

## Chapter NR 439

## REPORTING, RECORDKEEPING, TESTING, INSPECTION AND DETERMINATION OF COMPLIANCE REQUIREMENTS

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**Note:** Corrections made under s. 13.93 (2m) (b) 7, Stats., Register, December, 1996, No. 492. Corrections made under s. 13.93 (2m) (b) 7, Stats., Register, January, 2001, No. 541.

**NR 439.01—Applicability; purpose.** (1) **APPLICABILITY.** This chapter applies to all air contaminant sources and to their owners and operators. For sources subject to an emission standard under chs. NR 460 to 469 or under 40 CFR part 63, the requirements of ch. NR 460 apply in addition to the requirements of this chapter. In the case of any conflict between applicable provisions under chs. NR 460 to 469 and provisions of this chapter, the provisions under chs. NR 460 to 469 shall apply, this chapter not withstanding.

(2) **PURPOSE.** This chapter is adopted under ss. 285.11, 285.13, 285.17, 285.19, and 285.65, Stats., to establish general reporting, recordkeeping, testing, inspection and determination of compliance requirements for all air contaminant sources. Individual chapters of chs. NR 400 to 499, permits or orders may contain additional requirements.

**History:** Cr Register, September, 1986, No. 369, eff. 10-1-86; correction in (2) made under s. 13.93 (2m) (b) 7, Stats., Register, August, 1989, No. 404; am Register, May, 1992, No. 437, eff. 6-1-92; am (1), Register, March, 1997, No. 495, eff. 4-1-97; correction in (1) made under s. 13.93 (2m) (b) 7, Stats., Register August 2001 No. 548.

**NR 439.02—Definitions.** The definitions contained in chs. NR 400 and 407 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter:

(1) “Audit samples” means glass vials, gas cylinders or other materials which contain a known concentration of a pollutant that may be used for the purpose of quality assurance of certain laboratory analyses required for the determination of compliance.

(2) “Baghouse” means a control device in which dust-laden gases are forced through a fabric bag and particulates are retained by direct interception, inertial impaction, diffusion, electrostatic attraction or gravitational settling.

(3) “Compliance emission test” means a performance test required by the department or conducted in cooperation with the department involving the quantitative measurement of air contaminants as they are emitted from a source to determine compliance with an emission limitation.

(4) “Condensable particulate matter” means any material, except uncombined water, that may not be collected in the front half of the particulate emission sampling train but which exists as a solid or liquid at standard conditions.

(5) “Continuous monitoring system” means the total equipment used to sample, to analyze and to provide a permanent record of emissions or process parameters.

(6) “Emission sampling train” means the apparatus used to collect a representative sample in the performance of an emission test.

(8) “Mechanical collector” means a broad class of particulate control devices that separate solid particles from a gas stream by a combination of mechanical forces which include centrifugal, gravitational and inertial. Such devices may include settling chambers, cyclones and multicyclone collectors.

(9) “Monitoring device” means any instrument used to measure the operating parameters of a control device or process.

(11) “Sampling port” means an opening through the wall of a stack or duct that is used to provide access for extraction of a sample.

(12) “Sootblowing” means the cleaning of heat exchanger surfaces by the use of steam or air to dislodge accumulated material.

**History:** Cr Register, September, 1986, No. 369, eff. 10-1-86; am (intro.), cr (1) to (12), Register, September, 1987, No. 381, eff. 10-1-87; am (intro.), (3) and (8), r (10), Register, May, 1992, No. 437, eff. 6-1-92; am (intro.), Register, December, 1993, No. 456, eff. 1-1-94; r (7), Register, November, 1999, No. 527, eff. 12-1-99.

**NR 439.03—Reporting.** (1) (a) When requested by the department, a person shall furnish to the department information to locate and classify air contaminant sources according to the type, level, duration, frequency and other characteristics of emissions and such other information as may be necessary. The information shall be sufficient to evaluate the source’s effect on air quality and compliance with chs. NR 400 to 499.

(b) The responsible official for a source which has been issued an operation permit under s. 285.62, Stats., or an order under s. 285.13 (2), Stats., shall submit the results of monitoring required by the permit or order no less often than every 6 months, or more frequently if required by the department. In lieu of submission of all monitoring results, a summary of the monitoring results may be submitted to the department. The summary shall include sufficient data for the department to determine whether the source is in compliance with the applicable requirements to which the monitoring relates. The semiannual monitoring report may be consolidated with the quarterly excess emission report required under s. NR 439.09 when submission of both these reports is required. The department may reduce the frequency of submission of this semiannual monitoring report for non-part 70 sources. In addition to the reporting requirements under subs. (4) to (6), all deviations from and violations of applicable requirements shall be clearly identified in the monitoring reports.

(c) After an operation permit has been issued to a source by the department, the responsible official for the source shall annually, or more frequently if specified in an applicable requirement or in the permit, certify the source’s compliance status with the operation permit in accordance with subs. (8) and (10). The methods used to determine compliance status under this paragraph shall be the same methods which are required under s. NR 407.09 (1) (c) 1.

(2) A person requested to submit information under sub. (1) may subsequently be required to submit annually, or at such other

intervals as specified by the department, reports detailing any changes in the nature of the source since the previous report and the total quantities of the air contaminants emitted.

