CHAPTER 62-297
STATIONARY SOURCES - EMISSIONS MONITORING

62-297.100 Purpose and Scope.

Rulemaking Authority 403.061 FS. Law Implemented 403.021, 403.031, 403.061, 403.087 FS. History–Formerly 17-2.700(1)(a), 17-297.100, Amended 11-23-94, 3-13-96, Repealed 2-16-12.

62-297.310 General Compliance Test Requirements.

The focal point of a compliance test is the stack or duct which vents process and/or combustion gases and air pollutants from an emissions unit into the ambient air.

(1) Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance,

provided that the arithmetic mean of the results of the two complete runs is at least 20% below the allowable emission limiting standard.

(2) Operating Rate During Testing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

(a) Combustion Turbines. (Reserved)

(b) All Other Sources. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit.

(3) Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

(4) Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to paragraph 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

c. The minimum observation period for opacity tests conducted by employees or agents of the department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

TABLE 297.310-1 CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001´´ mean of at least three readings Max. deviation between readings, .004´´
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually	Spirometer or calibrated wet test or dry gas test meter	2%
	3. Check after each test series	Comparison check	5%

(5) Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

(6) Required Stack Sampling Facilities. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other

than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.

2. The ports shall be capable of being sealed when not in use.

3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.

5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.

2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.

3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.

4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f) Electrical Power.

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

(g) Sampling Equipment Support.

1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

a. The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the

centerline of the sampling port.

b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

(7) Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,

4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.

7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible

emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.

(b) Special Compliance Tests. When the department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

(8) Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the department on the results of each such test.

(b) The required test report shall be filed with the department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.

2. The facility at which the emissions unit is located.

3. The owner or operator of the emissions unit.

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.

5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.

6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.

7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.

8. The date, starting time and duration of each sampling run.

9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.

10. The number of points sampled and configuration and location of the sampling plane.

11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the

stack, temperatures, average meter temperatures and sample time per point.

12. The type, manufacturer and configuration of the sampling equipment used.

13. Data related to the required calibration of the test equipment.

14. Data on the identification, processing and weights of all filters used.

15. Data on the types and amounts of any chemical solutions used.

16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

18. All measured and calculated data required to be determined by each applicable test procedure for each run.

19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

(9) The terms stack and duct are used interchangeably in this rule.

Rulemaking Authority 403.061 FS. Law Implemented 403.031, 403.061, 403.087 FS. History–Formerly 17-2.700(1)(b), 17-297.310, Amended 11-23-94, 3-13-96, 10-28-97, 3-2-99.

62-297.320 Standards for Persons Engaged in Visible Emissions Observations.

(1) Training and Certification Required. All persons engaged in determining the opacity of visible emissions in Florida shall attend training and be certified by a training provider in accordance with the procedures and requirements set forth below.

(a) Certification shall consist of satisfactory attendance and completion of a classroom lecture and a field qualification. For certification purposes, the classroom lecture and field qualification are separate and independent requirements.

(b) Attendance at the classroom lecture is required no less frequently than every three years. Successful completion of the field qualification is required no less frequently than every six months.

(c) Proof of certification shall be made by including copies of the signed and dated certificates or cards issued by the training providers with documentation of visible emissions observations submitted to the department, or otherwise upon request of the department.

(2) Requirements for Training Providers. All persons providing training leading to the certification of persons engaged in determining the opacity of visible emissions in Florida shall meet the requirements of subsections 62-297.320(2)-(8), F.A.C.

(a) For certification purposes, the classroom lecture and field certification are separate and independent requirements. For each course scheduled, each training provider shall offer a classroom lecture and one or more days of field qualification.

(b) Copies of quality assurance documentation, attendance records and field data sheets shall be maintained for a period of no less than three years after the conclusion of each course and shall be made available to the department upon request.

(c) Each training provider shall arrange for suitable locations for the classroom lecture and field qualification sessions that facilitate learning and reduce the impact of the smoke on passersby.

(d) To assure that cigar, pipe or cigarette smoke does not interfere with the observations of the trainees, each training provider shall enforce a policy of no smoking within the field qualification area.

(3) Classroom Lecture.

(a) The classroom lecture shall include the following topics and exercises:

1. Sources and causes of visible emissions.

2. Common types of emission control equipment and their effects on visible emissions observations.

3. History of opacity measurement.

4. Principles and theory of opacity.

5. Plume types and characteristics.

6. Legal aspects of visible emissions observations and legal defensibility of Method 9.

7. Basic meteorological conditions that influence plume behavior.

8. Proper procedures for conducting field observations under a variety of conditions.

9. A demonstration of commonly used measurement devices including a compass, a wind speed measurement device, and an inclinometer.

10. A written exercise demonstrating the proper procedure for documentation of observations.

(b) Training providers shall issue a signed and dated certificate or card to all persons attending the classroom lecture.

(4) Field Qualification.

(a) The field qualification shall be conducted in accordance with the requirements set forth in 40 CFR Part 60, Subpart A, EPA Method 9, adopted and incorporated by reference at Rule 62-204.800, F.A.C.; EPA Quality Assurance Handbook for Air Pollution Measurement Systems: Volume III, Section 3.12, hereby adopted and incorporated by reference; and EPA Guidelines for Evaluation of Visible Emissions (EPA 340/1-75-007, April 1975), hereby adopted and incorporated by reference.

