

Chapter 62-296
Stationary Sources - Emission Standards

62-296.100 Purpose and Scope.

The Department of Environmental Protection adopts this chapter to establish emission limiting standards and compliance requirements for stationary sources of air pollution. The chapter includes emission limitations for specific categories of facilities and emissions units, and it establishes reasonably available control technology requirements. Where work practice standards, including requirements for specific types of pollution control equipment, are provided for in this chapter, such standards shall be of the same force and effect as emission limiting standards. The emission limiting and work practice standards of Rule 62-296.320, F.A.C., and Rules 62-296.401 through 62-296.417, F.A.C., are applicable statewide. Standards for any "new" facility or emissions unit shall be the federal standards of performance for new stationary sources adopted by reference at Rule 62-204.800(7), F.A.C., unless a different and more stringent standard is established in Rules 62-296.401 through 62-296.417, F.A.C. In addition, reasonably available control technology requirements are established for specific areas of the state as set forth in Rules 62-296.500, 62-296.600, and 62-296.700, F.A.C. Words and phrases used in this chapter, unless clearly indicated otherwise, are defined at Rule 62-210.200, F.A.C.

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62-296.100

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Original Reg	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
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62-296.320 General Pollutant Emission Limiting Standards.

- (1) Volatile organic compounds emissions or organic solvents emissions.
 - (a) No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
- (2) Objectionable Odor Prohibited - No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
- (3) Industrial, Commercial, and Municipal Open Burning Prohibited. Open burning in connection with industrial, commercial, or municipal operations is prohibited, except when:
 - (a) Open burning is determined by the Department to be the only feasible method of operation and is authorized by an air permit issued pursuant to Chapter 62-210 or 62-213, F.A.C.; or
 - (b) An emergency exists which requires immediate action to protect human health and safety; or
 - (c) A county or municipality would use a portable air curtain incinerator to burn yard trash generated by a hurricane, tornado, fire or other disaster and the air curtain incinerator would otherwise be operated in accordance with the permitting exemption criteria of Rule 62-210.300(3), F.A.C.
- (4) General Particulate Emission Limiting Standards. The following emission limiting standards shall apply to emissions units of particulate matter not subject to a particulate emission limit or opacity limit set forth in or established elsewhere in this chapter.
 - (a) Process Weight Table.
 - 1. Applicability. The emission limitations set forth in Rule 62-296.320(4)(a)2., F.A.C., below, shall apply to any emissions unit which processes raw materials to produce a finished product through a chemical or physical change, except emissions units which:
 - a. Burn fuel to produce heat or power by indirect heating where the products of combustion do not come in contact with the process materials.
 - b. Burn refuse.
 - c. Salvage materials by burning.
 - 2. Particulate Matter Emissions Standard - No person shall cause, let, permit, suffer or allow the emission of particulate matter through a stack or vent, from any emissions unit subject to this rule in total quantities in excess of the amount shown in Table 296.320-1. Interpolation of the data in Table 296.320-1 for the process weight rates up to 30 tons per hour shall be accomplished by use of the equation: $E = 3.59P^{0.62}$, where P is less than or equal to 30 tons per hour. Interpolation and extrapolation of the data for process weight rates in excess of 30 tons per hour shall be accomplished by use of the equation: $E = 17.31P^{0.16}$, where P is greater than 30 tons per hour. In both equations: E = emissions in pounds per hour and P = process weight rate in tons per hour.

PROCESS WEIGHT TABLE
TABLE 296.320-1

Rate (Tons Per Hour)	Emission Rate (Pounds Per Hour)
.025	0.36
.050	0.56
.250	1.52
.50	2.34
2.50	6.34
5	9.74
10	14.97
30	29.57
40	31.23
60	33.33
80	34.90
100	36.17

200
500

40.41
46.79

3. Particulate Matter Emissions Test Method and Procedures. All particulate matter emissions tests performed pursuant to the requirements of this rule shall comply with the following provisions.
 - a. Emissions units incorporating a scrubber for control of particulate matter shall use the following test methods.
 - (i) Citrus Plants. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. An acetone wash shall be used. The minimum sample volume shall be 32 dry standard cubic feet.
 - (ii) All Others. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. An acetone wash shall be used.
 - b. Emissions units incorporating dry controls for control of particulate matter shall use the following test methods.
 - (i) Phosphate Processing. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. An acetone wash shall be used. The minimum sample volume shall be 30 dry standard cubic feet.
 - (ii) All Others. The test method for particulate emissions shall be EPA Method 17, with an acetone wash and an average stack temperature below 275 degrees Fahrenheit, or EPA Method 5 with an acetone wash. These test methods are incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - c. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (b) General Visible Emissions Standard.
 1. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity).
 2. Notwithstanding Rule 62-296.320(4)(b)1., F.A.C., above, the owner or operator of an emissions unit subject to the general visible emission standard may request the Department to establish a higher visible emissions standard for that emissions unit. The owner or operator may request that a visible emissions standard be established at that level at which the emissions unit will be able, as indicated by compliance tests, to meet the opacity standard at all times during which the emissions unit is meeting the applicable particulate matter standard. The Department shall establish such a standard, through the permitting process, if it finds that:
 - a. The emissions unit was in compliance with the applicable particulate emission standard while a compliance test was being conducted but failed to comply with the general visible emissions standard during the test;
 - b. The emissions unit and associated air pollution control equipment were operated and maintained in a manner to minimize the opacity emissions during the compliance test; and
 - c. The emissions unit and associated air pollution control equipment were incapable of being adjusted or operated in such a manner as to meet the opacity standard.
 3. If the presence of uncombined water is the only reason for failure to meet visible emission standards given in this rule, such failure shall not be a violation of this rule.
 4. All visible emissions tests performed pursuant to the requirements of this rule shall

comply with the following provisions.

- a. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - b. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (c) Unconfined Emissions of Particulate Matter.
- 1. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
 - 2. Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - 3. Reasonable precautions include the following:
 - a. Paving and maintenance of roads, parking areas and yards.
 - b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - e. Landscaping or planting of vegetation.
 - f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 - g. Confining abrasive blasting where possible.
 - h. Enclosure or covering of conveyor systems.
 - 4. In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

History: Formerly 17-2.620, Formerly 17-296.320, Amended 1-1-96, 3-13-96.

62-296.320

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62-296.401 Incinerators.

- (1) Any incinerator with a charging rate of less than 50 tons per day.
 - (a) No visible emission (5 percent opacity) except that visible emissions not exceeding 20 percent opacity are allowed for up to three minutes in any one hour period.
 - (b) No objectionable odor allowed.
 - (c) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - 1. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 - 2. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (2) Existing incinerators, other than those which are operated or utilized for the disposal or treatment of biological waste, with a charging rate equal to or greater than 50 tons per day.
 - (a) Particulate matter - 0.1 grains per standard cubic foot dry gas corrected to 50 percent excess air.
 - (b) No objectionable odor allowed.
 - (c) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - 1. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 3 or 3A using Orsat analysis is required for percent excess air correction.
 - 2. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
 - (d) Calculations Correcting Concentrations to 50% Excess Air (EA), EPA Method 3, Section 1.2. When correcting a pollutant emission concentration to 50% excess air, pursuant to this rule, the following equation shall be used:

$$Cs_{50} = \frac{Cs(100 + \%EA)}{150} \quad \text{Equation 296.401-1}$$

where: Cs₅₀ is the pollutant concentration at 50% excess air;
Cs is the pollutant concentration computed at standard conditions on a dry basis; and
%EA is calculated by equation 296.401-2:

$$\%EA = \frac{(\%O_2 - 0.5\%CO) * 100}{0.264\%N_2 - (\%O_2 - 0.5\%CO)} \quad \text{Equation 296.401-2}$$

- (3) New incinerators, other than those which are operated or utilized for the disposal or treatment of biological waste, with a charging rate equal to or greater than 50 tons per day.
 - (a) Particulate matter - .08 grains per standard cubic foot dry gas corrected to 50 percent excess air.
 - (b) No objectionable odor allowed.
 - (c) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - 1. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 3 or 3A using Orsat analysis is required for percent excess air correction.
 - (d) Calculations Correcting Concentrations to 50% Excess Air (EA), EPA Method 3, Section 1.2. When correcting a pollutant emission concentration to 50% excess air, pursuant to this rule, the following equation shall be used:

$$Cs_{50} = \frac{Cs(100 + \%EA)}{150} \quad \text{Equation 296.401-1}$$

where: Cs50 is the pollutant concentration at 50% excess air;
Cs is the pollutant concentration computed at standard conditions on a dry basis; and
%EA is calculated by equation 296.401-2:

$$\%EA = \frac{(\%O_2 - 0.5\%CO) * 100}{0.264\%N_2 - (\%O_2 - 0.5\%CO)} \quad \text{Equation 296.401-2}$$

2. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (4) Biological Waste Incineration Facilities. The following requirements apply to all biological waste incineration facilities. This rule does not apply to human remains for which a DHRS death certificate has been issued, that are disposed of by a person licensed under the provisions of Chapter 470, F.S.
- (a) Facilities with a capacity equal to or less than 500 pounds per hour used solely for the incineration of dead animals.
1. Particulate matter emissions shall not exceed 0.080 grains per dry standard cubic foot of flue gas, corrected to 7% O₂.
 2. Facilities subject to this rule shall incinerate only dead animals and, if applicable, the bedding and the remains associated with the animals placed in leak proof containers. Containers may contain up to 0.5 percent by weight chlorinated plastics. Plastic bags used for the incineration of animals shall be nonchlorinated and no less than 3 mils thick.
 - a. If containers are incinerated, documentation from the manufacturers certifying that they are composed of 0.5 percent or less by weight chlorinated plastics must be kept on-file at the site for the duration of their use and for at least two years after their use. This documentation must also be submitted with any permit renewal application.
 - b. If plastic bags are incinerated, documentation must be provided to prove that the bags are nonchlorinated and no less than 3 mils thick.
 3. Facilities subject to this rule shall not incinerate dead animals which were used for biomedical or commercial experimentation. No other material, including biohazardous waste as defined in Rule 62-210.200, F.A.C., shall be incinerated.
- (b) Facilities with a capacity equal to or less than 500 pounds per hour that are not used solely for the incineration of dead animals.
1. Particulate matter emissions shall not exceed 0.100 grains per dry standard cubic foot of flue gas, corrected to 7% O₂.
 2. Hydrochloric Acid (HCl) emissions shall not exceed 4.0 pounds per hour.
- (c) Facilities with a capacity greater than 500 pounds per hour, but less than or equal to 2,000 pounds per hour.
1. Particulate matter emissions shall not exceed 0.030 grains per dry standard cubic foot of flue gas, corrected to 7% O₂.
 2. Hydrochloric acid (HCl) emissions shall not exceed 4.0 pounds per hour; or shall be reduced by 90% by weight on an hourly average basis.
- (d) Facilities with a capacity greater than 2000 pounds per hour.
1. Particulate matter emissions shall not exceed 0.020 grains per dry standard cubic foot of flue gas, corrected to 7% O₂.
 2. Hydrochloric acid (HCl) emissions shall not exceed 50 parts per million by volume, dry basis, corrected to 7% O₂ on a three hour average basis; or shall be reduced by 90% by weight on an hourly average basis.
- (e) All facilities unless otherwise noted are subject to the following design, operating, monitoring and operator training requirements.
1. Any incinerator with a capacity equal to or less than 500 pounds per hour used solely for the incineration of dead animals for which a complete application for a permit to construct a new unit was received by the Department on or after August 30, 1989, shall

provide design calculations to confirm a sufficient volume in the secondary (or last) chamber combustion zone to provide for at least a 1.0 second gas residence time at 1800 degrees Fahrenheit. The actual operating temperature of the secondary (or last) chamber combustion zone shall be no less than 1600 degrees Fahrenheit throughout the combustion process in the primary chamber. Primary chamber and stack shall not be used in calculating this residence time. Combustion in the primary chamber shall not begin unless the secondary (or last) chamber combustion zone temperature is equal to or greater than 1600 degrees Fahrenheit.

2. Any incinerator with a capacity equal to or less than 500 pounds per hour used solely for the incineration of dead animals for which a complete application for a permit to construct a new unit was received by the Department prior to August 30, 1989, shall provide design calculations to confirm a sufficient volume in the secondary (or last) chamber combustion zone to provide for at least a 1.0 second gas residence time at 1600 degrees Fahrenheit. The actual operating temperature of the secondary (or last) chamber combustion zone shall be no less than 1400 degrees Fahrenheit throughout the combustion process in the primary chamber. Primary chamber and stack shall not be used in calculating this residence time. Combustion in the primary chamber shall not begin unless the secondary (or last) chamber combustion zone temperature is equal to or greater than 1400 degrees Fahrenheit.
3. Any incinerator that is not used solely for the incineration of dead animals or any incinerator with a capacity greater than 500 pounds per hour shall operate with a combustion zone design temperature of no less than 1800 degrees Fahrenheit for at least a 1.0 second gas residence time in the secondary (or last) combustion chamber. Primary chamber and stack shall not be utilized in calculating this residence time.
4. Mechanically fed facilities shall incorporate an air lock system to prevent opening the incinerator to the room environment. The volume of the loading system shall be designed to prevent overcharging thereby assuring complete combustion of the waste.
5. Carbon monoxide (CO) emissions shall not exceed 100 parts per million by volume, dry basis, corrected to 7% O₂ on an hourly average basis.
6. Incineration or ignition of waste shall not begin until the secondary (or last) combustion chamber temperature requirement is attained. All air pollution control and continuous emission monitoring equipment shall be operational and functioning properly prior to the incineration or ignition of waste and until all the wastes are incinerated. The secondary (or last) combustion chamber temperature requirement shall be maintained until the wastes are completely combusted.
7. Radioactive waste may not be burned in an incinerator subject to this rule unless the incinerator has been issued a Department of Health and Rehabilitative Services (DHRS) license to incinerate radioactive waste or the waste is of such quantity to be exempt in accordance with DHRS Rule 10D-91 or 10D-104.003, F.A.C.
8. Hazardous waste may not be burned in an incinerator subject to this rule unless the incinerator has been issued a hazardous waste permit by the Department or the waste is of such quantity to be exempt in accordance with Chapter 62-730, F.A.C.
9. Any operators of incinerators with a capacity equal to or less than 500 pounds per hour used solely for the incineration of dead animals shall be trained by the equipment manufacturer's representatives or an equivalent state-approved organization.
 - a. The content of the training program shall be submitted to the Department for approval. Construction permit applicants shall submit a training program, or reference a previously submitted training program, with the construction permit application. The training shall provide a basic understanding of the principles of the combustion process, provide instruction on the operation and maintenance of the incinerator, and increase awareness of regulation requirements and safety concerns. Training programs shall be a minimum of 8 hours of instruction.

Training programs shall at a minimum include hands-on experience involving start-up, operation of at least one incineration cycle, shut-down of equipment, and one full cycle of preventative maintenance actions. The Department shall approve training programs which meet, at a minimum, the criteria set forth in the EPA Medical Waste Incinerator Operator Training Program Course Handbook EPA 453/B-93-018 and Instructor's Guide EPA 453/B-93-019.

- b. A copy of the training certificate for each operator having satisfactorily completed the Department-approved training program must be submitted to the Department within 15 days of training. If the emissions unit is modified to the extent that a Department construction permit is required, the operators shall be retrained to operate the modified unit. Owners of new and modified emissions units shall submit copies of the operator training certificates within 15 days after completion of initial compliance test.
 - c. An operator's certificate must be kept on file at the facility for the duration of the operator's employment and for an additional two years after termination of employment. The owner shall not allow the incinerator to be operated unless it is operated by an operator who has satisfactorily completed the required training program.
10. Any operator of an incinerator that is not used solely for the incineration of dead animals or any operator of an incinerator with a capacity greater than 500 pounds per hour shall be trained by the equipment manufacturer's representative or an equivalent state-approved organization.
- a. The content of the training program shall be submitted to the Department for approval. Construction permit applicants shall submit a training program, or reference a previously submitted training program, with the construction permit application. The training shall provide a basic understanding of the principles of the combustion process, provide instruction on proper operating practices and procedures, and increase awareness of regulation requirements and safety concerns. Training programs shall be minimum of 16 hours of instruction. The Department shall approve training programs which meet, at a minimum, the criteria set forth in the EPA Medical Waste Incinerator Operator Training Program Course Handbook EPA 453/B-93-018 and Instructor's Guide EPA 453/B-93-019.
 - b. A copy of the training certificate for each operator having satisfactorily completed the Department-approved training program must be submitted to the Department within 15 days of training. If the incinerator is modified to the extent that a Department construction permit is required, the operators shall be retrained to operate the modified incinerator. Owners of new and modified incinerators shall submit copies of the operator training certificates within 15 days after completion of the initial compliance test.
 - c. An operator's certificate must be kept on file at the facility for the duration of the operator's employment and for an additional two years after termination of employment. The owner shall not allow the incinerator to be operated unless it is operated by an operator who has satisfactorily completed the required training program.
- (f) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
- 1. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 - 2. The test method for carbon monoxide shall be EPA Method 10, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 3. The test method for oxygen shall be EPA Method 3 or 3A, incorporated and adopted by

- reference in Chapter 62-297, F.A.C.
4. The test method for particulate emissions shall be EPA Method 5 or 26A, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 5. The test method for hydrochloric acid shall be EPA Method 26, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 6. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (g) Frequency of Testing.
1. Facilities with a capacity equal to or less than 500 pounds per hour shall demonstrate compliance as follows.
 - a. New and existing facilities shall demonstrate individual emissions unit compliance with the visible emissions standard upon initial compliance and annually thereafter.
 - b. New and existing facilities shall demonstrate individual emissions unit compliance with the remaining applicable standards upon initial compliance and prior to renewing the operation permit.
 2. New and existing facilities with a capacity greater than 500 pounds per hour shall demonstrate individual source compliance with the applicable standards upon initial compliance and annually thereafter.
- (h) Compliance Demonstration. Facilities with a capacity equal to or less than 500 pounds per hour used solely for the incineration of dead animals may demonstrate compliance with the carbon monoxide and particulate emissions standards by submission of a test report for an identical (same make, model, and permitted capacity) crematory unit operating in compliance with a valid Department air permit and tested pursuant to that permit. The test data in the test report must be less than five years old and may or may not be obtained from the unit that is being permitted.
- (i) Continuous Emissions Monitoring Requirements. Each owner or operator of a biological waste incineration facility shall install, operate, and maintain in accordance with the manufacturer's instructions continuous emission monitoring equipment.
1. The monitors shall record the following operating parameters.
 - a. Secondary (or last) combustion chamber exit temperature.
 - b. Oxygen (for facilities with a capacity greater than 500 pounds per hour).
 2. A complete file of all measurements, including continuous emissions monitoring system, monitoring device, and performance testing measurements; all continuous emissions monitoring system performance evaluations; all continuous emissions monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required, shall be recorded in a permanent legible form available for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports and records.
- (5) Human Crematories. The following requirements apply to all human crematory facilities.
- (a) Particulate matter emissions shall not exceed 0.080 grains per dry standard cubic foot of flue gas, corrected to 7% O₂.
 - (b) Carbon Monoxide (CO) emissions shall not exceed 100 parts per million by volume, dry basis, corrected to 7% O₂ on an hourly average basis.
 - (c) Crematory units for which a complete application for a permit to construct a new unit was received by the Department on or after August 30, 1989, shall provide design calculations to confirm a sufficient volume in the secondary chamber combustion zone to provide for at least a 1.0 second gas residence time at 1800 degrees Fahrenheit. The actual operating temperature of the secondary chamber combustion zone shall be no less than 1600 degrees Fahrenheit throughout the combustion process in the primary chamber. Primary chamber and stack shall not be used in calculating this residence time. Cremation in the primary chamber shall not begin unless the secondary chamber combustion zone temperature is equal to or greater than 1600 degrees Fahrenheit.

- (d) Crematory units for which construction began or for which a complete application for a permit to construct a new unit was received by the Department prior to August 30, 1989, shall provide design calculations to confirm a sufficient volume in the secondary chamber combustion zone to provide for at least a 1.0 second gas residence time at 1600 degrees Fahrenheit. The actual operating temperature of the secondary chamber combustion zone shall be no less than 1400 degrees Fahrenheit throughout the combustion process in the primary chamber. Primary chamber and stack shall not be used in calculating this residence time. Cremation in the primary chamber shall not begin unless the secondary chamber combustion zone temperature is equal to or greater than 1400 degrees Fahrenheit.
- (e) Human crematories shall cremate only dead human bodies with appropriate containers. The bodies may be clothed. The containers may contain up to 0.5 percent by weight chlorinated plastics as demonstrated by manufacturer's data sheet. If containers are incinerated, documentation from the manufacturers certifying that they are composed of 0.5 percent or less by weight chlorinated plastics must be kept on-file at the site for the duration of their use and for at least two years after their use. This documentation must also be submitted with any permit renewal applications. No other material, including biohazardous waste as defined in Rule 62-210.200, F.A.C., shall be incinerated.
- (f) All crematory operators shall be trained by the equipment manufacturer's representatives or another qualified organization.
 - 1. The content of the training program shall be submitted to the Department for approval. Construction permit applicants shall submit a training program or reference a previously approved training program with the construction permit application. The training shall provide a basic understanding of the principles of the combustion process, provide instruction on the operation and maintenance of the crematory unit, and increase awareness of regulation requirements and safety concerns. Training programs shall be a minimum of 8 hours of instruction. Training programs shall at a minimum include hands-on experience involving start-up, operation of at least one cremation, shut-down of the equipment, and one full cycle of preventive maintenance actions. The Department shall approve training programs which meet, at a minimum, as are applicable to cremation, the criteria set forth in the EPA Medical Waste Incinerator Operator Training Program Course Handbook EPA 453/B-93-018 and Instructor's Guide EPA 453/B-93-019.
 - 2. A copy of the training certificate for each operator having satisfactorily completed the Department-approved training program must be submitted to the Department within 15 days of training. If the crematory unit is modified to the extent that a Department construction permit is required, the operators shall be retrained to operate the modified unit. Owners of new and modified emissions units shall submit copies of the operator training certificates within 15 days after completion of initial compliance test.
 - 3. An operator's certificate must be kept on file at the facility for the duration of the operator's employment and for an additional two years after termination of employment. The owner shall not allow the crematory to be operated unless it is operated by an operator who has satisfactorily completed the required training program.
- (g) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - 1. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 - 2. The test method for carbon monoxide shall be EPA Method 10, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 3. The test method for oxygen shall be EPA Method 3, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 4. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be

- 30 dry standard cubic feet.
5. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (h) Operation During Compliance Test. Testing of emissions shall be conducted with the source operating at the maximum permitted capacity.
- (i) Frequency of Testing.
1. New and existing facilities shall demonstrate individual source compliance with the visible emissions standard upon initial compliance and annually thereafter.
 2. New and existing facilities shall demonstrate individual source compliance with the remaining applicable standards upon initial compliance and prior to renewing the operating permit.
- (j) Compliance Demonstration. Facilities may demonstrate compliance with the carbon monoxide and particulate emissions standards by submission of a test report for an identical (same make, model, and permitted capacity) crematory unit operating in compliance with a valid Department air permit and tested pursuant to that permit. The test data in the test report must be less than five years old and may or may not be obtained from the unit that is being permitted.
- (k) Continuous Emissions Monitoring Requirements. Each crematory facility shall install, operate, and maintain continuous monitors to record temperature at the point or beyond where 1.0 second gas residence time is obtained in the secondary chamber combustion zone in accordance with the manufacturer's instructions. A complete file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; and adjustments, preventive maintenance, and corrective maintenance performed on these systems or devices, shall be recorded in a permanent legible form available for inspection. Continuous temperature monitoring documentation shall include operator name, operator indication of when cremation in the primary chamber begins, date, time, and temperature markings. The file shall be retained for at least two years following the recording of such measurements, maintenance, reports, and records.
- (6) Any air curtain incinerator, new or existing, located at a landfill for any time period or at any other site for more than six months.
- (a) Outside of startup periods, no visible emissions (5 percent opacity or less) shall be allowed, except that an opacity of up to 20 percent shall be permitted for not more than three minutes in any one hour.
 - (b) During startup periods, which shall not exceed the first 30 minutes of operation, an opacity of up to 35 percent, averaged over a six-minute period, shall be allowed.
 - (c) The general excess emissions rule, Rule 62-210.700, F.A.C., to handle startups, shutdowns, and malfunctions, shall not apply to air curtain incinerators.
 - (d) The following dimensions for the pit must be strictly adhered to: no more than 12 feet wide, between 8 and 15 feet deep, and no longer than the length of the manifold. The pit shall not be dug within a previously active portion of the landfill.
 - (e) The only materials that can be burned in an air curtain incinerator are wood wastes consisting of trees, logs, large brush, stumps relatively free of soil, unbagged leaves and yard trash, tree surgeon debris, and clean dry lumber such as pallets.
 - (f) The burning of sawdust, paper, trash, tires, garbage, plastics, liquid wastes, chemically treated or painted wood, and other similar materials is expressly prohibited.
 - (g) Only virgin oil, natural gas, or liquefied petroleum gas may be used to start the fire. The use of waste oil, chemicals, gasoline, or tires is expressly prohibited.
 - (h) In no case shall an air curtain incinerator be started before sunrise. For refractory lined air curtain incinerators, charging must have completely stopped before sunset. For all other air curtain incinerators, charging must have completely stopped two hours before sunset.
 - (i) In no case shall the permitted burning rate, in tons per day, exceed the value obtained by dividing the number 100,000 by the permitted number of days that burning will be authorized to take place.
 - (j) New air curtain incinerators must be located at least three hundred (300) feet from any pre-existing

occupied building located off site. Air curtain incinerators existing as of October 1, 1986, must be located at least two hundred (200) feet from any occupied building located off site. The Department may issue a permit for an air curtain incinerator which does not meet this setback if the applicant submits with the application a signed affidavit from the owner(s) of all occupied buildings within the setback area that waives the setback requirement.

