

b. 0.522 pounds per million BTU heat input if all liquid fossil fuel and natural gas fired steam generating boilers at the mill emit from a point between 160 and 232 feet above ground, or

c. 2.930 pounds per million BTU heat input if all liquid fossil fuel and natural gas fired steam generating boilers at the mill emit from a point 232 feet or more above ground.

3. From any spent sulfite liquor incinerator and evaporation plant emitting from a point 197 feet or more above ground, 1,682.00 pounds per hour and 35,184.00 pounds in any 24 hours.

4. From all pulp digesters emitting from a point 100 feet or more above ground, 300.00 pounds in any 3 hours and 1,365.00 pounds in any 24 hours.

5. From any air contact evaporator emitting from a point 35 feet or more above ground, 33.02 pounds per hour and 686.88 pounds in any 24 hours.

6. From any acid plant emitting from a point 99 feet or more above ground, 0.543 pounds per hour.

7. From all other sources, a total of 6.82 pounds per hour.

(b) When a source is subject to par.(a), the owner or operator shall meet the following deadlines in achieving compliance with the emission limitations of that paragraph:

1. Achieve compliance with par. (a) 1., 2., 3., 5., 6., and 7. by October 1, 1984 and so certify to the department before November 1, 1984.

2. Submit plans for achieving compliance with the emission limitations of par. (a) 4. before April 1, 1985.

3. Award contracts for physical alterations necessary to achieve compliance with par. (a) 4. before May 1, 1985.

4. Commence construction necessary to achieve compliance with par. (a) 4. before August 1, 1985.

5. Complete construction necessary to achieve compliance with par. (a) 4. before November 1, 1986.

6. Achieve compliance with the emission limitations of par. (a) 4. and so certify to the department before November 20, 1986.

(c) The owner or operator of a source subject to par. (a) shall prepare and maintain a compliance demonstration plan to assure continuous compliance with the emission limitations of that paragraph.

1. The plan shall be in writing, updated as needed, and shall include but need not be limited to:

a. The name of the individual responsible for compliance demonstration activities at the source.

b. A description of the stacks, vents, raw materials, fuels and other items or parameters which will be tested, monitored, sampled, analyzed or measured to determine that the source is in compliance with par. (a).

c. A description of the testing methods, monitoring techniques, sampling and analysis methods and measurements which will be used, including the types of equipment to be used and the frequency of testing, monitoring, sampling, analysis or measurement.

d. A description of the records which will be created and maintained, their retention time, and the periodic reports which will be submitted to the department to demonstrate that the emission limitations of par. (a) are being met.

e. A procedure for detecting and reporting upsets, malfunctions and other events which may result in the violation of an emission limitation or which may affect the quantity or quality of compliance demonstration data.

f. Other relevant information reasonably needed to demonstrate continuous compliance with the emission limitations of par. (a).

2. The plan shall be filed with the department before November 1, 1984. Subsequent revisions to the plan shall be filed within 10 days of their completion.

3. The department may order any owner or operator of a source subject to par. (a) to submit the plan required by this paragraph for review and approval. The department may amend the plan if deemed necessary to assure that continuous compliance is adequately demonstrated and to recognize changes in the economic or technological feasibility of different compliance demonstration methods.

4. No owner or operator may fail to carry out the plan required under this paragraph or as amended by the department under subd. 3.

5. Nothing in this paragraph precludes the department from exercising its authority to require reporting or recordkeeping in addition to that required by this paragraph or exempts the owner or operator of a source subject to par. (a) from any other requirements relating to proof of compliance.

(d) No owner or operator of a source subject to par. (a) may cause, allow or permit sulfur dioxide to be emitted from emission points lower than those which existed at the source on December 1, 1983, unless written permission has been granted by the department.