(b) Each training provider shall meet requirements for quality assurance at least as stringent as those outlined in EPA Method 9.

(c) Each training provider shall monitor the attendees so that conferring or copying results during field qualification does not occur.

(d) Each training provider shall not provide hints of any kind or demonstrate the smoke standards during the field qualification sessions, except during familiarization runs prior to each test.

(e) Training providers shall issue a signed and dated certificate or card to all persons who successfully complete the field qualification.

(5) Notification to Department of Training Course Offerings. Each training provider shall notify the department of all visible emissions training courses such provider offers in Florida at least 30 days prior to the start of each course.

(6) Notification to Department of Persons Receiving Certification. Each training provider shall provide a list of the names of attendees receiving certification at its courses to the department no later than 30 days after the conclusion of each course.

(7) Audit by the Department. For auditing purposes, each training provider shall allow one or more persons from the department or a local air pollution control agency to observe each visible emissions training course offered in Florida without advance notice to the training provider. The training provider shall not issue a certificate or card to the observers, and shall not charge a fee for their attendance.

(8) Invalidation of Certificates. After investigation by the department, should any training provider's course be found by the department to not meet the requirements of this section, the certificates or cards offered by such provider for such course shall not be considered valid for visible emissions observations in Florida.

Rulemaking Authority 403.061 FS. Law Implemented 403.031, 403.061 FS. History–New 2-12-04.

62-297.401 Compliance Test Methods.

This rule lists the test methods to be used where a compliance test is required by department air pollution rule or air permit. The EPA test methods and quality assurance procedures listed in this rule and contained in 40 CFR Part 51, Appendix M, 40 CFR Part 60, Appendices A and F, 40 CFR Part 61, Appendices B and C and 40 CFR Part 63, Appendix A, are adopted and incorporated by reference at Rule 62-204.800, F.A.C. The EPA test methods that are adopted by reference at Rule 62-204.800, F.A.C., are adopted in their entirety except for those

provisions referring to approval of alternative procedures by the Administrator. For the purposes of this rule, such alternative procedures may only be approved by the Secretary or his or her designee in accordance with Rule 62-297.620, F.A.C.

(1)(a) EPA Method 1 – Sample and Velocity Traverses for Stationary Sources – 40 CFR 60, Appendix A.

(b) EPA Method 1A – Sample and Velocity Traverses for Stationary Sources with Small Stacks or Ducts – 40 CFR 60, Appendix A.

(2) EPA Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate – 40 CFR 60, Appendix A.

(a) EPA Method 2A – Direct Measurement of Gas Volume Through Pipes and Small Ducts – 40 CFR 60, Appendix A.

(b) EPA Method 2B – Determination of Exhaust Gas Volume Flow Rate from Gasoline Vapor Incinerators – 40 CFR 60, Appendix A.

(c) EPA Method 2C – Determination of Stack Gas Velocity and Volumetric Flow Rate in Small Stacks and Ducts (Standard Pitot Tube) – 40 CFR 60, Appendix A.

(d) EPA Method 2D – Measurement of Gas Volumetric Flow Rates in Small Pipes and Ducts – 40 CFR 60, Appendix A.

(e) EPA Method 2E – Determination of Landfill Gas; Gas Production Flow Rate – 40 CFR Part 60, Appendix A.

(3) EPA Method 3 – Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight – 40 CFR 60, Appendix A.

(a) EPA Method 3A – Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure) – 40 CFR 60, Appendix A.

(b) EPA Method 3B – Gas Analysis for the Determination of Emission Rate Correction Factor or Excess Air – 40 CFR Part 60, Appendix A.

(c) EPA Method 3C – Determination of Carbon Monoxide, Methane, Nitrogen, and Oxygen From Stationary Sources – 40 CFR Part 60, Appendix A.

(4) EPA Method 4 – Determination of Moisture Content in Stack Gases – 40 CFR 60, Appendix A.

(5) EPA Method 5 – Determination of Particulate Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(a) EPA Method 5A – Determination of Particulate Emissions from the Asphalt Processing and Asphalt Roofing Industry – 40 CFR 60, Appendix A.

(b) EPA Method 5B – Determination of Nonsulfuric Acid Particulate Matter from Stationary Sources – 40 CFR 60, Appendix A.

(c) (Reserved).

(d) EPA Method 5D – Determination of Particulate Matter Emissions from Positive Pressure Fabric Filters – 40 CFR 60, Appendix A.

(e) EPA Method 5E – Determination of Particulate Emissions from the Wool Fiberglass Insulation Manufacturing Industry – 40 CFR 60, Appendix A.

(f) EPA Method 5F – Determination of Nonsulfate Particulate Matter from Stationary Sources – 40 CFR 60, Appendix A.

(g) EPA Method 5G – Determination of Particulate Emissions from Wood Heaters from a Dilution Tunnel Sampling Location – 40 CFR 60, Appendix A.

(h) EPA Method 5H – Determination of Particulate Emissions from Wood Heaters from a Stack Location – 40 CFR 60, Appendix A.

(6) EPA Method 6 – Determination of Sulfur Dioxide Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(a) EPA Method 6A – Determination of Sulfur Dioxide, Moisture, and Carbon Dioxide Emissions From Fossil Fuel Combustion Sources – 40 CFR 60, Appendix A.

(b) EPA Method 6B – Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions

From Fossil Fuel Combustion Sources – 40 CFR 60, Appendix A.

