

Chapter NR 484

INCORPORATION BY REFERENCE

NR 484.01	Applicability; purpose	NR 484.06	Code of federal regulations and other materials in ch. NR 439
NR 484.02	Definitions	NR 484.08	Code of federal regulations in chs. NR 445 to 483
NR 484.03	Code of federal regulations in chs. NR 400 and 404	NR 484.09	Other materials in chs. NR 445 to 483
NR 484.05	Code of federal regulations and other materials in chs. NR 419 to 438		

NR 484.01 Applicability; purpose. (1) **APPLICABILITY.** This chapter applies to all air contaminant sources governed by chs. NR 400 to 499 and to their owners or operators.

(2) **PURPOSE.** This chapter is adopted under s. 144.31, Stats., to incorporate testing, monitoring and other technical standards, established by the federal government and technical societies and organizations, by reference into chs. 400 to 499.

History: Cr. Register, September, 1986, No. 369, eff. 10-1-86; am. Register, September, 1987, No. 381, eff. 10-1-87; am. Register, February, 1990, No. 410, eff. 3-1-90.

NR 484.02 Definitions. The definitions contained in ch. NR 400 apply to the terms used in this chapter.

History: Cr. Register, September, 1986, No. 369, eff. 10-1-86.

NR 484.03 Code of federal regulations and other materials in chs. NR 400 to 404. The federal regulations or appendix materials in effect on June 30, 1988 and other materials listed in this section are incorporated by reference for the corresponding sections of chs. NR 400 to 404. Copies of these materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use from the superintendent of documents, U.S. government printing office, Washington, D.C. 20402, or from the organization listed in the applicable subsection.

(1) Appendix A of 40 C.F.R. part 60 for s. NR 400.02 (77).

(2) Appendix B of 40 C.F.R. part 50 for s. NR 404.02 (11).

(3) Appendices A to K of 40 C.F.R. part 50 for ss. NR 404.02 (8) and 404.04 (5) and (8) (b) 3.

(4) Appendix J of 40 C.F.R. part 50 for s. NR 404.02 (4m).

(5) 40 C.F.R. part 53 for s. NR 404.02 (4m).

(6) ASTM D396-89a, Specification for Fuel Oils, for s. NR 400.02 (80). Copies of this document may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

History: Cr. Register, December, 1988, No. 396, eff. 1-1-89; am. (3), Register, September, 1989, No. 405, eff. 10-1-89; renum. from NR 484.06, Register, February, 1990, No. 410, eff. 3-1-90; am. (intro.) and (3), cr. (6), Register, August, 1991, No. 428, eff. 9-1-91.

NR 484.04 Code of federal regulations and other materials in chs. NR 405 to 418. The federal regulations or appendix materials in effect on July 1, 1988 and other materials listed in this section are incorporated by reference for the corresponding sections of chs. 405 to 418. Copies of these

Register, August, 1991, No. 428

materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use at the address noted in the corresponding subsection.

(1) The code of federal regulations documents listed in this subsection may be purchased from the superintendent of documents, U.S. government printing office, Washington D.C. 20402.

(a) Section IV, Appendix S of 40 C.F.R. part 51 for s. NR 405.11 (1) (e).

(b) Appendix B of 40 C.F.R. part 58 for s. NR 405.11 (3).

(2) Standard Industrial Classification Code Manual, 1972, as amended by the 1977 Supplement (U.S. government printing office stock numbers 4101-0066 and 003-005-00176-0, respectively) for s. NR 407.04 (1) (a). The SIC Code Manual and Supplement may be purchased from the superintendent of documents, U.S. government printing office, Washington D.C. 20402.

(3) Fundamentals of Smoke Abatement, December, 1950, Ringlemann Chart, Information Circular 7588, U.S. bureau of mines, for s. NR 415.02 (7). Copies may be obtained from the U.S. department of interior, Washington, D.C. 20240.

(4) The following materials may be purchased from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(a) Guidelines on Air Quality Models (Revised) (OAQPS 1.2-080, U.S. environmental protection agency, office of air quality planning and standards, Research Triangle Park, N.C. 27711, July 1986) for s. NR 405.10 (1).