(3) When requested by the department, the owner or operator of a source shall submit to the department, within 60 days, a standard operating procedure which includes a detailed description of process and emission control equipment startup, operating and shutdown procedures designed to maintain compliance with emission limitations.

(4) (a) The owner or operator of a source shall report to the department the next business day following the onset, any malfunction or other unscheduled event at the source, not reported in advance to the department, which causes or may cause any emission limitation, including the visible emission limit, to be exceeded with the following exceptions:

1. Hazardous air spills that require immediate notice to the department under s. NR 445.16.

2. Exceedances of visible emission limitations detected by a continuous emission monitor which are less than 10% opacity above the opacity limit for a period not to exceed 30 minutes. These exceedances shall be reported in the quarterly excess emissions reports required under s. NR 439.09 (10).

(b) The person shall report the cause and duration of the exceedance, the period of time considered necessary for correction, and measures taken to minimize emissions during the period.

(c) The owner or operator of a source which has been issued an operation permit shall report to the department by the next business day any deviation from permit requirements, the probable cause of the deviation, and any corrective actions or preventive measures taken or which will be taken to prevent future deviations.

(5) The owner or operator of a source required to operate a continuous emission monitoring system or monitoring device shall notify the department of any shutdown, breakdown or malfunction of such device or system which is anticipated to continue in excess of one week. Notice shall occur at the next business day following the onset of the shutdown, breakdown or malfunction.

(6) The owner or operator of a source shall report to the department in advance schedules for planned shutdown and startup of air pollution control equipment and the measures to be taken to minimize the down time of the control equipment while the source is operating. Scheduled maintenance or any other scheduled event, including startup, shutdown or sootblowing procedures which have been approved by the department under s. NR 436.03 (2) (b), which causes an emission limitation to be exceeded shall also be reported in advance to the department. Advance reporting under this subsection does not relieve any person from the duty to comply with any applicable emission limitation.

(7) Any owner or operator of a coating or printing line achieving compliance by means of s. NR 422.04 (1) shall, upon startup of the line, or upon changing the method of compliance to s. NR 422.04 (1), notify the department. The notification shall contain:

(a) The name and location of the facility.

(b) The name or identification number of each coating or printing line which will comply by means of s. NR 422.04 (1).

(c) A description of the method by which the owner or operator will measure or calculate the volume of each coating or ink applied each day on each coating or printing line.

(d) An example of the format in which the records required under s. NR 439.04 (5) (g) will be kept.

(8) The responsible official required to certify the source's compliance status under sub. (1) (e) shall include in each certification the following information:

(a) Identification of each permit term or condition that is the basis of the compliance certification.

(b) The compliance status of the stationary source with respect to each term or condition identified in par. (a).

(e) Information on whether compliance was continuous or intermittent.

(d) The methods used for determining the compliance status of the stationary source, currently and over the previous 12 month period.

(e) Any other information the department may require, as specified in the operation permit, to determine the compliance status of the source.

(9) All certifications required to be submitted under sub. (1) (e) by a part 70 source shall be submitted to the administrator and the department.

(10) Each report required under this section shall be certified by a responsible official as to its truth, accuracy and completeness. This certification and any other certification required under this chapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

(11) All certifications made under this section and all material statements and representations made in any report or notice required by an operation permit shall be truthful.

(12) No one may render inaccurate any monitoring device or method required under this chapter or in a construction permit or an operation permit.

**History:** Renum from NR 154.06 (2) and am Register, September, 1986, No. 369, eff. 10-1-86; renum from NR 439.025, r (4) and (5); renum and am (1) to (3); (6) to (8), Register, September, 1987, No. 381, eff. 10-1-87; correction in (4) (a) 1 made under s. 13.93 (2m) (b) 7, Stats., Register, August, 1989, No. 404; am (4) (a) 2, Register, May, 1992, No. 437, eff. 6-1-92; renum (1) to be (1) (a), et (1) (b) and (c); (4) (c) and (7) to (12); am (4) (a) 2, Register, December, 1993, No. 456, eff. 1-1-94; correction in (1) (c) made under s. 13.93 (2m) (6) 7, Stats., Register, February, 1995, No. 470; am (1) (b); (c); (2) and (8) (intro), Register, December, 1997, No. 504, eff. 1-1-98; CR 02-097; am (4) (a) 1 Register June 2004 No. 582, eff. 7-1-04

**NR 439.04 Recordkeeping.** (1) The owner or operator of an air contaminant source to which chs. NR 400 to 499 apply shall maintain the following records:

(a) Records of all sampling, testing and monitoring conducted or required under chs. NR 400 to 499 or under an air pollution control permit. Records of sampling, testing or monitoring shall include the following:

1. The date, monitoring site and time and duration of sampling, testing, monitoring and measurements.

2. The dates the analyses were performed.

3. The company or entity that performed the analyses.

4. The analytical techniques or methods used, including supporting information such as calibration and maintenance records and all original recording charts for continuous monitoring instrumentation including emissions or equipment monitors.

5. The results of the analyses.

6. The relevant operating conditions that existed at the time of sampling, testing, monitoring or measurement.

(b) Records detailing all malfunctions which cause any applicable emission limitation to be exceeded, including logs to document the implementation of the plan required by s. NR 439.11.