(c) EPA Method 6C – Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure) – 40 CFR 60, Appendix A.

(7) EPA Method 7 – Determination of Nitrogen Oxide Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(a) EPA Method 7A – Determination of Nitrogen Oxide Emissions from Stationary Sources – Ion Chromatographic Method – 40 CFR 60, Appendix A.

(b) EPA Method 7B – Determination of Nitrogen Oxide Emissions from Stationary Sources (Ultraviolet Spectrophotometry) – 40 CFR 60, Appendix A.

(c) EPA Method 7C – Determination of Nitrogen Oxide Emissions from Stationary Sources – Alkaline-Permanganate/ Colorimetric Method – 40 CFR 60, Appendix A.

(d) EPA Method 7D – Determination of Nitrogen Oxide Emissions from Stationary Sources – Alkaline-Permanganate/Ion Chromatographic Method – 40 CFR 60, Appendix A.

(e) EPA Method 7E – Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure) – 40 CFR 60, Appendix A.

(8) EPA Method 8 – Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(9)(a) EPA Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(b) Alternate Method 1 – Determination of the Opacity of Emissions from Stationary Sources Remotely by Lidar – 40 CFR 60, Appendix A.

(c) DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.

b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.

(10) EPA Method 10 – Determination of Carbon Monoxide Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(a) EPA Method 10A – Determination of Carbon Monoxide Emissions in Certifying Continuous Emission Monitoring Systems at Petroleum Refineries – 40 CFR 60, Appendix A.

(b) EPA Method 10B – Determination of Carbon Monoxide Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(11) EPA Method 11 – Determination of Hydrogen Sulfide Content of Fuel Gas Streams in Petroleum

Refineries – 40 CFR 60, Appendix A.

(12) EPA Method 12 – Determination of Inorganic Lead Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(13) EPA Methods 13A and 13B.

(a) EPA Method 13A – Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method – 40 CFR 60, Appendix A.

(b) EPA Method 13B – Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode Method – 40 CFR 60, Appendix A.

(14) EPA Method 14 – Determination of Fluoride Emissions from Potroom Roof Monitors of Primary Aluminum Plants – 40 CFR 60, Appendix A.

(a) EPA Method 14A – Determination of Total Fluoride Emissions From Selected Sources at Primary Aluminum Production Facilities – 40 CFR Part 60, Appendix A.

(15) EPA Method 15 – Determination of Hydrogen Sulfide, Carbonyl Sulfide and Carbon Disulfide Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(a) EPA Method 15A – Determination of Total Reduced Sulfur Emissions from Sulfur Recovery Plants in Petroleum Refineries – 40 CFR 60, Appendix A.

(16) EPA Method 16 – Semicontinuous Determination of Sulfur Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(a) EPA Method 16A – Determination of Total Reduced Sulfur Emissions from Stationary Sources (Impinger Technique) – 40 CFR 60, Appendix A.

(b) EPA Method 16B – Determination of Total Reduced Sulfur Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(17) EPA Method 17 – Determination of Particulate Emissions from Stationary Sources (In-Stack Filtration Method) – 40 CFR 60, Appendix A.

(18) EPA Method 18 – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography – 40 CFR 60, Appendix A.

(19) EPA Method 19 – Determination of Sulfur Dioxide Removal Efficiency and Particulate, Sulfur Dioxide and Nitrogen Oxides Emission Rates – 40 CFR 60, Appendix A.

(20) EPA Method 20 – Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines – 40 CFR 60, Appendix A.

(21) EPA Method 21 – Determination of Volatile Organic Compound Leaks – 40 CFR 60, Appendix A.

(22) EPA Method 22 – Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares – 40 CFR 60, Appendix A.

(23) EPA Method 23 – Determination of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans from Stationary Sources – 40 CFR 60, Appendix A.

(24) EPA Method 24 – Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings – 40 CFR 60, Appendix A.

(a) EPA Method 24A – Determination of Volatile Matter Content and Density of Printing Inks and Related Coatings – 40 CFR 60, Appendix A.

(b) Reserved.

(25) EPA Method 25 – Determination of Total Gaseous Nonmethane Organic Emissions as Carbon – 40 CFR 60, Appendix A.

(a) EPA Method 25A – Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer – 40 CFR 60, Appendix A.

(b) EPA Method 25B – Determination of Total Gaseous Organic Concentration Using a Nondispersive Infrared Analyzer – 40 CFR 60, Appendix A.

(c) EPA Method 25C – Determination of Nonmethane Organic Compounds (NMOC) in Municipal Solid Waste Landfill Gases – 40 CFR Part 60, Appendix A.

(d) EPA Method 25D – Determination of the Volatile Organic Concentration of Waste Samples – 40 CFR

Part 60, Appendix A.

(e) EPA Method 25E – Determination of the Vapor Phase Organic Concentration of Waste Samples – 40 CFR Part 60, Appendix A.

(26)(a) EPA Method 26 – Determination of Hydrogen Chloride Emissions from Stationary Sources – 40 CFR 60, Appendix A.

(b) EPA Method 26A – Determination of Hydrogen Halide and Halogen Emissions From Stationary Sources – Isokinetic Method – 40 CFR 60, Appendix A.

(27) EPA Method 27 – Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test – 40 CFR 60, Appendix A.