- (k) Air curtain incinerators used at landfills may not be operated within one thousand (1000) feet of any active portion of the landfill unless the air curtain incinerator is separated from the active portion of the landfill by a controlled gate or check-in station.
- (l) The material shall not be loaded into the air curtain incinerator such that it will protrude above the air curtain.
- (m) Ash shall not be allowed to build up in the pit to higher than 1/3 the pit depth or to the point where the ash begins to impede combustion, whichever occurs first.
- (n) A detailed operation and maintenance guide must be available to the operators at all times, and the permittee must provide the proper training to all operators before they work at the incinerator. The Department may request a copy of this guide.
- (o) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - 1. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 - 2. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.600(1), Amended 10-14-92, 12-02-92; Formerly 17-296.401; Amended 11-23-94, 1-1-96, 3-13-96.

62-296.401

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
2 nd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.402 Sulfuric Acid Plants.

- (1) Existing Plants.
 - (a) Florida portion of the Jacksonville, Florida - Brunswick, Georgia, Interstate Air Quality Control Region as defined in 40 CFR Section 81.91.
 1. Visible Emissions - ten percent opacity.
 2. Sulfur Dioxide 29 pounds per ton of 100 percent acid produced.
 3. Acid Mist - 0.5 pounds per ton of 100 percent acid produced.
 - (b) All other areas of the State of Florida.
 1. Visible Emissions - ten percent opacity.
 2. Sulfur Dioxide 10 pounds per ton of 100 percent acid produced.
 3. Acid Mist - 0.3 pounds per ton of 100 percent acid produced.
- (2) New Plants.
 - (a) Visible emissions - ten percent opacity.
 - (b) Sulfur Dioxide - four pounds per ton of 100 percent acid produced.
 - (c) Acid Mist - 0.15 pounds per ton of 100 percent acid produced.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 - (b) The test method for acid mist/sulfur dioxide shall be EPA Method 8, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 40 dry standard cubic feet.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (4) Continuous Emissions Monitoring Requirements. Each owner or operator of a sulfuric acid plant shall install, calibrate, operate and maintain a continuous monitoring system for continuously monitoring the pollutants specified in this subsection. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements, shall conform with the requirements in: 40 CFR Part 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800(2), F.A.C., and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C., for existing and new emissions units provided, however, any alternative procedures (as specified in s. 3.9, 40 CFR Part 51, Appendix P) or Special Considerations (as specified in s. 6.0, 40 CFR Part 51, Appendix P) shall be incorporated in the Department's air permit for the emissions unit and submitted to the U.S. Environmental Protection Agency as a proposed revision to the State Implementation Plan.
 - (a) Facilities greater than 300 tons per day production capacity, expressed as 100% acid, shall install continuous monitoring systems for the measurement of sulfur dioxide emissions for each sulfuric acid emission source.
 - (b) Where two or more emissions units emit through a common stack, continuous monitoring systems, if required, shall be installed on each emissions unit prior to combination of the emission.
- (5) Quarterly Reporting Requirements. The owners or operators of facilities for which monitoring is required shall submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.402, F.A.C., for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of two years.

History: Formerly 17-2.600(2); Formerly 17-296.402; Amended 11-23-94, 1-1-96, 3-13-96.
62-296.402

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
2 nd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.403 Phosphate Processing.

Fluorides (water soluble or gaseous atomic weight 19) expressed as pounds of fluoride per ton of phosphate materials input to the system expressed as tons of P₂O₅.

- (1) New Plants or Plant Sections.
 - (a) Wet process phosphoric acid production and auxiliary equipment - 0.02 pounds.
 - (b) Run-of-pile triple super phosphate (TSP) mixing belt and den and auxiliary equipment - 0.05 pounds.
 - (c) Run-of-pile TSP curing or storage process and auxiliary equipment - 0.12 pounds.
 - (d) Granular triple super phosphate (GTSP) production and auxiliary equipment.
 - 1. GTSP made by granulating run-of-pile TSP - 0.06 pounds.
 - 2. GTSP made from phosphoric acid and phosphate rock slurry - 0.15 pounds.
 - (e) GTSP storage and auxiliary equipment - 0.05 pounds.
 - (f) Diammonium phosphate production and auxiliary equipment - 0.06 pounds.
 - (g) Calcining or other thermal phosphate rock processing and auxiliary equipment excepting phosphate rock drying and defluorinating - 0.05 pounds.
 - (h) Defluorinating phosphate rock by thermal processing and auxiliary equipment - 0.37 pounds.
 - (i) All plants, plant sections or unit operations and auxiliary equipment not listed in paragraphs (a) through (h) above must use the best available control technology.
- (2) Existing plants or plant sections shall comply with Rule 62-296.403(l), F.A.C., no later than July 1, 1975; or existing plant complexes with an operating wet process phosphoric acid section (including any items in Rule 62-296.403(l)(a) through (f), F.A.C.) and other plant sections processing or handling phosphoric acid or products of phosphoric acid processing, total emissions from the entire complex shall not exceed 0.4 pounds per ton of P₂O₅ input to the wet process phosphoric acid section.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for fluoride emissions shall be EPA Method 13A or EPA Method 13B, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (b) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.600(3); Formerly 17-296.403; Amended 11-23-94, 1-1-96, 3-13-96.

62-296.403

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
2 nd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.404 Kraft (Sulfate) Pulp Mills and Tall Oil Plants.

- (1) New plants.
 - (a) Particulate Matter - three pounds per each 3000 pounds of black liquor solids fed.
 - (b) Total Reduced Sulfur (TRS) - one ppm expressed as H₂S on the dry basis or 0.03 pounds per 3000 pounds black liquor solids fed, whichever is more restrictive.
- (2) Existing plants.
 - (a) Particulate Matter - three pounds per each 3000 pounds of black liquor solids fed.
 - (b) Visible emission limits for kraft pulp mill sources equipped with wet scrubbers shall be effective only if the visible emission measurement can be made without being substantially affected by plume mixing or moisture condensation. If the Department determines that visible emissions exceed 20 percent opacity, a special compliance test may be required in accordance with Rule 62-297.570, F.A.C., Kraft (Sulfate) Pulp Mills and Tall oil Plants.

[Note: Florida has a more comprehensive Section 62-296.404(1)-(3) but has not submitted it for inclusion in the SIP. It is shown here in italics to indicate it is not a part of the federally enforceable SIP]

The provisions of this rule that apply to tall oil plants within Kraft (Sulfate) Pulp Mills also apply to tall oil plants that are located in a separate facility. In the case of separate tall oil plants, phrases such as "the owner or operator of a kraft pulp mill" shall be construed to read "the owner or operator of a tall oil plant."

- (1) *Visible Emissions.*
 - (a) *Kraft Recovery Furnaces Equipped with Dry Collectors - 45 percent opacity, six minute average, except:*
 1. *Visible emissions of up to 60 percent opacity shall be allowed for one six-minute period during any hour; or*
 2. *If the emissions unit is equipped with a certified continuous emission monitoring device for measuring opacity, then the monitoring results shall be reported to the Department quarterly in the form of an excess emissions report, and visible emissions in excess of 45 percent opacity shall be allowed for up to six percent of the total number of possible contiguous periods of excess emissions in a quarter (excluding periods of startup, shutdown, or malfunction and periods when the emissions unit is not operating). The continuous emission monitoring device shall be certified, calibrated, and operated according to the procedures for opacity monitors contained in 40 CFR 60.*
 - (b) *(Reserved).*
 - (c) *(Reserved).*
- (2) *Particulate Matter.*
 - (a) *Kraft Recovery Furnaces - three pounds per each 3000 pounds of black liquor solids fed.*
 - (b) *Visible emission limits for kraft pulp mill emissions units equipped with wet scrubbers shall be effective only if the visible emission measurement can be made without being substantially affected by plume mixing or moisture condensation. If the Department determines that visible emissions exceed 20 percent opacity, a special compliance test may be required in accordance with Rule 62-297.340(2), F.A.C.*
- (3) *Total Reduced Sulfur (TRS).*
 - (a) *Digester Systems, Multiple Effect Evaporator Systems, Condensate Stripper Systems.*
 1. *Gaseous emissions shall be collected and incinerated in a lime kiln or calciner meeting the requirements of either Rule 62-296.404(3)(e), F.A.C., or Rule 62-204.800(7), F.A.C., or a kraft recovery furnace meeting the requirements of Rule 62-296.404(3)(c), F.A.C., or Rule 62-204.800(7), F.A.C., or a combustion device meeting the requirements of either Rule 62-296.404(3)(f), F.A.C., or Rule 62-204.800(7), F.A.C., or;*
 2. *5 ppm by volume on a dry basis at standard conditions corrected to the actual oxygen content of the untreated flue gas stream as a 12-hour average if a means other than incineration in a combustion device pursuant to Rule 62-296.404(3)(a)1., F.A.C., is used to control gaseous emissions of total reduced sulfur.*

3. *Total reduced sulfur emissions shall not be vented to the atmosphere at any point connected to or between the emissions unit and the control device except in the event of an emergency that presents a danger to life or property, or during those times when the control device is shut down for essential maintenance. The owner or operator of the affected facility shall develop a contingency plan, acceptable to the Department, for such circumstances. The plan shall include definitions of what constitutes essential maintenance and a reportable venting incident. The plan shall also include an evaluation of feasible means of controlling or mitigating the impact of total reduced sulfur when a control device or piece of process equipment that is used to control total reduced sulfur emissions is inoperative, and an assessment of the use of back-up control devices. Once approved by the Department, the plan shall become a modification to the operation permits for affected emissions units and its provisions shall be followed whenever a shutdown occurs. The time allowed for venting shall be as short as possible and limited to the time required to effect the required maintenance. In no event shall the cumulative time exceed ten days in any annual period unless authorized by the Secretary or the Secretary's designee. These provisions supplement the provisions of Rule 62-210.700, F.A.C., which shall also apply where not in direct conflict with this provision.*
- Normal excess or erratic pressures shall be controlled in such a manner as to prevent the release of uncontrolled gaseous emissions.*
- In the event that venting of uncontrolled total reduced sulfur emissions does occur the owner or operator shall notify the Department verbally by the close of the Department's next working day. The owner shall provide the Department with a written report as required by Rule 62-210.700, F.A.C. If the next quarterly report is due to the Department sooner than 30 days after the first day of a reportable venting incident, the report on that incident may be filed with the quarterly reports for the following quarter.*
4. *Emissions units subject to this rule shall also comply with Rule 62-2.960(1), F.A.C. (Compliance Schedules). Digester systems and multiple effect evaporator systems shall also comply with applicable continuous emissions monitoring requirements of Rule 62-296.404(5), F.A.C., if a technology other than incineration is used.*
- (b) *Tall Oil Plants. Gaseous emissions shall be collected and incinerated in a lime kiln or calciner meeting the requirements of Rule 62-296.404(3)(e) F.A.C., or Rule 62-204.800(7) F.A.C., or a kraft recovery furnace meeting the requirements of Rule 62-296.404(3)(c), F.A.C., or Rule 62-204.800(7), F.A.C., or a combustion device meeting the requirements of Rule 62-296.404(3)(f), F.A.C., or Rule 62-204.800(7), F.A.C., or;*
1. *0.05 pound per ton of crude tall oil produced as a 12-hour average.*
 2. *Emissions units subject to this rule shall also comply with applicable continuous emissions monitoring requirements of Rule 62-296.404(5), F.A.C., and Rule 62-2.960(1), F.A.C. (Compliance Schedules).*
- (c) *Kraft Recovery Furnaces.*
1. *Straight kraft recovery furnaces.*
 - a. *Old design kraft recovery furnaces, new design kraft recovery furnaces that are not direct-fired, and new design direct-fired suspension-burning kraft recovery furnaces - 17.5 ppm by volume on a dry basis at standard conditions corrected to 8 percent oxygen as a 12-hour average.*
 - b. *New design direct-fired kraft recovery furnaces that are not direct-fired suspension-burning kraft recovery furnaces - 5 ppm by volume on a dry basis at standard conditions corrected to 8 percent oxygen as a 12-hour average.*
 - c. *Any straight kraft recovery furnace shall comply with the total reduced sulfur emissions limit for cross recovery furnaces whenever the green liquor sulfidity exceeds 28 percent and the black liquor being burned contains an average of more than 7 weight percent solids originating from the neutral sulfite*

- semichemical (NSSC) process, based on the average of all previous 12-hour averages during the quarter.*
2. *Cross recovery furnaces - 25 ppm by volume on a dry basis at standard conditions corrected to 8 percent oxygen as a 12-hour average. Any cross recovery furnace shall comply with the total reduced sulfur emissions limit for straight kraft recovery furnaces whenever the green liquor sulfidity is less than or equal to 28 percent or the black liquor being burned contains an average of 7 weight percent or less solids originating from the neutral sulfite semichemical (NSSC) process, based on the average of all previous 12-hour averages during the quarter.*
 3. *Emissions units subject to this rule shall also comply with applicable continuous emissions monitoring requirements of Rule 62-296.404(5), F.A.C., and Rule 62-2.960(1), F.A.C. (Compliance Schedules).*
- (d) *Smelt Dissolving Tank Vents.*
1. *0.0480 pound per each 3000 pounds black liquor solids as hydrogen sulfide (H₂S).*
 2. *Emissions units subject to this rule shall also comply with applicable continuous emissions monitoring requirements of Rule 62-296.404(5), F.A.C., and Rule 62-2.960(1), F.A.C. (Compliance Schedules).*
- (e) *Lime Kilns and Calciners.*
1. *20 ppm by volume on a dry basis at standard conditions corrected to 10 percent oxygen as a 12-hour average.*
 2. *Emissions units subject to this rule shall also comply with applicable continuous emissions monitoring requirements of Rule 62-296.404(5), F.A.C. , and Rule 62-2.960(1), F.A.C. (Compliance Schedules).*
- (f) *Other Combustion Devices Used to Incinerate Total Reduced Sulfur Emissions.*
1. *5 ppm by volume on a dry basis at standard conditions corrected to 10 percent oxygen as a 12-hour average.*
 2. *Emissions units subject to this provision may include but shall not be limited to power boilers, carbonaceous fuel burning equipment and incinerators.*
 3. *Emissions units subject to this rule shall also comply with applicable continuous emissions monitoring requirements of Rule 62-296.404(5), F.A.C., and Rule 62-2.960(1), F.A.C. (Compliance Schedules)*
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
- (a) Kraft Recovery Furnaces.
1. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 2. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 32 dry standard cubic feet. For EPA Method 5, the filter temperature must not exceed 320 degrees Fahrenheit. EPA Method 17 may be used if stack temperature is less than 400 degrees Fahrenheit. An adjustment of 0.004 grains per dry standard cubic foot shall be added to the test results when using Method 17. A water wash shall be used with either method.
 3. The test method for TRS shall be EPA Method 16 or EPA Method 16A or EPA Method 16B, incorporated and adopted by reference in Chapter 62-297, F.A.C. EPA Method 16 or EPA Method 16A pursuant to Rule 62-297.401(16), F.A.C., shall be required for instrument certification and compliance testing.
- (b) Lime Kilns and Calciners.
1. The particulate emissions test method for scrubber controlled emissions units shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 32 dry standard cubic feet. A water wash shall be used.

2. The particulate emissions test method for dry control emissions units shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 32 dry standard cubic feet. A acetone wash shall be used.
 3. The test method for TRS shall be EPA Method 16 or EPA Method 16A or EPA Method 16B, incorporated and adopted by reference in Chapter 62-297, F.A.C. EPA Method 16 or EPA Method 16A pursuant to Rule 62-297.401(16), F.A.C., shall be required for instrument certification and compliance testing.
- (c) Smelt Dissolving Tank Vents.
1. The particulate emissions test method for scrubber controlled emissions units shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 32 dry standard cubic feet. A water wash shall be used.
 2. The particulate emissions test method for dry control emissions units shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 32 dry standard cubic feet. A acetone wash shall be used.
 3. The test method for TRS shall be EPA Method 16 or EPA Method 16A or EPA Method 16B, incorporated and adopted by reference in Chapter 62-297, F.A.C. EPA Method 16 or EPA Method 16A pursuant to Rule 62-297.401(16), F.A.C., shall be required for instrument certification and compliance testing.
- (d) The TRS test method for tall oil plants shall be EPA Method 16 or EPA Method 16A or EPA Method 16B, incorporated and adopted by reference in Chapter 62-297, F.A.C. EPA Method 16 or EPA Method 16A pursuant to Rule 62-297.401(16), F.A.C., shall be required for instrument certification and compliance testing.
- (e) Other Combustion Devices used to Incinerate TRS.
1. The particulate emissions test method for scrubber controlled emissions units shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 32 dry standard cubic feet. A water wash shall be used.
 2. The particulate emissions test method for dry control emissions units shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 32 dry standard cubic feet. A acetone wash shall be used.
 3. The test method for TRS shall be EPA Method 16 or EPA Method 16A or EPA Method 16B, incorporated and adopted by reference in Chapter 62-297, F.A.C. EPA Method 16 or EPA Method 16A pursuant to Rule 62-297.401(16), F.A.C., shall be required for instrument certification and compliance testing.
- (f) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (5) Continuous Emissions Monitoring Requirements. Each owner or operator of a kraft (sulfate) pulp mill or tall oil plant shall install continuous monitoring systems for monitoring total reduced sulfur (TRS) emissions, or the performance of total reduced sulfur air pollution control systems as specified in this subsection.
- (a) Straight kraft recovery furnaces, whether new or old design, cross recovery furnaces, lime kilns and calciners, shall be equipped with total reduced sulfur continuous emissions monitoring systems as specified in Rule 62-296.404(5)(b), F.A.C. All digester systems and multiple effect evaporator systems, shall be equipped with total reduced sulfur continuous emissions monitoring systems as specified in Rule 62-296.404(5)(b), F.A.C. (Continuous Emission Monitoring), if a technology other than incineration is used.
- (b) Continuous determination of total reduced sulfur emissions.
1. A total reduced sulfur continuous emissions monitoring system shall be installed, calibrated, certified and operated pursuant to all of the following provisions:
 - a. The continuous emissions monitoring system shall monitor and record the concentration of total reduced sulfur (TRS) emissions on a dry basis and the

- percentage of oxygen by volume on a dry basis.
- b. The continuous emissions monitoring system shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
 - c. The continuous emissions monitoring system shall be located downstream of the control device such that representative measurements of process parameters can be obtained.
 - d. The continuous emissions monitoring system shall be located, installed and certified pursuant to the provisions of 40 CFR Part 60, Appendix B, Performance Specification 2 and Performance Specification 3, and 40 CFR Part 60, Appendix B, Performance Specification 5, which are adopted by reference in Rule 62-296.800, F.A.C. The exception is that the phrase "or other approved alternative" in s. 3.2 of Performance Specification 5 is not adopted. For the purposes of compliance testing and certification of continuous emissions monitoring systems, 40 CFR Part 60, Appendix A, Reference Method 16 and Method 16A adopted by reference in Rule 62-296.800, F.A.C., are to be used.
 - e. The continuous emissions monitoring system shall be in continuous operation, except when the emissions unit is not operating, or during system breakdowns, repairs, calibration checks, and zero and span adjustments.
 - f. During any initial compliance tests conducted pursuant to Rule 62-296.404, F.A.C., or within 30 days thereafter, and at such times as there is reason to believe the system does not conform to the performance specifications under this rule (for example, equipment repairs, replacements, excessive drift and such), the owner or operator of any affected emissions unit shall conduct continuous monitoring system performance evaluations and furnish the Department, within sixty days thereof, two copies of a written report of the results of such tests. These continuous emissions monitoring systems performance evaluations shall be conducted in accordance with the requirements and procedures contained in Rule 62-296.404(5)(b)1.d., F.A.C.
 - g. The continuous emissions monitoring system shall have a maximum span value not to exceed:
 - (i) A total reduced sulfur concentration of 30 ppm for the total reduced sulfur continuous emissions monitoring system on any new design direct-fired kraft recovery furnace that is not direct-fired, new design suspension-burning kraft recovery furnace, incinerator, digester system or multiple effect evaporator system.
 - (ii) A total reduced sulfur concentration of 50 ppm for the total reduced sulfur continuous emissions monitoring system on any old design kraft recovery furnace, new design kraft recovery furnace that is not direct-fired, new design direct-fired suspension-burning kraft recovery furnace, cross recovery furnace, lime kiln or calciner.
 - (iii) 20 percent oxygen for the continuous oxygen monitoring system.
 - h. The continuous emissions monitoring system shall be checked by the owner or operator in accordance with a written procedure at least once daily and after any maintenance to the system. The owner or operator shall check the zero (or low level value between 0 and 20 percent of span value) and span (90 to 100 percent of span value) calibration drifts. The zero and span shall be adjusted, as a minimum, whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications referenced in Rule 62-296.404(5)(b)1.d., F.A.C. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified.

2. The owner or operator of any total reduced sulfur emissions unit who is required to install a total reduced sulfur continuous emissions monitoring system pursuant to Rule 62-296.404(5)(a), F.A.C., shall:

- a. Reduce all data to one-hour averages for each 60-minute period beginning on the hour. One-hour averages shall be computed from a minimum of four data points equally spaced over each one-hour period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the computation. Either an arithmetic or integrated average shall be used. The data output of the continuous emissions monitoring system may, at the owner's or operator's option, include a numerical format showing individual numerical readings and averages in addition to the required strip chart format with legible ink tracings and calibration information. All data output shall be clearly and properly identified by the operator. All system breakdowns, repairs, calibration checks, span adjustments and periods of excess emissions shall legibly appear on all data output.
- b. Calculate and record on a daily basis the 12-hour average total reduced sulfur concentrations for two consecutive 12-hour periods of each operating day. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous one-hour average total reduced sulfur concentrations provided by the continuous emissions monitoring system.
- c. Calculate and record on a daily basis 12-hour average oxygen concentrations for two consecutive 12-hour periods of each operating day. These 12-hour averages shall correspond to the 12-hour average total reduced sulfur concentrations from Rule 62-296.404(5)(b)2.b., F.A.C., and shall be determined as an arithmetic mean of the appropriate 12 contiguous one-hour average oxygen concentrations provided by each continuous emissions monitoring system.
- d. Correct all 12-hour average total reduced sulfur (TRS) concentrations using the following equation:

$$C_{corr} = C_{meas} (21 - X)/(21 - Y)$$

where: C_{corr} = the TRS concentration corrected for oxygen.

C_{meas} = the TRS concentration uncorrected for oxygen.

X = the volumetric oxygen concentration in percentage that the measured TRS concentration is to be corrected to (8 percent for all recovery furnaces and 10 percent for all lime kilns, incinerators or other devices, except those emissions units subject to Rule 62-296.404(3)(a)2., F.A.C., and Rule 62-296.404(3)(b), F.A.C., which shall be corrected to the actual oxygen content of the untreated flue gas stream).

Y = the measured 12-hour average volumetric oxygen concentration.