(b) Workbook for the Comparison of Air Quality Models (U.S. environmental protection agency, office of air quality planning and standards, Research Triangle Park, N.C. 27711, May 1978) for s. NR 405.10 (5).

(c) Federal Information Processing Standards Publication 8-5, 1984 October 31, Metropolitan Statistical Areas (including CMSAs, PMSAs, and NECMAs), U.S. department of commerce, national bureau of standards, for s. NR 406.02 (3).

(5) ASME standard number APS-1, second edition, November, 1968, copyright 1969, for ss. NR 415.06 (1) (a), (b) and (c) 1. and 417.04. Copies of standard number APS-1 may be obtained from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017.

(6) ASTM C136-76, Standard Method for Sieve Analysis of Fine and Coarse Aggregates, for s. NR 415.02 (9). Copies may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(7) United States of America Standards Institute standard Z21.6, USA Standard Approval Requirements for Domestic Gas-Fired Incinerators, December 28, 1966, copyright 1967, for s. NR 415.07 (1) (b) 2. and (2) (a) 4. Copies of this standard may be obtained from the American Register, August, 1991, No. 428

Gas Association Laboratories, 8501 East Pleasant Valley Road, Cleveland, OH 44131.

History: Cr. Register, August, 1991, No. 428, eff. 9-1-91.

NR 484.05 Code of federal regulations and other materials in chs. NR 419 to 438. The federal regulations or appendix materials in effect on July 1, 1988 and other materials listed in this section are incorporated by reference in the corresponding sections of chs. NR 419 to 438. Copies of these materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use from the superintendent of documents, U.S. government printing office, Washington, D.C. 20402, or from the organization listed in the applicable subsection.

(1) Test Method 21 in Appendix A of 40 C.F.R. part 60 is incorporated by reference in ss. NR 421.02 (12m), 421.05 (2) (e) and 421.06 (2) (e).

(2) National Bureau of Standards, Voluntary Product Standard PS-59-73, Prefinished Hardwood Paneling, for s. NR 422.02 (7). Copies of this document may be obtained from the National Institute of Standards and Technology, Quince Orchard and Clopper Roads, Gaithersburg, MD 20899.

(3) Recommended Industrial Ventilation Guidelines, U.S. department of health, education and welfare, national institute of occupational safety and health, 1976, for s. NR 421.04 (3) (c) 2. Copies may be obtained as PB-266 227 from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

(4) Industrial Ventilation: A Manual of Recommended Practice, 14th ed., American Conference of Governmental Industrial Hygienists, 1976, for s. NR 421.04 (3) (c) 1. Copies may be obtained from the American Conference of Governmental Industrial Hygienists, Committee on Industrial Ventilation, P.O. Box 16153, Lansing, MI 48901.

(5) The Architectural Aluminum Manufacturer's Association publication number AAMA 605.2-1985 is incorporated by reference in s. NR 422.02 (21m). The publication may be purchased for personal use from the Architectural Aluminum Manufacturer's Association, 2700 River Road, Suite 118, Des Plaines, IL 60018.

(6) American Petroleum Institute, Bulletin 2517, Evaporation Loss from Floating Roof Tanks, February, 1962 for s. NR 420.03 (3) (c). Copies may be obtained from the American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.

(7) The following materials may be purchased from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(a) ASTM D396-73, Specification for Fuel Oils, for s. NR 420.03 (1) (a).

(b) ASTM D975-73, Specification for Diesel Fuel Oils, for s. NR 420.03 (1) (a).

(c) ASTM D2880-71, Specification for Gas Turbine Fuel Oils, for s. NR 420.03 (1) (a).

History: Cr. (intro.) and (1), (2) renum. from NR 484.03 (2) and am. Register, February, 1990, No. 410, eff. 3-1-90; cr. (2) to (4), (6) and (7), renum. (2) to be (5), Register, August, 1991, No. 428, eff. 9-1-91.

NR 484.06 Code of federal regulations and other materials in ch. NR 439. (1) APPENDICES OF 40 C.F.R. PART 60. Appendices A and B and test methods in the appendices of 40 C.F.R. part 60 as in effect on October 31, 1986, which are listed in this section are incorporated by reference in the corresponding sections of ch. NR 439. Copies of these appendices are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin, or may be purchased for personal use from the superintendent of documents, U.S. government printing office, Washington, D.C. 20402.