(c) Records detailing all activities specified in any compliance schedule approved by the department under chs. NR 400 to 499.

(d) Any other records relating to the emission of air contaminants which may be requested in writing by the department.

(2) Copies of all records required under this section shall be retained by the owner or operator for a period of 5 years or for such other period as may be specified by the department.

(3) Any owner or operator of an air contaminant source described under chs. NR 419 to 424 shall maintain records which demonstrate compliance with applicable emission limitations and operating requirements. Any owner or operator claiming to be exempt from an emission limitation or other requirement in chs. NR 419 to 424 shall maintain records adequate to support each exemption claim.

(4) Any owner or operator of a coating or printing line or operation that is exempt from the emission limitations of s. NR

422.07, 422.10, 422.11, 422.12, or 422.13, under s. NR 422.03, or of a facility whose VOC emissions are below an applicability threshold of any section of ch. NR 422, shall collect and record the following information as appropriate to support the exemption or the applicability determination:

(a) A unique name or identification number for each coating or ink, as applied.

(b) The VOC content of each coating or ink, as applied, in units of pounds of VOC per gallon, excluding water.

(c) The volume of coating or ink used per day, as applied, in units of gallons, excluding water.

(d) The total VOC emissions from all coating or printing lines, including cleaning operations if necessary, meeting the same applicability statement at the facility before the application of capture systems and control devices per day, or per month and per 12 consecutive month period, consistent with and depending on the units in the applicability statement.

(e) The maximum theoretical emissions of VOCs for all coating or printing lines or operations meeting the same applicability statement at the facility in units of tons per year.

(f) For each heatset web lithographic or letterpress printing press, the maximum theoretical emissions of VOC from the dryer for heatset inks in units of tons per month and tons per year.

(g) For solvent and solvent solutions used for cleaning activities, all of the following:

1. The VOC content of each solvent or solvent solution used.
2. The volume of each solvent or solvent solution used per month.
3. The total emissions, before consideration of controls, for each month from all solvents or solvent solutions.
4. The total emissions, before consideration of controls, for each consecutive 12 month period from all solvents or solvent solutions.

**(5)** (a) Any owner or operator of a coating or printing line or operation subject to an emission limitation in ss. NR 422.05 to 422.083, 422.09 to 422.12, 422.132, 422.135, or 422.145 to 422.155 shall collect and record the following information for each coating or printing line or operation:

1. A unique name or identification number for each coating or ink, as applied.

2. The VOC content of each coating or ink, as applied, in units of pounds of VOC per gallon, excluding water.

(b) Any owner or operator of a coating line or operation subject to the emission limitations of s. NR 422.085 shall collect and record the following information:

1. A unique name or identification number for each coating, as applied.

2. The daily average VOC emission rate as calculated using the equation in s. NR 422.085 (4) (b), and all information identified in s. NR 422.085 (4) (b) and (c) necessary to calculate the daily average VOC emission rate.

(c) Any owner or operator of a coating line or operation subject to the emission limitations of s. NR 422.13 shall collect and record the following information:

1. A unique name or identification number for each coating, as applied.

2. The surface area in units of feet squared of coated finished product.

3. The amount of VOC per area of surface to which coatings are applied in units of pounds of VOC per 1000 ft<sup>2</sup>, regardless of the number of coats applied.

(d) 1. Any owner or operator of a printing line or operation subject to the emission limitations of s. NR 422.14 (2) (a) or (b) shall collect and record the following information:

a. A unique name or identification number for each ink, as applied.

b. The VOC content of each ink, as applied, expressed in units necessary to determine compliance.

2. Any owner or operator of a printing line or operation subject to the emission limitation in s. NR 422.14 (2) (c) shall collect and record the following information for each day of operation:

a. Monitoring data for the control device.

b. A log of operating time for the capture system, control device, monitoring equipment and the associated coating or printing line or operation.

c. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed and including dates and duration of any outages.

(e) Any owner or operator of a coating or printing line or operation that is subject to an emission limitation in ss. NR 422.05 to 422.135 or 422.145 to 422.155, and that is achieving compliance with the applicable emission limitation by a method allowed under s. NR 422.04 (2) (b), (c), or (d) shall, in addition to the applicable information required under pars. (a) to (d), collect and record the following information for each day of operation:

1. The allowable emission rate pursuant to ss. NR 422.05 to 422.155 in pounds per gallon of coating, excluding water.

2. The amount of each coating or ink in gallons, delivered to the applicator.

3. The volume fraction of solids in each coating or ink, delivered to the applicator.

4. The density of the VOC used in each coating or ink in pounds per gallon, delivered to the applicator.

5. The total allowable emissions as calculated under s. NR 422.04 (4).

6. The actual emissions for those coatings or inks for which allowable emissions were calculated under s. NR 422.04 (4), when considering the control device.

7. Control device monitoring data.

8. A log of operating time for the capture system, control device, monitoring equipment and the associated coating or printing line or operation.

9. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.