(28)(a) EPA Method 28 – Certification and Auditing of Wood Heaters – 40 CFR 60, Appendix A.

(b) EPA Method 28A – Measurement of Air to Fuel Ratio and Minimum Achievable Burn Rates for Wood-Fired Appliances – 40 CFR 60, Appendix A.

(29) EPA Method 29 – Determination of Metals Emission from Stationary Sources – 40 CFR 60, Appendix A.

(30) Reserved.

(31) 40 CFR 60, Appendix F – Quality Assurance Procedures.

(32)(a) EPA Method 101 – Determination of Particulate and Gaseous Mercury Emissions from Chlor-Alkali Plants – Air Streams – 40 CFR 61, Appendix B.

(b) EPA Method 101A – Determination of Particulate and Gaseous Mercury Emissions from Sewage Sludge Incinerators – 40 CFR 61, Appendix B.

(33) EPA Method 102 – Determination of Particulate and Gaseous Mercury Emissions from Chlor-Alkali Plants – Hydrogen Streams – 40 CFR 61, Appendix B.

(34) EPA Method 103 – Beryllium Screening Method – 40 CFR 61, Appendix B.

(35) EPA Method 104 – Determination of Beryllium Emissions from Stationary Sources – 40 CFR 61, Appendix B.

(36) EPA Method 105 – Determination of Mercury in Wastewater Treatment Plant Sewage Sludges – 40 CFR 61, Appendix B.

(37) EPA Method 106 – Determination of Vinyl Chloride Emissions from Stationary Sources – 40 CFR 61, Appendix B.

(38)(a) EPA Method 107 – Determination of Vinyl Chloride Content of Inprocess Wastewater Samples, and Vinyl Chloride Content of Polyvinyl Chloride Resin, Slurry, Wet Cake, and Latex Samples – 40 CFR 61, Appendix B.

(b) EPA Method 107A – Determination of Vinyl Chloride Content of Solvents, Resin-Solvent Solution, Polyvinyl Chloride Resin, Resin Slurry, Wet Resin, and Latex Samples – 40 CFR 61, Appendix B.

(39) EPA Method 108 – Determination of Particulate and Gaseous Arsenic Emissions – 40 CFR 61, Appendix B.

(a) EPA Method 108A – Determination of Arsenic Content in Ore Samples from Nonferrous Smelters – 40 CFR 61, Appendix B.

(b) EPA Method 108B – Determination of Arsenic Content in Ore Samples from Nonferrous Smelters – 40 CFR 61, Appendix B.

(c) EPA Method 108C – Determination of Arsenic Content in Ore Samples from Nonferrous Smelters – 40 CFR 61, Appendix B.

(40) 40 CFR 61, Appendix C – Quality Assurance Procedures.

(41)(a) EPA Method 201 – Determination of PM_{10} Emissions (Exhaust Gas Recycle Procedure) – 40 CFR 51, Appendix M.

(b) EPA Method 201A – Determination of PM_{10} Emissions (Constant Sampling Rate Procedure) – 40 CFR 51, Appendix M.

(42) EPA Method 202 – Determination of Condensible Particulate Emissions from Stationary Sources – 40 CFR 51, Appendix M.

(43) EPA Method 301 – Field Data Validation Protocol – 40 CFR Part 63, Appendix A.

(44) EPA Method 303 – Coke Oven Door Emissions – 40 CFR Part 63, Appendix A.

(45) EPA Method 303A – Determination of Visible Emissions From Nonrecovery Coke Oven Batteries – 40 CFR Part 63, Appendix A.

(46) EPA Method 304A – Determination of Biodegradation Rates of Organic Compounds (Vent Option) – 40 CFR Part 63, Appendix A.

(47) EPA Method 304B – Determination of Biodegradation Rates of Organic Compounds (Scrubber Option) – 40 CFR Part 63, Appendix A.

(48) EPA Method 305 – Measurement of Emission Potential of Individual Volatile Organic Compounds in Waste – 40 CFR Part 63, Appendix A.

(49) EPA Method 306 – Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations – 40 CFR Part 63, Appendix A.

(50) EPA Method 306A – Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations – 40 CFR Part 63, Appendix A.

(51) EPA Method 306B – Surface Tension Measurement and Recordkeeping for Chromium Plating Tanks Used at Electroplating and Anodizing Facilities – 40 CFR Part 63, Appendix A.

(52) EPA Method 307 – Determination of Emissions From Halogenated Solvent Vapor Cleaning Machines Using a Liquid Level Procedure – 40 CFR Part 63, Appendix A.

(53) EPA Method 308 – Procedure for Determination of Methanol Emission From Stationary Sources – 40 CFR Part 63, Appendix A.

(54) EPA Method 310A – Determination of Residual Hexane Through Gas Chromatography – 40 CFR Part 63, Appendix A.

(55) EPA Method 310B – Determination of Residual Hexane Through Gas Chromatography – 40 CFR Part 63, Appendix A.

(56) EPA Method 310C – Determination of Residual n-Hexane in EPDM Rubber Through Gas Chromatography – 40 CFR Part 63, Appendix A.

(57) EPA Method 311 – Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph – 40 CFR Part 63, Appendix A.

(58) EPA Method 312A – Determination of Styrene in Latex Styrene-Butadiene Rubber, Through Gas Chromatography – 40 CFR Part 63, Appendix A.