(11) STATEWIDE SULFUR DIOXIDE LIMITATIONS. (a) *Applicability*. This subsection applies to any direct source of sulfur dioxide, with the following exceptions:

1. Any direct source which is subject to emission limitations specified in sub. (2) or subs. (4) to (10); or

2. Any direct source which is subject to an emission limitation for sulfur dioxide, imposed by statute, rule, permit, order or plan approval, which is more restrictive than an emission limitation under par. (b) or (c).

(b) *Emission limits for existing sources*. Except as provided under par. (e) or (h), no person may cause, allow or permit sulfur dioxide to be emitted to the ambient air from any direct source constructed on or before

February 1, 1985, in amounts greater than those specified in this paragraph.

1. All steam generating units and other fuel burning equipment firing solid fossil fuel, alone or in combination with fuel burning equipment firing other fuels, at a facility which has a total heat input capacity on solid fossil fuel of greater than or equal to 250 million BTU per hour may not emit more than 3.2 pounds of sulfur dioxide per million BTU heat input to any stack.

2. Any steam generating unit or other fuel burning equipment firing solid fossil fuel at a facility which has a total heat input capacity on solid fossil fuel of less than 250 million BTU per hour may not emit more than 5.5 pounds of sulfur dioxide per million BTU heat input from the fuel burning equipment to any stack.

3. Any steam generating unit or other fuel burning equipment firing residual fuel oil at a facility which has a total heat input capacity on residual fuel oil of greater than or equal to 250 million BTU per hour may not emit more than 1.5 pounds of sulfur dioxide per million BTU heat input from the fuel burning equipment to any stack.

4. Any steam generating unit or other fuel burning equipment firing residual fuel oil at a facility which has a total heat input capacity on residual fuel oil of less than 250 million BTU per hour may not emit more than 3.0 pounds of sulfur dioxide per million BTU heat input from the fuel burning equipment to any stack.

5. Any kraft mill producing pulp may not emit more than 10.0 pounds of sulfur dioxide per ton of air dried unbleached pulp from all process sources at the kraft mill. Process sources do not include equipment which is combusting fossil fuel.

6. Any sulfite mill producing pulp may not emit more than 20.0 pounds of sulfur dioxide per ton of air dried unbleached pulp from all process sources at the sulfite mill. Process sources do not include equipment which is combusting fossil fuel.

7. Any petroleum refinery shall comply with the following emission limitations:

a. The sulfur dioxide emissions from any process heater firing residual fuel oil may not exceed 0.8 pounds of sulfur dioxide per million BTU heat input from the process heater.

b. The sulfur dioxide emissions from any fuel burning equipment firing residual fuel oil may not exceed 0.8 pounds of sulfur dioxide per million BTU heat input to any stack.

c. The sulfur dioxide emissions from any Claus sulfur recovery plant may not exceed 6,743 pounds of sulfur dioxide in any 24-hour period or 843 pounds of sulfur dioxide in any 3-hour period.

d. The sulfur dioxide emissions from all other process units may not exceed 1,035 pounds of sulfur dioxide in any 1-hour period.

(c) *Emission limits for new sources.* No person may cause, allow or permit sulfur dioxide to be emitted to the ambient air from any direct source

constructed after February 1, 1985 in amounts greater than those specified in this paragraph.

1. Any steam generating unit or other fuel burning equipment firing solid fossil fuel may not emit more than 3.2 pounds of sulfur dioxide per million BTU heat input from the fuel burning equipment to any stack.

2. Any steam generating unit or other fuel burning equipment firing residual fuel oil may not emit more than 1.5 pounds of sulfur dioxide per million BTU heat input from the fuel burning equipment to any stack.

3. Any kraft mill producing pulp may not emit more than 10.0 pounds of sulfur dioxide per ton of air dried unbleached pulp from all process sources at the kraft mill. Process sources do not include equipment which is combusting fossil fuel.

4. Any sulfite mill producing pulp may not emit more than 20.0 pounds of sulfur dioxide per ton of air dried unbleached pulp from all process sources at the sulfite mill. Process sources do not include equipment which is combusting fossil fuel.