- e. The data shall be rounded to the same number of significant digits as the standard.
- (c) Incinerators subject to Rule 62-296.404(3)(f), F.A.C., shall be equipped with devices to continuously monitor temperature at the point of combustion and oxygen. The temperature devices shall be certified by the manufacturer to be accurate to within ± 1 percent of the temperature being measured. The oxygen monitors shall be certified by the manufacturer to be accurate to within 0.1 percent oxygen by volume.
- (d) The owner or operator of any kraft pulp mill shall provide the Department with a list of physical and chemical parameters for each regulated total reduced sulfur emissions unit that is not required to be equipped with a total reduced sulfur continuous monitor, which will be regularly monitored

to demonstrate that the emissions unit is being operated in a manner that can reasonably be expected to result in compliance with the applicable total reduced sulfur emission limiting standards. The owner or operator shall provide information showing the correlation between the specific magnitudes of the specific surrogate parameters and the associated emissions of total reduced sulfur. The owner or operator shall recommend the frequency and method of monitoring for each parameter. The Department shall issue notice to the company pursuant to Rule 62-103, F.A.C., that specifies the parameters that are to be monitored, the frequency of monitoring, and the parameter limits that must be maintained. The parameters, parameter limits and frequency of monitoring shall become a modification to the permit for each affected emissions unit. Excess emissions shall be deemed to occur if the parameters exceed the parameter limits specified in the permit.

Such parameter limits may be in the form of the applicable total reduced sulfur emission standard, if an equation is used that estimates the 12-hour average total reduced sulfur emission rate based on the surrogate parameter values during each 12-hour averaging period; or the parameter limits may be in the form of specific parameter values that are not to be exceeded (or dropped below) more often than a specified period of time during each 12-hour averaging period.

- (6) Quarterly Reporting Requirements. The owner or operator of any digester system, multiple effect evaporator system, condensate stripper system, tall oil plant, kraft recovery furnace, lime kiln, calciner or other emissions unit subject to the provisions of Rule 62-296.404(5), F.A.C. (Continuous Monitoring Requirements), shall submit a written total reduced sulfur emissions and surrogate parameter data report to the Department postmarked by the 30th day following the end of each calendar quarter.
- (a) The report shall include the following information:
1. The magnitude of excess emissions and the date and time of commencement and completion of each time period in which excess emissions occurred.
 2. Specific identification of each period of excess emissions that occurs including startups, shutdowns, and malfunctions of the affected emissions unit. An explanation of the cause of each period of excess emissions, and any corrective action taken or preventive measures adopted. Excess emissions shall be all 12-hour periods for which the appropriate surrogate parameter data or total reduced sulfur continuous emissions monitoring data indicates that an applicable 12-hour average total reduced sulfur emission limiting standard for the emissions unit was exceeded.
 3. The date and time identifying each period during which each continuous emissions monitoring system used to measure total reduced sulfur emissions or surrogate parameters was inoperative except for zero and span checks, and the nature of the system repairs or adjustments.
 4. When no excess emissions have occurred or the continuous emissions monitoring system(s) have not been operative, or have been repaired or adjusted, such information shall be stated in the report.
- (b) Any owner or operator subject to the provisions of Rule 62-296.404(5) and (6), F.A.C., shall maintain a complete file of any measurements, including continuous emissions monitoring system, monitoring device, and performance testing measurements; any continuous emissions monitoring system performance evaluations; any continuous emissions monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and any other information required, recorded in a permanent legible form available for inspection. The file shall be retained for at least three years following the date of such measurements, maintenance, reports and records.
- (c) Evaluation of Excess Emissions. The Department shall consider periods of excess emissions from any kraft recovery furnace, lime kiln, calciner or any other regulated TRS emissions unit to be evidence of improper operation and maintenance of the monitored emissions unit provided that:
1. For kraft recovery furnaces subject to the emissions limits of Rule 62-296.404(3)(c), F.A.C., the excess emissions occur during more than one percent of the total number of possible contiguous 12-hour periods of excess emissions in a calendar quarter rounded to

- the nearest whole number (excluding only the actual 12-hour periods during which a startup, shutdown or malfunction of the kraft recovery furnace occurred and only the actual 12-hour periods when the kraft recovery furnace was not operating), or
2. For lime kilns and calciners subject to the emissions limits of Rule 62-296.404(3)(e), F.A.C., the excess emissions occur during more than two percent of the total number of possible contiguous 12-hour periods of excess emissions in a calendar quarter rounded to the nearest whole number (excluding only the actual 12-hour periods during which a startup, shutdown or malfunction of the lime kiln, calciner, or their control equipment occurred and only the actual 12-hour periods when the lime kiln or calciner was not operating), or
 3. For other regulated non-NSPS total reduced sulfur emissions units, the excess emissions as indicated by the appropriate surrogate parameters occur during more than one percent of the total number of possible contiguous 12-hour periods of excess emissions in a calendar quarter rounded to the nearest whole number (excluding only the actual 12-hour periods during which a startup, shutdown, or malfunction of the emissions unit or its control equipment occurred and only the actual 12-hour periods when the source was not operating), and
 4. The Department determines that the affected emissions unit, including air pollution control equipment, is not maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions. Such determination shall be based on the failure of the owner or operator of the facility to provide records of maintenance and operation of the emissions unit and related equipment showing operation consistent with good air pollution control practices. Good air pollution control practices shall include:
 - a. Operation of all equipment within permit limits for loading rates and other process parameters,
 - b. An adequate preventive maintenance program based on manufacturer's recommendations or other accepted industry practices,
 - c. Training of personnel in the operation and maintenance of equipment,
 - d. Visual and instrument inspections of equipment on a regular basis, and
 - e. Maintenance of an adequate on-site, or readily available, supply of equipment for routine repairs.
- (d) The owner or operator of any kraft pulp mill or tall oil plant shall notify the Department in writing within fourteen days of the date on which periods of excess emissions exceed the percentages allowed by Rule 62-296.404(6)(c)1. through 3., F.A.C.

History: Formerly 17-2.600(4); Formerly 17-296.404; Amended 11-23-94, 1-1-96, 3-13-96.
62-296.404

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
2 nd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.405 Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input.

(1) Existing Emissions Units.

- (a) Visible emissions - 20 percent opacity except for either one six-minute period per hour during which opacity shall not exceed 27 percent, or one two-minute period per hour during which opacity shall not exceed 40 percent. The option selected shall be specified in the emissions unit's construction and operation permits. Emissions units governed by this visible emission limit shall test for particulate emission compliance annually and as otherwise required by Rule 62-297, F.A.C.

Emissions units electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The results of such tests shall be submitted to the Department. Upon demonstration that the particulate standard has been regularly complied with, the Secretary, upon petition by the applicant, shall reduce the frequency of particulate testing to no less than once annually.

- (b) Particulate Matter - 0.1 pound per million Btu heat input, as measured by applicable compliance methods.

- (c) Sulfur Dioxide, as measured by applicable compliance methods.

1. Emissions units burning liquid fuel.

- a. Emissions units in Duval County with a nameplate generating capacity of greater than 250 MW which commenced operation prior to August 1, 1977 - 1.98 pounds per million Btu heat input.
- b. Emissions units in Duval County with a nameplate generating capacity of less than 160 MW which commenced operation prior to October 1, 1964 - 1.10 pounds per million Btu heat input.
- c. All other emissions units in Duval County - 1.65 pounds per million Btu heat input.
- d. Hillborough County, emissions units south of State Highway 60 with a nameplate generating capacity of less than 100 MW which commenced operation prior to June 1, 1955 - 1.1 pounds per million Btu heat input.
- e. Escambia County, emissions units north of Interstate 10 with a nameplate generating capacity of less than 50 MW which commenced operation prior to October 1, 1952 - 1.98 pounds per million Btu heat input.
- f. Escambia County, no emissions unit north of Interstate 10 with a rated heat input of 515 million Btu per hour or less for which a valid Department operating permit was issued prior to September 30, 1972 shall emit in the aggregate more than 57.5 tons per any 24 hour period.
- g. Manatee County, emissions units with a nameplate generating capacity of greater than 700 MW for which a valid Department operating permit was issued prior to January 1, 1979 - 1.1 pounds per million Btu heat input.
- h. Leon and Wakulla Counties, emissions units with a nameplate generating capacity of less than 260 MW for which a valid Department operating permit was issued prior to November 1, 1977 - 1.87 pounds per million Btu heat input.
- i. Dade, Broward, and Palm Beach Counties, emissions units with a nameplate generating capacity of less than 170 MW which commenced operation prior to May 1, 1958 - 1.1 pounds per million Btu heat input, except in the event of a fuel or energy crisis declared by the Governor of Florida or the President of the United States - 2.75 pounds per million Btu heat input. Notification concerning the quantity and estimated duration of the increase in emissions shall be given to the Department prior to burning the higher sulfur fuel.
- j. All other areas of the State - 2.75 pounds per million Btu heat input.

2. Emissions units burning solid fuel.

- a. Hillsborough County, no emissions unit with a nameplate generating capacity of greater than 120 MW which commenced operation prior to November 1, 1967,

- shall emit more than 2.4 pounds of sulfur dioxide per million Btu heat input on a weekly average nor shall a group of such emissions units located on one or more contiguous or adjacent properties and which are under common control emit more than 10.6 tons per hour of sulfur dioxide on a weekly average. A plan for assuring compliance with Florida Ambient Air Quality Standards will be incorporated into the revised operating permit for such emissions units.
- b. Hillsborough County, no emissions unit with a nameplate generating capacity of greater than 400 MW which commenced operation after November 1, 1967, and prior to June 1, 1976, shall emit in total more than 6.5 pounds of sulfur dioxide per million Btu heat input on a two hour average nor shall a group of such emissions units located on one or more contiguous or adjacent properties and which are under common control emit more than 31.5 tons per hour of sulfur dioxide on a three hour average and 25 tons per hour of sulfur dioxide on a 24 hour average.
 - c. Escambia County, emissions units north of Interstate 10 with a nameplate generating capacity of more than 50 MW which commenced operation prior to September 1, 1973 - 5.90 pounds per million Btu heat input.
 - d. All other areas of the State - 6.17 pounds per million Btu heat input.
3. Owners of fossil fuel steam generators shall monitor their emissions and the effects of the emissions on ambient concentrations of sulfur dioxide, in a manner, frequency, and locations approved, and deemed reasonably necessary and ordered by the Department.
- (d) Nitrogen Oxides (expressed as NO₂) - as measured by applicable compliance methods.
1. Duval County, emissions units with a nameplate generating capacity of greater than 450 MW which commenced operation prior to August 1, 1977 - 0.30 pounds per million Btu heat input.
 2. Manatee County, emissions units with a nameplate generating capacity of greater than 700 MW for which a valid Department operating permit was issued prior to January 1, 1979 - 0.30 pounds per million Btu heat input.
 3. Leon County, emissions units with a nameplate generating capacity of greater than 200 MW for which a valid Department operating permit was issued prior to November 1, 1977 - 0.30 pounds per million Btu heat input.
 4. Hillsborough County, emissions units with a nameplate generating capacity of greater than 400 MW which commenced operation after January 1, 1976 and prior to January 1, 1985 - 0.70 pounds per million Btu heat input.
- (e) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
1. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C.
 2. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature at no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen base F-factor computed according to EPA Method 19 is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17.
 3. The test methods for sulfur dioxide emissions shall be DEP Methods 6, 6A, 6B or 6C, incorporated and adopted by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated in the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure

shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedances of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards.

4. For emission units not subject to nitrogen oxides continuous monitoring requirements, the test methods for nitrogen oxides emissions shall be EPA Methods 7, 7A, or 7E, incorporated and adopted by reference in Chapter 62-297, F.A.C. Four grab samples at 15 minute intervals (± 2 min.) per run shall be required for EPA Methods 7 and 7A. For emission units that are subject to continuous monitoring requirements under 42 U.S.C. sections 7661-7661f or 40 CFR Part 75, compliance with nitrogen oxides emission limits shall be demonstrated based on a 30-day rolling average, except as specifically provided by 40 CFR Parts 60 or 76.
 5. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (f) Continuous Emissions Monitoring Requirements. Each owner or operator of an emissions unit subject to Rule 62-296.405(1), F.A.C., shall install, calibrate, operate and maintain a continuous monitoring system for continuously monitoring the pollutants specified in this subsection. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR Part 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800(2), F.A.C., and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C., for existing and new emissions units provided, however, any alternative procedures (as specified in s. 3.9, 40 CFR Part 51, Appendix P) or special considerations (as specified in s. 6.0, 40 CFR Part 51, Appendix P) shall be incorporated in the Department's air permit for the emissions unit and submitted to the U.S. Environmental Protection Agency as a proposed revision to the State Implementation Plan.
1. Existing fossil fuel steam generators with more than 250 million BTU per hour heat input and with a capacity factor of greater than 30 percent for the latest year of record or as otherwise documented to the Department by the owner or operator, shall install continuous monitoring systems as set forth in this subparagraph. Any reactivated or previously exempted unit whose operated capacity factor for the previous six months is greater than 30 percent must install continuous monitoring systems as set forth in this subparagraph no later than twelve months following the previous six month period of achieving a capacity factor greater than 30 percent.
 - a. Opacity. All emissions units as set forth in Rule 62-296.405(1)(f)1., F.A.C., shall install continuous monitoring systems for monitoring opacity. Exempted are:
 - (i) Emissions units burning only gas, oil, or gas and oil which comply with the applicable state visible emission limiting standard without the use of emission control equipment.
 - (ii) Any emissions unit using a wet scrubber.
 - b. Sulfur dioxide. All emissions units as set forth in Rule 62-296.405(1)(f)1., F.A.C., shall install sulfur dioxide continuous monitoring equipment on units which have installed sulfur dioxide control equipment. Those emissions units not having an operating flue gas desulfurization device may monitor sulfur dioxide emissions by fuel sampling and analysis according to methods approved by EPA.
 - c. Nitrogen Oxides. All new emissions units as set forth in Rule 62-296.405(1)(f)1., F.A.C., with more than 1000 million BTU per hour heat input shall, during construction, install continuous monitoring systems for monitoring nitrogen oxides.
 - d. Oxygen or Carbon Dioxide. A continuous monitoring system shall be installed

at each emissions unit, as set forth in Rule 62-296.405(1)(f)1., F.A.C., where measurements of oxygen or carbon dioxide in the flue gas are utilized to convert either sulfur dioxide or nitrogen oxides continuous emission monitoring data to units of the emission limiting standards for proof of compliance as set forth in Rule 62-296.405(1), F.A.C.

2. The exemption from opacity monitoring under Rule 62-296.405(1)(f)1.a.(i), F.A.C., shall not apply to any emissions unit which has been found to be in violation of the visible emission limiting standard pursuant to administrative proceedings conducted under Chapter 120, Florida Statutes, or judicial proceedings after January 1, 1978. No later than ninety days following the date an order establishing such violation becomes final, the owner or operator of such emissions unit shall submit to the Department a proposed compliance schedule for installing a continuous opacity monitoring system. Following incorporation of a compliance schedule into the emission unit's air permit, the owner or operator shall install the continuous monitoring system in accordance with the schedule.
- (g) Quarterly Reporting Requirements. The owners or operators of facilities for which monitoring is required shall submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of two years.
- (2) New Emissions Units.
 - (a) Visible Emissions - (See Rule 62-204.800(7), F.A.C., and 40 CFR 60.42 and 60.42a).
 - (b) Particulate Matter - (See Rule 62-204.800(7), F.A.C., and 40 CFR 60.42 and 60.42a).
 - (c) Sulfur Dioxide - (See Rule 62-204.800(7), F.A.C., and 40 CFR 60.43 and 60.43a).
 - (d) Nitrogen Oxides - (See Rule 62-204.800(7), F.A.C., and 40 CFR 60.44 and 60.44a).
- (3) For the purposes of this rule, nameplate generating capacity means the manufacturer's capacity rating of electrical generating output (expressed in MW) as designed.

History: Formerly 17-2.600(5); Amended 6-29-93; Formerly 17-296.405; Amended 11-23-94, 1-1-96, 3-13-96.
62-296.405

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
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1 st Revision	06/29/93	07/02/93	04/14/94	59 FR 17696	06/13/94
2 nd Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
3 rd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.406 Fossil Fuel Steam Generators With Less than 250 Million Btu per Hour Heat Input, New and Existing Emissions Units.

The following standards apply to new and existing facilities unless otherwise specified by rule, or by order or permit issued by the Department prior to July 15, 1989.

- (1) Visible Emissions - 20 percent opacity except for either one six-minute period per hour during which opacity shall not exceed 27 percent or one two-minute period per hour during which opacity shall not exceed 40 percent. The option selected shall be specified in the source's construction and operation permits. An opacity of 30 percent opacity shall be allowed for sources rated at 241 million Btu per hour heat input for which a valid Department operating permit was issued prior to October 1, 1972 in Escambia County, while burning fuel oil in conjunction with waste material derived from waste streams previously discharged into underground wells.
- (2) Particulate Matter - Best available control technology except for emissions units exempted pursuant to Rule 62-210.300(3), F.A.C.
- (3) Sulfur Dioxide - Best available control technology except for emissions units exempted pursuant to Rule 62-210.300(3), F.A.C.

History: Formerly 17-2.600(6); Amended 6-29-93; Formerly 17-296.406; Amended 11-23-94, 3-13-96.

62-296.406

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	06/29/93	07/02/93	04/14/94	59 FR 17696	06/13/94
2 nd Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
3 rd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.407 Portland Cement Plants.

- (1) Existing kilns and coolers - as provided in the Process Weight Table, Rule 62-296.310(1), F.A.C.
- (2) New emissions units.
 - (a) Kilns - 0.3 pounds of particulate matter per ton of feed to the kiln.
 - (b) Clinker coolers - 0.1 pounds of particulate matter per ton of feed to the kiln.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.600(7), Formerly 17-296.407, Amended 11-23-94, 1-1-96.

62-296.407

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.408 Nitric Acid Plants.

These limits are applicable to new and existing emissions units producing weak nitric acid (50 to 70 percent) by pressure or atmospheric pressure process.

- (1) Visible emissions - 10 percent opacity.
- (2) Nitrogen Oxides - 3 pounds per ton of acid produced (100 percent basis).
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 - (b) The test methods for nitrogen oxides emissions shall be EPA Methods 7, 7A, 7B, 7C, or 7D, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be as specified in EPA Method 7. Four grab samples at 15 minute intervals (± 2 minutes) per run required.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.600(8); Formerly 17-296.408; Amended 11-23-94, 1-1-96.

62-296.408

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.409 Sulfur Recovery Plants.

These limits are applicable to plants recovering sulfur from crude oil gas.

- (1) New Plants - 0.004 pounds of sulfur dioxide per pound of sulfur input to the recovery system or 0.004 pounds of sulfur dioxide per pound of sulfur removed from an oil well.
- (2) Existing Plants (for which a valid Department Construction permit was issued prior to July 1, 1973) - 0.08 pounds of sulfur dioxide per pound of sulfur input to the recovery system or 0.08 pounds of sulfur dioxide per pound of sulfur removed from crude oil or gas processed.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for sulfur dioxide shall be EPA Method 6, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 0.71 dry standard cubic feet. Two 20 minute samples (± 5 minutes) per run required.
 - (b) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.600(9); Formerly 17-296.409; Amended 11-23-94.

62-296.409

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.410 Carbonaceous Fuel Burning Equipment.

- (1) Emissions units for which a valid Department operation or Construction permit was issued prior to July 1, 1974.
 - (a) Burners with a capacity less than 30 million Btu per hour heat input - Visible emissions with a density of Number 1 on the Ringelmann Chart (20 percent opacity) except that emissions with a density of Number 2 (40 percent opacity) are permissible for not more than two minutes in any one hour.
 - (b) Burners with a capacity equal to or greater than 30 million Btu per hour heat input.
 - 1. Visible emissions - Visible emissions with a density of Number 1.5 on the Ringelmann Chart (30 percent opacity) except that a density of Ringelmann Number 2 (40 percent opacity) is permissible for not more than two minutes in any one hour.
 - 2. Particulate Matter - 0.3 pounds per million Btu of heat input of carbonaceous fuel plus 0.1 pounds per million Btu heat input of fossil fuel.
- (2) New Emissions Units.
 - (a) Burners of capacity less than 30 million Btu per hour total heat input - Ringelmann Number 1 (20 percent opacity) except that a density of Ringelmann Number 2 (40 percent opacity) is permissible for not more than two minutes in any one hour.
 - (b) Burners of capacity equal to or greater than 30 million Btu per hour total heat input.
 - 1. Visible Emissions - Number 1.5 on the Ringelmann Chart (30 percent opacity) except that a density of Ringelmann Number 2 (40 percent opacity) is permissible for not more than two minutes in any one hour.
 - 2. Particulate Matter - 0.2 pounds per million Btu of heat input of carbonaceous fuel plus 0.1 pounds per million Btu heat input of fossil fuel.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 - (b) The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.600(10); Formerly 17-296.410; Amended 11-23-94, 1-1-96.

62-296.410

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.411 Sulfur Storage and Handling Facilities.

Except for those facilities exempted in Rule 62-296.411(5), F.A.C., or for handling of vatted sulfur as otherwise provided in this subsection, no person shall cause, suffer or allow elemental sulfur to be stored, handled or transported within the state in crushed bulk or slate form or in any form other than standard sulfur pellets or in molten form, except that sulfur may be transferred within the boundaries of a single facility in other forms. Facilities using standard sulfur pellets or molten sulfur, or sulfur vating facilities, may be permitted only in conformance with the following criteria and other applicable Department standards.

- (1) Molten Sulfur Storage and Handling Facilities - All molten sulfur facilities shall employ, as a minimum, the following practices to minimize the emission of sulfur particulate matter into the atmosphere. Other relevant detailed requirements shall be specified, as necessary, in the permits for the facility.
 - (a) All molten sulfur transfer shall be through enclosed piping systems where feasible and practical. In user facilities, molten sulfur may be transferred by covered trench or a movable spout which is positioned over a receiving pit. Contact surfaces between movable unloading arms and stationary pipes shall seat effectively around the entire circumference to minimize spillage.
 - (b) All areas surrounding points where molten sulfur pipes are routinely disconnected and areas where molten sulfur is transferred to trucks or railcars shall be paved and curbed within 20 feet of the point of disconnection or transfer to contain any spilled molten sulfur, or shall be provided with noncorrosible drip pans or other secondary containment, positioned to collect spills, that are adequate to contain amounts of sulfur that may escape during routine disconnection, reconnection or operation of the piping system.
 - (c) Emissions of sulfur particulate matter from molten sulfur storage tanks and transfer systems in particulate matter air quality maintenance areas or within five kilometers of such areas shall not exceed 0.03 pounds per hour per thousand tons of storage capacity.
 - (d) All spilled molten sulfur shall be collected and properly disposed of whenever the containment area is filled to one-half its containment capacity, or monthly, whichever is more frequent. Spills of molten sulfur outside of a containment area, or where subject to vehicular traffic, shall be collected and disposed of as soon as possible, but no later than 24 hours after the spill occurs. Drip pans or other secondary containment shall be cleaned as needed to prevent exceedance of capacity, but at least weekly.
 - (e) All vent surfaces shall be cleaned monthly to remove captured particles.
 - (f) All owners and operators of molten sulfur storage and handling facilities shall maintain records of spills outside of containment areas and of collection and disposal of spilled sulfur. Such records shall be retained for a minimum of two years and shall be available for inspection by the Department upon request.
 - (g) In any particulate matter air quality maintenance area, PSD Class I area, or within five kilometers of such an area, visible emissions from any emission point in a molten sulfur facility shall not exceed 10 percent opacity (six minute average). In other areas visible emissions from any emission point in a molten sulfur facility shall not exceed 20 percent opacity (six minute average).
 - (h) Operational procedures approved by the Department shall be established to minimize spills from any movable loading arm or pipe upon disconnection, reconnection or operation.
 - (i) Visible emissions of sulfur particulate matter during ship unloading in a particulate matter air quality maintenance area shall not exceed 15 percent (six minute average).
 - (j) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 1. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 2. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. An acetone wash shall be used. A filter box or probe heat shall not be used. Use one point sampling in the center of the temporary stack extension erected over and completely covering the center tank vent. This stack extension shall be no more than ten feet in height and provide a minimum six inch clearance from the tank vent and shall be 12 inches in diameter beginning at the top

of the tapered section. The sampling port shall be a minimum of eight stack diameters downstream from the top of the roof vent and a minimum of two stack diameters upstream from the top of the temporary stack. If the tank is equipped with other vents, determine the total volume of gas vented from the tank during the sampling period. Multiply the weight of particulate collected by the ratio of the total volume to the actual volume sampled corrected to standard temperature and pressure and compute the test result with the adjusted weight of particulate collected. Determine and report the average wind speed during each test run at a point above and in the vicinity of the tank.

3. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (2) Solid Sulfur Storage and Handling Facilities. All solid sulfur storage and handling facilities shall employ as a minimum, the following practices to minimize the emission of sulfur particulate matter into the atmosphere. Other relevant detailed requirements shall be specified, as necessary, in the permits for the facility including, where appropriate, a minimum rate or amount of moisture to be applied by water spray systems.
- (a) Marine Vessel Unloading.
 1. Solid sulfur unloaded from marine vessels shall only be done by:
 - a. A self-unloading vessel of a design approved by the Department; or
 - b. A tight-lipped clamshell bucket (the clamshell bucket shall be inspected daily by qualified personnel during use to assure a tight seal); or
 - c. A continuous unloader.
 2. Solid sulfur shall not be unloaded by clam shell bucket or any approved equivalent method from marine vessels when the wind speed exceeds 18 mph for any five minute period.
 3. A floating boom shall be deployed so as to contain sulfur that may be spilled in the water during the unloading process whenever a clamshell bucket or equivalent unloading method is employed. Any sulfur floating in the contained area shall be reclaimed as soon as possible after unloading, but no later than 24 hours after unloading is completed.
 4. The hopper receiving solid sulfur unloaded from marine vessels shall be constructed with wind walls and a top with slots provided to enable entry and exiting of a clamshell bucket. The walls shall be constructed on at least three sides and the height of the walls shall be a minimum of 1.5 times the height of the clamshell bucket.
 5. The clamshell bucket shall be positioned within the wind walls prior to discharging sulfur into the receiving hopper.
 6. The clamshell bucket shall be closed completely before being withdrawn from the receiving hopper and returned to the marine vessel.
 7. The hopper receiving solid sulfur unloaded from marine vessels shall be equipped with a water spray system located around the periphery of the receiving hopper. The water spray system shall contain an effective wetting agent and shall be operated continuously during all unloading or transfer operations.
 8. Operational procedures approved by the Department shall be established to minimize sulfur particulate emissions from marine vessel unloading operations.
 - (b) Solid Sulfur Transfer.
 1. Sulfur Transferred by Conveyor Belt Systems.
 - a. The conveyor belts shall be of a deep-V design.
 - b. The maximum incline of any conveyor belt shall not exceed 15 degrees.
 - c. All conveyor-to-conveyor and all hopper-to-conveyor transfer points shall be enclosed.
 - d. Conveyor transfer systems shall include water spray systems at transfer points. The water spray systems shall spray water containing an effective wetting agent and shall be operated continuously at all times when transfer is occurring.
 - e. Hoppers receiving solid sulfur transferred by conveyor belt systems shall be constructed with wind walls enclosing the top and a minimum of three sides of

- the receiving hopper.
 - f. No vertical drop at any conveyor transfer point shall exceed five feet.
 - 2. Sulfur Transfer by Pay-loaders or Mechanical Equipment.
 - a. The equipment used to transfer solid sulfur shall not exceed 75 percent bucket capacity.
 - b. Vehicles used to transfer solid sulfur within a solid sulfur handling facility shall operate at speeds not exceeding 15 mph.
 - c. Maximum drop height when transferring solid sulfur by pay-loader or mechanical equipment shall not exceed five feet.
 - d. Hoppers not within an enclosure that receive solid sulfur transferred by pay-loaders or mechanical equipment shall be constructed with a wind wall enclosing the top and a minimum of three sides of the-receiving hopper.
 - e. Only rubber-tired pay-loaders and mechanical equipment shall be allowed to be operated in solid sulfur storage areas.
 - f. The transfer of solid sulfur by pay-loader or mechanical equipment outside of an enclosure shall not be permitted when the wind speed exceeds 18 mph for any five minute period.
 - g. All paved roads within a solid sulfur handling facility shall be wetted daily to reduce total sulfur particulate emissions.
- (c) Solid Sulfur Storage.
 - 1. Areas used for the storage of solid sulfur in a particulate matter air quality maintenance area, PSD Class I area, or within five kilometers of such an area, or at any marine terminal facility, shall be entirely housed in a vented structure completely enclosed by roof and walls, and shall be paved with an asphaltic material or Department approved equivalent. The vented emissions shall not exceed 0.03 pounds per hour per thousand tons of storage capacity.
 - 2. Areas used for the storage of solid sulfur in all areas not covered by Rule 62-296.411(2)(c)1., F.A.C., above, shall be paved with an asphaltic material or Department approved equivalent and shall be surrounded by a berm at least three feet in height, except as necessary to permit vehicle access.
 - 3. The stacker conveyor shall be equipped with a chute that shall extend to within five feet of the storage pile during times when sulfur is being transferred to storage. The vertical drop height may exceed five feet when the sulfur storage area is enclosed and an overhead shuttle conveyor is utilized to transfer the sulfur to storage. However, in some situations the sulfur pile shall be formed so that whenever possible the material shall be transferred to the side of an already existing pile.
 - 4. Surfaces within the sulfur storage area traveled by pay-loaders or mechanical equipment used to transfer solid sulfur shall be periodically wetted with an effective wetting agent to minimize unconfined sulfur particulate emissions.
 - 5. Surfaces within the sulfur storage area traveled by payloaders or mechanical equipment transferring solid sulfur shall be cleaned at least daily by spraying with water to prevent excessive accumulation of sulfur particulate.
 - 6. For purposes of fire control, precautionary measures shall include, but shall not necessarily be limited to the following:
 - a. All enclosed sulfur storage areas shall be equipped with water spray systems adequate to provide for rapid fire suppression.
 - b. Mobile and stationary equipment operated in the storage area shall be cleaned daily and maintained to minimize fire potential.
 - c. Electrical motors and other electrical fixtures used in the sulfur storage area shall be explosion proof.
 - d. Smoking within 100 feet of the solid sulfur storage area shall be prohibited.
- (d) Truck and Railcar Unloading.

1. Bottom Unloading Vehicles.
 - a. The hopper used to receive solid sulfur from trucks or railcars shall be housed within a structure that covers the top and at least two sides of the receiving hopper. The structure shall have wind walls on at least two sides that extend from the ground to a height at least 1.5 times the drop distance between the vehicle and the top of the receiving hopper.
 - b. The hopper used to receive solid sulfur from trucks or railcars shall be equipped with a water spray system that shall deliver water containing an effective wetting agent that will be in operation during all sulfur transfer operations.
2. Rotary Railcar Unloading.
 - a. The hopper used to receive solid sulfur from railcars using rotary unloading shall be housed within a structure that completely covers the top and at least two sides of the railcar and hopper.
 - b. The structure housing the railcar and hopper shall be vented to an air pollution control device. Emissions from the device shall not exceed 0.03 grains per dscf.
 - c. The structure housing the railcar and hopper shall be equipped with a water spray system that shall be in continuous operation during all solid sulfur unloading operations including:
 - (i) Water sprays installed at the open sides of the structure that shall provide a water mist spray curtain to minimize the escape of particulate matter from the structure during the unloading process.
 - (ii) A water spray system containing an effective wetting agent that is applied directly to the solid sulfur during the unloading process.
- (e) In any particulate matter air quality maintenance area, PSD Class I area, or within five kilometers of such an area, visible emissions from any emission point in a solid sulfur facility shall not exceed five percent opacity (six minute average). In other areas visible emissions from any emission point in a solid sulfur facility shall not exceed 10 percent opacity (six minute average).
- (f) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 1. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 2. The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. An acetone wash shall be used. A filter box or probe heat shall not be used.
 3. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
- (3) Sulfur Vattening and Sulfur Vat Reclamation Facilities. Sulfur vattening or sulfur vat reclamation facilities shall not be permitted within any particulate matter nonattainment, PSD Class I area, or within five kilometers of such areas. All sulfur vattening and vat reclamation facilities shall employ, as a minimum, the following practices to minimize the emission of sulfur particulate matter into the atmosphere. Other relevant detailed requirements shall be specified, as necessary, in the permits for the facility.
 - (a) The molten sulfur pouring arm shall be positioned within five feet of the surface of the vat to reduce splattering of molten sulfur.
 - (b) The forms used for forming the vat shall have smooth surfaces.
 - (c) The sulfur vat and forms shall be inspected by trained personnel continually during each pour to assure that any leakage is minimized.
 - (d) Sulfur pouring to the vat shall not be permitted when the wind speed exceeds 18 mph for any five minute period.
 - (e) The owner or operator shall establish, and the equipment operators shall attend, a training program on equipment operating practices for the minimization of unconfined sulfur particulate matter emissions.
 - (f) If a mechanical sulfur vat reclamation procedure is used, the following practices shall be employed.

1. Only rubber-tired pay-loaders and excavating equipment shall be allowed to operate on the surface of the vat.
 2. Excavators shall be equipped with a water spray system located near the claw used for reclaiming sulfur. The water spray system shall be equipped with spray nozzles and shall spray water containing an effective wetting agent. Sulfur reclamation from the vat shall only be allowed when the water spray system is in operation.
 3. Vat reclamation and reclaimed sulfur transfer shall not be permitted when the wind speed exceeds 18 mph for any five minute period.
 4. Pay-loaders transferring reclaimed sulfur shall not exceed 75 percent bucket capacity.
 5. Vehicles operating in the sulfur reclamation area shall not exceed speeds of 15 mph.
 6. Maximum drop height when transferring reclaimed sulfur shall not exceed five feet.
 7. The exterior walls of the vat shall be maintained as much as practical to serve as a wind break during reclamation and melting.
 8. A wind screen shall be constructed to enclose the top and three sides of the static melter used to melt the reclaimed sulfur.
 9. The static melter shall be located as close as practical to the sulfur reclamation area. The particulate matter emissions from the control device shall not exceed 0.03 grains per dscf.
 10. During vat reclamation, all roads in the reclamation, transfer, storage and remelting areas shall be cleaned weekly by pay-loaders to prevent excessive accumulation of reclaimed sulfur.
 11. During vat reclamation, all roads in the reclamation, transfer, storage and remelting areas shall be wetted twice daily with water to suppress unconfined sulfur particulate matter emissions.
 12. All reclaimed sulfur shall be remelted prior to any expected shut-down of the static sulfur melter for a period in excess of 10 days.
 13. Any spilled sulfur extending more than 30 feet from the base of the vat shall be recovered as expeditiously as possible but no less frequently than daily.
 14. Any spills within a 30 foot zone around the base of the vat shall be recovered prior to allowing any vehicle traffic within that zone, but no less frequently than monthly.
 15. For purposes of fire control, precautionary measures shall include, but shall not necessarily be limited to the following:
 - a. The vat area shall be inspected for fires during each shift.
 - b. An adequately sized water main shall be installed around the vat with risers equipped with sprinkler heads. In addition, fire hose connections shall be provided on all sides of the vat.
 - c. All mobile and stationary equipment operated on the surface of the vat shall be cleaned weekly and maintained to minimize fire potential.
 - d. Electrical motors and other electrical fixtures used in the vat area shall be explosion proof.
 - e. Smoking within 100 feet of the vat shall be prohibited.
 - f. The maximum height of the vat shall be limited to 30 feet to minimize the generation of fires from falling sulfur.
- (g) If sulfur vat reclamation by in-situ melting is used, the following practices shall be employed.
(Reserved).
- (4) Alternate Emission Control Methods for Sulfur Storage and Handling Facilities. If the owner or operator of any facility subject to the provisions of Rule 62-296.411(1) through (3), F.A.C., above, wishes to utilize an alternate method or control technology for sulfur particulate emissions that would result in emissions less than or equal to those achieved by the equivalent methods or technologies specified in Rule 62-296.411(1) through (3), F.A.C., such owner or operator may request that the Department approve such alternate method or control. The Secretary or the Secretary's designee shall specify by order each alternate method or control technology approved in accordance with this section or shall issue an order denying such request. The request shall set forth the following information at a minimum.

- (a) The specific emissions unit or emission point, and permit number if any, for which the alternate method or control technology is requested.
 - (b) The basis for the alternate method or control technology including documentation necessary to demonstrate that the proposed alternative will result in emissions less than or equal to those achieved by the method or control technology that is proposed to be replaced.
- (5) Exempt Emissions Units or Facilities. The following sources or facilities designed primarily for receiving, storing or transferring elemental sulfur are exempt from certain provisions of Rule 62-296.411, F.A.C., as specified below.
- (a) Any sulfur storage and handling facility with a throughput of elemental sulfur in all forms of less than 5,000 tons per year shall be exempt from the provisions of Rule 62-296.411, F.A.C.
 - (b) Any emissions unit of sulfur particulate that has total sulfur particulate emissions of less than one ton per year shall be exempt from the weight emission limiting standards in Rule 62-296.411, F.A.C.

History: Formerly 17-2.600(11); Formerly 17-296.411; Amended 11-23-94, 1-1-96.

62-296.411

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.412 Dry Cleaning Facilities.

- (1) All new and existing perchloroethylene dry cleaning facilities are subject to the requirements (including compliance deadlines) of the national emission standard for perchloroethylene dry cleaning facilities promulgated in 40 CFR Part 63 and adopted and incorporated by reference in Rule 62-204.800(9), F.A.C. Until permitted pursuant to either Chapter 62-213, F.A.C., existing (as of December 9, 1991) perchloroethylene dry cleaning facilities with a solvent consumption of 1,475 gallons per year or more must also comply with the requirements of Rule 62-296.412(2), F.A.C. The requirements of Rule 62-296.412(2), F.A.C., shall not apply to any perchloroethylene dry cleaning facility after it has been permitted pursuant to Chapter 62-213, F.A.C.
- (2) The owner or operator of any existing perchloroethylene dry cleaning facility as specified in Rule 62-296.412(1), F.A.C., with total rated dryer capacity of 10 pounds of articles or greater, shall:
 - (a) Vent the entire dryer exhaust through a carbon adsorption system or refrigerated condensation unit which meets the following conditions:
 1. The dryer/condenser system must be closed to the atmosphere at all times except when articles are being loaded or unloaded through the door of the machine; and
 2. The dryer/condenser system must not vent to the atmosphere until the air-vapor stream temperature on the outlet side of the refrigerated condenser is equal to or less than 45 degrees Fahrenheit.
 - (b) Emit no more than 100 parts per million by volume of organic compounds from the dryer control device before dilution;
 - (c) Cook or treat all diatomaceous earth filters so that the residue contains 55 pounds or less of organic compounds per 220 pounds of wet waste material;
 - (d) Reduce the organic compounds from all solvent stills to 132 pounds or less per 220 pounds of wet waste material;
 - (e) Drain all filtration cartridges in the filter housing for at least 24 hours before discarding the cartridge; or dry all drained cartridges without emitting organic compounds to the atmosphere; and
 - (f) Repair all perceptible leaks of organic compounds within three working days or, if repair parts are necessary, order such parts within three working days.
 - (g) Keep monthly records of solvent consumption.
- (3) New or existing (as of October 1, 1986) perchloroethylene dry cleaning facilities, located outside of ozone nonattainment or air quality maintenance areas as defined in Chapter 62-204, F.A.C., and their respective metropolitan statistical areas, with total rated dryer capacity equal to or greater than 10 pounds of articles shall be exempt from the requirements of Rule 62-296.412(2), F.A.C., if the owner or operator demonstrates to the Department that the solvent mileage (pounds of articles cleansed per drum of solvent consumed) is equal to or greater than 20,000 or 15,000 pounds of articles cleansed per 52-gallon drum of perchloroethylene consumed for new or existing facilities, respectively. Such facilities are not exempt from the requirements of the national emission standard for perchloroethylene dry cleaning facilities promulgated in 40 CFR Part 63 and adopted by reference in Rule 62-204.800(9), F.A.C.
- (4) Petroleum solvent dry cleaning facilities, located in ozone nonattainment or air quality maintenance areas as defined in Rule 62-275, F.A.C., (including the respective metropolitan statistical areas) and ozone attainment areas, with solvent consumption equal to or greater than 9,750 and 15,000 gallons per year, respectively, shall comply with the following:
 - (a) Each affected petroleum solvent dry cleaning dryer that is installed at a petroleum dry cleaning plant shall be a solvent recovery dryer. The solvent recovery dryer(s) shall be properly installed, operated, and maintained.
 - (b) Each affected petroleum solvent filter that is installed at a petroleum dry cleaning plant shall be a cartridge filter. Cartridge filters shall be drained in their sealed housings for at least eight hours prior to their removal.
 - (c) Each owner or operator of an affected petroleum solvent dryer shall include leak inspection and leak repair cycle information in the operating manual and on a clearly visible label posted on each affected facility. Such information should state: "To protect against fire hazards, loss of valuable solvents and emissions of solvent to the atmosphere, periodic inspection of this equipment for

evidence of leaks and prompt repair of any leaks is required. The equipment must be inspected every 15 days and all vapor or liquid leaks be repaired within the subsequent 15 day period."

- (d) Keep monthly records of solvent consumption.
- (5) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Leak Detection. Liquid leakage shall be detected by visual inspection of the sources identified in p. 6-3 of EPA 450/2-78-050, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The concentration of organic compounds in the filter residue, per Rule 62-296.412(1)(c), F.A.C., shall be determined using ASTM 322-67, 1972.
 - (c) The mass reduction of organic compounds from solvent stills shall be determined using EPA Method 21, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (d) The concentration of organic compounds in the exhaust vent of single bed carbon adsorbers shall be determined per the equipment specifications in "RACT Compliance for Carbon Adsorbers," Task No. 119, or stack test per Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (e) The concentration of organic compounds in the exhaust vent of multiple bed carbon adsorbers and others shall be determined using the equipment specifications per the manufacturer's specifications, or stack testing per Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (f) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.600(12); Formerly 17-296.412; Amended 11-23-94, 4-18-95, 1-1-96, 3-13-96.
62-296.412

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Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
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2 nd Revision	04/18/95	04/24/95	04/25/96	61 FR 18259	06/24/96
3 rd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.413 Synthetic Organic Fiber Production.

(1) Acrylic Fiber Production and Other Acrylonitrile Emitting Facilities.

(a) Introduction.

1. General Applicability. This rule applies to acrylonitrile emitting facilities. An acrylonitrile emitting facility is a facility which produces or utilizes acrylonitrile as part of the facility's process operations.
2. Permitting Exemption. Any new or existing acrylonitrile emitting facility which has maximum uncontrolled emissions of acrylonitrile of less than 600 pounds per year is exempt from the permitting and other requirements of Rule 62-296.413(1), F.A.C., Acrylic Fiber Production and Other Acrylonitrile Emitting Facilities.

(b) New and Modified Facilities. The provisions of Rule 62-296.413(1)(b), F.A.C., New and Modified Facilities, apply to acrylonitrile emitting facilities that would be constructed or modified after the effective date of this subsection and which are not exempt under Rule 62-296.413(1)(a)2., F.A.C., above. This paragraph establishes criteria for determining which provisions of this subsection are applicable to such facilities.

1. New Minor Facility. A proposed new minor acrylonitrile emitting facility shall comply with Rule 62-296.413(1)(f), F.A.C., Permitting Requirements; Rule 62-296.413(1)(g), F.A.C., Emissions Unit Specific Performance Standards; Rule 62-296.413(1)(i), F.A.C., Emissions Tests; and Rule 62-296.413(1)(k), F.A.C., Recordkeeping; and obtain a Department air construction permit prior to beginning construction.
2. Modification of a Minor Facility. If a proposed modification of a minor acrylonitrile emitting facility would result in a net emissions increase that would increase the facility's emissions to an amount that would make the modified facility a major acrylonitrile emitting facility, the modification shall be subject to the same requirements as a proposed new major facility. If the proposed modification would not result in the facility becoming a major facility, the modification shall be subject to the same requirements as a proposed new minor facility.
3. New Major Facility. A proposed new major acrylonitrile emitting facility shall comply with Rule 62-296.413(1)(f), F.A.C., Permitting Requirements; have the acrylonitrile emission limiting standards for the facility established by a Best Available Control Technology (BACT) determination with the provision that in no event shall the application of BACT result in acrylonitrile emissions which would exceed the emissions allowed under Rule 62-296.413(1)(g), F.A.C., Emissions Unit Specific Performance Standards; comply with the following other provisions of this paragraph: Rule 62-296.413(1)(h), F.A.C., Ambient Air Quality Analysis; Rule 62-296.413(1)(i), F.A.C., Emissions Tests; Rule 62-296.413(1)(j), F.A.C., Postconstruction Monitoring; and Rule 62-296.413(1)(k), F.A.C., Recordkeeping; and obtain a Department air construction permit prior to beginning construction.
4. Modification of a Major Facility. If a proposed modification of a major acrylonitrile emitting facility would result in a significant net emissions increase, the modification shall be subject to the same requirements as a proposed new major facility. If the proposed modification would not result in a significant net increase in acrylonitrile emissions, the modification shall be subject to the same requirements as a proposed new minor facility.

(c) Existing Facilities. The provisions of Rule 62-296.413(1)(c), F.A.C., Existing Facilities, apply to acrylonitrile emitting facilities that were in existence, in operation, under construction, or issued an air construction permit prior to the effective date of Rule 62-296.413(1), F.A.C., Acrylic Fiber Production and Other Acrylonitrile Emitting Facilities, and which are not exempt under Rule 62-296.413(1)(a)2., F.A.C., Permitting Exemption. Existing acrylonitrile emitting facilities shall comply with Rule 62-296.413(1)(f), F.A.C., Permitting Requirements; Rule 62-296.413(1)(g), F.A.C., Emissions Unit Specific Performance Standards; Rule 62-296.413(1)(h), F.A.C., Ambient Air Quality Analysis; Rule 62-296.413(1)(i), F.A.C., Emission Tests; Rule 62-296.413(1)(j), F.A.C., Postconstruction Monitoring; Rule 62-296.413(1)(k), F.A.C., Recordkeeping; and Rule

62-296.413(1)(l), F.A.C., Compliance Schedules; and obtain a Department air construction permit for any facility for which any physical or operational changes are needed to comply with the performance standards established by this paragraph, or obtain an air operation permit for any facility that is in compliance with the performance standards established by this paragraph on its effective date.

- (d) Determination of Significant Net Emissions Increase.
1. Net Emissions Increase. For purposes of this paragraph, a modification to a facility results in a net emissions increase when the sum of all of the contemporaneous creditable increases and decreases in the actual acrylonitrile emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive acrylonitrile emissions from the facility, is greater than zero.
 2. Significant Net Emissions Increase. For purposes of this paragraph, a significant net emissions increase is a net emissions increase of 3 tons per year or more of acrylonitrile.
 3. Contemporaneous Emissions Changes. Contemporaneous emissions changes in acrylonitrile emissions shall be determined as specified in Rule 62-212.400(2)(e)3., F.A.C., Prevention of Significant Deterioration, Emissions Increases, Contemporaneous Emissions Changes, with the provision that the term "enforceable" shall substitute for the term "federally enforceable" where it is used in Rule 62-212.400(2)(e)3., F.A.C.
 4. Creditable Emissions Changes. Creditable emissions changes in acrylonitrile emissions shall be determined as specified in Rule 62-212.400(2)(e)4., F.A.C., Prevention of Significant Deterioration, Emissions Increases, Creditable Emissions changes, with the provision that the term "enforceable" shall substitute for the term "federally enforceable" where it is used in Rule 62-212.400(2)(e)4., F.A.C. In addition, an increase or decrease in the actual emissions or in the quantifiable fugitive emissions of an acrylonitrile emitting facility is creditable if the Department has not relied on it in issuing a permit under the provisions of this paragraph, which permit is in effect when any increase from the modification occurs.
- (e) Relaxation of Restrictions on Acrylonitrile Emitting Capacity. The provisions of Rule 62-212.400(2)(g), F.A.C., Prevention of Significant Deterioration, Relaxations of Restrictions on Pollutant Emitting Capacity, shall apply to acrylonitrile emitting facilities, with the provision that the term "enforceable" shall substitute for the term "federally enforceable" where it is used in Rule 62-212.400(2)(g), F.A.C., and that the phrase "the effective date of Rule 62-296.413(1), F.A.C., Acrylic Fiber Production and Other Acrylonitrile Emitting Facilities," shall substitute for the phrase "August 7, 1980" where it is used in Rule 62-212.400(2)(g), F.A.C.
- (f) Permitting Requirements.
1. Permit Application Information. At a minimum, the owner or operator of any facility or modification subject to this paragraph shall provide to the Department the information specified in subparagraphs 1. and 2. of Rules 62-212.400(5)(h)1. and 2., F.A.C., Prevention of Significant Deterioration, Pre-Construction Review Requirements, Permit Application Information Required, and the information specified by Rule 62-212.400(5)(h)3. and 4., F.A.C., when a BACT determination and an air quality impact analysis, respectively, are required by this rule.
 2. Construction/Operation Permit Requirements. The construction and operation permit requirements for acrylonitrile emitting facilities subject to this paragraph shall be as specified in Rule 62-212.400(6), F.A.C., Prevention of Significant Deterioration, Construction/Operating Permit Requirements, with the provision that the phrase, "provisions of Rule 62-296.413(1), F.A.C., Acrylic Fiber Production and Other Acrylonitrile Emitting Facilities," shall substitute for the phrase "requirements of this rule" and the phrase "provisions required under Rule 62-212.400, F.A.C.," where either such phrase is used in Rule 62-212.400(6), F.A.C.
- (g) Emissions Unit Specific Performance Standards.
1. Nothing in this subsection, Rule 62-296.413(1), F.A.C., Acrylic Fiber Production and

Other Acrylonitrile Emitting Facilities, shall be construed to preclude the Department, upon the request of an owner or operators from approving, by an order issued by the Secretary or the Secretary's designee, the use of alternative means to abate acrylonitrile emissions, if such alternative means would result in emissions equal to or lower than those which would result from the application of any emissions unit specific performance standard specified in this paragraph.