(59) EPA Method 312B – Determination of Residual Styrene in Styrene-Butadiene Rubber Latex (SBR) by Capillary Gas Chromatography – 40 CFR Part 63, Appendix A.

(60) EPA Method 312C – Determination of Residual Styrene in Styrene-Butadiene Rubber (SBR) Latex Produced by Emulsion Polymerization – 40 CFR Part 63, Appendix A.

(61) EPA Method 313A – Determination of Residual Hydrocarbons in Rubber Crumb – 40 CFR Part 63, Appendix A.

(62) EPA Method 313B – The Determination of Residual Hydrocarbon in Solution Polymers by Capillary Gas Chromatography – 40 CFR Part 63, Appendix A.

(63) EPA Method 315 – Determination of Particulate and Methylene Chloride Extractable Matter (MCEM) from Selected Sources at Primary Aluminum Production Facilities – 40 CFR Part 63, Appendix A.

(64) EPA Method 319 – Determination of Filtration Efficiency for Paint Overspray Arrestors – 40 CFR Part 63, Appendix A.

(65) Determination of the Fraction Biodegraded (Fbio) in a Biological Treatment Unit – 40 CFR Part 63, Appendix C.

(66) Alternative Validation Procedure for EPA Waste and Wastewater Methods – 40 CFR Part 63, Appendix D.

Rulemaking Authority 403.061 FS. Law Implemented 403.031, 403.061, 403.087 FS. History–Formerly 17-2.700(6)(b), Amended 6-11-93, Formerly 17-297.401, Amended 11-23-94, 1-1-96, 3-13-96, 10-7-96, 3-2-99.

62-297.440 Supplementary Test Procedures.

The following test procedures are adopted by reference. Copies of these documents are available from the sources set forth below. Copies may also be inspected at the Department's Tallahassee Office.

(1) ASTM Methods – Standard Methods published by the American Society for Testing and Materials are available from the Society at 1916 Race Street, Philadelphia, Pennsylvania 19103.

(a) ASTM D 322-67, 1972. Standard Method of Test for Dilution of Gasoline Engine Crankcase Oils.

(b) ASTM D 396-98. Standard Specification for Fuel Oils.

(c) ASTM D 2880-98. Standard Specification for Gas Turbine Fuel Oils.

(d) ASTM D 975-98b. Standard Specification for Diesel Fuel Oils.

(e) ASTM D 323-72. Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).

(f) ASTM D 97-66. Standard Test Method for Pour Point of Petroleum Oils.

(g) ASTM D 4057-88. Standard Practice for Manual Sampling of Petroleum and Petroleum Products.

(h) ASTM D 129-91. Standard Test Method for Sulfur in Petroleum Products (General Bomb Method).

(i) ASTM D 2622-94. Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry.

(j) ASTM D 4294-90. Standard Test Method for Sulfur in Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectroscopy.

(k) ASTM D 240-92. Standard Test Method for Heat Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter.

(l) ASTM D 482-00. Standard Test Method for Ash from Petroleum Products.

(m) ASTM D 1552-95. Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method).

(n) ASTM D 1826-94. Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter.

(o) ASTM D 1945-96. Standard Test Method for Analysis of Natural Gas by Gas Chromatography.

(p) ASTM D 2015-00. Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter.

(q) ASTM D 2622-98. Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry.

(r) ASTM D 3228-96. Standard Test Method for Total Nitrogen in Lubricating Oils and Fuels By Modified Kjeldahl Method.

(s) ASTM D 3246-96. Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry.

(t) ASTM D 3588-98. Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels.

(u) ASTM D 4294-98. Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-ray Fluorescense Spectrometry.

(v) ASTM D 4629-96. Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection.

(w) ASTM D 4809-00. Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method).

(x) ASTM D 4891-89. Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion.

(y) ASTM D 5865-02. Standard Test Method for Gross Calorific Value of Coal and Coke.

(2) EPA Reports – EPA occasionally publishes test methods and emission control guidelines in a report format. These documents are available (unless otherwise stated) from the National Technical Information Services, 5286 Port Royal Road, Springfield, Virginia 22216, and may be inspected at the Department's Tallahassee Office.

(a) Petroleum Liquid Storage.

1. Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks, EPA 450/2-78-047, p. 5-3.

2. Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks, EPA 450/2-77-036, p. 6-2.

(b) Gasoline Bulk Terminals.

1. Vapor Control System Test.

a. VOC emissions from the vapor control system shall be determined by the method given in Appendix A of EPA 450/ 2-77-026, except that an adequate sampling time shall be at least six (6) hours of operation. For continuous vapor processing systems at least 80,000 gallons (302,800 liters) of gasoline shall be loaded during the test. For intermittent vapor processing systems, at least 80,000 gallons (302,800 liters) of gasoline shall be loaded during the test and at least two full cycles of operation of the vapor processing system shall occur. This test shall be performed prior to the date of compliance and annually thereafter. Test results records shall be maintained at the terminal until the subsequent annual test shall be made available to the department upon request.

b. Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals, EPA 450/2-77-026, Appendix A. Emission Test Procedure for Tank Truck Gasoline Loading Terminals.

2. Vapor Leak Detection.

a. During loading or unloading operations at bulk terminals, there shall be no reading greater than or equal to 100 percent of the lower explosive level (LEL), measured as propane at 1 in. (2.5 centimeters) around the perimeter of a potential leak source as detected by a combustible gas detector using the procedure described in Appendix B of EPA 450/2-78-051.

b. Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems, EPA 450/ 2-78-051, Appendix B, Gasoline Vapor Leak Detection Procedures by Combustible Gas Detector.