(f) Any owner or operator of a surface coating or printing facility that is subject to one or more emission limitations in ss. NR 422.05 to 422.15, and that is achieving compliance with the applicable emission limitation or limitations by internal offsets as allowed under s. NR 425.05 shall, in addition to the applicable information required under pars. (a) to (d), collect and record the following information for each day of operation for each coating or ink involved in the internal offset:

1. The amount of coating material or ink in gallons, delivered to the applicator.

2. The volume fraction of solids in the coating or ink, delivered to the applicator.

3. The density of the VOC used in the coating or ink in pounds per gallon, delivered to the applicator.

(g) Any owner or operator of a surface coating or printing line that is subject to an emission limitation in ss. NR 422.05 to 422.155, and that is achieving compliance with the applicable emission limitation by in-line averaging as allowed under s. NR 422.04 (1) shall, in addition to the information required under pars. (a) and (d), collect and record the following information for each day of operation for each coating or printing line:

1. When achieving compliance under s. NR 422.04 (1) (a):

a. The name or identification number of each coating applied on each coating line.

b. The volume of each coating applied in gallons, excluding water.

c. The daily volume-weighted average VOC content of all coatings applied on each coating line as defined in s. NR 422.04 (1) (a).

2. When achieving compliance under s. NR 422.04 (1) (b) 1.:

a. The name or identification number of each ink applied on each printing line.

b. The volume of each ink applied in gallons.

c. The daily volume-weighted average VOC content of all inks applied on each printing line as defined in s. NR 422.04 (1) (b) 1.

3. When achieving compliance under s. NR 422.04 (1) (b) 2.:

a. The name or identification number of each ink applied on each printing line.

b. The volume of each ink applied in gallons, excluding water.

c. The daily volume-weighted average VOC content of all inks applied on each printing line as defined in s. NR 422.04 (1) (b) 2.

(6) (a) If an owner or operator of a solvent cleaning operation employs a thermal incinerator or catalytic incinerator to achieve and maintain compliance as allowed in any section in ch. NR 422 or in s. NR 423.037, the owner or operator shall comply with the following requirements:

1. Continuous temperature monitoring and continuous temperature recording equipment shall be installed and operated to accurately measure the operating temperature for the control device.

2. The following information shall be collected and recorded each day of operation of the solvent cleaning operation and the control device, and the information shall be maintained at the facility for a period of 5 years:

a. A log or record of the operating time for the control device, monitoring equipment, and the associated solvent cleaning operation.

b. For thermal incinerators, all 3-hour periods of operation during which the average combustion temperature was more than 50 degrees Fahrenheit below the average combustion temperature during the most recent emission test that demonstrated that the solvent cleaning operation was in compliance.

c. For catalytic incinerators, all 3-hour periods of operation during which the average temperature of the dryer exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the dryer exhaust gases during the most recent emission test that demonstrated that the solvent cleaning operation was in compliance, and all 3-hour periods during which the average temperature difference across the catalyst bed was less than 80% of the average temperature difference during the most recent emission test that demonstrated that the solvent cleaning operation was in compliance.

(b) If an owner or operator of a solvent cleaning operation employs a carbon adsorption system to achieve and maintain compliance as allowed in any section in ch. NR 422 or in s. NR 423.037, the owner or operator shall comply with the following requirements:

1. One of the following types of monitoring and recording equipment shall be installed and operated for the carbon adsorption system:

a. A continuous emission monitoring and recording system that is capable of accurately measuring and recording the concentration of organic compounds in the exhaust gases from the carbon adsorption system.

b. Monitoring and recording equipment that are capable of accurately measuring and recording the total mass steam flow rate for each regeneration cycle of each carbon bed.

c. Monitoring and recording equipment that are capable of accurately measuring and recording the temperature of each carbon bed after each regeneration and cooling cycle.

2. The following information shall be collected and recorded each day of operation of the solvent cleaning operation and the carbon adsorption system, and the information shall be maintained at the facility for a period of 5 years:

a. A log or record of the operating time for the carbon adsorption system, monitoring equipment, and the associated solvent cleaning operation.

b. For a carbon adsorption system that employs a continuous emission monitoring and recording system to measure and record the concentration of organic compounds in the exhaust gases, all 3-hour periods of operation during which the average concentration level or reading in the exhaust gases is more than 20% greater than the exhaust gas organic compound concentration level or reading measured by the most recent performance test that demonstrated that the solvent cleaning operation was in compliance.

c. For a carbon adsorption system that employs monitoring and recording equipment to measure and record the total mass steam flow rate for each regeneration cycle of each carbon bed, all carbon bed regeneration cycles during which the total mass steam flow rate was more than 10% below the total mass steam flow rate during the most recent performance test that demonstrated that the solvent cleaning operation was in compliance.

d. For a carbon adsorption system that employs monitoring and recording equipment to measure and record the temperature of each carbon bed after each regeneration and cooling cycle, all carbon bed regeneration cycles during which the temperature of the carbon bed after the regeneration and cooling cycle was more than 10% greater than the carbon bed temperature during the most recent performance test that demonstrated that the solvent cleaning operation was in compliance.