2. Storage Tanks. No owner or operator of an acrylonitrile emitting facility subject to this paragraph shall transfer, or cause or allow the transfer of, acrylonitrile from any delivery vessel into any stationary storage tank unless there is in place a vapor-tight return line from the storage tank to the delivery vessel and a system that will ensure the vapor line is connected before acrylonitrile can be transferred into the tank.
 3. Delivery Vessels. The vapor-laden delivery vessel shall be maintained to be vapor-tight at all times while at the acrylonitrile emitting facility except for periods of normal pressure vacuum venting as required by the U.S. Department of Transportation, for maintenance inspection, or for gauging.
 4. Process Equipment. The emission release, or escape, of acrylonitrile to the atmosphere from any equipment used in acrylonitrile formation or utilization shall be limited by the application of Reasonably Available Control Technology (RACT). The phrase, "equipment used in acrylonitrile formation or utilization" shall include, but not be limited to, transfer lines, reactor vessels, stripping columns, monomer recovery systems, vacuum pumps, feed tanks, weigh tanks, blend tanks, pipes, valves and flanges.
 5. Wastewater Treatment. All wastewater which comes in direct contact with acrylonitrile and other wastes containing acrylonitrile shall not cause a deviation from the pH range specified in the facility's air construction or air operation permit that provides for the optimum degradation of acrylonitrile in the receiving wastewater treatment system.
 6. Equipment Leaks. Acrylonitrile emissions due to leaks from equipment used in acrylonitrile formation or utilization shall be minimized by implementing a formal leak detection and elimination program. The owner or operator shall submit a description of the program to the Department for approval. The program description is to be submitted within 60 days of the effective date of this subsection. Approval of such program will not be granted by the Department unless: it includes the routine use of a reliable and accurate portable hydrocarbon detector to find small leaks (a portable hydrocarbon detector means a device which measures hydrocarbons with a lower limit of detection of at least 2 ppm and is of such design and size that it can be used to measure acrylonitrile emissions from localized emission points associated with the equipment used in acrylonitrile formation or utilization); it provides for an acceptable calibration and maintenance schedule for the portable hydrocarbon detector; and it includes at least a weekly survey of all representative facility locations or areas containing equipment used in the formation or utilization of acrylonitrile which may leak acrylonitrile. Within 60 days of receipt of the program description, the Secretary or the Secretary's designee, by an administrative order, shall approve the proposed program or specify the methods to be used for the leak detection and elimination program required by this paragraph. The Department's order shall be reviewable in accordance with Section 120.57, Florida Statutes.
- (h) Ambient Air Quality Analysis. The owner or operator of any existing or proposed new or modified acrylonitrile emitting facility subject to this paragraph shall provide the Department with an analysis of the maximum annual average ambient air concentrations of acrylonitrile predicted to result from the operation of the facility, in accordance with Rule 62-210.400, F.A.C., Emission Estimates, and Rule 62-210.500, F.A.C., Air Quality Models. The analysis shall be made using model options and assumptions approved by the Department.
- (i) Emissions Tests.
1. Tests Required. For any emissions unit subject to this paragraph for which the Department has not approved the use of emission factors or other emission estimation

methods, the owner or operator shall measure the emissions from the Emissions unit equipment used in acrylonitrile formation or utilization in accordance with Chapter 62-297, F.A.C., (except for the equipment that is included in the Department-approved leak detection and elimination program), within 180 days-of the effective date of this subsection, or in the case of a new emissions unit, within 180 days of startup. The frequency of additional testing shall be determined in accordance with Chapter 62-297, F.A.C.

2. Test Conditions. Any acrylonitrile emissions test required by this subsection shall be conducted while the equipment being tested is operating at no less than 90% of the maximum production rate at which the equipment can be operated, and under other relevant and reasonable conditions as may be specified by the Department in the facility's air construction or operation permit.
3. Sample Analysis and Test Report. When emissions testing is undertaken, each sample is to be preserved and analyzed in compliance with reasonable protocols and methodologies approved by the Department. Acrylonitrile emissions are to be determined within 60 days after any-emissions test samples are collected. The owner or operator shall mail the report of the results to the Department by registered mail within two weeks following the laboratory determination of the sample values.
4. Approved Test Methods. The owner or operator shall submit methods for each test required by this paragraph within 60 days of the effective date of this rule. Within 60 days after Department receipt of this information, the Secretary or the Secretary's designee, by administrative order reviewable in accordance with Section 120.57, Florida Statutes, shall approve or specify the methods to be used for each emissions test required.
5. Acrylonitrile Emissions Estimates. Where the Department determines that reasonably accurate emission factors or other estimation methods exist for the determination of acrylonitrile emissions, the Secretary or the Secretary's designee, by administrative order reviewable in accordance with Section 120.57, Florida Statutes, shall authorize the use of engineering calculations using those factors or methods in lieu of emission testing.

(j) Postconstruction Monitoring.

1. Exemption. Any existing or proposed new or modified acrylonitrile emitting facility subject to this paragraph that causes a maximum modeled annual average ambient air concentration of acrylonitrile of two micrograms per cubic meter or less at and beyond the facility's boundary is exempt from the requirements of Rules 62-296.413(1)(j)2. through 9., F.A.C., below. The predicted acrylonitrile concentration at and beyond the facility's boundary shall be determined as specified in Rule 62-296.413(1)(h), F.A.C., Ambient Air Quality Analysis.
2. Ambient Monitoring Required. Unless exempted by Rule 62-296.413(1)(j)1., F.A.C., above, the owner or operator of any acrylonitrile emitting facility subject to this paragraph, within six months of the effective date of this subsection or of emissions unit startup, whichever is later, shall develop and begin conducting a properly quality-assured-air monitoring program for ambient air acrylonitrile concentrations within the vicinity of the facility to determine the reasonableness of the ambient air concentrations predicted by modeling. Within 60 days of the effective date of this subsection or of emissions unit startup, whichever is later, the owner or operator shall submit an ambient air monitoring plan to the Department for approval. Within 60 days after Department receipt of the proposed plan, the Secretary or the Secretary's designee, by administrative order reviewable in accordance with Section 120.57, Florida Statutes, shall approve the proposed air monitoring plan or specify the methods to be used for the air monitoring program.
3. Monitoring Data Availability. The data produced by the ambient air monitoring program, as well as all supporting documentation, shall be provided to the Department upon request. All ambient monitoring and laboratory facilities involved in producing the data

- shall be open to inspection by the Department at any time during normal operating hours.
4. **Approved Methods.** All ambient air quality monitoring shall be done using appropriate methods which have been previously approved by the Department. Sampling locations shall have proper exposure and must be free from undue local interferences from buildings or other higher objects or structures. Accessibility, security (freedom from tampering) and a readily accessible electrical power emissions unit are also to be major considerations in the selection of the monitoring sites. The quantity and location of sampling stations shall be sufficient to accurately characterize the impact of the facility's operation on the concentrations of acrylonitrile in the ambient air. The sampling station locations shall be designated on a map of the facility area and, to the extent feasible, shall be located within the areas of maximum predicted acrylonitrile concentrations as determined by air quality modeling.
 5. **Meteorological Data Required.** In addition to the ambient air quality monitoring data, meteorological data representative of the facility area are to be made available to the Department. These data shall include wind direction, wind speed, temperature and relative humidity. These data may be obtained from on-site measurements or representative readings provided from nearby National Weather Service or military facilities, if available.
 6. **Quality-Assurance Requirement.** Sufficient quality control and quality assurance activities shall be performed to assure that the ambient air quality and meteorological data is complete, comparable, representative, precise and accurate.
 7. **Ambient Monitoring Personnel.** The monitoring may be performed by the facility owner or operator's employees or by a contractor employed by the owner or operator. Audit and overview activities shall be performed by the Department.
 8. **Quality Assurance Plan.** The ambient air monitoring quality assurance procedures shall be submitted to the Department for review and approval as part of the air monitoring plan required under Rule 62-296.413(1)(j)2., F.A.C. The Department shall review all operational and audit results as it deems necessary to assure or verify the quality of the data.
 9. **Monitoring Program Review.** Within 60 days after Department receipt of one year of monitoring data, the Secretary or the Secretary's designee, by administrative order reviewable in accordance with Section 120.57, Florida Statutes, shall review the monitoring program and determine the need for its continuation.
- (k) **Recordkeeping.** The owner or operator of any acrylonitrile emitting facility to which this paragraph applies shall retain the following information at the facility for a minimum of two years after the data are collected and make such information available to the Department upon request: a record of the leaks detected during routine monitoring with the portable hydrocarbon detector and the action taken to repair the leaks, as required by Rule 62-296.413(1)(g)6., F.A.C., Emissions Unit Specific Performance Standards, Equipment Leaks, including a brief statement explaining the location and cause of the leak, and the action taken to eliminate that leak; and a record of the emissions measured or estimated in accordance with Rule 62-296.413(1)(i), F.A.C., Emissions Tests.
- (l) **Compliance Schedules.**
1. **Operation Permit Required.** The owner or operator of any facility that is in compliance with Rule 62-296.413(1), F.A.C., Acrylic Fiber Production and Other Acrylonitrile Emitting Facilities, upon its effective date, but which does not have an air operation permit, shall submit an application for a permit to operate within 60 days of the effective date of this subsection.
 2. **Construction Permit Required.** The owner or operator of any facility that will require the installation of control equipment or other physical or operational changes to comply with Rule 62-296.413(1), F.A.C., Acrylic Fiber Production and Other Acrylonitrile Emitting Facilities, shall submit an application for a permit to construct within 120 days of the

effective date of this paragraph and shall comply with the following schedule which shall be included as a condition of the permit: contract award and/or equipment purchase/lease not later than six months after issuance of the permit to construct; start of construction or installation - not later than eight months after issuance of the permit to construct; completion of construction or installation - not later than 18 months after issuance of the permit to construct; and final testing and compliance - not later than 24 months after issuance of the permit to construct.

History: Formerly 17-2.600(13); Formerly 17-296.413; Amended 11-23-94, 1-1-96, 3-13-96.

62-296.413

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
2 nd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.414 Concrete Batching Plants.

This limit applies to new and existing emissions units producing concrete by batching of cement and other materials.

- (1) Visible emissions - Silos, hoppers and other storage or conveying equipment - 5 percent opacity.
- (2) Reserved.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.
 - (b) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.600(14); Formerly 17-296.414; Amended 11-23-94, 1-1-96.

62-296.414

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
2 nd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.415 Soil Thermal Treatment Facilities.

This section prescribes air pollution control requirements for soil thermal treatment facilities. Soil thermal treatment facilities are only authorized to treat petroleum contaminated soil as defined in Chapter 62-775, F.A.C., Soil Thermal Treatment Facilities. The following requirements apply to all new, modified, and existing soil thermal treatment facilities. All facilities shall comply with these requirements by December 1, 1992.

- (1) Volatile Organic Compounds (VOC).
 - (a) A soil thermal treatment facility shall be designed and operated to expose the organic vapors from the soil during thermal treatment to one of the following combinations:

Minimum Temperature (Fahrenheit)		Minimum Time (seconds)
1,500	and	1.0
1,600	and	0.5
1,800	and	0.3

The minimum temperature shall be determined by a continuous temperature monitor pursuant to the applicable continuous emissions monitoring requirements of Rule 62-296.415(6), F.A.C. When soil is being treated, the minimum temperature shall be met or exceeded at all times except for 4 minutes in any 60 minute period, provided that the temperature does not fall below 100 degrees Fahrenheit of the required minimum temperature for the corresponding residence time. The minimum residence time shall be met or exceeded at all times while soil is being treated.

- (b) The average carbon monoxide (CO) emissions shall not exceed 100 parts per million (ppm) by volume, dry basis, during all 60 consecutive minute periods of plant operation. The average CO emissions is the arithmetic mean of all CO concentration measurements during any consecutive 60 minutes of plant operation that were recorded by the continuous emissions monitor required pursuant to Rule 62-297.500, F.A.C.
 - (c) A soil thermal treatment facility shall continually monitor the temperature and carbon monoxide content of the flue gases leaving the high temperature zone pursuant to the applicable continuous emissions monitoring requirements of Rule 62-296.415(6), F.A.C. Temperature and carbon monoxide monitors shall be co-located unless otherwise approved by the Department.
 - (d) Soil thermal treatment facilities must possess an air permit authorizing the processing of soils containing polychlorinated biphenyls (PCBs), if soil contaminated with PCBs is to be thermally treated.
- (2) Visible Emissions. Visible emissions (VE) from a stack shall not exceed 5% opacity as determined by the test method specified in Rule 62-296.415(5), F.A.C. when thermally treating soil.
 - (3) Particulate Matter Emissions. The particulate matter emissions shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf) as determined by the test method specified in Rule 62-296.415(5), F.A.C.
 - (4) Unconfined Emissions.

A soil thermal treatment facility is subject to Rule 62-296.310, F.A.C., Unconfined Emissions of Particulate Matter. As a minimum, before and after thermal soil treatment is accomplished, unconfined emissions of particulate matter from the soil shall be controlled by application of water or containment.
 - (5) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) The test method for carbon monoxide shall be EPA Method 10, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (d) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
 - (6) Continuous Emissions Monitoring Requirements. Any facility subject to this rule shall be equipped with

instruments to continuously monitor and record the temperature and the carbon monoxide concentration of the flue gases leaving the high temperature zone, but before any dilution air is mixed with the flue gases. The temperature monitor shall be certified by the manufacturer to be accurate to within 1% of the temperature being measured. The temperature monitoring system shall be calibrated at least annually by the procedure recommended by the manufacturer. The calibration shall be at a minimum of three temperatures and over a range from 10% below to 10% above the designed flue gas hot zone temperature of the soil thermal treatment facility. Calibration records shall be kept for a minimum of three years. The carbon monoxide monitor shall be certified by the manufacturer to be accurate to within 10% of the carbon monoxide concentration by volume, mean value, or 5% of the applicable standard of 100 ppm, whichever is greater, as determined by EPA Test Method 10 in 40 CFR Part 60, Appendix A, adopted by reference in Rule 62-204.800(7), F.A.C. The carbon monoxide continuous emission monitoring device shall be certified, calibrated, and operated according to Performance Specification 4 of 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C., excluding Section 5.2, Calibration Drift Test Period, of Performance Specification 2.

History: Formerly 17-2.100; Amended 11-17-92; Formerly 17-296.415; Amended 11-23-94, 1-1-96, 3-13-96.
62-296.415

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/17/92	01/11/93	10/20/94	59 FR 52916	12/19/94
2 nd Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99
3 rd Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.500 Reasonably Available Control Technology (RACT) Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) Emitting Facilities.

- (1) Applicability.
 - (a) The specific emission limiting standards and other requirements of Rules 62-296.500 through 62-296.516, F.A.C., shall apply to existing VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas. In addition, the emission limiting standards of these rules shall apply to new and modified VOC-emitting facilities in all designated ozone nonattainment and air quality maintenance areas except those new and modified VOC-emitting facilities which have been or would be subject to review pursuant to 40 CFR 52.21 or Rule 17-2.17 (repealed), 17-2.500 (transferred), 17-2.510 (transferred), Rule 62-212.400 or 62-212.500, F.A.C.
 - (b) In addition to the applicable requirements of this section the specific emission limiting standards and other requirements of Rule 62-296.570, F.A.C., shall apply in Broward, Dade, and Palm Beach Counties to major VOC-emitting facilities not regulated in whole under Rules 62-296.501 through 62-296.516, F.A.C., and major NOx-emitting facilities, except those new and modified major VOC- and NOx-emitting facilities which have been or would be subject to review pursuant to 40 CFR 52.21 or Rule 17-2.17 (repealed), 17-2.500 (transferred), 17-2.510 (transferred), Rule 62-212.400 or 62-212.500, F.A.C.
- (2) Permit, Recordkeeping, and Compliance Reporting Requirements.
 - (a) Permits - Special Considerations.
 1. Permits to construct or operate are required for all emission units subject to a specific emission limiting standard or other requirement of Rules 62-296.501 through 62-296.516, F.A.C., or Rule 62-296.570, F.A.C., except those emission units subject to Rule 62-296.512, F.A.C., Cutback Asphalt.
 2. Permits to operate shall contain conditions relating to operation, emission levels, control equipment, use of low solvent technology or other resource characteristics necessary to insure compliance with the applicable rules.
 - (b) Recordkeeping.
 1. An owner or operator of a stationary emission unit using adhesives, coating, solvents, and/or graphic arts materials and subject to a specific emission limiting standard or other requirement of Rules 62-296.501 through 62-296.516, F.A.C., or Rule 62-296.570, F.A.C., shall maintain daily records of operations for the most recent two year period. The records shall be made available to the local, state, or federal air pollution agency upon request. The records shall include, but not be limited to the following:
 - a. The rule number applicable to the operation for which the records are being maintained.
 - b. The application method and substrate type (metal, plastic, paper, etc.).
 - c. The amount and type of adhesive, coatings (including catalyst and reducer for multicomponent coatings), solvent, and/or graphic arts material used at each point of application, including exempt compounds.
 - d. The VOC content as applied in each adhesive coating, solvent, and/or graphic arts material.
 - e. The date for each application of adhesive coating, solvent, and/or graphic arts material.
 - f. The amount of surface preparation, clean-up, wash-up of solvent including exempt compounds) used and the VOC content of each.
 - g. Oven temperature (where applicable).
 2. VOC content shall be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coating, and inks, using EPA Reference Method 24.
 3. VOC content and density of rotogravure publication inks shall be determined by EPA Reference Method 24A.
 4. The Department may accept, instead of the coating analysis methods required under Rules 62-296.500(2)(b)2. and 3., F.A.C., a certification by the coating manufacturer of the

composition of the coating if it is supported by actual batch formulation records. The manufacturer's certification shall be consistent with EPA's document number 450/3-84-019, titled, "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and other Coatings".

5. When an emissions unit utilizes add-on controls to achieve compliance, documentation will be necessary to assure proper operation. Examples of some controls and related information are:
 - a. Thermal incinerator - combustion temperature, inlet and outlet VOC concentration from emission tests, how and when these concentrations were determined, destruction or removal efficiency, and manufacturer data.
 - b. Catalytic incinerator - exhaust gas temperature, change in temperature across catalyst bed, date of last change of catalyst bed, inlet and outlet VOC concentration from emission tests, how and when these concentrations were determined, destruction or removal efficiency, and manufacturer data.
 - c. Condenser - inlet temperature of cooling medium, outlet temperature of cooling medium, inlet and outlet VOC concentration from emission tests, how and when these concentrations were determined, removal efficiency, and manufacturer data.
- (c) Reporting. Annually, in accordance with a schedule and reporting format provided by the Department, the owner or operator of any emissions unit having a Department air operation permit and subject to a specific emission limitation under Rule 62-296.501 through 62-296.516, F.A.C., shall provide the Department with proof of compliance with such limitation. Compliance with the requirements of Rule 62-296.570, F.A.C., shall be demonstrated in accordance with the provisions of that section.
- (3) Exceptions.
 - (a) Emissions units which in combination with all other emissions units at the facility subject to the same specific emission limitation under Rule 62-296.501 through 62-296.516, F.A.C., emit VOC at rates of not more than 15 pounds (6.8 kilograms) in any one day and not more than 3 pounds (1.4 kilograms) in any one hour.
 - (b) Emissions units used exclusively for chemical or physical analysis, or for the determination of product quality and commercial acceptance, provided:
 1. The operation of the emissions unit is not an integral part of any production process; and
 2. The emissions from the emissions unit do not exceed 800 pounds (363 kilograms) in any one calendar month.
- (4) Consideration of Exempt Solvents - Compliance calculations for coatings containing solvents exempted under the definition of VOC shall be determined as follows:

Given the mass of VOC and mass of exempt solvent per unit volume of coating, determine the mass of VOC per unit volume of coating less exempt solvent.

Let x = mass of exempt solvent per unit volume of coating
 y = mass of VOC per unit volume of coating
 d = density of exempt solvent
 z = mass of VOC per unit volume of coating less exempt solvent.

Then
 $z = [y/(1 - x/d)]$ or

If more than one solvent is present and the individual volumes and densities are known, use:

$$d = \frac{d_1 V_1 + d_2 V_2 + \dots + d_n V_n}{V_1 + V_2 + \dots + V_n}$$

where

V = volume of each component solvent

- (5) Compliance may be demonstrated for surface coating and graphic arts facilities on a 24-hour weighted average basis for a single emissions unit point with a single emission limit.
- (6) Specific Emission Limitations. The specific volatile organic compounds emission limiting standards set forth in Rules 62-296.401 through 62-296.416, F.A.C., have been found to represent the application of RACT for each emissions unit category listed in those rules except for those emissions unit categories listed in Rules 62-296.501 through 62-296.516, F.A.C., and Rule 62-296.570, F.A.C. For those emissions unit categories the volatile organic compounds emission standards of Rules 62-296.501 through 62-296.516, F.A.C., and Rule 62-296.570, F.A.C., have been found to represent the application of RACT. Emission limitations for surface coating operations shall be expressed in units of pounds VOC/gallon of solids as applied rather than pounds VOC/gallon of coating (less water and exempt solvents) when crossline averaging or compliance using add-on control equipment such as incineration is involved. The method of calculating pounds VOC/gallon of solids as applied from the pounds VOC/gallon of coating is shown in Table 296.500-1.

TABLE 296.500-1
CALCULATION OF POUNDS VOC/GALLON OF SOLIDS
FROM POUNDS VOC/GALLON OF COATING

These calculations shall be determined as follows:

EXAMPLE CONVERSION

GIVEN: COATING OF 3 POUNDS VOC/GALLON OF COATING (LESS WATER AND EXEMPT SOLVENTS) AND VOC DENSITY OF 7.36 POUNDS VOC/GALLON.

PROBLEM: CONVERT POUNDS VOC/GALLON OF COATING TO POUNDS VOC/GALLON OF SOLIDS.

STEP 1 - WHAT IS THE VOLUME OF VOC IN 1 GALLON OF COATING?

$$\frac{3 \text{ pounds VOC}}{\text{gallons coating}} \times \frac{1 \text{ gallon VOC}}{7.36 \text{ pounds VOC}} = \frac{0.408 \text{ gallon VOC}}{\text{gallon coating}}$$

STEP 2 - WHAT IS THE VOLUME OF SOLIDS IN 1 GALLON COATING?