(c) Gasoline Service Stations.

1. Design Criteria for Stage I Vapor Control: Gasoline Service Stations, USEPA, OAQPS, ESED, November, 1975.

2. [Reserved].

(d) Non-destructive Control Devices.

1. Measurement of Volatile Organic Compounds, EPA 450/2-78-041, Attachment 3, Alternate Test for Direct Measurement of Total Gaseous Organic Compounds Using a Flame Ionization Analyzer.

2. [Reserved].

(e) Perchloroethylene Dry Cleaning Systems.

1. Control of Volatile Organic Emissions from Perchloroethylene Dry Cleaning Systems, EPA 450/2-78-050, p. 6-3, Compliance Procedures, Liquid Leakage.

2. RACT Compliance Guidance for Carbon Absorbers on Perchloroethylene Dry Cleaners. Task No. 119, Contract No. 68-01-4147. EPA, DSSE, May, 1980, pp. 8 – 21, Appendices A and B.

(f) Cross Recovery Determination. When determining if a kraft recovery furnace is a straight kraft or cross recovery furnace the procedure in 40 CFR 60.285(d)(3) of Subpart BB shall be used.

(3) American Conference of Governmental Industrial Hygienists, Recommended Practices – Industrial Ventilation: A Manual of Recommended Practice – Equipment Specifications published in the 16th Edition of the Industrial Ventilation Manual (or any subsequent versions approved by the department) are available from the American Conference of Governmental Industrial Hygienists, Committee on Industrial Ventilation, P. O. Box 16153, Lansing, Michigan 48901, and may be inspected at the Department's Tallahassee office.

(4) American Petroleum Institute (API) Recommended Practices – These are available from the API, 2101 L Street, Northwest, Washington, D.C. 20037

(a) API Standard 650, Welded Steel Tanks for Oil Storage, Sixth Edition, Revision 1, May 15, 1978.

(b) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February, 1980.

(c) API 1004, Bottom Loading and Vapor Recovery for MC-306 Tank Motor Vehicles, Fourth Edition, September 1, 1977.

(5) Technical Association of the Pulp and Paper Industry (TAPPI), Test Methods – These are available from TAPPI, P. O. Box 105113, Atlanta, Georgia 30348.

(a) TAPPI Method T.624, Analysis of Soda and Sulfate White and Green Liquors.

(b) (Reserved).

(6) Sulphur Development Institute of Canada (SUDIC) Sampling and Testing Sulphur Forms – These are available from SUDIC, Box 950, Bow Valley Square 1, 830, 202-6 Avenue S.W., Calgary, Alberta T2P 2W6.

(a) S1-77. Collection of a Gross Sample of Sulphur.

(b) S2-77. Sieve Analysis of Sulphur Forms, except paragraph 4.3 concerning wet sieving is not adopted.

(c) S3-77. Determination of Material Finer than No. 50 (300um) Sieve in Sulphur Forms by Washing.

(d) S5-77. Determination of Friability of Sulfur Forms.

(7) EPA VOC Capture Efficiency Test Procedures. This rule lists the capture efficiency test procedures to be used where required by department air pollution rule or air permit. The EPA test procedures listed in this rule and contained in 40 CFR Part 51, Appendix M, are adopted and incorporated by reference at Rule 62-204.800, F.A.C. The EPA test procedures that are adopted by reference at Rule 62-204.800, F.A.C., are adopted in their entirety except for those provisions referring to approval of alternative procedures by the Administrator. For purposes of this rule, such alternative procedures may only be approved by the Secretary or his or her designee in accordance with Rule 62-297.620, F.A.C. In addition, the EPA document GD-035, "Guidelines for Determining Capture Efficiency," dated January 9, 1995, is hereby adopted and incorporated by reference. A copy can be obtained by writing to: Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(a) Method 204, Criteria for and Verification of a Permanent or Temporary Total Enclosure.

(b) Method 204A, Volatile Organic Compounds Content in Liquid Input Stream.

(c) Method 204B, Volatile Organic Compounds Emissions in Captured Stream.

(d) Method 204C, Volatile Organic Compounds Emissions in Captured Stream, (Dilution Technique).

(e) Method 204D, Volatile Organic Compounds Emissions in Uncaptured Stream from Temporary Total Enclosure.

(f) Method 204E, Volatile Organic Compounds Emissions in Uncaptured Stream from Building Enclosure.

(g) Method 204F, Volatile Organic Compounds Content in Liquid Input Stream (Distillation Approach).

Rulemaking Authority 403.061 FS. Law Implemented 403.031, 403.061, 403.087 FS. History–Formerly 17-2.700(6)(c), Amended 6-11-93, Formerly 17-297.440, Amended 11-23-94, 1-1-96, 3-2-99, 10-22-02.

62-297.450 EPA VOC Capture Efficiency Test Procedures.

(1) Applicability. The requirements set forth in subsections 62-297.450(2) and (3), F.A.C., shall apply to all regulated VOC emitting emissions units employing a control system pursuant to Rules 62-296.501 through 62-296.516, F.A.C., and Rule 62-296.800, F.A.C., except as provided in paragraphs 62-297.450(1)(a) and (b), F.A.C.