**History:** Renum from NR 154 06 (3), and am Register, September, 1986, No 369, eff 10-1-86; renum from NR 439 03 and am Register, September, 1987, No 381, eff 10-1-87; am (2), cr (3), Register, February, 1990, No 410, eff 3-1-90; am (1) (a), Register, May, 1992, No 437, eff 6-1-92; am (1) (a) and (2), r and recr (3), cr (4) and (5), Register, December, 1993, No 456, eff 1-1-94; am (4) (intro ) and (5) (a), Register, June, 1994, No 462, eff 7-1-94; am (5) (a) (intro ), Register, August, 1994, No 464, eff 9-1-94; renum (5) (d) (intro ) to be (5) (d) 1 intro and am , renum (5) (d) 1 and 2 to be (5) (d) 1 a and b , cr (5) (d) 2 , am (5) (e) (intro ), Register, June, 1995, No 474, eff 7-1-95; CR 00-174; am (5) (a) (intro ), Register August 2001 No 548, eff 9-1-01; CR 11-005; am. (4) (intro.), (d), cr. (4) (f), (g), (h), (6) Register January 2012 No. 673, eff. 2-1-12.

~~NR 439.05— Access to records; inspections. (1) No person may deny information or access to records relating to emissions or any other records required to be kept to an authorized representative of the department.~~

~~(2) No person may deny entry or access at any reasonable time to an authorized representative of the department for the purposes of inspection of facilities, equipment, including monitoring and air pollution control equipment, practices or operations regulated or required by the department, or at any time when an air pollution episode condition exists or is believed imminent. No person may obstruct, hamper or interfere with any inspection. The department, if requested, shall furnish to the owner or operator of the premises a report setting forth all facts found which relate to compliance status.~~

~~(3) The department may, for the purpose of determining a source's compliance with applicable requirements, sample or monitor at reasonable times production materials or other substances or operational parameters.~~

**History:** Renum from NR 154 06 (4) and am Register, September, 1986, No 369, eff 10-1-86; renum from NR 439 04 and am Register, September, 1987, No 381, eff 10-1-87; renum to be (1), (2) renum from NR 439 09 and am , Register, May, 1992, No 437, eff 6-1-92; am (1) and (2), cr (3), Register, December, 1993, No 456, eff 1-1-94.

~~NR 439.055— Methods and procedures for determining compliance using instrumentation of air pollution control equipment and source processes. (1) The~~

department may require the owner or operator of a source to install and operate instrumentation to monitor the operation of the source or of air pollution control equipment. Unless otherwise specified by the department, for the following types of air pollution control equipment, the indicated operational variables shall, at a minimum, be monitored:

(a) Baghouses — pressure drop across the baghouse in inches of water.

(b) Mechanical collectors — pressure drop across the collector in inches of water.

(c) Electrostatic precipitators — primary and secondary voltage in volts, primary and secondary current in amps, and sparking rate in sparks per minute.

(d) Incinerators — temperature in the primary chamber and the afterburner in degrees Fahrenheit or Celsius (centigrade).

(e) Wet scrubbers for control of particulates — pressure drop across the scrubber and demister in inches of water and scrubber liquor flow in gallons per minute.

(f) Absorption equipment for control of gases — pressure drop across the absorber and demister in inches of water, and pH of the absorbing fluid, if appropriate.

(g) Adsorption equipment — pressure drop across the adsorber and prefilter in inches of water, and temperature within the adsorber in degrees Fahrenheit or Celsius (centigrade).

(2) When the department requires instrumentation to monitor the operation of a source or of air pollution control equipment, the following monitoring and recording frequencies shall, at minimum, be used:

(a) Temperature in the primary chamber and afterburner of an incinerator shall be monitored and recorded every 15 minutes.

(b) The following operational variables shall be measured and recorded once for every 8 hours of source operation or once per day, whichever yields the greater number of measurements:

1. Pressure drop across baghouses, mechanical collectors, wet scrubbers, absorption equipment or adsorption equipment.
2. Current and secondary current in electrostatic precipitators.
3. Voltage in electrostatic precipitators.
4. The sparking rate from electrostatic precipitators.
5. Flow of liquor in wet scrubbers used for particulate control.
6. pH of absorption scrubbing fluid.

(3) When the department requires instrumentation to monitor the operation of air pollution control equipment, or to monitor source performance, the instrument shall measure operational variables with the following accuracy:

(a) The temperature monitoring device shall have an accuracy of 0.5% of the temperature being measured in degrees Fahrenheit or  $\pm 5^{\circ}\text{F}$  of the temperature being measured, or the equivalent in degrees Celsius (centigrade), whichever is greater.

(b) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within  $\pm 1$  inch of water column, whichever is greater.

(c) The current, voltage, flow or pH monitoring device shall be accurate to within 5% of the specific variable being measured.

(4) All instruments used for measuring source or air pollution control equipment operational variables shall be calibrated yearly or at a frequency based on good engineering practice as established by operational history, whichever is more frequent.

(5) The department may require, in an operation permit or order, the measurement of a greater number of source or air pollution control operational variables, more frequent monitoring of operational variables, more accurate measurement of operational variables or more frequent calibration of monitoring equipment than those required under subs. (1) to (4) if the department determines that these requirements are necessary to ensure that the

source does not exceed an applicable emission limit, or to ensure that the requirements of chs. NR 400 to 499 are met.