1 GALLON COATING - VOLUME VOC = VOLUME SOLIDS

$$1 - 0.408 = 0.592 \text{ GALLON SOLIDS}$$

STEP 3 - HOW MANY GALLONS OF COATING DOES IT TAKE TO GET A GALLON OF SOLIDS? (INVERSE OF STEP 2)

$$\frac{1 \text{ GALLON COATING}}{0.592 \text{ GALLON SOLIDS}} = \frac{1.689 \text{ GALLON COATING}}{\text{GALLON SOLIDS}}$$

STEP 4 - CONVERT 3 POUNDS VOC/GALLON OF COATING TO POUNDS VOC/GALLON OF SOLIDS

$$\frac{3 \text{ POUNDS VOC}}{\text{GALLON COATING}} \times \frac{1.689 \text{ GALLON COATING}}{\text{GALLON SOLIDS}} = \frac{5.07 \text{ POUNDS VOC}}{\text{GALLON SOLIDS}}$$

ANSWER: 3 POUNDS VOC/GALLON OF COATING (LESS WATER AND EXEMPT SOLVENTS) = 5.07 POUNDS VOC/GALLON OF SOLIDS

History: Formerly 17-2.650(1)-(1)(f), Amended 2-2-93, 4-17-94; Formerly 17-296.500; Amended 11-23-94, 1-1-96.
62-296.500

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	02/02/93	01/08/93	01/11/95	60 FR 2688	03/13/95
2 nd Revision	04/17/94	04/25/94	01/11/95	60 FR 2688	03/13/95
3 rd Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.501 Can Coating.

- (1) Applicability. The emission limiting standards set forth in Rule 62-296.501, F.A.C., will apply to:
 - (a) Coating applicators and ovens of sheet, can, or end coating lines involved in sheet basecoat (exterior and interior) and overvarnish;
 - (b) Two-piece can exterior (basecoat and overvarnish);
 - (c) Two- and three-piece can interior body spray;
 - (d) Two-piece can exterior end (spray or roll coat);
 - (e) Three-piece can side-seam and end sealing compound operation.
- (2) Emission Limiting Standards. No owner or operator of can coating lines subject to Rule 62-296.501, F.A.C., may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of the total discharge that would occur if each coating line complied with the emission limitations contained in Rule 62-296.501(2)(a) through (d), F.A.C. below. Compliance with these limitations for any given day's operation shall be determined by using the method contained in 45 FR80824. A copy of the above referenced document is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., and may be inspected at the Department's Tallahassee office.
 - (a) 2.8 pounds per gallon of coating (0.34 kilograms per liter), excluding water, delivered to the coating applicator of;
 - 1. Sheet basecoat (exterior and interior) and overvarnish, or
 - 2. Two-piece can exterior (basecoat and overvarnish) operation.
 - (b) 4.2 pounds per gallon of coating (0.50 kilograms per liter), excluding water delivered to the coating applicator from two- and three-piece can interior body spray and two-piece can exterior end (spray or roll coat) operations.
 - (c) 5.5 pounds per gallon of coating (0.66 kilograms per liter), excluding water, delivered to the coating applicator from three-piece can side-seam spray operations.
 - (d) 3.7 pounds per gallon of coating (0.44 kilograms per liter) excluding water delivered to the coating applicator from can side-seams and end sealing compound operations.
- (3) Control Technology. The emission limits in Rule 62-296.501(2), F.A.C., shall be achieved by:
 - (a) The application of low solvent content coating technology; or,
 - (b) Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 - 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)1; Formerly 17-296.501; Amended 11-23-94, 1-1-96.

62-296.501

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.502 Coil Coating.

- (1) Applicability. The emission limiting standard set forth in Rule 62-296.502, F.A.C., will apply to coating applicators, coating lines with or without ovens, and quench areas of coil coating lines involved in prime and topcoat or single-coat operations.
- (2) Emission Limiting Standard. No owner or operator of a coil coating line subject to Rule 62-296.502, F.A.C., may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 2.6 pounds per gallon of coating (0.31 kilograms per liter), excluding water delivered to a coating applicator from prime and topcoat or single-coat operations.
- (3) Control Technology. The emission limit under Rule 62-296.502(2), F.A.C., shall be achieved by:
 - (a) The application of low solvent content coating technology; or
 - (b) Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as a total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 - 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)2.; Formerly 17-296.502; Amended 11-23-94, 1-1-96.

62-296.502

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.503 Paper Coating.

- (1) Applicability. The emission limiting standards set forth in Rule 62-296.503, F.A.C., will apply to roll, knife, or rotogravure coaters and drying ovens of paper coating lines. The following standards shall also apply to saturation operations.
- (2) Emission Limiting Standards. No owner or operator of a paper coating line subject to Rule 62-296.503, F.A.C., may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 2.9 pounds per gallon of coating (0.35 kilograms per liter), excluding water, delivered to the coating applicator from a paper coating line.
- (3) Control Technology. The emission limit under Rule 62-296.503(2), F.A.C.; shall be achieved by:
 - (a) The application of low solvent content coating technology; or
 - (b) Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 - 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)3.; Formerly 17-296.503; Amended 11-23-94, 1-1-96.

62-296.503

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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.504 Fabric and Vinyl Coating.

- (1) Applicability. The emission limiting standards set forth in Rule 62-296.504, F.A.C., will apply to roll, knife, or rotogravure coaters and drying ovens of fabric and vinyl coating lines. The following standards shall also apply to saturation operations.
- (2) Emission Limiting Standards.
 - (a) No owner or operator of a fabric coating line or a vinyl coating line subject to Rule 62-296.504, F.A.C., may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:
 - 1. 2.9 pounds per gallon of coating (0.35 kilograms per liter), excluding water, delivered to a coating applicator from a fabric coating line.
 - 2. 3.8 pounds per gallon of coating (0.46 kilograms per liter), excluding water, delivered to a coating applicator from a vinyl coating line.
- (3) Control Technology. The emission limits under Rule 62-296.504(2), F.A.C., shall be achieved by:
 - (a) The application of low solvent content coating technology; or
 - (b) Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 - 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)4.; Formerly 17-296.504; Amended 11-23-94, 1-1-96.

62-296.504

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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.505 Metal Furniture Coating.

- (1) Applicability. The emission limiting standards set forth in Rule 62-296.505, F.A.C., will apply to the application areas, flash-off areas, and ovens of metal furniture coating lines involved in prime and topcoat or single-coating operations.
- (2) Emissions Limiting Standards. No owner or operator of a metal furniture coating line subject to Rule 62-296.505, F.A.C., may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 3.0 pounds per gallon of coating (0.36 kilograms per liter), excluding water, delivered to the coating applicator from prime and topcoat or single-coat operations. Credit for transfer efficiency above the baseline of 60% for spray coating operations can be granted according to the following formula:

$$X = \frac{(TE)(Z)(Y)}{Y + (TE)(Z)}$$

Where

- X = allowable maximum VOC content (kg VOC/liter of coating less water)
- Y = density of the VOC in the maximum VOC content coating (kg/liter)
- Z = applicable emission limit (kg VOC/liter of coating solids deposited)
- TE = transfer efficiency

An EPA and state approved test method for determination of transfer efficiency above the baseline is required.

- (3) Control Technology. The emission limit under Rule 62-296.505(2), F.A.C., shall be achieved by:
 - (a) The application of low solvent content coating technology; or
 - (b) Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 - 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)5.; Formerly 17-296.505; Amended 11-23-94, 1-1-96.

62-296.505

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62-296.506 Surface Coating of Large Appliances.

(1) Applicability.

- (a) The emission limiting standards set forth in Rule 62-296.506, F.A.C., shall apply to application areas, flash-off areas, and ovens of large appliance coating lines involved in prime, single, or topcoat coating operations. Credit for transfer efficiency above the baseline of 60% for spray coating operations can be granted according to the following formula:

$$X = \frac{(TE)(Z)(Y)}{Y + (TE)(Z)}$$

Where

X = allowable maximum VOC content (kg VOC/liter of coating less water)

Y = density of the VOC in the maximum VOC content coating (kg/liter)

Z = applicable emission limit (kg VOC/liter of coating solids deposited)

TE = transfer efficiency

An EPA and state approved test method for determination of transfer efficiency above the baseline is required.

- (b) Rule 62-296.506, F.A.C., does not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed one quart (0.95 liters) in any one 8-hour period.
- (2) Emission Limiting Standard. No owner or operator of a large appliance coating line subject to Rule 62-296.506, F.A.C., may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, delivered to the coating applicator from prime, single, or topcoat coating operations.
- (3) Control Technology. The emission limit under Rule 62-296.506(2), F.A.C., shall be achieved by:
- (a) The application of low solvent content coating technology; or
- (b) Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
- (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
- (b) Add-on Control Device.
1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
- (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)6.; Formerly 17-296.506; Amended 11-23-94, 1-1-96.

62-296.506

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62-296.507 Magnet Wire Coating.

- (1) **Applicability.** The emission limiting standard set forth in Rule 62-296.507, F.A.C., shall apply to the ovens of magnet wire coating operations.
- (2) **Emission Limiting Standards.** No owner or operator of a magnet wire coating oven subject to Rule 62-296.507, F.A.C., may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 1.7 pounds per gallon of coating (0.20 kilograms per liter), excluding water, delivered to the coating applicator from magnet wire coating operations.
- (3) **Control Technology.** The emission limit under Rule 62-296.507(2), F.A.C., shall be achieved by:
 - (a) The application of low solvent content coating technology; or
 - (b) Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) **Test Methods and Procedures.** All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) **Low Solvent Technology.** The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) **Add-on Control Device.**
 - 1. **Destructive.** The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. **Non-destructive.** The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)7.; Formerly 17-296.507; Amended 11-23-94, 1-1-96.

62-296.507

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62-296.508 Petroleum Liquid Storage.

- (1) Applicability.
 - (a) The control technology set forth in Rule 62-296.508, F.A.C., shall apply to all fixed roof storage vessels with capacities equal to or greater than 42,000 gallons (159,000 liters; nominal design 1,000 barrels (bbls.) containing petroleum liquids whose true vapor pressure is greater than 1.50 psia (10.3 kilopascals) but shall not be used if the petroleum liquid has a true vapor pressure of 11.0 psia (76 kilopascals) or greater under actual storage conditions.
 - (b) Rule 62-296.508, F.A.C., shall not apply to volatile petroleum liquid storage vessels:
 - 1. Equipped with external floating roofs before the effective date of this rule; or,
 - 2. Having capacities equal to or less than 420,000 gallons (1,590,000 liters; nominal design 10,000 bbls.) located at oil field production sites and used to store produced oil and condensate prior to lease custody transfer.
- (2) Control Technology. Except as provided under Rule 62-296.508(1)(b), F.A.C., no owner or operator of an affected emissions unit under Rule 62-296.508(1)(a), F.A.C., shall permit the use of such emissions unit unless:
 - (a) The emissions unit has been retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall, or the emissions unit has been retrofitted with an equally effective alternative control; and,
 - (b) The emissions unit is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials; and,
 - (c) All openings, except stub drains are equipped with covers, lids, or seals such that:
 - 1. The cover, lid, or seal is in the closed position at all times except on demand for sampling, maintenance, repair, or necessary operational practices; and,
 - 2. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and,
 - 3. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this section shall comply with the following requirements.
 - (a) Internal Floating Roof and Roof Seals. The test method for volatile organic compounds shall be EPA Method 21 and p. 6-2 of EPA 450/2-77-036, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 - 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)8.; Formerly 17-296.508; Amended 11-23-94, 1-1-96.

62-296.508

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62-296.509 Bulk Gasoline Plants.

- (1) Applicability. The emission limiting standards set forth in Rule 62-296.509, F.A.C., shall apply to the unloading, loading, and storage facilities of all bulk gasoline plants and all tank trucks or trailers delivering or receiving gasoline at bulk gasoline plants.
- (2) Control Technology.
 - (a) No owner or operator of a bulk gasoline plant may permit stationary storage tanks to be filled with gasoline unless each tank is equipped for submerged filling and such equipment is used and properly maintained.
 - (b) No owner or operator of a bulk gasoline plant, tank, truck, or trailer shall permit the filling of tank trucks or trailers at a bulk gasoline plant unless each tank, truck or trailer is equipped for submerged filling and such equipment is used and properly maintained.

History: Formerly 17-2.650(1)(f)9, Formerly 17-296.509.

62-296.509

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94

62-296.510 Bulk Gasoline Terminals.

- (1) Applicability. The emission limiting standards or control technology set forth in Rule 62-296.510, F.A.C., applies to bulk gasoline terminals and the appurtenant equipment necessary to load the tank truck or trailer compartments.
- (2) Emission Limiting Standards. Emissions units affected under Rule 62-296.510(1), F.A.C., shall not allow mass emissions of volatile organic compounds from control equipment to exceed 4.7 grains per gallon (80 milligrams per liter) of gasoline loaded.
- (3) Control Technology. No person shall load gasoline into any tank, trucks or trailers from any bulk gasoline terminal unless:
 - (a) Displaced vapors are vented only to the-vapor control system; and,
 - (b) A means is provided to prevent liquid waste from the loading device to exceed the quantity specified for the self sealing coupler or adapter according to API regulation RP 1004 (or equivalent) upon the loading device being disconnected or when it is not in use (the above referenced are available from the American Petroleum Institute, 2101 "L' Street N. W., Washington, D. C. 20037); and,
 - (c) All loading and vapor lines equipped with fittings are vapor tight; and,
 - (d) The bulk gasoline terminal is equipped with a properly installed and operated vapor control system complying with Rule 62-296.510, F.A.C., and which recovers vapors from the equipment being controlled or which directs all vapors to a combustion or incineration system.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Vapor Control Emissions. The test methods for volatile organic compounds shall be EPA Methods 2A, 2B, 25A and 25B, incorporated and adopted by reference in Chapter 62-297, F.A.C. Rule 62-297.440(2)(b)1.a., F.A.C., shall also apply.
 - (b) Equipment Vapor-Leak Detection. The test methods for volatile organic compounds shall be EPA Methods 21 and 27, incorporated and adopted by reference in Chapter 62-297, F.A.C. Rule 62-297.440(2)(b)2.a., F.A.C., shall also apply.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)10.; Formerly 17-296.510; Amended 11-23-94, 1-1-96.

62-296.510

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62-296.511 Solvent Metal Cleaning.

- (1) Applicability.
 - (a) The emission limiting standards and control technology set forth in Rule 62-296.511, F.A.C., shall apply to cold cleaning, open-top vapor degreasing, and conveyORIZED degreasing operations.
 - (b) The provisions of Rule 62-296.511, F.A.C., shall apply with the following exceptions:
 1. Open-top vapor degreasers with an open area smaller than 10.8 square feet (one square meter) shall be exempt from Rule 62-296.511(3)(c), F.A.C.;
 2. ConveyORIZED degreasers with an air/vapor interface smaller than 21.5 square feet (2.0 square meters) shall be exempt from Rule 62-296.511(4)(b), F.A.C.
- (2) Cold Cleaning Control Technology. Except as provided under Rule 62-296.511(l), F.A.C., the owner or operator of a cold cleaning facility shall comply with each of the following requirements:
 - (a) Equip the cleaner with a cover. The cover shall be so designed that it can be easily operated with one hand if:
 1. The solvent volatility is greater than 0.3 pounds per square inch (15 millimeters of mercury or 2 kilopascals) measured at 100 degrees Fahrenheit (38 degrees Celsius);
 2. The solvent is agitated;
 3. The solvent is heated.
 - (b) Equip the cleaner with a facility for draining cleaned parts. The drainage facility shall be constructed internally so that parts are enclosed under the cover while draining if the solvent volatility is greater than 0.6 pounds per square inch (31 millimeters of mercury or 4.1 kilopascals) measured at 100 degrees Fahrenheit (38 degrees Celsius), except that the drainage facility may be external for the applications where an internal type cannot fit into the cleaning system.
 - (c) Install one of the following control devices if the solvent volatility is greater than 0.6 pounds per square inch (31 millimeters of mercury or 4.1 kilopascals) measured at 100 degrees Fahrenheit (38 degrees Celsius), or if the solvent is heated above 120 degrees Fahrenheit (50 degrees Celsius):
 1. Freeboard that gives a freeboard ratio greater than or equal to 0.7; or,
 2. Water cover (solvent must be insoluble in and heavier than water); or,
 3. Other systems of equivalent control such as refrigerated chiller or carbon absorption.
 - (d) Provided a permanent, conspicuous label summarizing the operating requirements.
 - (e) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere.
 - (f) Close the cover whenever parts are not being handled in the cleaner.
 - (g) Drain the cleaned parts for at least 15 seconds or until dripping ceases.
 - (h) If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure which does not cause excessive splashing.
- (3) Open Top Vapor Degreaser Control Technology. Except as provided under Rule 62-296.511, F.A.C., the owner or operator of an open top vapor degreaser shall comply with each of the following requirements:
 - (a) Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
 - (b) Provide the following safety switches:
 1. A condenser flow switch and thermostat which shut off the heat if the condenser coolant is either not circulating or too warm; and,
 2. A spray safety switch which shuts off the spray pump if the vapor level drops more than 4 inches (10 centimeters) below the bottom condenser coil; and,
 3. A vapor level control thermostat which shuts off the heat when the vapor level rises too high.
 - (c) Install one of the following control devices:
 1. A freeboard ratio greater than or equal to 0.75, and a powered or mechanically assisted cover if the degreaser opening is greater than 10.8 square feet (1.0 square meter) or,
 2. Refrigerated chiller; or,
 3. An enclosed design (cover or door opens only when the dry part is actually entering or

- exiting the degreaser); or,
4. A carbon adsorption system, with ventilation greater than or equal to 50 cubic feet per minute per square foot (15 cubic meters per minute per square meter) of air/vapor area (when cover is open), and exhausting less than 25 parts per million of solvent averaged over one complete adsorption cycle.
- (d) Keep the cover closed at all times except when processing work loads through the degreaser.
 - (e) Minimize solvent cartout by:
 1. Racking parts to allow complete drainage; and,
 2. Moving parts in and out of the degreaser at less than 11 feet per minute (3.3 meters per minute); and,
 3. Holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and,
 4. Decanting any pools of solvent on the cleaned parts before removal from the vapor zone; and,
 5. Allowing parts to dry within the degreaser for at least 15 seconds or until visually dry.
 - (f) Not degrease porous or absorbent materials, such as cloth, leather, wood, or rope.
 - (g) Not occupy more than half of the degreaser's open-top area with a workload.
 - (h) Not load the degreaser to the point where the vapor level would drop more than 4 inches (10 centimeters) below the bottom condenser coil when the workload is removed from the vapor zone.
 - (i) Always spray below the vapor level.
 - (j) Repair solvent leaks immediately, or shut down the degreaser.
 - (k) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere.
 - (l) Not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator.
 - (m) Not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding 66 cubic feet per minute per square foot (20 cubic meters-per minute per square meter) of degreaser open area, unless necessary to meet OSHA requirements.
 - (n) Provide a permanent, conspicuous label, summarizing the operating procedure of Rule 62-296.511(3)(d) through (1), F.A.C.
- (4) Conveyorized Degreaser Control Technology. Except as provided under Rule 62-296.511(1), F.A.C., the owner or operator of a conveyorized degreaser shall comply with the following requirements:
- (a) Not use work-place fans near the degreaser opening, nor provide exhaust ventilation exceeding 66 cubic feet per minute per square foot (20 cubic meters per minute per square meter) of degreaser opening, unless necessary to meet Occupational Safety and Health Administration (OSHA) requirements. OSHA regulations are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., and may be inspected at the Department's Tallahassee office.
 - (b) Install one of the following control devices:
 1. Refrigerated chiller; or,
 2. Carbon absorption system, with ventilation greater than or equal to 49 cubic feet per minute per square foot (15 cubic meters per square meter) of air/vapor area (when downtime covers are open), and exhausting less than 25 parts per million of solvent by volume averaged over a complete absorption cycle.
 - (c) Equip the cleaner with equipment, such as a drying tunnel or rotating (tumbling) basket, sufficient to prevent cleaned parts from carrying out solvent or liquid vapor.
 - (d) Provide the following safety switches:
 1. A condenser flow switch and thermostat which shut off the sump heat if the condenser coolant is either not circulating or too warm; and,
 2. A spray safety switch which shuts off the spray pump or the conveyor if the vapor level drops more than 4 inches (10 centimeters) below the bottom condenser coil; and,
 3. A vapor level control thermostat which shuts off the heat when the vapor level rises too

- high.
- (e) Minimize openings during operation so that entrances and exits will silhouette workloads with an average clearance between-the parts and the edge of the degreaser opening of less than 4 inches (10 centimeters) or less than 10 percent of the width of the opening.
 - (f) Provide downtime covers for closing off the entrance and exit during shutdown hours.
 - (g) Minimize carryout emissions by:
 - 1. Racking parts for best drainage; and,
 - 2. Maintaining the vertical conveyor speed at less than 11 feet per minute (3.3 meters per minute).
 - (h) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere.
 - (i) Repair solvent leaks immediately, or shut down the degreaser.
 - (j) Not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator.
 - (k) Place downtime covers over entrances and exits of conveyorized degreasers immediately after the conveyors and exhausts are shutdown and do not remove them until just before a startup.
- (5) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
- (a) The test method for volatile organic compound emissions from the specified equipment shall be EPA Method 21, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for non-halogenated organic solvent emissions from a destructive add-on control device shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (c) The test method for organic solvent emissions from a non-destructive add-on control device shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (d) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)12.; Formerly 17-296.511; Amended 11-23-94, 1-1-96.

62-296.511

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62-296.512 Cutback Asphalt.

- (1) Applicability. The emission limiting standard or control technology set forth in Rule 62-296.512(2), F.A.C., shall apply to the manufacture and use of cutback asphalts for paving or maintaining roads, streets, highways, and parking lots.
- (2) Control Standards. No person shall cause, allow, or permit the manufacture, mixing, storage, use, or application of cutback asphalts except where:
 - (a) Long-life storage of liquid asphalt is necessary; or,
 - (b) Stockpile storage of cold mixed asphaltic concrete patching material is necessary; or,
 - (c) The use or application at ambient temperature less than 50 degrees Fahrenheit (10 degrees Celsius) as determined by the nearest National Weather Service Station is necessary; or,
 - (d) The cutback asphalt is to be used solely as a penetrating prime coat; or,
 - (e) The cutback asphalt is to be used in a sand seal coat; or,
 - (f) The cutback asphalt is to be used as a tack coat in the routine maintenance of public roads, or the minor betterment of public roads.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (b) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)13.; Formerly 17-296.512; Amended 11-23-94, 1-1-96.

62-296.512

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.513 Surface Coating of Miscellaneous Metal Parts and Products.

(1) Applicability.

- (a) The emission limiting standards set forth in Rule 62-296.513(2), F.A.C., shall apply to surface coating of the following metal parts and products:
1. Large farm machinery, such as harvesting, fertilizing and planting machines, tractors and combines;
 2. Small farm machinery, such as lawn and garden tractors, lawn mowers and rototillers;
 3. Small appliances, such as fans, mixers, blenders, crock pots, dehumidifiers and vacuum cleaners;
 4. Commercial machinery, such as office equipment, computers and auxiliary equipment, typewriters, calculators and vending machines;
 5. Industrial machinery, such as pumps, compressors, conveyor components, fans, blowers and transformers;
 6. Fabricated metal products, such as metal covered doors, frames, etc.; and,
 7. Any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (nonelectric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), and Major Group 39 (miscellaneous manufacturing industries). The Standard Industrial Classification Code is available from the superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, and may be examined at the Department of Environmental Regulation, Tallahassee.
- (b) The provisions of Rule 62-296.513, F.A.C., shall not apply to the surface coating of the following metal parts and products:
1. Automobiles and light-duty trucks;
 2. Metal cans;
 3. Flat metal sheets and strips in the form of rolls or coils;
 4. Magnet wire for use in electrical machinery;
 5. Metal furniture;
 6. Large appliances;
 7. Exterior of airplanes;
 8. Automobile refinishing;
 9. Customized top coating of automobiles and trucks if production is less than 35 vehicles per day; and,
 10. Exterior of marine vessels.
- (c) The provisions of Rule 62-296.513, F.A.C., apply to the application area (s), flashoff area(s), air and forced air dryer(s), and oven(s) used in the surface coating of the metal parts and products listed in Rule 62-296.513(1)(a), F.A.C. These provisions also apply to prime coat, top coat, and single coat operations. Credit for transfer efficiency above the baseline of 60% for spray coating operations can be granted according to the following formula:

$$X = \frac{(TE) (Z) (Y)}{Y + (TE) (Z)}$$

Where

- X = allowable maximum VOC content (kg VOC/liter of coating less water)
Y = density of the VOC in the maximum VOC content coating (kg/liter)
Z = applicable emission limit (kg VOC/liter of coating solids deposited)
TE = transfer efficiency

An EPA and state approved test method for determination of transfer efficiency above the baseline is required.