(a) If an owner or operator installs a Permanent Total Enclosure that meets the specifications of Method 204, adopted and incorporated by reference at Rule 62-204.800, F.A.C., and which directs all VOC to a control device, the capture efficiency is assumed to be 100 percent, and the facility owner or operator is exempted from the requirements described in subsection 62-297.450(2), F.A.C. This does not exempt the owner or operator from conducting any required control device efficiency test.

(b) If the owner or operator of an affected activity, process, or emissions unit uses a nondestructive control device designed to collect and recover VOC (e.g., carbon adsorber), an explicit measurement of capture efficiency is not necessary if the owner or operator is able to equate solvent usage with solvent recovery on a 24-hour (daily) basis, rather than a 30-day weighted average, and can determine this within 72 hours following each 24-hour period, and one of the following two criteria is also met:

1. The solvent recovery system (i.e., capture and control system) is dedicated to a single activity, process line, or emissions unit (e.g., one process line venting to a carbon adsorber system), or

2. The solvent recovery system controls multiple activities, process lines, or emissions units, and the owner

or operator is able to demonstrate that the overall control (i.e., the total recovered solvent VOC divided by the sum of liquid VOC input to all activities, process lines, or emissions units venting of the control system) meets or exceeds the most stringent emission standard applicable for any activity, process line, or emissions unit venting to the control system.

(c) If the conditions given above in paragraph 62-297.450(1)(b), F.A.C., are met, the overall emission reduction efficiency of the system can be determined by dividing the recovered liquid VOC by the input liquid VOC. The general procedure for this determination is given in 40 CFR 60.433, which is adopted by reference at Rule 62-204.800, F.A.C.

(2) Specific Requirements. The capture efficiency of a capture system shall be determined using one of the following EPA procedures, or an alternate capture efficiency test procedure if approved by the department under the provisions of Rule 62-297.620, F.A.C.

(a) Gas/gas method using a Temporary Total Enclosure. The EPA specifications to determine whether an enclosure is considered a Temporary Total Enclosure are given in Method 204, adopted and incorporated by reference at Rule 62-204.800, F.A.C. The capture efficiency equation to be used for this procedure is:

$CE = (G/(G + F)) \times 100$

where:

CE =capture efficiency, percent,

G =mass of VOC captured and delivered to control device using a Temporary Total Enclosure,

F = mass of fugitive VOC that escapes from a Temporary Total Enclosure.

Method 204B or Method 204C shall be used to obtain G. Method 204D shall be used to obtain F.

(b) Liquid/gas method using Temporary Total Enclosure. The EPA specifications to determine whether an enclosure is considered a Temporary Total Enclosure are given in Method 204, adopted and incorporated by reference at Rule 62-204.800, F.A.C. The capture efficiency equation to be used for this procedure is:

$CE = ((L - F)/L) \times 100$

where:

CE =capture efficiency, percent,

L =mass of liquid VOC input to the activity, process, or emissions unit,

F =mass of fugitive VOC that escapes from a Temporary Total Enclosure.

Method 204A or Method 204F shall be used to obtain L. Method 204D shall be used to obtain F.

(c) Gas/gas method using the building or room in which the affected activity, process, or emissions unit is located as the enclosure and in which G and F_b are measured while operating only the affected activity, process, or emissions unit. All fans and blowers in the building or room must be operated as they would under normal production. The capture efficiency equation to be used for this procedure is:

$CE = (G/(G + F_B)) \times 100$

where:

CE =capture efficiency, percent,

G =mass of VOC captured and delivered to a control device,

F_b =mass of fugitive VOC that escapes from building enclosure.

Method 204B or Method 204C shall be used to obtain G. Method 204E shall be used to obtain F_B.

(d) Liquid/gas method using the building or room in which the affected activity, process, or emissions unit is located as the enclosure and in which L and F are measured while operating only the affected activity, process, or emissions unit. All fans and blowers in the building or room shall be operated as they would under normal production. The capture efficiency equation to be used for this procedure is:

$CE = ((L - F_B)/L) \times 100$

where:

CE =capture efficiency, percent,
L =mass of liquid VOC input to the activity, process, or emissions unit,
F_B =mass of fugitive VOC that escapes from building enclosure.
Method 204A or Method 204F shall be used to obtain L. Method 204E shall be used to obtain F_B.

(e) Traditional liquid/gas method using the building or room in which the affected activity, process, or emissions unit is located as the enclosure and in which L and G are measured while operating only the affected activity, process, or emissions unit. All fans and blowers in the building or room shall be operated as they would under normal production conditions. The testing shall be conducted in accordance with Section 3.0 of EPA Emission Measurement Technical Information Center Guideline Document GD-035, "Guidelines for Determining Capture Efficiency," January 9, 1995, adopted by reference at Rule 62-297.440, F.A.C. Measurements shall be obtained using the EPA methods and procedures adopted by reference in this chapter. The capture efficiency equation to be used for this procedure is:
CE =(G/L) × 100
where:
CE =capture efficiency, percent,
L =mass of liquid VOC input to the activity, process, or emissions unit,
G =mass of VOC captured and delivered to a control device.
Method 204A or Method 204F shall be used to obtain L. Method 204B or Method 204C shall be used to obtain G.