(6) For any air pollution control equipment or monitoring instrumentation not specifically identified in subs. (1) and (2), the department may require, in an operation permit or order, and after consultation with the owner or operator of the facility, monitoring of air pollution control equipment operational variables and may specify the frequency of the monitoring and the type of monitoring instrumentation.

**History:** Renum. from NR 154.06 (6), Register, September, 1986, No. 369, eff. 10-1-86; renum. from NR 439.06 and am., Register, September, 1987, No. 381, eff. 10-1-87; renum. from NR 439.08 and am., Register, May, 1992, No. 437, eff. 6-1-92; r and rec. Register, December, 1993, No. 456, eff. 1-1-94; am. (1) (d) and (g) and (3) (a), Register, December, 1996, No. 492, eff. 1-1-97; CR 02-146; am. (6) Register October 2003 No. 574; CR 09-020; am. (2) (b) 2. Register January 2010 No. 649, eff. 2-1-10.

**NR 439.06 Methods and procedures for determining compliance with emission limitations (by air contaminant).** When tests or a continuous monitoring system are required by the department, the owner or operator of a source shall use the reference methods listed in this section and in ss. NR 439.07 to 439.095 to determine compliance with emission limitations, unless an alternative or equivalent method is approved, or a specific method is required, in writing, by the department. Any alternative, equivalent or other specific method approved or required by the department for an ozone precursor shall be submitted to, and will not become effective for federal purposes until approved by, the administrator or designee as a source specific revision to the department's state implementation plan for ozone. The test methods shall include quality control and quality assurance procedures and the data reporting format which are specified and approved by the department for collection, analysis, processing and reporting of compliance monitoring data. Notwithstanding the compliance determination methods which the owner or operator of a source is authorized to use under this chapter, the department may use any relevant information or appropriate method to determine a source's compliance with applicable emission limitations.

(1) **NONFUGITIVE PARTICULATE EMISSIONS.** The owner or operator of a source shall use Method 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H, 5I, or 17 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), and when required, Method 202 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04 (9), to determine compliance with a nonfugitive particulate emission limitation.

(1m) **NONFUGITIVE PM<sub>10</sub> PARTICULATE EMISSIONS.** The owner or operator of a source shall use Method 201 or 201A in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04 (9), to determine compliance with a nonfugitive PM<sub>10</sub> particulate emission limitation.

(2) **SULFUR DIOXIDE EMISSIONS.** The owner or operator of a source shall use one or more of the following methods to determine compliance with a sulfur dioxide emission limitation:

(a) Perform compliance emission testing following Method 6, 6A, 6B, 6C, or 8 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13).

(b) Install, calibrate, maintain and operate a continuous emission monitor that meets the applicable performance specifications in 40 CFR part 60, Appendix B or, for affected units, the performance specifications in 40 CFR part 75, Appendices A to I, incorporated by reference in s. NR 484.04 (21) and (27). The owner or operator of the source shall submit a quality control and quality assurance plan for approval by the department. The monitor shall follow the plan, as approved by the department.

(c) Perform periodic fuel sampling and analysis of fossil and nonfossil fuels using the methods and procedures specified in s. NR 439.08.

(3) **ORGANIC COMPOUND EMISSIONS** The owner or operator of a source shall use the test methods and procedures listed in this subsection to determine compliance with an organic compound emission limitation. If a test method inadvertently measures compounds which are listed in s. NR 400.02 (162) as having negligible photochemical reactivity, the owner or operator may exclude these compounds when determining compliance with a VOC emission limit if the amount of these compounds is accurately quantified and the exclusion is approved by the department. As a precondition to excluding these compounds as VOC or at any subsequent time, the department may require an owner or operator to provide monitoring or testing methods and results demonstrating, to the satisfaction of the department, the amount of negligibly reactive compounds in the source's emissions. Unless a source achieves compliance through an averaging method specifically authorized by the department, organic compound emission limitations in chs. NR 419 to 424 shall be achieved on an instantaneous basis.

(a) Method 18, 25, 25A, or 25B in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), shall be used to determine organic compound emission concentrations or emission rates.

(am) Method 204, 204A, 204B, 204C, 204D, 204E, or 204F in 40 CFR part 51, Appendix M, or the data quality objective method or lower confidence limit method in 40 CFR part 63, Subpart KK, Appendix A, incorporated by reference in s. NR 484.04 (9) and (24), shall be used to determine the capture efficiency of a control system for volatile organic compound emissions. The reporting and recordkeeping recommendations within a test method shall be followed unless alternative reporting or recordkeeping provisions have been approved in writing by the department. When determining the overall emission reduction efficiency of a volatile organic compound control system, simultaneous measurements of both the capture efficiency of the system and the pollutant reduction efficiency of the control device may be required.

(b) Method 24 or 24A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), shall be used to determine the organic solvent content, the volume of solids, the weight of solids, the water content and the density of surface coatings, inks, and cleaning materials.

(c) Method 21 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), shall be used to detect organic compound emission leaks except as provided in par. (i) 2. or 3.

(d) Method 27 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), shall be used to verify the vapor tightness of gasoline delivery tanks.

(e) An equation established under s. NR 425.05 (1) (b) 2. or contained in s. NR 425.05 (2) (b) 2. shall be used to determine compliance with an internal offset.