5. Any petroleum refinery shall comply with the following emission limitations:

a. The sulfur dioxide emissions from any process heater firing residual fuel oil may not exceed 1.5 pounds of sulfur dioxide per million BTU heat input from the process heater.

b. The sulfur dioxide emissions from any fuel burning equipment firing residual fuel oil may not exceed 1.5 pounds of sulfur dioxide per million BTU heat input to any stack.

c. The sulfur dioxide emissions from any Claus sulfur recovery plant may not exceed:

1) 0.025% by volume of sulfur dioxide at zero percent oxygen on a dry basis, if emissions are controlled by an oxidation control system or a reduction control system followed by incineration; or

2) 0.030% by volume of reduced sulfur compounds and 0.0010% by volume of hydrogen sulfide calculated as sulfur dioxide at zero percent oxygen on a dry basis, if emissions are controlled by a reduction control system not followed by incineration.

(d) *More restrictive emission limits.* The department may require a source to meet a more restrictive emission limitation than an applicable emission limitation provided under par. (b) or (c) if the department determines that a more restrictive emission limitation is required to ensure that the source will not cause or exacerbate a violation of an ambient air quality standard or air increment for sulfur dioxide.

(e) *Alternate emission limits.* The department may grant an alternate emission limitation to a source which is subject to an emission limitation in par. (b) 1., 3., 5., 6., or 7. if the following conditions are met:

1. The owner or operator of the source submits a written request for an alternate emission limitation which outlines the specific conditions or special circumstances which prevent the source from complying with the

applicable emission limitation in par. (b) and which contains a proposed alternate emission limitation for the source.

2. The owner or operator of the source demonstrates that the proposed alternate emission limitation will not delay attainment or prevent maintenance of an ambient air quality standard for sulfur dioxide, as demonstrated by air quality modeling acceptable to the department.

3. If the source is subject to the emission limitation in par. (b) 1. or 3., the proposed alternate emission limitation may not exceed 5.5 pounds of sulfur dioxide per million BTU heat input for any fuel burning equipment firing solid fossil fuel; or 3.0 pounds of sulfur dioxide per million BTU heat input for any fuel burning equipment firing residual fuel oil.

The alternate emission limitation of 5.5 pounds of sulfur dioxide per million BTU heat input for solid fossil fuel burning equipment may be calculated on a 30-day rolling average for a source, if there is one or more other sulfur dioxide emission limitations applicable to the source which would assure the attainment and maintenance of the ambient air quality standards for sulfur dioxide.

4. The owner or operator of the source demonstrates that there is a substantial cost difference between the costs required for the source's compliance with the applicable emission limitation in par. (b) and the costs required for the source's compliance with the proposed alternate emission limitation.

5. The owner or operator of the source demonstrates that the ambient air quality impact of the emissions from the source while emitting at the proposed alternate emission limitation, when added to the background concentration of sulfur dioxide in the vicinity of the source, does not exceed 75% of the ambient air quality standards for sulfur dioxide. In calculating the 75% figure, sulfur dioxide emissions from sources which are regulated under ch. NR 440 shall not be considered. The condition in this subdivision may be waived by the department if a public hearing is held on the proposed alternate emission limitation and the public comments on the proposed alternate emission limitation indicate that there is no significant opposition to waiving this condition.

6. The proposed alternate emission limitation will not result in an increase in the annual emissions of sulfur dioxide from the source when comparing the source's projected annual emissions under the proposed alternate emission limitation with the source's actual annual emissions of sulfur dioxide, either in terms of the highest total tons of sulfur dioxide per calendar year or in terms of the highest annual average emission rate, as expressed in pounds of sulfur dioxide per million BTU, for calendar years 1979 to 1983. This condition does not apply to a source which is authorized by statute to increase its annual emissions of sulfur dioxide or to a major utility which is subject to s. 144.385, Stats.

7. The owner or operator of the source submits an application for and receives an elective operation permit or a modification to an operation permit for the source.