(f) The use of the aggregate sampling procedure described in Section 4.1 of EPA Emission Measurement Technical Information Center Guideline Document GD-035, "Guidelines for Determining Capture Efficiency," January 9, 1995, adopted by reference at Rule 62-297.440, F.A.C., may be used only if specifically authorized as applicable to the facility in the State Implementation Plan.

(3) Sampling Requirements.

(a) Capture efficiency tests which use a total temporary enclosure or building enclosure with one of the liquid/gas or gas/gas methods identified in paragraphs 62-297.450(2)(a) through (d), F.A.C., shall consist of at least three sampling runs. Each run shall cover at least one complete production cycle, but shall be at least 3 hours long. The sampling time for each run need not exceed 8 hours, even if the production cycle has not been completed.

(b) Capture efficiency tests which use the traditional liquid/gas method identified in paragraph 62-297.450(2)(e), F.A.C., shall consist of the total number of runs needed to comply with either the data quality objective criteria or lower confidence limit criteria of Section 3.0 of EPA Emission Measurement Technical Information Center Guideline Document GD-035, "Guidelines for Determining Capture Efficiency," January 9, 1995, adopted by reference at Rule 62-297.440, F.A.C. However, each traditional liquid/gas capture efficiency test shall consist of at least 3 sampling runs. The sampling time for each run shall be neither less than 20 minutes nor more than 24 hours. All runs with a capture efficiency result of more than 105 percent shall be deemed invalid and discarded. Traditional liquid/gas capture efficiency tests shall also comply with all other provisions of section 3.0 of Guideline Document GD-035.

(4) Recordkeeping and Reporting.

(a) The owner or operator of an affected activity, process, or emissions unit shall submit to the department a list of the procedures that will be used for the capture efficiency tests at the owner or operator's facility. A copy of the list shall be kept on file at the affected facility.

(b) Required test reports shall be submitted to the department within forty-five (45) days of the test date. A copy of the results shall be kept on file at the facility.

(c) If any physical or operational change is made to a control system, the owner or operator of the affected facility shall notify the department of the change within ten (10) working days after making such change. The department shall require the owner or operator of the affected activity, process, or emissions unit to conduct a new capture efficiency test if the department has reason to believe (based on engineering calculations or

empirical evidence) that a physical or operational change made to the capture system has decreased the overall emissions reduction efficiency of the system.

(d) Notwithstanding the provisions of subsection 62-297.340(1), F.A.C., the owner or operator of an affected activity, process, or emissions unit shall notify the department thirty (30) days prior to performing any capture efficiency and/or control efficiency tests.

(e) The owner or operator of an affected activity, process, or emissions unit using a Permanent Total Enclosure shall demonstrate that this enclosure meets the requirement given in Method 204 for a Permanent Total Enclosure during any required control device efficiency test.

(f) The owner or operator of an affected activity, process, or emissions unit using a Temporary Total Enclosure shall demonstrate that this enclosure meets the requirements given in Method 204 for a Temporary Total Enclosure during any required control device efficiency test.

Rulemaking Authority 403.061 FS. Law Implemented 403.031, 403.061, 403.087 FS. History–Formerly 17-2.700(7), Amended 6-11-93, Formerly 17-297.450, Amended 11-23-94, 1-1-96, 3-2-99.

62-297.520 EPA Continuous Monitor Performance Specifications.

Rulemaking Authority 403.061 FS. Law Implemented 403.031, 403.061, 403.087 FS. History–New 6-29-93, Formerly 17-297.520, Amended 11-23-94, 3-13-96, 3-2-99, Repealed 2-16-12.

62-297.620 Exceptions and Approval of Alternate Procedures and Requirements.

(1) The owner or operator of any emissions unit subject to the provisions of this chapter may request in writing a determination by the Secretary or his/her designee that any requirement of this chapter (except for any continuous monitoring requirements) relating to emissions test procedures, methodology, equipment, or test facilities shall not apply to such emissions unit, and shall request approval of an alternate procedure or requirement.

(2) The request shall set forth the following information, at a minimum:

(a) Specific emissions unit and permit number, if any, for which exception is requested.

(b) The specific provision(s) of this chapter from which an exception is sought.

(c) The basis for the exception, including but not limited to any hardship which would result from compliance with the provisions of this chapter.

(d) The alternate procedure(s) or requirement(s) for which approval is sought and a demonstration that such alternate procedure(s) or requirement(s) shall be adequate to demonstrate compliance with applicable emission limiting standards contained in the rules of the department or any permit issued pursuant to those rules.

(3) The Secretary or his/her designee shall specify by order each alternate procedure or requirement approved for an individual emissions unit in accordance with this section or shall issue an order denying the request for such approval. The department's order shall be final agency action, reviewable in accordance with Section 120.57, Florida Statutes.

(4) In the case of an emissions unit which has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse, the Secretary or the appropriate Director of District Management may waive any particulate matter compliance test requirements for such emissions unit specified in any otherwise applicable rule, and specify an alternative standard of 5% opacity. The waiver of compliance test requirements for a particulate emissions unit equipped with a baghouse, and the substitution of the visible emissions standard, shall be specified in the permit issued to the emissions unit. If the department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule.

Rulemaking Authority 403.061 FS. Law Implemented 403.021, 403.031, 403.061, 403.087 FS. History–Formerly 17-2.700(3), Amended 6-11-93, Formerly 17-297.620, Amended 11-23-94.