violation of this chapter.

**History:** Renum. NR 154.11 (6) (intro.) and am., Register, September, 1986, No. 369, eff. 10-1-86.

**NR 431.04 Emission limitations; on or before April 1, 1972.** All direct and portable sources on which construction or modification was commenced on or before April 1, 1972 shall meet the emission limits of this section.

(1) All direct or portable sources; emissions of shade or density equal to or greater than number 2 of the Ringleman chart or 40% opacity. Exceptions listed in s. NR 431.05 (1) shall apply.

(2) All direct or portable sources located in subregion 1 of the Lake Michigan Intrastate AQCR or in the Southeastern Wisconsin Intrastate AQCR shall also meet the requirements of s. NR 431.05

**History:** Renum. NR 154.11 (6) (b) and am., cr. (2), Register, September, 1986, No. 369, eff. 10-1-86; correction in (2) made under s. 13.93 (2m) (b) 6, Stats., Register, July, 1988, No. 391.

**NR 431.05 Emission limitations; after April 1, 1972.** All direct and portable sources on which construction or modification is commenced after April 1, 1972 shall meet the emission limits of this section.

(1) Direct or portable sources other than those specified in s. NR 431.06, emissions of shade or density greater than number 1 of the Ringleman chart or 20% opacity with the following exceptions:

Register, September, 1990, No. 417

(a) When combustion equipment is being cleaned or a new fire started, emissions not to exceed number 4 of the Ringleman chart or 80% opacity for 5 minutes in any one hour. Combustion equipment may not be cleaned nor a fire started more than 3 times per day.

(b) For stated periods of time, as permitted by the department, for such purpose as operating test, use of emergency equipment, or other good cause, provided no hazard or unsafe condition arises.

(c) For direct or portable sources in operation on or before February 1, 1975, where emission test data taken concurrently with opacity readings or continuous emission monitor data show the source to be in compliance with the applicable emission limits but not the opacity limits, an alternative opacity limit may be established according to methods and procedures set forth in s. NR 431.07.

(2) In addition, all direct and portable sources located in subregion 1 of the Lake Michigan Intrastate AQCR or in the Southeastern Wisconsin Intrastate AQCR on which construction or modification was commenced on or before April 1, 1972 shall, by July 31, 1975 meet the emission limits of this section.

**History:** Renum. NR 154.11 (6) (a) (intro.) and 1. and am., cr. (2), Register, September, 1986, No. 369, eff. 10-1-86; am. (1) (c), Register, April, 1987, No. 376, eff. 5-1-87; correction in (2), made under s. 13.93 (2m) (b) 6, Stats., Register, July, 1988, No. 391.

**NR 431.06 Emission limitations; after February 1, 1975.** Direct or portable sources specified in this section on which construction or modification is commenced after February 1, 1975 shall meet the emission limits of this section.

(1) Asphalt concrete plants (any combination of the following: dryers; systems for screening, 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): 20% opacity.

(2) Petroleum refineries (fluid catalytic cracking unit catalyst regenerators and fluid catalytic cracking unit incinerator-waste heat boilers): 30% opacity, except for 3 minutes in any one hour.

(3) Secondary lead smelters:

(a) Blast or cupola furnaces and reverberatory furnaces: 20% opacity.

(b) Pot furnaces of more than 550 pounds (250 kilograms) charging capacity: 10% opacity.

(4) Secondary brass and bronze ingot production plants:

(a) Reverberatory furnaces of 2,205 pounds per hour (1,000 kilograms per hour) or greater production capacity: 20% opacity.

(b) Electric furnaces of 2,205 pounds per hour (1,000 kilograms per hour) or greater production capacity and blast or cupola furnaces of 550 pounds per hour (250 kilograms per hour) or greater production capacity: 10% opacity.

(5) Sewage treatment plants (sewage sludge and grit incinerators): 20% opacity.

History: Renum. NR 154.11 (6) (a) 2. and am. (intro.), Register, September, 1986, No. 369, eff. 10-1-86.

**NR 431.07 Establishing alternate opacity limits.** The department may set an alternate opacity limit for a source according to the criteria and certification procedures in this section.

(1) **SOURCE CRITERIA.** A source is eligible for an alternate opacity limit if it meets all of the following criteria:

(a) The source of emissions is not a fugitive emission source.

(b) The source is subject to an emission limitation in the form of a mass rate, stack gas concentration, or a fuel requirement for all pollutants that contribute to the opacity of a source's emissions.

(c) All emission units subject to the alternate opacity request are in compliance with all applicable provisions of chs. NR 400 to 499, ss. 144.30 to 144.426, Stats., and all permit conditions with the exception of visible emission limits.

(d) The owner or operator of the source installs and operates a continuous emission monitor (CEM) for opacity that meets the performance specifications in s. NR 439.07 (3).

(e) The source is operated and maintained in such a manner as to minimize opacity through measures which are not discontinued once an alternate opacity limit is established.

(2) **PROCEDURES.** The procedure for establishing an alternate opacity limit is as follows:

(a) The source owner or operator shall notify the department in writing of its request to establish an alternate opacity limit at least 45 days prior to the performance of any testing for the purpose of establishing an alternate opacity limit. This notice shall include:

1. A test plan complying with s. NR 439.07 (1); and

2. A quality assurance plan for the operation of a continuous emission monitor.

(b) The department shall review the notice required in par. (a) and shall approve, approve with conditions or disapprove the test and quality assurance plans within 30 days after receipt of the notice.

(c) Not more than 30 days prior to the emission test, the continuous emission monitor shall pass a performance and systems audit as required by s. NR 439.07 (3).

(d) If a continuous emission monitor exemption is granted under sub. (3), the department shall provide a person who is certified in visible emission evaluation to read opacity throughout the entire emission test period.

(e) Opacity data shall be collected throughout the entire emission test period.

(f) The emission testing shall be conducted in accordance with the methods and procedures of ch. NR 439.

(3) **EXEMPTION FROM CONTINUOUS EMISSION MONITOR REQUIREMENT.** The department may exempt a source owner or operator from the continuous emission monitor requirements in subs. (1) (d) and (2) if the following conditions are met:

(a) The source owner or operator requests an exemption in filing the notice required under sub. (2) (a).

(b) The source owner or operator demonstrates that the continuous emission monitor for opacity will not give representative readings.

(c) The department reviews and approves the request for exemption.

(4) **CALCULATION OF THE ALTERNATE OPACITY LIMIT.** To calculate an alternate opacity limit:

(a) The average opacity during each repetition of the performance test shall be determined by summing the individual readings taken during that repetition, by a continuous emission monitor for opacity or the department's observer, and dividing the sum by the number of readings.

(b) The alternate opacity limit shall be established at 10% opacity above the arithmetic mean rounded to the nearest whole number of the average opacity values determined for each performance test repetition which demonstrates compliance with all other applicable emission limits.

(5) **RESTRICTION ON ESTABLISHING LIMIT.** No alternate opacity limit may be established under this section if any other applicable emission limit would be violated by the source when operating at an opacity established under sub. (4).

**History:** Cr. Register, April, 1987, No. 376, eff. 5-1-87.