- (2) Emission Limiting Standards
- (a) No owner or operator of a coating line for miscellaneous metal parts and products shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:
 1. 4.3 pounds per gallon of coating (0.52 kilograms per liter), excluding water, delivered to a coating applicator that applies clear coatings;
 2. 3.5 pounds per gallon of coating (0.42 kilograms per liter), excluding water, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to 194 degrees Fahrenheit (90 degrees Celsius);
 3. 3.5 pounds per gallon of coating (0.42 kilograms per liter), excluding water, delivered to a coating applicator that applies extreme performance coatings; or,
 4. 3.0 pounds per gallon of coating (0.36 kilograms per liter), excluding water, delivered to a coating applicator for all other coatings and coating application systems.
 - (b) If more than one emission limitation in Rule 62-296.513(2)(a), F.A.C., applies to a specific coating, then the least stringent emission limitation shall be applied.
 - (c) All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in Rule 62-296.513(2)(a), F.A.C., unless the solvent is directed into containers that prevent evaporation into the atmosphere.
- (3) Control Technology. The emission limits in Rule 62-296.513(2)(a), F.A.C., shall be achieved by:
- (a) The application of low solvent coating technology; or,
 - (b) Incineration, provided that 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
- (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)14.; Formerly 17-296.513; Amended 11-23-94, 1-1-96.

62-296.513

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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.514 Surface Coating of Flat Wood Paneling.

- (1) Applicability.
 - (a) The emission limiting standards set forth in Rule 62-296.514(2), F.A.C., shall apply to all flat wood manufacturing and surface finishing facilities that manufacture the following products:
 - 1. Printed interior panels made of hardwood, plywood and thin particle board;
 - 2. Natural finish hardwood plywood panels, or
 - 3. Hardboard paneling with Class II finishes.
 - (b) The provisions stated in Rule 62-296.514(2), F.A.C., do not apply to the manufacture of exterior siding, tileboard, or particle board used as a furniture component.
- (2) Emission Limiting Standards. No owner or operator of a flat wood coating line subject to Rule 62-296.514, F.A.C., may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of:
 - (a) 6.0 pounds per 1,000 square feet of coated finished product (2.9 kilograms per 100 square meters) from the coating of printed interior panels, regardless of the number of coats applied;
 - (b) 12.0 pounds per 1,000 square feet of coated finished product (5.8 kilograms per 100 square meters) from the coating of natural finish hardwood plywood panels, regardless of the number of coats applied; or,
 - (c) 10.0 pounds per 1,000 square feet of coated finished product (4.8 kilograms per 100 square meters) from the coating of Class II finishes on hardboard panels, regardless of the number of coats applied.
- (3) Control Technology. The emission limits in Rule 62-296.514(2), F.A.C., shall be achieved by:
 - (a) The application of low solvent coating technology; or,
 - (b) Incineration, provided that 90% of the volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 - 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)15.; Formerly 17-296.514; Amended 11-23-94, 1-1-96.

62-296.514

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.515 Graphic Arts Systems.

- (1) Applicability. The control technology and provisions set forth in Rule 62-296.515(2), F.A.C., shall apply to all packaging rotogravure, publication rotogravure, or flexographic printing operations whose prior to control potential to emit volatile organic compounds is equal to or more than 100 tons per year (90 megagrams per year).
- (2) Control Technology.
 - (a) No owner or operator of a packaging rotogravure, publication rotogravure, or flexographic printing operation subject to Rule 62-296.515, F.A.C., and employing solvent containing ink shall cause, allow or permit the operation of the facility unless:
 - 1. The volatile fraction of ink as it is applied to the substrate, contains 25 percent by volume or less of organic solvent and 75 percent by volume or more of water; or,
 - 2. The ink as it is applied to the substrate, less water, contains 60 percent by volume or more nonvolatile material; or,
 - 3. An incineration system is employed which oxidizes at least 90 percent of the volatile organic compounds (VOC measured as total combustible carbon) to carbon dioxide and water.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24, 24A or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Add-on Control Device.
 - 1. Destructive. The test method for volatile organic compounds shall be EPA Method 25 or Attachment 3 of EPA 450/2-78-041, with equipment specifications per Industrial Ventilation Manual, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - 2. Non-destructive. The test method for volatile organic compounds shall be EPA VOC Capture Efficiency Test Procedures Rule 62-297.440(7), F.A.C. The sampling time for each capture efficiency test run shall be at least 8 hours, unless otherwise approved by the Department pursuant to Rule 62-297.620, F.A.C.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)16.; Formerly 17-296.515; Amended 11-23-94, 1-1-96.

62-296.515

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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.516 Petroleum Liquid Storage Tanks with External Floating Roofs.

- (1) Applicability.
 - (a) The control technology and provisions set forth in Rule 62-296.516(2), F.A.C., shall apply to all petroleum liquid storage vessels equipped with external floating roofs, having capacities equal to or greater than 42,000 gallons (159,000 liters, nominal design 1,000 barrels);
 - (b) Rule 62-296.516(2), F.A.C., shall not apply to petroleum liquid storage vessels which:
 1. Are used to store waxy, heavy pour crude oil; or,
 2. Have capacities equal to or less than 420,000 gallons (1,590,000 liters, nominal 10,000 barrels) and are used to store crude oil and condensate prior to lease custody transfer; or,
 3. Contain a petroleum liquid with a true vapor pressure of less than 1.5 psia (10.15 kPa); or,
 4. Contain a petroleum liquid with a true vapor pressure of less than 4.0 psia (27.6 kPa) if such vessel is of welded construction and presently possesses a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid-filled type of seal, or other closure device of demonstrated equivalence approved by the Department; or,
 5. Are of welded construction, equipped with a metallic-type shoe primary seal and with a secondary seal from the top of the shoe seal to the tank wall (shoe-mounted secondary seal).
- (2) Control Technology.
 - (a) No owner or operator of a petroleum liquid storage vessel subject to Rule 62-296.516, F.A.C., shall store a petroleum liquid in that vessel unless:
 1. The vessel has been fitted with a continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or another closure or device, approved by the Department, which is equally effective in controlling emissions; and,
 2. All seal closure devices meet the following requirements:
 - a. The seal(s) are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and,
 - b. There are no visible holes, tears, or other openings in the seal(s) or seal fabric; and,
 - c. For vapor mounted (primary) seals, the accumulated area of gaps exceeding 1/8 inch (0.32 cm) in width between the secondary seal and the tank wall shall not exceed 1.0 square inch per foot of tank diameter (21.2 square centimeters per meter of tank diameter); and,
 3. All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are:
 - a. Equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and,
 - b. Equipped with projections in the tank which remain below the liquid surface at all times; and,
 4. Automatic bleeder vents are closed at all times except when the roof is floating off or landed on the roof leg supports; and,
 5. Rim vents are set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting; and,
 6. Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90 percent of the area of the opening.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for volatile organic compounds shall be EPA Method 21 and p. 5-3 of EPA 450/2-78-047, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(1)(f)17.; Formerly 17-296.516; Amended 11-23-94, 1-1-96.
62-296.516

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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.570 Reasonably Available Control Technology (RACT) - Requirements for Major VOC- and NOx-Emitting Facilities.

- (1) Applicability.
 - (a) The requirements of this rule shall apply to those major VOC- and NOx-emitting facilities specified in Rule 62-296.500(1)(b), F.A.C.; specifically, to those VOC emissions units within such facilities which are not regulated for VOC under Rules 62-296.501 through 62-296.516, F.A.C., and those VOC and NOx emissions units which have not been exempted pursuant to Rule 62-296.500(1)(b), F.A.C., or by a specific provision of Rules 62-296.500 through 62-296.516, F.A.C.
 - (b) The requirements of this rule shall not apply to emissions units that are exempt from the air permitting requirements of the Department pursuant to Rule 62-210.300, F.A.C.
- (2) Compliance Requirements. Emissions units subject to the requirements of this rule shall comply with the operation permit requirements of Rule 62-296.570(3), F.A.C., and the RACT emission limiting standards of Rule 62-296.570(4), F.A.C. If, pursuant to an air operation or construction permit, the owner or operator of a emissions unit subject to the requirements of this rule assumes (or has assumed) a more stringent NOx or VOC emissions limit than the RACT emissions limit established in Rule 62-296.570(4), F.A.C., for the applicable emissions unit category, compliance with the emissions unit's NOx or VOC emissions limit in its air operation or construction permit shall be considered compliance with RACT for purposes of this rule.
- (3) Operation Permit Requirements.
 - (a) The owner or operator of any emissions unit subject to the requirements of this rule shall apply for a new or revised permit to operate in accordance with the provisions of this rule by March 1, 1993, unless a later filing date is specified by the Department in writing.
 - (b) If the existing operation permit for any emissions unit subject to the requirements of this rule would expire between the effective date of this section and March 1, 1993, or any later filing date specified by the Department, the expiration date of such permit is hereby extended until March 1, 1993, or such later date. This provision shall not apply in the case of a revocation or suspension of such permit pursuant to Chapter 62-4, F.A.C.
- (4) RACT Emission Limiting Standards.
 - (a) Compliance Dates and Monitoring.
 1. Each applicant for a new or revised operation permit for an emissions unit subject to the requirements of this rule shall propose a schedule for implementing the RACT emission limiting standards as expeditiously as practicable but no later than May 31, 1995. The emissions unit shall demonstrate compliance with the RACT emission limiting standards in accordance with a schedule specified in the emissions unit's air operation permit issued pursuant to Rule 62-296.570(3), F.A.C.
 2. Fuel-specific NOx and VOC emission limits established under this rule shall be incorporated into the new or revised operation permit for each emissions unit and become effective in accordance with the terms of the permit.
 3. For units that are not equipped with a continuous emission monitoring system (CEMS) for NOx or VOCs, compliance with the emission limits established in this rule shall be demonstrated by annual emission testing in accordance with applicable EPA Reference Methods from Rule 62-297.401, F.A.C., or other methods approved by the Department in accordance with the requirements of Rule 62-297.620, F.A.C., except as otherwise provided in Rule 62-296.570(4)(b), F.A.C. If required, such annual emission testing shall be conducted during each federal fiscal year (October 1 - September 30). Annual compliance testing while firing oil is unnecessary for units operating on oil for less than 400 hours in the current federal fiscal year.
 4. For units that are equipped with a CEMS, compliance shall be demonstrated based on a 30-day rolling average. The CEMs must meet the performance specifications contained in 40 Code of Federal Regulations Part 60, Appendix B, or 40 Code of Federal Regulations Part 75, hereby adopted and incorporated by reference.
 - (b) Emission Limiting Standards.

1. Emissions of NOx from any rear wall fired, forced circulation, 16-burner, compact furnace shall not exceed 0.20 lb/million BTU while firing natural gas and 0.36 lb/million BTU while firing oil.
 2. Emissions of NOx from any front wall fired, natural circulation, 18-burner, compact furnace shall not exceed 0.40 lb/million BTU while firing natural gas and 0.53 lb/million BTU of NOx while firing oil.
 3. Emissions of NOx from any front wall fired, natural circulation, 24-burner, compact furnace shall not exceed 0.50 lb/million BTU while firing natural gas and 0.62 lb/million BTU of NOx while firing oil.
 4. Emissions of NOx from any tangentially fired, low heat release, large furnace shall not exceed 0.20 lb/million BTU while firing natural gas.
 5. Emissions of NOx from any gas turbine shall not exceed 0.50 lb/million BTU while firing natural gas and 0.90 lb/million BTU while firing oil. Unless compliance is demonstrated using a CEMS, compliance shall be demonstrated by a stack test on one representative turbine unit within a facility if the turbines are substantially similar.
 6. Emissions of VOC and NOx from carbonaceous fuel burning facilities, other than waste-to-energy facilities, shall not exceed 5.0 lbs/million BTU and 0.9 lb/million BTU, respectively.
 7. Emissions of NOx from any oil-fired diesel generator shall not exceed 4.75 lb/million BTU.
 8. Emissions of NOx from any cement plant shall not exceed 2.0 lb/million BTU.
 9. Emissions of NOx from any other combustion emissions unit subject to the requirements of this rule, and not covered in Rule 62-296.570(4)(b)1. through 8., F.A.C., shall not exceed 0.50 lb/million BTU. Compliance shall be demonstrated annually in accordance with the applicable EPA Method from Rule 62-297.401, F.A.C., or other method approved by the Department in accordance with the requirements of Rule 62-297.620, F.A.C.
 10. Emissions of VOC from resin coating operations shall be limited by the use of low-VOC resin or thermal oxidation of emissions from the purge cycle.
 11. Emissions of VOC from any emissions unit subject to this rule but specifically exempted from any any of the control technology requirements of Rules 62-296.501, through 62-296.516, F.A.C., shall not exceed the applicable exemption criteria.
- (c) Exception for Startup, Shutdown, or Malfunction. The emission limits in this rule shall apply at all times except during periods of startup, shutdown, or malfunction as provided by Rule 62-210.700, F.A.C.

History: New 2-2-93; Amended 4-17-94; Formerly 17-296.570; Amended 11-23-94, 1-1-96.
62-296.570

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1 st Revision	04/17/94	04/25/94	01/11/95	60 FR 2688	03/13/95
2 nd Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.600 Reasonably Available Control Technology (RACT) - Lead.

- (1) **Applicability.** Any new or existing lead processing operation that is located in an area designated under Chapter 62-275, F.A.C., as a lead nonattainment or air quality maintenance area, or in the area of influence of such an area, shall limit the emission of lead through the application of reasonably available control technology (RACT) as specified in Rules 62-296.601 through 62-296.605, F.A.C.
- (2) **Compliance Requirements.** Lead processing operations subject to the requirements of this rule shall comply with the permit requirements, operation and maintenance plan requirements, recordkeeping and reporting requirements, and compliance demonstration requirements of Rules 62-296.600(3) through 62-296.600(6), F.A.C., respectively, the general requirements of Rule 62-296.601, F.A.C., and the specific emission limiting standards of Rules 62-296.602 through 62-296.605, F.A.C. For existing facilities, compliance with these requirements shall be achieved as expeditiously as possible, in accordance with a schedule of compliance established in the permit required pursuant to this rule.
- (3) **Permit Requirements.** By September 30, 1994, the owner or operator of any existing facility subject to the requirements of this rule shall apply for a new or revised federally enforceable, as defined in Rule 62-210.200, F.A.C., air permit, pursuant to Chapter 62-4, F.A.C., addressing the requirements of this rule.
- (4) **Operation and Maintenance Plan.** In any application for a permit, the owner or operator of any facility subject to the requirements of this rule shall submit to the Department an operation and maintenance plan for the lead emissions control devices, collection systems, and processing systems. The operation and maintenance plan shall include quarterly inspection methods for the lead emissions control devices, including black light leak detection tests or broken bag detectors in the baghouses, to prevent reduced lead collection efficiency. Lead oxide handling operations with the potential to emit 200 pounds or less of lead per year shall be exempt from this operation and maintenance plan provision.
- (5) **Recordkeeping and Reporting.** The owner or operator of any facility subject to the requirements of this rule shall keep the following records for a minimum of two years, and make them available to any representative of the Department or an approved local air program upon request:
 - (a) Records of control equipment operating parameters.
 - (b) Maintenance records on the control equipment, including black-light tests, bag replacements, structural repairs, and motor replacements.
 - (c) Records of control system malfunctions or failures and corrective actions taken.
- (6) **Compliance Demonstration.** The owner or operator of any facility subject to an emissions limiting standard pursuant to Rule 62-296.602 through 62-296.605, F.A.C., shall demonstrate compliance with such limit by the initial compliance date established in the permit required pursuant to this rule, or in accordance with the terms of any construction permit addressing the requirements of this rule, and every five years thereafter unless a more frequent schedule is specified in the permit. Compliance shall be demonstrated as follows:
 - (a) Compliance with lead emission standards shall be demonstrated by EPA Method 12, adopted and incorporated by reference in Chapter 62-297, F.A.C.
 - (b) Compliance with opacity standards shall be demonstrated by EPA Method 9, adopted and incorporated by reference in Chapter 62-297, F.A.C..

History: New: 8-8-94, Formerly 17-296.600, Amended 1-1-96, 3-13-96.

62-296.600

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1 st Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.601 Lead Processing Operations in General.

- (1) Applicability. The provisions of this rule shall apply to all lead processing operations as specified in Rule 62-296.600(1), F.A.C.
- (2) Prohibition.
 - (a) No owner or operator of a lead processing operation shall cause, allow, or permit the emissions of lead, including emissions of lead from vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially-related activities such as loading, unloading, charging, melting, tapping, casting, storing or handling, unless reasonably available control technology is employed to control such lead emissions.
 - (b) Examples of measures that constitute RACT are:
 - 1. Paving, curbing, and maintaining roads, parking areas and yards which are routinely used by vehicular traffic.
 - 2. Applying water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - 3. Installing a permanent sprinkler system to continuously moisten open stock piles.
 - 4. Vacuuming the roads and other paved areas under the control of the owner or operator of the facility to prevent lead from becoming airborne.
 - 5. Landscaping or vegetating unpaved roads, parking areas and yards.
 - 6. Using hoods, fans, filters, and similar equipment to capture, contain, and control lead emissions.
 - 7. Enclosing or covering conveyor systems.
 - 8. Using walls or windbreaks to contain lead-bearing scrap, products, or raw materials.
 - (c) As part of any application for a permit, the owner or operator of any facility subject to the requirements of this rule shall submit to the Department a description of the reasonably available control technology that will be employed to meet the requirements of this section.

History: New 8-8-94, Formerly 17-296.601, Amended 1-1-96.

62-296.601

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	08/08/94	08/18/94	09/18/96	61 FR 49064	11/18/96

62-296.602 Primary Lead-Acid Battery Manufacturing Operations.

- (1) Emission Limiting Standards. No owner or operator of a primary lead-acid battery manufacturing operation subject to Rule 62-296.600, F.A.C., shall cause, allow, or permit the discharge into the atmosphere of lead in excess of the following emission standards, in grains of lead per dry standard cubic foot, nor shall visible emissions exceed the following standards, in percent opacity:
 - (a) Grid casting sources: 0.000176 grains and 0% opacity.
 - (b) Paste mixing sources: 0.00044 grains and 0% opacity.
 - (c) Three-process operation sources: 0.00044 grains and 0% opacity.
 - (d) Lead oxide manufacturing sources: 0.0005 grains and 0% opacity.
 - (e) Lead reclamation sources: 0.00198 grains and 5% opacity.
 - (f) Any other lead sources: 0.00044 grains and 0% opacity.
- (2) Collection Systems. Collection systems representing RACT shall be installed and operated to capture, contain, and control lead emissions resulting from all lead-emitting processes including charging, melting, tapping, and casting. No lead emissions shall be vented to the outside of any enclosed or partially enclosed process unless RACT is employed to control such emission.
- (3) Attainment Demonstration. As part of the initial application for the permit required pursuant to Rule 62-296.600(3), F.A.C., the owner or operator of a facility subject to the requirements of this rule shall demonstrate to the Department that, after the application of RACT, the facility shall not cause or contribute to a violation of the ambient air quality standard for lead as set forth in Rule 62-204.240, F.A.C. The demonstration shall be made using air quality models as provided in Rule 62-204.220(2), F.A.C., and shall address both stack and fugitive emissions.

History: New 8-8-94, Formerly 17-296.602, Amended 1-1-96, 3-13-96.

62-296.602

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1 st Revision	03/13/96	04/15/96	06/16/99	64 FR 32346	08/16/99

62-296.603 Secondary Lead Smelting Operations.

- (1) Emission Limiting Standards. No owner or operator of a secondary lead smelting operation subject to Rule 62-296.600, F.A.C., shall cause, allow, or permit the discharge into the atmosphere of lead in excess of the following emission standards, in grains of lead per dry standard cubic foot, nor shall visible emissions exceed the following standards, in percent opacity:
 - (a) Blast and slag furnaces: 0.010 grains and 3% opacity at the exit point of the emissions control device.
 - (b) Blast furnace charging: 0.002 grains and 3% opacity at the exit point of the emissions control device.
 - 1. Visible emissions from the closed charge doors on the blast furnace shall not exceed 3% opacity during furnace operation.
 - 2. Visible emissions from the charge doors on the blast furnace shall not exceed 6% opacity during charging operation.
 - (c) Blast and slag furnaces, slag and product tapping: 0.002 grains and 3% opacity at the exit point of the emissions control device.
 - (d) Melt kettles and pot furnaces: 0.0002 grains and 3% opacity.
 - (e) Battery cracking operations: 3% opacity.
 - (f) Slag handling and processing operations: 0.0000333 grains and 3% opacity.
- (2) Collection Systems. Collection systems representing RACT shall be installed and operated to capture, contain, and control lead emissions resulting from the storage, transport, and processing of all lead-bearing materials and products at secondary lead smelting operations. No lead emissions shall be vented to the outside of any enclosed or partially enclosed process unless RACT is employed to control such emissions.
- (3) Attainment Demonstration. As part of the initial application for the permit required pursuant to Rule 62-296.600(3), F.A.C., the owner or operator of a facility subject to the requirements of this rule shall demonstrate to the Department that, after the application of RACT, the facility shall not cause or contribute to a violation of the ambient air quality standard for lead as set forth in Rule 62-272.300, F.A.C. The demonstration shall be made using air quality models as provided in Rule 62-210.500, F.A.C., and shall address both stack and fugitive emissions.

History: New 8-8-94, Formerly 17-296.603, Amended 1-1-96.

62-296.603

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	08/08/94	08/18/94	09/18/96	61 FR 49064	11/18/96

62-296.604 Electric Arc Furnace Equipped Secondary Steel Manufacturing Operations.

- (1) Emission Limiting Standards. No owner or operator of a secondary steel manufacturing operation subject to Rule 62-296.600, F.A.C., shall cause, allow or permit the discharge of lead into the atmosphere in excess of the following emission standards, in grains of lead per dry standard cubic foot as a weighted average of the exhaust from the entire control equipment system, nor shall visible emissions exceed the following standards, in percent opacity:
 - (a) Electric arc furnace control device: 0.0002 grains and 3% opacity.
 - (b) Melt shop building roof ventilators: 6% opacity.
- (2) Collection Systems. Collection systems representing RACT shall be installed and operated to capture, contain, and control lead emissions resulting from all lead-emitting processes including charging, melting, tapping, and casting. No lead emissions shall be vented to the outside of any enclosed or partially enclosed process unless RACT is employed to control such emission.
- (3) Attainment Demonstration. As part of the initial application for the permit required pursuant to Rule 62-296.600(3), F.A.C., the owner or operator of a facility subject to the requirements of this rule shall demonstrate to the Department that, after the application of RACT, the facility shall not cause or contribute to a violation of the ambient air quality standard for lead as set forth in Rule 62-272.300, F.A.C. The demonstration shall be made using air quality models as provided in Rule 62-210.500, F.A.C., and shall address both stack and fugitive emissions.

History: New 8-8-94, Formerly 17-296.604, Amended 1-1-96.

62-296.604

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	08/08/94	08/18/94	09/18/96	61 FR 49064	11/18/96

62-296.605 Lead Oxide Handling Operations.

No owner or operator of a lead oxide handling operation subject to Rule 62-296.600, F.A.C., shall cause, allow, or permit visible emissions in excess of 3% opacity.

History: New 8-8-94, Formerly 17-296.605.

62-296.605

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
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62-296.700 Reasonably Available Control Technology (RACT) Particulate Matter.