(f) *Compliance schedules.* 1. When a source is subject to the emission limitations of par. (b), the owner or operator shall meet the following deadlines in achieving compliance with those emission limitations:

a. Submit plans for achieving compliance on or before July 1, 1985;

b. Award any necessary contracts on or before October 1, 1985;

c. If physical alteration of the source is necessary to achieve compliance, commence construction on or before May 1, 1986 and complete construction on or before October 1, 1987;

d. If only fuel modification or switching is necessary to achieve compliance, commence operation using new fuel on or before October 1, 1986;

e. Achieve final compliance with the applicable emission limitation in par. (b) and so certify to the department on or before December 31, 1987.

2. If the owner or operator of a source subject to the emission limitations of par. (b) requests an alternate emission limitation under par. (e), the owner or operator shall meet the following deadlines:

a. Submit request for alternate emission limitation under par. (e) on or before March 1, 1985;

b. Submit plans for achieving compliance with the applicable emission limitation on or before December 31, 1985;

c. Award any necessary contracts on or before February 1, 1986;

d. If physical alteration of the source is necessary to achieve compliance, commence construction on or before May 1, 1986 and complete construction on or before October 1, 1987;

e. If only fuel modification or switching is necessary to achieve compliance, commence operation using new fuel on or before January 1, 1987;

f. Achieve final compliance with the applicable emission limitation and so certify to the department on or before December 31, 1987.

3. If the owner or operator of a source requests an alternate emission limitation under par. (e) and the department does not grant the request, the owner or operator of the source shall meet the following deadlines:

a. Submit plans for achieving compliance on or before September 1, 1985;

b. Award any necessary contracts on or before December 1, 1985;

c. If physical alteration of the source is necessary to achieve compliance, commence construction on or before May 1, 1986 and complete construction on or before October 1, 1987.

d. If only fuel modification or switching is necessary to achieve compliance, commence operation using new fuel on or before October 1, 1986;

e. Achieve final compliance with the applicable emission limitation in par. (b) and so certify to the department on or before December 31, 1987.

4. The department shall notify the owner or operator of a source which requests an alternate emission limit under par. (e) or submits a compli-

ance plan under subd. 1.a., 2.b. or 3.a. whether the request is granted or the plan is approved not later than 55 business days after the department receives the request or submittal.

(g) *Compliance demonstrations.* 1. For purposes of determining compliance with the emission limitations of par. (b) or the alternate emission limitations of par. (e), the owner or operator of the source shall outline the specific methods for demonstrating compliance with the emission limitations, to the satisfaction of the department, in the compliance plans submitted under par. (e) 1.a., 2.b., or 3.a. The compliance demonstrations shall consist of one or more of the following:

a. Installation, calibration, maintenance and operation of a continuous emission monitor, utilizing equipment and procedures reviewed and approved by the department.

b. Collection and analysis of fuel used, utilizing equipment and procedures reviewed and approved by the department;

c. Stack emissions testing, utilizing equipment and procedures reviewed and approved by the department; and

d. Other appropriate methods reviewed and approved by the department.

2. An owner or operator of a source subject to the emission limitations of par. (b) or the alternate emission limitations of par. (e), shall maintain complete records of emissions data and calculations used to verify emissions data at the premises of the source and shall make such records available for inspection upon request by authorized representatives of the department during regular business hours.

(h) *Variance from emission limits.* 1. The department may grant a source-specific variance from an emission limitation provided in par. (b), an alternate emission limitation authorized under par. (e) or a compliance schedule in par. (f) if compliance with the emission limitations of pars. (b) and (e) or the compliance schedule of par. (f) are shown to be technologically or economically infeasible. A variance may be granted, by setting alternate emission limitations or alternate compliance schedules, or both, provided that:

a. The variance will not delay attainment or prevent maintenance of an ambient air quality standard for sulfur dioxide, as determined by methods acceptable to the department;

b. The owner or operator of the source for which a variance is requested demonstrates that all direct or portable sources owned or operated in the state by such person are in compliance with all applicable requirements of this chapter or are on a schedule for complying with such requirements.

c. The owner or operator submits to the department on or before December 31, 1985 a request for a source-specific variance which demonstrates, to the department's satisfaction, that compliance with the applicable emission limitation or compliance schedule from which a variance is sought is technologically or economically infeasible.