(f) Methods approved by the department shall be used to determine the transfer efficiency of surface coating equipment.

(g) Method 25A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), shall be used to determine compliance with the aerosol can filling VOC emission limit in s. NR 424.04. If a flame ionization detector is used to test compliance with s. NR 424.04, test equipment calibration shall be conducted with propane. During the testing procedure, the flame ionization detector shall continuously measure VOC emissions for a minimum of one hour per aerosol can filling line with the control device not in operation and for a minimum of one hour with the control device in full operation. Production data taken concurrently with the testing procedure shall be used to calculate the VOC emission rates for the tested aerosol can filling line when the control device is not in operation and when the control device is in full operation.

(h) Compounds identified in s. NR 400.02 (162) as having negligible photochemical reactivity shall be treated as water to determine compliance with emission limitations which refer to water.

(i) The owner or operator of a gasoline dispensing facility shall use the methods in this paragraph to determine compliance of motor vehicle fueling vapor recovery systems required under s. NR 420.045 (7):

1. San Diego Air Pollution Control District Test Procedure TP 91-2, incorporated by reference in s. NR 484.05 (5), shall be used for dynamic backpressure and liquid blockage tests.

2. San Diego Air Pollution Control District Test Procedure TP 91-1, incorporated by reference in s. NR 484.05 (4), shall be used for leak tests.

3. The department may approve the use of alternative test methods for a vapor recovery system only if the manufacturer, installer or operator of the vapor recovery system demonstrates all of the following:

a. The test method in subd. 1. or 2. is not applicable to the vapor recovery system.

b. The proposed test method will provide test results which are similar to those provided by the test method in subd. 1. or 2. in terms of accuracy and validity.

e. The proposed test method has been accepted by another air pollution control agency within the United States.

(j) Notwithstanding par. (b), Method 24 of 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), shall be used to determine the VOC content of lithographic inks, fountain solutions and blanket or roller wash in complying with ss. NR 422.142 and 422.143.

(4) **CARBON MONOXIDE EMISSIONS** The owner or operator of a source shall use one of the following methods to determine compliance with a carbon monoxide emission limitation:

(a) Method 10, 10A, or 10B in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13).

(b) Install, calibrate, maintain and operate a continuous emission monitor that meets the applicable performance specifications in 40 CFR part 60, Appendix B, incorporated by reference in s. NR 484.04 (21), and follow quality control and quality assurance procedures for the monitor which have been submitted by the owner or operator of the source and approved by the department.

(5) **LEAD EMISSIONS** The owner or operator of a source shall use Method 12 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), to determine compliance with a lead emission limitation.

(6) **NITROGEN COMPOUND EMISSIONS** The owner or operator of a source shall use one of the following methods to determine compliance with a nitrogen compound emission limitation:

(a) Method 7, 7A, 7B, 7C, 7D, or 7E in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13).

(b) Install, calibrate, maintain and operate a continuous emission monitor that meets the applicable performance specifications in 40 CFR part 60, Appendix B, or, for affected sources, the performance specifications in 40 CFR part 75, Appendices A to I, incorporated by reference in s. NR 484.04 (21) and (27). The owner or operator of the source shall submit and follow the quality control and quality assurance plan for the monitor which has been approved by the department.

(7) **TOTAL REDUCED SULFUR EMISSIONS** The owner or operator of a source shall use one of the following methods to determine compliance with a total reduced sulfur emission limitation:

(a) Method 15A, 16, 16A, or 16B in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13).

(b) Install, calibrate, maintain and operate a continuous emission monitor that meets the applicable performance specifications in 40 CFR part 60, Appendix B, incorporated by reference in s. NR

484.04 (21), and follow quality control and quality assurance procedures for the monitor which have been submitted by the owner or operator of the source and approved by the department.

**(8) EMISSIONS OF OTHER AIR CONTAMINANTS.** The owner or operator of a source shall use methods and plans approved, in writing, by the department to determine compliance with an emission limitation for an air contaminant not listed in subs. (1) to (7).

**(9) METHODS AND PROCEDURES FOR VISIBLE EMISSIONS.** (a) The owner or operator of a source shall use one of the following methods to determine compliance with a visible emission limitation:

1. Method 9 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13).

2. Install, calibrate, maintain and operate a continuous emission monitor that meets the applicable performance specifications in 40 CFR part 60, Appendix B or 40 CFR part 75, Appendices A to I, incorporated by reference in s. NR 484.04 (21) and (27), and follow a quality control and quality assurance plan for the monitor which has been approved by the department.

(b) The owner or operator of a source shall use Method 22 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04 (13), to determine compliance with a no visible emission requirement.