(a) Appendix A of 40 C.F.R. part 60 for s. NR 439.07 (1) (a).

(b) Appendix B of 40 C.F.R. part 60 for ss. NR 439.06 (2) (b), (4) (b), (6) (b), (7) (b) and (9) (a) 2. and 439.075 (3) (f).

(c) Test Method 1, Appendix A of 40 C.F.R. part 60 for s. NR 439.07 (1) (h) 8. and 9.

(d) Test Method 2, Appendix A of 40 C.F.R. part 60 for s. NR 439.07 (1) (h) 9.

(e) Test Method 3, Appendix A of 40 C.F.R. part 60 for s. NR 439.07 (1) (h) 7. and 9.

(f) Test Method 3A, Appendix A of 40 C.F.R. part 60 for s. NR 439.07 (1) (h) 7.

(g) Test Method 4, Appendix A of 40 C.F.R. part 60 for s. NR 439.07 (1) (h) 9.

(h) Test Method 5, Appendix A of 40 C.F.R. part 60 for ss. NR 439.06 (1) and 439.07 (1) (h) 14.

(i) Test Method 5A, Appendix A of 40 C.F.R. part 60 for s. NR 439.06(1).

(j) Test Method 5D, Appendix A of 40 C.F.R. part 60 for s. NR 439.06(1).

(k) Test Method 6, Appendix A of 40 C.F.R. part 60 for ss. NR 439.06 (2) (a) and 439.07 (1) (h) 10.

(l) Test Method 6A, Appendix A of 40 C.F.R. part 60 for ss. NR 439.06 (2) (a) and 439.07 (1) (h) 10.

(m) Test Method 6B, Appendix A of 40 C.F.R. part 60 for ss. NR 439.06 (2) (a) and 439.07 (1) (h) 11.

(n) Test Method 6C, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (2) (a).

(o) Test Method 7, Appendix A of 40 C.F.R. part 60 for ss. NR 439.06 (6) (a) and 439.07 (1) (h) 13.

(p) Test Method 7A, Appendix A of 40 C.F.R. part 60 for ss. NR 439.06 (6) (a) and 439.07 (1) (h) 13.

- (q) Test Method 7B, Appendix A of 40 C.F.R. part 60 for ss. NR 439.06 (6) (a) and 439.07 (1) (h) 13.
- (r) Test Method 7C, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (6) (a).
- (s) Test Method 7D, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (6) (a).
- (t) Test Method 7E, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (6) (a).
- (u) Test Method 8, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (2) (a).
- (v) Test Method 9, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (9) (a) 1.
- (w) Test Method 10, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (4) (a).
- (x) Test Method 12, Appendix A of 40 C.F.R. part 60 for s. NR 439.06(5).
- (y) Test Method 16, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (7) (a).
- (z) Test Method 16A, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (7) (a).
- (za) Test Method 17, Appendix A of 40 C.F.R. part 60 for ss. NR 439.06 (1) and 439.07 (1) (h) 5. and 14.
- (zb) Test Method 18, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (3) (a).
- (zc) Test Method 19, Appendix A of 40 C.F.R. part 60 for s. NR 439.07 (1) (h) 6. and 7.
- (zd) Test Method 21, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (3) (c).
- (ze) Test Method 22, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (9) (b).
- (zf) Test Method 24, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (3) (b).
- (zg) Test Method 24A, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (3) (b).
- (zh) Test Method 25, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (3) (a).
- (zi) Test Method 25A, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (3) (a).
- (zj) Test Method 25B, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (3) (a).
- (zk) Test method 27, Appendix A of 40 C.F.R. part 60 for s. NR 439.06 (3) (d).

(zl) Performance Specification 1, Appendix B of 40 C.F.R. part 60 for s. NR 439.07 (3) (a).

(zm) Performance Specification 2, Appendix B of 40 C.F.R. part 60 for s. NR 439.07 (3) (b).

(zn) Performance Specification 3, Appendix B of 40 C.F.R. part 60 for s. NR 439.07 (3) (c).

(zo) Performance Specification 4, Appendix B of 40 C.F.R. part 60 for s. NR 439.07 (3) (d).