2. A request for a source-specific variance under this paragraph shall be signed by the principal executive officer, sole proprietor, principal gov-

ernmental executive or elected official or a duly authorized representative of the source and shall contain the following information:

a. The specific conditions or special circumstances which make compliance with the applicable emission limitation or compliance schedule by the source technologically or economically infeasible.

b. If a variance from an emission limitation is sought, the owner or operator shall submit proposed emission limitations.

c. If a variance from a compliance schedule is sought, the owner or operator shall submit a proposed compliance schedule which demonstrates reasonable further progress toward final compliance and contains a date for final compliance as soon as practicable.

d. Other relevant information as required by the department.

3. The department, in acting upon any request for a variance under this paragraph, shall:

a. Act on a request for a variance within 65 business days of the filing of a completed request;

b. Offer, through public notice, the opportunity for public comments including, if requested, a public hearing.

c. State in writing the reasons for denying, or granting, or for granting in modified form, any request for a variance.

4. The department may, after notice and opportunity for hearing, revoke or modify any variance if:

a. Any term or condition of the variance has been violated;

b. Changes in ambient air quality indicate that the source has a significant adverse impact on the attainment or maintenance of any ambient air quality standard for sulfur dioxide; or

c. The owner or operator did not act in good faith in demonstrating the technological or economic infeasibility of compliance with the applicable emission limitation or compliance schedule or in submitting other relevant information in support of the variance request.

(i) *Subsequent requests for alternate limits or variances.* If the owner or operator of a source subject to the emission limitations of par. (b) does not request an alternate emission under par. (e) on or before March 1, 1985, or source-specific variance under par. (h) on or before December 31, 1985, the source shall comply with the emission limitations of par. (b) and may not request an alternate emission limitation or a source-specific variance prior to January 1, 1988.

History: Cr. Register, March, 1972, No. 195, eff. 4-1-72; cr. (3), Register, June, 1975, No. 234, eff. 7-1-75; cr. (2) (c), Register, April, 1976, No. 244, eff. 5-1-76; cr. (5), Register, November, 1979, No. 287, eff. 12-1-79; cr. (4), Register, January, 1980, No. 289, eff. 2-1-80; am. (4) (a), Register, December, 1982, No. 324, eff. 1-1-83; cr. (6), Register, November, 1983, No. 335, eff. 12-1-83; cr. (7), Register, January, 1984, No. 337, eff. 2-1-84; cr. (8), Register, September, 1984, No. 345, eff. 10-1-84; correction in (7) (d) 5. made under s. 13.93 (2m) (b) 6, Stats., correction in (8) (a) (intro.), (b) 1. and 2. and (c) 2., made under s. 13.93 (2m) (b) 14, Stats., Register, September, 1984, No. 345; cr. (11), Register, January, 1985, No. 349, eff. 2-1-85.



**NR 154.13 Control of organic compound emissions.** (1) **GENERAL LIMITATIONS.** (a) No person shall cause, allow or permit organic compound emissions into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution.

(b) No person shall cause, allow or permit organic compounds to be used or handled without using good operating practices and taking reasonable precautions to prevent the spillage, escape or emission of organic compounds, solvents or mixtures. Such precautions shall include, but are not limited to:

1. Use of caution to prevent spillage or leakage when filling tanks, trucks or trailers.
2. Use of caution when filling automobile tanks to prevent spillage.

