

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; and

(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 ss. NR 422.05 to 422.14, 422.15 or 422.155, under s. NR 422.03, or is exempt from the emission limitations of s. NR 422.145 under s. NR 422.03 (4m) (b) or (c), shall collect and record the following information as appropriate to support the exemption:

(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 or operations meeting the same applicability statement at the facility before the application of capture systems and control devices in units of pounds per day; and

(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.

(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 422.08, 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; and

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; and

3. The amount of VOC per area of surface to which coatings are applied in units of pounds of VOC per 1000 ft², regardless of the number of coats applied.

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

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

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

(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 422.155, 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; and
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.

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.

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 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 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 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 Centigrade, whichever is greater.

(b) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within ± 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 fre-

quency 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 not specifically identified in sub. (1), 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 the frequency of the monitoring.

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 recr. Register, December, 1993, No. 456, eff. 1-1-94.

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 of the U.S. environmental protection agency 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 or 17 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04, or Method 202 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04, to determine compliance with a nonfugitive particulate emission limitation.

(1m) **NONFUGITIVE PM₁₀ 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, to determine compliance with a nonfugitive PM₁₀ 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.

(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. 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 (100) 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, shall be used to determine organic compound emission concentrations or emission rates.

(b) Method 24 or 24A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04, 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 and inks.

(c) Method 21 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04, 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, 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 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, shall be used to determine compliance with the aerosol can filling VOC emission limit in s. NR 424.04. If a flame ioniza-

tion 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 (100) 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, 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, 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.

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

(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.

(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, 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, 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.

(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 through I, incorporated by reference in s. NR 484.04. The owner or operator of the sources 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.

(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, 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.

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 through I, incorporated by reference in s. NR 484.04, 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, 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.

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, incorporated by reference in s. NR 484.04, 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 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.

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