(zp) Performance Specification 5, Appendix B of 40 C.F.R. part 60 for s. NR 439.07 (3) (e).

(2) OTHER MATERIALS. The materials listed in this subsection are incorporated by reference in the corresponding sections noted. Some of the materials are also incorporated in Appendix A or B of 40 C.F.R. part 60 as in effect on October 31, 1986. Since these Appendices are incorporated by reference in this chapter by sub. (1), materials listed in this subsection which are incorporated by reference in the Appendices are hereby also incorporated by reference and made a part of this chapter and ch. NR 439. The materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use at one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, Pennsylvania 19103; or the University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

(a) ASTM D129-64 (1978), Standard Test Method for Sulfur in Petroleum Products, for 40 C.F.R. part 60, Appendix A, Method 19, par. 2.2.3 and for s. NR 439.07 (2) (b) 2.

(b) ASTM D240-76, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, for 40 C.F.R. part 60, Appendix A, Method 19, pars. 2.2.3. and 5.2.2 and for s. NR 439.07 (2) (b) 3.

(c) ASTM D1193-77, Standard Specification for Reagent Water, for 40 C.F.R. part 60, Appendix A, Method 6, par. 3.1.1., Method 7, par. 3.2.2., Method 7A, par. 3.2., Method 7C, par. 3.1.1., Method 7D, par. 3.1.1., Method 8, par. 3.1.3., Method 11, par. 6.1.3., Method 12, par. 4.1.3., and Method 13A, par. 6.1.2.

(d) ASTM D1475-60 (1980), Standard Test Method for Density of Paint, Varnish, Lacquer, and Related Products, for 40 C.F.R. part 60, Appendix A, Method 24, par. 2.1. and Method 24A, pars. 2.2. and 2.3.

(e) ASTM D1826-77, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, for 40 C.F.R. part 60, Appendix A, Method 19, par. 5.2.2.

(f) ASTM D2013-72, Standard Method for Preparing Coal Samples for Analysis, for 40 C.F.R. part 60, Appendix A, Method 19, par. 2.1.3 and for s. NR 439.07 (2) (a) 2.

(g) ASTM D2015-77, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, for 40 C.F.R. part 60, Register, August, 1991, No. 428

Appendix A, Method 19, pars. 2.1.3. and 5.2.2. and for s. NR 439.07 (2) (a) 4.

(h) ASTM D2234-76, Standard Methods for Collection of a Gross Sample of Coal, for 40 C.F.R. part 60, Appendix A, Method 19, par. 2.1.1. and for ss. NR 439.07 (2) (a) 1. and 439.075 (2) (b) 1.a., 2.a. and 3.a.

(i) ASTM D2369-81, Standard Test Method for Volatile Content of Coatings, for 40 C.F.R. part 60, Appendix A, Method 24, par. 2.2.

(j) ASTM D2986-71 (1978), Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, for 40 C.F.R. part 60, Appendix A, Method 5, par. 3.1.1., Method 12, par. 4.1.1., Method 13A, par. 6.1.1.2., and Method 17, par. 3.1.1.

(k) ASTM D3173-73, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, for 40 C.F.R. part 60, Appendix A, Method 19, par. 2.1.3. and for s. NR 439.07 (2) (a) 6.

(l) ASTM D3174-82, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal, for s. NR 439.07 (2) (a) 5.

(m) ASTM D3176-84, Method for Ultimate Analysis of Coal and Coke, for s. NR 439.07 (2) (a) 7.

(n) ASTM D3177-75, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke, for 40 C.F.R. part 60, Appendix A, Method 19, par. 2.1.3. and for s. NR 439.07 (2) (a) 3.

(o) ASTM D3792-79, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, for 40 C.F.R. part 60, Appendix A, Method 24, par. 2.3.

(p) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, for 40 C.F.R. part 60, Appendix A, Method 24, par. 2.4.

(q) ASTM D4057-81, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, for s. NR 439.07 (2) (b) 1.

(r) ASTM D4177-82, Standard Method for Automatic Sampling of Petroleum and Petroleum Products, for s. NR 439.07 (2) (b) 1.

(s) ASTM D4239-83, Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, for 40 C.F.R. part 60, Appendix A, Method 19, par. 2.1.3. and for s. NR 439.07 (2) (a) 3.