(c) *Disposal of VOC wastes.* 1. Effective August 1, 1979, no person shall cause, allow, or permit the disposal of more than 5.7 liters (1.5 gallons) of any liquid VOC waste, or of any liquid, semisolid or solid waste materials containing more than 5.7 liters (1.5 gallons) of any VOC, in any one day from a facility in a manner that would permit their evaporation into the ambient air during the ozone season. This includes, but is not limited to, the disposal of VOC which must be removed from VOC control devices so as to maintain the control devices at their required operating efficiency.

2. Disposal during the ozone season shall be by methods approved by the department, such as incineration, recovery for reuse, or transfer in closed containers to an acceptable disposal facility, such that the quantity of VOC which evaporates into the ambient air does not exceed 15% (by weight) or 5.7 liters (1.5 gallons) in any one day, whichever is larger.

(2) **STORAGE OF ORGANIC COMPOUNDS.** (a) *Storage of petroleum liquids.* 1. Applicability. a. The storage, monitoring and maintenance requirements of subds. 2., 3. and 4. apply to all storage vessels for petroleum liquids of more than 151,412 liter (40,000 gallon) capacity on which construction or modification is commenced after July 1, 1975, with the exception of:

1) Storage vessels being used for number 2 through number 6 fuel oils as specified in ASTM-D-396-73, gas turbine fuel oils numbers 2-GT through 4-GT as specified in ASTM-D-2880-71, or diesel fuel oils numbers 2-D and 4-D as specified in ASTM-D975-73.

Note: See American Society for Testing and Materials, Part 17, 1973. Copies of applicable standards from Part 17; Petroleum Products - Fuels, Solvents, Burner Fuel Oils, Lubricating Oils, Cutting Oils, Lubricating Greases, Hydraulic Fluids; are available for inspection at the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin, and may be obtained for personal use from ASTM, 1916 Race Street, Philadelphia, PA 19103.

2) Storage vessels for the crude petroleum or condensate stored, processed or treated at a drilling and production facility outside a standard metropolitan statistical area prior to custody transfer.

3) Pressure vessels which are designed to operate at pressures in excess of 104 kPa (15 psig) without emissions except under emergency conditions.

4) Subsurface caverns or porous rock reservoirs.

5) Underground tanks if the total volume of petroleum liquids added to and taken from a tank annually does not exceed twice the volume of the tank.

b. Effective July 1, 1980, the maintenance requirements of subd. 4. apply to all storage vessels for petroleum liquids of more than 7,571 liter (2,000 gallon) capacity.

c. Effective August 1, 1979, subd. 5. applies, subject to the provisions of sub. (12), to all fixed roof storage vessels with capacities greater than 151,412 liters (40,000 gallons) with the exception of those having capacities less than 1,600,000 liters (416,000 gallons) used to store crude petroleum and condensate prior to custody transfer.

d. Effective April 1, 1981, subd. 6. applies, subject to the provisions of sub. (12) (d) or (e), to all storage vessels equipped with external floating roofs having capacities greater than 151,412 liters (40,000 gallons) with the exception of:

1) Storage vessels having capacities less than 1,500,000 liters (396,270 gallons) used to store crude petroleum and condensate prior to custody transfer.

2) Storage vessels used to store waxy, heavy pour crude petroleum.

3) Storage vessels used solely for petroleum liquids with a true vapor pressure of less than 10.5 kPa (1.52 psia).

4) Storage vessels used solely for petroleum liquids with a true vapor pressure of less than 27.6 kPa (4.0 psia), and which are of welded construction, and presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or equally effective alternative control, approved by the department.

5) Storage vessels of welded construction, equipped with metallic-type shoe primary seal which has a secondary seal from the top of the shoe seal to the tank wall.

e. Effective April 1, 1981, subd. 7. applies to all storage vessels with capacities greater than 151,412 liters (40,000 gallons) equipped with external floating roofs without secondary seals or their approved equivalent.

2. Storage requirements. The owner or operator of any storage vessel to which this subdivision applies shall store petroleum liquids as follows:

**Next page is numbered 623**