- (1) Applicability.
 - (a) Any existing emissions unit that emits particulate matter and is located in a particulate matter air quality maintenance area or in the area of influence of such an air quality maintenance area, except an emissions unit which has received a determination of Best Available Control Technology pursuant to Rule 17-2.630 (repealed) or 62-296.330, F.A.C., or received a permit in connection with Rule 17-2.500 (transferred), 17-2.510 (transferred), 62-212.400 or 62-212.500, F.A.C., shall limit the emission of particulate matter through the application of Reasonably Available Control Technology (RACT) as specified in Rules 62-296.701 through 62-296.712, F.A.C., or Rules 62-296.401 through 62-296.415, F.A.C.
 - (b) (Reserved)
- (2) Exemptions. The following facilities and emissions unit which &re located within a particulate matter air quality maintenance area or area of influence are exempt from the provisions of this section:
 - (a) Any facility with total maximum allowable emissions of particulate matter of less than 15 tons per year and 5 pounds per hour.
 - (b) Any facility whose owner or operator demonstrates to the Department that the impact within the designated air quality maintenance area of the total maximum allowable particulate matter emissions from such facility will not exceed 1 ug/m³, annual average, and 5 ug/m³, 24-hour average.
 - (c) Any emissions unit which has total allowable emissions of particulate matter of less than one ton per year.
 - (d) Any emissions unit of unconfined particulate matter which is located more than five kilometers outside the boundary of a particulate matter air quality maintenance area.
 - (e) Any emissions unit of unconfined particulate matter from open stockpiling of materials, vehicular traffic and other emissions from roads and plant grounds, or construction activities.
 - (f) Any moveable drop transfer point where the discharge point and receiving point of the materials being handled must be moved in relationship to each other, either continuously or intermittently, such that enclosure of the drop transfer point with a device to control emissions of particulate matter is not practicable.
- (3) Specific RACT Emission Limiting Standards for Stationary Emission Units. The specific particulate matter emission limiting standards set forth in Rules 62-296.401 through 62-296.414, F.A.C., have been found to represent the application of RACT for each emissions unit category listed in those rules except for those emissions unit categories listed in Rules 62-296.701 through 62-296.712, F.A.C. For those emissions unit categories the particulate matter emission standards in Rules 62-296.701 through 62-296.712, F.A.C., have been found to represent the application of RACT.
- (4) Maximum Allowable Emission Rates.
 - (a) Emissions Unit Data. The new or revised operating permit for each emissions unit subject to the provisions of this section shall specify:
 1. The maximum heat input rate, charging rate, production rate, through-put rate, and/or materials handling rate, as appropriate;
The maximum heat input rate, charging rate, production rate, through-put rate, or materials handling-rate shall be the maximum rate at which the emissions unit is capable of being operated on a continuous basis.
 2. The maximum dry standard volumetric flow rate for each emission point, when applicable:
The maximum dry standard volumetric flow rate for each emissions unit or component emissions unit operation shall be the minimum dry standard volumetric flow rate that is necessary to safely and properly vent or operate the emissions unit when it is operated at its maximum continuous operating rate.
 3. The control device through which each gas stream is vented and the emission point from which each gas stream is discharged to the open air;
 4. The height above ground, exit diameter, UTM coordinates, and nature of each emission

- 5. point through which particulate is or may be vented;
 - 6. The exit gas temperature, actual volumetric flow rate and moisture content of each particulate bearing gas stream that is or may be vented to the open air;
 - 7. Pertinent operating or control equipment parameters, such as pH of scrubber solution, pressure drop in scrubber, pressure on spray nozzle, etc., when such information is needed to confirm the control device is operating normally;
 - 8. The permitted operating schedule (hrs./day, days/wk., wk./yr.)
- (b) Maximum Emission Rates. The new or revised operating permit for each emissions unit shall specify the maximum allowable emission rate for each emissions unit or group of commonly vented emissions units in accordance with the following provisions:
- 1. The maximum allowable emission rate expressed in lbs/hr, lbs/day and tons/yr (or other equivalent units) shall be determined for each emissions unit (for example, each drop transfer point, screening operation, kiln, or dryer) by applying the appropriate emission limitation contained in Rules 62-296.401 through 62-296.414, F.A.C., or Rules 62-296.701 through 62-296.712, F.A.C., to the maximum applicable emissions unit operation rate or dry standard volumetric flow rate and the permitted operating schedule as specified in the operating permit pursuant to the provisions of Rule 62-296.700(4)(a), F.A.C.
 - 2. If several emissions units are vented through a common control device or emission point, the maximum allowable emission rate for the common emission point shall be the sum of the individual maximum allowable emission rates for each emissions unit vented by the emission point.
 - 3. The owner or operator of a emissions unit or a group of emissions units that is subject to an emission limitation set forth in Rules 62-296.701 through 62-296.712, F.A.C., and that is vented through more than one emission point, shall, subject to the approval of the Department, prorate the total allowable emission for such emissions unit among all emission points that vent the affected emissions unit such that a specific maximum allowable emission rate is assigned to each emission point.
The operating permits for emissions units shall be revised in accordance with Rule 62-296.700(4), F.A.C., to reflect the maximum allowable emission rates for each emission point.
 - 4. The operating permit shall specify whether compliance shall be determined by measuring the emissions vented from each individual emissions unit or by measuring the emissions from the common emission point. In determining whether compliance shall be determined for each emissions unit individually or for a group of commonly vented emissions units at the common emission point, the department shall consider the following factors:
 - a. If all emissions units that are vented through a common emission point are subject to the same type of emission limiting standard (i.e., grains per dry standard cubic foot (gr/dscf)) and are all part of the same system of unit operations such that when one emissions unit is in operation the other emissions units will also normally be in operation, the Department may specify that compliance be determined at the common point of emission.
 - b. If the various emissions units that are vented through a common emission point are parts of different operating systems or are subject to different types of emission limiting standards (i.e., gr/dscf, lbs/ton of feed, lbs/MMBTU, percent opacity, etc.). The Department may specify that compliance with the various emission standards be determined separately for each emissions unit operation.
- (5) Circumvention. No owner or operator of an emissions unit subject to the requirements of Rules 62-296.401 through 62-296.414, F.A.C., or Rules 62-296.701 through 62-296.712, F.A.C., establishing maximum concentrations of emissions of particulate matter in the exhaust gas from the emissions unit shall circumvent the provisions of an applicable emission limitation by increasing the volume of gas in any exhaust or group

of exhausts for the purpose of reducing the stack gas concentration. This includes allowing dilution air to enter the system through leaks, open vents, or similar means.

- (6) Operation and Maintenance Plan. The new or revised operating permit for each emissions unit subject to the provisions of this section shall specify an operation and maintenance plan for the particulate control devices, the collection systems and the processing systems.

(a) Air Pollution Control devices and collection systems. The plan shall include a schedule for the maintenance and inspection of each control device and collection system and a schedule for recording performance parameters of the control devices, collection systems and auxiliary equipment. Records of inspections, maintenance and performance data of control devices and auxiliary equipment shall be retained by the emissions unit for a minimum of two years and shall be made available to the Department upon request. The performance parameters shall include such physical, chemical or electrical characteristics as are applicable to the particular emissions unit and which are indicators of the condition, operating rates and efficiencies. Such parameters may include, but shall not be limited to, the following indicators for:

1. Scrubbers

- Pressure drop, total
- Pressure drop, scrubber
- Pressure drop, mist eliminator
- Liquor feed rate
- Liquor feed composition and pH
- Liquor feed solids and undissolved solids contents
- Water makeup rate
- Fan(s) current at rated voltage
- Pump(s) current at rated voltage
- Gas flowrate
- Gas temperatures, inlet and outlet (minimum)

2. Baghouses

- Bag pressure drop
- Gas flowrate: direct method preferred; indirect method acceptable
- Air to cloth ratio
- Bag Weave
- Bag material
- Gas temperature, inlet and outlet
- Bag cleaning conditions:
 - Pulse: Air pressure
 - Shake: shaker motor current
 - Reverse: reverse air fan current
- Bag cleaning cycle:
 - Shake: duration, frequency, and delay periods
 - Reverse: duration, frequency, and delay periods

3. Electrostatic Precipitators. The following information shall be recorded unless otherwise agreed to by the Department:

- Primary voltage
- Primary current
- Secondary current
- Spark rate

Additional information, including but not limited to the following, may be required to be included as descriptive information in the operation and maintenance plan, but shall not be required to be recorded routinely unless the Department determines that a precipitator's ability to achieve compliance with applicable emission limiting standards is questionable:

- Secondary voltage
- Rapper frequency, plate

Rapper Vibrator frequency, wire
 Rapper duration, plate
 Rapper Vibrator duration, wire
 Gas temperature, inlet and outlet
 Estimated gas flowrate
 Static pressure

- (b) Control Equipment Data. The Operation and Maintenance plan shall include identification of control device(s) for each emissions unit subject to provisions of this section including but not limited to the following appropriate design specifications and other descriptive data:
 - 1. Manufacturer
 - 2. Model name and number
 - 3. Type: scrubber, baghouse, electrostatic precipitator, dry scrubber, etc.
 - 4. Design flow rate (liquid and/or gas)
 - 5. For EPS's: primary and secondary voltage and current
 - 6. Efficiency rating at design capacity
 - 7. Pressure drop
 - 8. Liquid to gas ratio
 - 9. Scrubbing liquor composition
- (c) Processing or Materials Handling Systems.
 - 1. Appropriate parameters of processing or materials handling systems provide a measure of the rate of operations. The operation and maintenance plan shall include performance parameters which indicate the rate of operation, process weight through-put, the fuel or other energy source, the materials being processed or other physical or chemical characteristics, as applicable. Such parameters may include, but shall not be limited to the following:
 - a. Weight per unit time of raw materials input;
 - b. Process temperature or pressure;
 - c. Fuel or fuel mixture;
 - d. Chemical or physical data on product or raw materials;
 - e. Air to fuel ratio or percent excess oxygen;
 - f. Electrical power use rate by auxiliary equipment.
 - 2. The plan shall contain inspection and maintenance schedules including periodic assessments of the condition of manholes ducting, breaching, hoods, conveyor and elevator housing, loading sheds and other equipment, and a schedule for recording of performance parameter data.
- (d) Fossil Fuel Steam Generators. The operation and maintenance plan for fossil fuel steam generators may include, but shall not be limited to, the following:
 - Steam flow
 - Fuel type (e.g., gas, oil, coal, or mixtures thereof)
 - Consumption rate for type(s) of fuel(s) burned
 - Fuel oil temperature (if applicable)
- (e) Records of inspection, maintenance and performance parameter data shall be retained for a minimum of two years and shall be made available to the Department upon request.

History: Formerly 17-2.650(2)(a)-(g); Formerly 17-296.700; Amended 11-23-94, 1-1-96.

62-296.700

	State Effective Date	Date Submitted to EPA	Federal Register Date	Federal Register Cite	Federal Effective Date
Original Reg	10/15/92	11/23/92	10/20/94	59 FR 52916	12/19/94
1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.701 Portland Cement Plants.

- (1) Applicability. The emission limitations set forth in Rule 62-296.701, F.A.C., shall apply to kilns and clinker coolers which are part of a Portland Cement Plant.
- (2) Emission Limitations.
 - (a) Kilns. No owner or operator of a Portland Cement kiln shall cause, permit, or allow the emission of particulate matter in excess of 0.50 pounds per ton to the kiln (dry basis, excluding fuel), or visible emissions the density of which is greater than 20 percent opacity.
 - (b) Clinker coolers. No owner or operator of a Portland Cement clinker cooler shall cause, permit, or allow the emission of particulate matter in excess of 0.25 pounds per ton of feed to the kiln (dry basis, excluding fuel), or visible emissions the density of which is greater than 20 percent opacity.
- (3) Alternate Emission Limitations.
 - (a) Applicability. The alternate emission limitations set forth in Rule 62-296.701(3)(b), F.A.C., shall apply to the Portland Cement plants located in Hillsborough County south of State Highway 60 in Tampa.
 - (b) Emission Limitations.
 - 1. Clinker Kilns - All Portland Cement Plants shall not cause, permit, or allow the emission of particulate matter from Clinker Kilns in excess of 95 lbs./hr. as determined by EPA Method 5 nor in excess of 40 lbs./hr. as determined by EPA Method 17, or visible emissions the density of which is greater than 20 percent opacity as measured using a certified in-stack transmissometer. When method 17 is used the stack temperature shall not exceed 500 degrees Fahrenheit.
 - 2. Clinker Coolers - All Portland Cement Plants shall not cause, permit, or allow the emission of particulate matter from Clinker Coolers in excess of 45 lbs/hr as determined by EPA Method 5, or visible emissions the density of which is greater than 20 percent opacity as determined by EPA Method 9.
- (4) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) For emissions units subject to the visible emissions standard in Rule 62-296.701(2), F.A.C., the test method shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) A transmissometer shall be used to determine compliance with the visible emission standard in Rule 62-296.701(3), F.A.C. The transmissometer shall be calibrated in accordance with Rule 62-297.520, F.A.C., and 40 CFR 60.13.
 - (c) The test method for particulate emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (d) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c); Amended 6-29-93; Formerly 17-296.701; Amended 11-23-94, 1-1-96.
62-296.701

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1 st Revision	06/29/93	07/02/93	04/14/94	59 FR 17696	06/13/94
2 nd Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.702 Fossil Fuel Steam Generators.

- (1) **Applicability.** The emission limitations set forth in Rule 62-296.702, F.A.C., shall apply to fossil fuel steam generating facilities including one or more boilers which individually or in combination have a heat input greater than or equal to 30 million British thermal units per hour.
- (2) **Emission Limitations.**
 - (a) **Particulate Matter.** No owner or operator of a fossil fuel steam generator shall cause, permit, or allow the emission of particulate matter in excess of 0.10 pounds per million BTU except as provided for in Rules 62-296.405 or 62-296.406, F.A.C., and Rule 62-210.700
 - (b) **Visible Emissions.** No owner or operator of a fossil fuel fire4 steam generator shall allow visible emissions the density of which is greater than 20 percent opacity except as provided for in Rule 62-210.700, F.A.C., Excess Emissions, and in Rule 62-296.405, F.A.C., for fossil-fuel steam generators with a heat input of greater than 250 million BTU per hour.
- (3) **Test Methods and Procedures.** All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated in accordance with Rule 62-297.520, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 17, EPA Method 5B, or EPA Method 5F, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with the filter temperature at no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrated compliance. EPA Method 3 or 3A with Orsat analysis shall be used when oxygen based F factor computed according to EPA Method 19 is used in lieu of heat input. Use Acetone wash with Method 5 or 17.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)2; Formerly 17-296.702; Amended 11-23-94, 1-1-96.
62-296.702

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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.703 Carbonaceous Fuel Burners.

- (1) Applicability. The emission limitations set forth in Rule 62-296.703, F.A.C., shall apply to Carbonaceous Fuel Burning Equipment that has a total heat input capacity of 30 million BTU's per hour or greater.
- (2) Emission Limitations.
 - (a) Particulate Matter. No owner or operator of Carbonaceous fuel burning equipment shall cause, permit, or allow the emission of particulate matter from such equipment in excess of 0.2 pounds per million BTU heat input of Carbonaceous fuel plus 0.1 pounds per million BTU heat input of fossil fuel.
 - (b) Visible Emissions. No owner or operator of carbonaceous fuel burning equipment shall cause, permit, or allow visible emissions the density of which is greater than 30 percent opacity.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. For EPA Method 5, the filter temperature may not exceed 320 degrees Fahrenheit.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)3; Formerly 17-296.703; Amended 11-23-94, 1-1-96.

62-296.703

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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.704 Asphalt Concrete Plants.

- (1) Applicability. The emission limitations set forth in Rule 62-296.704, F.A.C., shall apply to any facility used to manufacture asphalt concrete by heating and drying aggregate and mixing with asphalt cements, excluding unloading and storage of raw materials.
- (2) Emission Limitations. No owner or operator of an asphalt concrete plant shall cause, permit, or allow the emission of particulate matter in excess of 0.06 gr/dscf, or visible emissions the density of which is greater than 20 percent opacity.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5 or EPA Method 5A, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)4; Formerly 17-296.704; Amended 11-23-94, 1-1-96.

62-296.704

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1 st Revision	11/23/94	12/21/94	06/16/99	64 FR 32346	08/16/99

62-296.705 Phosphate Processing operations.

- (1) Applicability. The emission limitations set forth in Rule 62-296.705, F.A.C., shall apply to all unit operations and auxiliary equipment which are an integral part of the process used to manufacture the finished products specified in paragraphs (a) through (f) below, including reactors, dryers, coolers, concentrators, screens, elevators, conveyor belts, grinders, and other unit operations, which exist as part of the manufacturing system from the point of introduction of raw materials feed into the process to the point of discharge of the finished product to the storage materials handling system;
 - (a) Diammonium phosphate (DAP);
 - (b) Run of pile triple super phosphate (ROPTSP);
 - (c) Granular triple super phosphate (GTSP);
 - (d) Normal super phosphate (NSP);
 - (e) Monoammonium phosphate (MAP);
 - (f) Phosphate animal feed ingredient (AFI).
- (2) Emission Limitations.
 - (a) No owner or operator of a phosphate processing facility shall cause, permit or allow total emissions of particulate matter from the affected unit operations and auxiliary equipment in excess of 0.30 pounds per ton of product or visible emissions the density of which is greater than 20 percent opacity from the above listed operations ((a) through (f)).
 - (b) No owner or operator of a phosphate rock dryer or phosphate rock grinding operation which is not an integral part of the operations described in Rule 62-296.705(1)(a) through (f), F.A.C., shall cause, permit or allow total emissions of particulate matter from the dryer or grinder in excess of 0.20 lb/ton of products or visible emissions the density of which is greater than 20 percent opacity.
 - (c) No owner or operator of a concentrator which is part of a phosphate processing facility shall cause, permit or allow total emissions of particulate matter from the concentrator in excess of 15 pounds per hour or visible emissions the density of which is greater than 20 percent opacity.
 - (d) No owner or operator of a Diammonium Phosphate cooler producing less than 50 tons per hour of product shall cause, permit, or allow total emissions of particulate matter in excess of 0.60 pound per ton of product or visible emissions the density of which is greater than 20 percent opacity.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5 or EPA Method 5A, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)5; Formerly 17-296.705; Amended 11-23-94, 1-1-96.

62-296.705

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62-296.706 Glass Manufacturing Process.

- (1) Applicability. The emission limitations set forth in Rule 62-296.706, F.A.C., shall apply to glass melting furnaces producing container glass.
- (2) Emission limitations. No owner or operator of a glass melting furnace shall cause, permit, or allow emissions of particulate matter in excess of the following standards:
 - (a) Gas fired furnaces - 1.3 pounds per ton of glass produced.
 - (b) Oil fired furnaces - 1.5 pounds per ton of glass produced.
 - (c) Visible emissions 20 percent opacity.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5 or EPA Method 5A, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)6; Formerly 17-296.706; Amended 11-23-94, 1-1-96.

62-296.706

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62-296.707 Electric Arc Furnaces.

- (1) Applicability. The emission limitations set forth in Rule 62-296.707, F.A.C., shall apply to all furnaces that heat materials with electric arcs from carbon electrodes, including phosphorus electric arc furnaces.
- (2) Emission Limitations. No owner or operator of an electric arc furnace shall cause, permit, or allow emissions of particulate matter in excess of the following standards:
 - (a) Phosphorus electric arc furnaces - 0.035 gr/dscf or any visible emissions (greater than five percent opacity) from a control device, except during tapping periods. No visible emissions greater than 60 percent opacity shall be allowed during the tapping period.
 - (b) All other electric arc furnaces - 0.010 gr/dscf or any visible emissions (greater than five percent opacity) from a control device, except during charging and tapping periods. No visible emissions greater than 20 percent opacity shall be allowed from the shop during charging periods. No visible emissions greater than 40 percent opacity shall be allowed during tapping periods.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5 or EPA Method 5D, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)7; Formerly 17-296.707; Amended 11-23-94, 1-1-96.

62-296.707

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62-296.708 Sweat or Pot Furnaces.

- (1) Applicability. The emission limitations set forth in Rule 62-296.708, F.A.C., shall apply to indirectly heated furnaces which are temperature controlled for the differential melting of scrap or combined metal products or which melt metals for coating or reclamation.
- (2) Emission Limitations. No owner or operator of a sweat or pot furnace shall cause, permit, or allow emissions of particulate matter in excess of 0.05 gr/dscf, or visible emissions greater than 10 percent opacity.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)8; Formerly 17-296.708; Amended 11-23-94, 1-1-96.

62-296.708

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62-296.709 Lime Kilns.

- (1) Applicability. The emission limitations set forth in Rule 62-296.709, F.A.C., shall apply to all lime kilns associated with a kraft pulp mill.
- (2) Emission limitations. No owner or operator of a lime kiln shall cause, permit, or allow emissions of particulate matter in excess of that calculated by applying the formula $E = 3.59PO-62$ for each kiln, where E is the emission rate in pounds per hour for each and P is the process weight in tons per hour; or visible emissions greater than 10 percent opacity.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)9; Formerly 17-296.709; Amended 11-23-94, 1-1-96.

62-296.709

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62-296.710 Smelt Dissolving Tanks.

- (1) Applicability. The emission limitations set forth in Rule 62-296.710, F.A.C., shall apply to all smelt dissolving tanks associated with a kraft pulp mill.
- (2) Emission limitations. No owner or operator of a smelt dissolving tank shall cause, permit or allow emissions of particulate matter in excess of that calculated by applying the formula $E = 3.59P^{0.62}$ for each, where E is the emission rate in pounds per hour and P is the process weight in tons per hour; or visible emissions greater than 10 percent opacity.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)10; Formerly 17-296.710; Amended 11-23-94, 1-1-96.

62-296.710

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62-296.711 Materials Handling, Sizing, Screening, Crushing and Grinding operations.

- (1) Applicability. The emission limitations set forth in Rule 62-296.711, F.A.C., shall apply to the handling, sizing, screening, crushing, or grinding of the materials such as, but not limited to, cement, clinker, fly ash, coke, gypsum, shale, lime, sulfur, phosphatic materials, slag, and grain or grain products, including but not limited to the following types of operations:
 - (a) Loading or unloading of materials to or from such containers as railcars, trucks, ships, and storage structures;
 - (b) Conveyor systems other than portable conveyor systems;
 - (c) Storage of materials in storage structures, such as silos or enclosed bins, which have a storage capacity of fifty cubic yards or more;
 - (d) Crushing and/or grinding operations;
 - (e) Sizing and/or rescreening operations;
 - (f) Static drop transfer points where the discharge point and receiving point of the materials being handled are not moving in relationship to one another. The emission limitations set forth in Rule 62-296.711, F.A.C., shall not apply to emissions from materials handling, sizing, screening, crushing and grinding operations governed by Rule 62-296.705, F.A.C., Phosphate Process Operations or Rule 62-296.704, F.A.C., Asphalt Concrete Plants.
- (2) Emission Limitations.
 - (a) No owner or operator of an emissions unit governed by Rule 62-296.711, F.A.C., shall cause, permit, or allow any visible emissions (five percent opacity) from such emissions unit except that at the point where material is being discharged to the hold of a ship from a conveyor system. When the conveyor and/or hatch covering is moved, an opacity of 10 percent will be allowed.
 - (b) If, in order to comply with the requirements of paragraph (a) above, it is necessary to totally or partially enclose an operation and exhaust particulate laden gases through a vent or stack, emissions of particulate from such vent or stack shall not exceed 0.03 gr/dscf.
 - (c) An owner or operator may request the Department to determine that the emission standards of Rule 62-296.711(2)(a) and (b), F.A.C., do not constitute RACT for a facility. If the Department finds that the emission standards do not represent RACT, the Department shall make a determination of RACT for that facility.
- (3) Test Methods and Procedures. All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) A visible emissions test indicating no visible emissions (5 percent opacity) may be submitted in lieu of a particulate stack test for materials handling emissions units subject to this rule, where the emissions unit is equipped with a baghouse.
 - (d) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)11; Formerly 17-296.711; Amended 11-23-94, 1-1-96.

62-296.711

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62-296.712 Miscellaneous Manufacturing Process Operations.

- (1) **Applicability.** The emission limitations and other requirements of Rule 62-296.712, F.A.C., shall apply to miscellaneous manufacturing process operations for which a specific RACT emission limitation has not been established in Rules 62-296.401 through 62-296.415, F.A.C., or Rules 62-296.701 through Rule 62-296.711, F.A.C., including but not limited to such operations as heat treating furnaces, waste heat evaporators, corebaking ovens, mixing kettles, blast furnaces, puddling furnaces, dryers, stills, roasters, and all other methods or forms of manufacturing or processing which emit particulate matter.
- (2) **Emission Limitations.** No owner or operator of a miscellaneous manufacturing process operation shall cause, permit, or allow emissions of particulate matter in excess of 0.03 gr/dscf, or any visible emissions greater than 5 percent opacity. However the owner or operator may exceed these emission limits if he utilizes a pollution control device or system for control of particulate matter which has an actual particulate matter collection efficiency of at least 98 percent.
If Rule 62-296.712, F.A.C., is the least restrictive standard, the opacity standard for the emissions unit shall be the average opacity level achieved during the initial compliance* test which establishes compliance with the standard, plus 5 percent opacity.
- (3) **Test Methods and Procedures.** All emissions tests performed pursuant to the requirements of this rule shall comply with the following requirements.
 - (a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
 - (b) The test method for particulate matter emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
 - (c) A visible emissions test indicating no visible emissions (5 percent opacity) may be submitted in lieu of a particular stack test for materials handling emissions subject to this rule, where the emissions unit is equipped with a baghouse.
 - (d) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

History: Formerly 17-2.650(2)(c)12; Formerly 17-296.712; Amended 11-23-94, 1-1-96.

62-296.712

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