**History:** Cr Register, September, 1987, No 381, eff 10-1-87; cr (3) (g), Register, April, 1988, No 388, eff 5-1-88; am (intro) (3) and (6) (a), cr (3) (h), Register, February, 1990, No 410, eff 3-1-90; am (intro) and (2) (c), Register, May, 1992, No 437, eff 6-1-92; am (3) (c), cr (3) (i), Register, January, 1993, No 445, eff 2-1-93; am (2) (a) and (3) (intro), Register, May, 1993, No 449, eff 6-1-93; am (intro), (1), (4) (a), (6) (b), (6) (e), (7) (a), (8), (9) (a) 2, cr (1m), Register, December, 1993, No 456, eff 1-1-94; am (1), (1m), (2) (a), (b), (3) (a) to (d), (g), (i) 1, 2, (4) (a), (b), (5), (6) (a), (b), (7) (a), (b), (9) (a) 1, 2, (9) (b), Register, February, 1995, No 470, eff 3-1-95; am (2) (b), Register, April, 1995, No 472, eff 5-1-95; cr (3) (j), Register, June, 1995, No 474, eff 7-1-95; am (3) (intro) and (h), Register, November, 1999, No 527, eff 12-1-99; cr (3) (am), Register, March, 2000, No 531, eff 4-1-00; CR 02-146: am (1) Register October 2003 No 574, eff 11-1-03; CR 08-102: am (3) (j) Register July 2009 No 643, eff 8-1-09; CR 11-005: am. (3) (b) Register January 2012 No. 673, eff. 2-1-12.

**NR 439.07—Methods and procedures for periodic compliance emission testing.** The owner or operator of a source required to conduct emission testing under s. NR 439.075 shall comply with all applicable methods and procedures listed in this section.

**(1) GENERAL.** All emission tests conducted for the purpose of determining compliance with an emission limitation under chs. NR 400 to 499 shall be performed according to the test methods established in 40 CFR part 60, Appendix A, 40 CFR part 61, Appendix B, and 40 CFR part 63, Appendix A, incorporated by reference in s. NR 484.04 (13), (23), and (25), or according to other test methods approved in writing by the department. The owner, operator or contractor responsible for emission testing shall follow the procedures in this section. Unless the department requires or approves the performance of a test at less than capacity, all compliance emission tests shall be performed with the equipment operating at capacity or as close to capacity as practicable.

**(2) EMISSION TEST NOTIFICATION AND TEST PLAN SUBMITTAL.** The department shall be notified in writing at least 20 business days in advance of a compliance emission test, including initial certification tests and relative accuracy tests performed under s. NR 439.09, to provide the department an opportunity to have a representative present to witness the testing procedures. The notice shall provide a test plan which includes, but need not be limited to, the following:

(a) A description of the sampling equipment and the test methods and procedures to be used.

(b) A description of the process to be tested.

(c) A description of the process or operation variables which affect the air contaminant source's emissions.

(d) The date and starting time of the test.

(e) A description of the number and location of the sampling ports and sampling points including a sketch showing the distance

of the sampling ports from the nearest upstream and downstream flow disturbances and the stack dimensions.

(f) A statement indicating the production rate and the operating conditions at which the test will be conducted.

**(3) TEST PLAN EVALUATION.** In evaluating the test plan, the department shall respond to the source owner or operator within 10 business days of receipt of the plan and may require the following:

(a) A pre-test conference which includes the owner or operator of the source, the tester and the department to discuss any deficiencies in the plan or settle any test procedure questions the department, the tester or the source owner or operator might have.

(b) Any reasonable stack or duct modification or any change to the sampling method that is deemed necessary by the department to obtain a representative sample.

(c) Additional tests for the same pollutants to be performed at the same or different operating conditions.

(d) A rescheduling of the test to accommodate witnessing or source production schedules.

**(4) NOTIFICATION OF TEST PLAN REVISION.** The source owner or operator shall notify the department of any modifications to the test plan at least 5 business days prior to the test. In the event the owner or operator is unable to conduct the compliance emission test on the date specified in the test plan, due to unforeseeable circumstances beyond the owner or operator's control, the owner or operator shall notify the department at least 5 business days prior to the scheduled compliance emission test date and specify the date when the test is rescheduled.

**(5) TESTING FACILITIES.** The department may require the owner or operator of a source to provide the following emission testing facilities:

(a) The installation of sampling ports and safe sampling platforms.

(b) A safe work area for the test crew or any witnessing personnel.

(c) Safe access to the work area or sampling platform.

(d) Utilities for the sampling equipment.

(e) Instrumentation to monitor and record emissions data.

**(6) WITNESSING REQUIREMENTS.** The department may require that a department representative be present at any compliance emission test. The department representative has the following authority:

(a) The department representative shall, during the test, supply the tester with the appropriate audit samples required in the reference method for quality assurance purposes.

(b) The department representative may require the tester to provide the department a copy of all test data and equipment calibration data prepared or collected for the test.

(c) The department representative may take any or all of the test samples collected during the test for analysis by the department.

(d) The department witness may require the source owner or operator and tester to correct any deficiency in the performance of the test provided that the department witness notifies the source owner or operator and tester of the deficiency as soon as it is discovered. The failure of a source owner or operator and tester to correct any deficiency may result in the department refusing to accept the testing results.

**(7) EMISSION TESTING EQUIPMENT CALIBRATION REQUIREMENTS.** The following components of any emission sampling train or associated sampling equipment shall be calibrated not more than 60 days before the test:

(a) Any equipment used to measure gas velocity.

(b) Any equipment used to meter sample gas volume.

(c) Any equipment used to regulate sample gas flow.

(d) Any equipment used to measure temperature.