(t) ASTM D4294-83, Standard Test Method for Sulfur in Petroleum Products by Non-Dispersive X-Ray Fluorescence Spectrometry, for s. NR 439.07 (2) (b) 2.

History: Cr. Register, September, 1987, No. 381, eff. 10-1-87; renum. from NR 484.04 and am. (1) (b) and (2) (c), cr. (1) (zp), Register, February, 1990, No. 410, eff. 3-1-90; renum. (1) (zk) to (zp) to be (zl) to (zp) and (zk), renum. (2) (a) to (t) to be (j), (c), (h), (f), (n), (s), (k), (g), (l), (q), (r), (b), (a), (t), (e), (d), (i), (o), (p) and (m), and am. (c), (l) and (t), Register, August, 1991, No. 428, eff. 9-1-91.

NR 484.08 Code of federal regulations in chs. NR 445 to 483. The federal regulations or appendix materials in effect on June 30, 1983 listed in this section are incorporated by reference in the corresponding sections of

Register, August, 1991, No. 428

chs. NR 445 to 483. Copies of these materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use from the superintendent of documents, U.S. government printing office, Washington D.C. 20402.

(1) Appendix B of 40 C.F.R. part 61 for s. NR 445.02 (9m) and chs. NR 446 to 483.

(2) Test Method 3, Appendix A of 40 C.F.R. part 60 for s. NR 449.09 (6) (a) 3.

(3) Test Method 5, Appendix A of 40 C.F.R. part 60 for Test Method 101, Appendix B, 40 C.F.R. part 61.

(4) 29 C.F.R. s. 1910.145 (d) (4) for ss. NR 447.14 (2) (a) 2. and 447.17 (2) (a) 2.

(5) 29 C.F.R. s. 1910.1001 (j) (2) (ii) for s. NR 447.13 (2) (a) 4.

History: Renum. from NR 154.19 (7) (a) and am. Register, September, 1986, No. 369, eff. 10-1-86; am. (1), Register, December, 1988, No. 396, eff. 1-1-89; renum. from NR 484.025 and am. (intro.), (4) and (5), Register, February, 1990, No. 410, eff. 3-1-90.

NR 484.09 Other materials in chs. NR 445 to 483. The materials listed in this section are incorporated by reference in the corresponding sections noted. Some of the materials are also incorporated in Appendix B of 40 C.F.R. part 61 as in effect on June 30, 1983. Since Appendix B is incorporated by reference in s. NR 484.08, materials incorporated by reference in that Appendix are hereby also incorporated by reference and made a part of this section. The materials are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin or may be purchased for personal use at the corresponding address noted.

(1) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, Pennsylvania 19103, or the University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

(a) ASTM D737-75, Standard Test Method for Air Permeability of Textile Fabrics, for s. NR 447.15 (1) (a) 2.

(b) ASTM D1193-74, Standard Specifications for Type I Reagent Water, for 40 C.F.R. part 61, Appendix B, Method 101, par. 6.1.1.

(c) ASTM D2986-71 (Reapproved 1978), Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, for 40 C.F.R. part 60, Appendix A, Method 5, par. 3.1.1.

(2) The threshold limit values and biological exposure indices for 1987-1988 published by the American conference of governmental industrial hygienists (publication ISBN:0-936712-72-4) are incorporated by reference in ss. NR 445.04 (1) (a) 1. and 2. and (b) and (2) (a) and (b), 445.05 (1) (a) 1. and 2. and (b) and (2) (a) and (b) and 445.06 (4). This publication may be purchased for personal use from the American Conference of

DEPARTMENT OF NATURAL RESOURCES 694-1
NR 484

Governmental Industrial Hygienists (ACGIH), 6500 Glenway Avenue,
Cincinnati, Ohio 45211.

History: Renum. from NR 154.19 (7) (b) and am. Register, September, 1986, No. 369, eff. 10-1-86; cr. (2), Register, July, 1988, No. 391, eff. 8-1-88; renum. from NR 484.03 and 484.05 and am. (intro.) and (1) (a), renum (2) to be NR 484.05 (2), Register, February, 1990, No. 410, eff. 3-1-90.