

Chapter NR 484

INCORPORATION BY REFERENCE

NR 484.01 Applicability; purpose.
NR 484.02 Definitions.
NR 484.03 Code of federal regulations.
NR 484.04 Code of federal regulations appendices.

NR 484.05 National technical information service.
NR 484.06 Other government organizations.
NR 484.10 American Society for Testing and Materials.
NR 484.11 Other private organizations.

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 and operators.

(2) PURPOSE. This chapter is adopted under ss. 227.21 (2) and 285.11, Stats., to incorporate by reference testing, monitoring and other technical standards, established by the federal government and technical societies and organizations, to which reference is made in chs. NR 400 to 439 and 445 to 499.

Note: Technical Standards to which reference is made in ch. NR 440 are incorporated by reference in s. NR 440.17.

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; am. Register, May, 1992, No. 437, eff. 6-1-92; am. (2), Register, February, 1995, No. 470, eff. 3-1-95; correction in (2) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1997, No. 493.

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. The federal regulations in effect on March 1, 2006 listed in the first column of Table 1 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the third column of Table 1.

Note: Copies of these materials are available for inspection in the offices of the department of natural resources and legislative reference bureau, Madison, Wisconsin and in some public libraries or may be purchased for personal use from:

Superintendent of Documents
PO Box 371954
Pittsburgh PA 15250-7954

Table 1
CFR References

	CFR Reference	Title	Incorporated by Reference For
(1)	29 CFR part 1910 subpart Z	Toxic and Hazardous Substances	NR 465
(2)	29 CFR 1910.145(d)(4)		NR 447.12 (4) (a) 2. NR 447.14 (2) (a) 2. NR 447.17 (2) (a) 2.
(3)	29 CFR 1910.1001(j)(4)(ii)		NR 447.13 (1) (a) 4.
(4)	29 CFR 1926.1101(k)(8)(iii)		NR 447.13 (1) (a) 4.
(5)	40 CFR part 53	Ambient Air Monitoring Reference and Equivalent Methods	NR 400.02 (123e) and (123s) NR 404.06 (3) (b)
(6)	40 CFR 63.457	Test methods and procedures	NR 464
(7)	40 CFR part 75	Continuous Emission Monitoring	NR 446.18 (1) (a) and (c)

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; am. (intro.), r. (2) and (4), renum. (1), (3), (5) and (6) to be (3), (1), (2) and (5) and am. (1) and (5), (3) renum. from NR 484.04 (3) and am., Register, May, 1992, No. 437, eff. 6-1-92; renum. (5) to be (6) and am., cr. (5), Register, May, 1993, No. 449, eff. 6-1-93; am. (intro.) and (5), Register, June, 1994, No. 462, eff. 7-1-94; r. and recr. Register, February, 1995, No. 470, eff. 3-1-95; r. (5) and (6), Register, December, 1995, No. 480, eff. 1-1-96; am. (intro.), Register, March, 1997, No. 495, eff. 4-1-97; am. (intro.) and (4), Register, November, 1999, No. 527, eff. 12-1-99; CR 00-160: am. Table 1, Register August 2001, No. 548, eff. 9-1-01; CR 00-175: am. (intro.) and Table 1 Register March 2002 No. 555, eff. 4-1-02; CR 02-146: am. (3) and (4) Register October 2003 No. 574, eff. 11-1-03; CR 05-040: am. (intro.) Register February 2006 No. 602, eff. 3-1-06; CR 07-036: cr. (7) Register November 2008 No. 635, eff. 12-1-08; CR 07-082: am. (5) Register September 2009 No. 645, eff. 10-1-09; CR 10-050: am. (5) Register November 2010 No. 659, eff. 12-1-10.

NR 484.04 Code of federal regulations appendices. The appendices to federal regulations in effect on August 1, 2016 listed in the first column of Table 2 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 or code of federal regulations appendix method listed in the third column of Table 2. Since some of these materials are incorporated by reference for another appendix of the code of federal regulations and the other appendix is also incorporated by refer-

ence in this section, the materials listed in this section which are incorporated by reference for the other appendix are hereby also incorporated by reference and made a part of this chapter.

Note: Copies of these materials are available for inspection in the offices of the department of natural resources and legislative reference bureau, Madison, Wisconsin and in some public libraries or may be purchased for personal use from:

Superintendent of Documents
PO Box 371954
Pittsburgh PA 15250-7954

Table 2
CFR Appendix References

	CFR Appendix Referenced	Title	Incorporated by Reference For
(1)	29 CFR 1926.58 Appendix G	Work Practices and Engineering Controls for Small-Scale, Short-Duration Asbestos Renovation and Maintenance Activities—Non-Mandatory	NR 447.02 (18) Note
(2)	40 CFR part 50 Appendices A to N		NR 404.02 (8) NR 404.06 (2)
(4)	40 CFR part 50 Appendix H	Interpretation of the 1-Hour Primary and Secondary National Ambient Air Quality Standards for Ozone	NR 404.04 (5) (a)
(4m)	40 CFR part 50 Appendix I	Interpretation of the 8-hour Primary and Secondary National Ambient Air Quality Standards for Ozone	NR 404.04 (5) (b)
(5)	40 CFR part 50 Appendix J	Reference Method for the Determination of Particulate Matter as PM ₁₀ in the Atmosphere	NR 400.02 (123s)
(6)	40 CFR part 50 Appendix K	Interpretation of the National Ambient Air Quality Standards for Particulate Matter	NR 404.04 (8) (c)
(6g)	40 CFR part 50 Appendix L	Reference Method for the Determination of Particulate Matter as PM _{2.5} in the Atmosphere	NR 400.02 (123e) NR 404.04 (9)
(6r)	40 CFR part 50 Appendix N	Interpretation of the National Ambient Air Quality Standards for PM _{2.5}	NR 404.04 (9)
(6t)	40 CFR part 50 Appendix P	Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone	NR 404.04 (5) (c)
(6v)	40 CFR part 50 Appendix R	Interpretation of the National Ambient Air Quality Standards for Lead	NR 404.04 (7) (b)
(7)	40 CFR part 50 Appendix S	Interpretation of the National Ambient Air Quality Standards for Nitrogen Dioxide	NR 404.04 (6) (a)
(7m)	40 CFR part 50 Appendix T	Interpretation of the National Ambient Air Quality Standards for Sulfur Dioxide	NR 404.04 (2) (a)
(7s)	40 CFR part 50 Appendix U	Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone	NR 404.04 (5) (d)
(8)	40 CFR part 51 Subpart S, Appendix E	Transient Test Driving Cycle	NR 485.02 (22)
(9)	40 CFR part 51 Appendix M	Recommended Test Methods for State Implementation Plans	NR 439 NR 460.06 (4) (b) (intro.) NR 465.09 (4) (b) 1. and 2. NR 465.22 (25), (29) and (31) NR 465.25 (3) (k) 4. and 5. a. and b. NR 465.28 (6) (b) 1. a., b. and d. and 2. a., b. and c. and Table 1 of subch. III of ch. NR 465 subchs. IV and V of ch. NR 465 NR 466.09 (5) NR 466.24 (3) (f) 1. and 2.
(9e)	40 CFR part 51 Appendix M, Method 201	Determination of PM ₁₀ Emissions	NR 439.06 (1m)
(9m)	40 CFR part 51 Appendix M, Method 201A	Determination of PM ₁₀ and PM _{2.5} Emissions from Stationary Sources	NR 439.06 (1m)
(9s)	40 CFR part 51 Appendix M, Method 202	Dry Impinger Method for Determining Condensable Particulate Emissions from Stationary Sources	NR 439.06 (1) NR 439.06 (1m)
(10)	40 CFR part 51 Appendix S, Section IV	Sources That Would Locate in a Designated Nonattainment Area	NR 405.11 (1) (e)
(11)	40 CFR part 51 Appendix W	Guideline on Air Quality Models (Revised)	NR 405.10 NR 489.09 (3) (intro.)
(11m)	40 CFR part 51 Appendix Y	Guidelines for BART Determinations Under the Regional Haze Rule	NR 433.03 (1) NR 433.04 (2) NR 433.05 (1) (c)
(12)	40 CFR part 58 Appendix B	Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring	NR 405.11 (3)

Table 2 (Continued)

CFR Appendix References

	CFR Appendix Referenced	Title	Incorporated by Reference For
(13)	40 CFR part 60 Appendix A	Test Methods	NR 400.02 (131) NR 419.045 (5) (a) and (b) NR 423.037 (9) (c) 1r. NR 428.25 (1) (b) 4. NR 439 NR 460 to 469
(14)	40 CFR part 60 Appendix A, Method 3	Gas Analysis for the Determination of Dry Molecular Weight	NR 449.09 (6) (a) 3.
(14m)	40 CFR part 60 Appendix A, Method 3C	Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources	NR 439.07 (8) (a) 1. NR 439.07 (8) (b) 5.
(15)	40 CFR part 60 Appendix A, Method 5	Determination of Particulate Emissions from Stationary Sources	40 CFR part 61 Appendix B, Method 101 NR 462 Table 5
(15m)	40 CFR part 60 Appendix A, Method 7, 7A, 7B, 7C, 7D and 7E	Determination of nitrogen oxide emissions from stationary sources	NR 428.23 (1) (b) 3. a. NR 428.08 (2) (g) 4. a.
(16)	40 CFR part 60 Appendix A, Method 18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography	NR 400.02 (77) NR 419.045 (2) (a) 2. NR 422.142 (5) (a) NR 422.143 (7) (a) NR 469.01 (1) (a)
(16m)	40 CFR part 60 Appendix A, Method 19	Determination of sulfur dioxide removal efficiency and particulate, sulfur dioxide and nitrogen oxides emission rates	NR 428.23 (1) (b) 2. d., 5. a. and b. and 6. b.
(17)	40 CFR part 60 Appendix A, Method 21	Determination of Volatile Organic Compounds Leaks	NR 419.045 (5) (e) NR 420.02 (39m) NR 421.02 (21) NR 421.05 (2) (e) NR 421.06 (2) (e)
(18)	40 CFR part 60 Appendix A, Method 22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares	NR 415.075 (3) (c) NR 460, Appendix DDDDD
(19)	40 CFR part 60 Appendix A, Method 25	Determination of Total Gaseous Nonmethane Organic Emissions as Carbon	NR 422.142 (5) (a) NR 422.143 (7) (a)
(20)	40 CFR part 60 Appendix A, Method 25A	Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer	NR 422.142 (5) (a) NR 422.143 (7) (a)
(20c)	40 CFR part 60 Appendix A, Method 29	Determination of Metals from Stationary Sources	NR 439.06 (5)
(20e)	40 CFR part 60 Appendix A, Method 25D	Determination of Volatile Organic Concentration of Waste Samples	NR 419.045 (5) (f) 6.
(20m)	40 CFR part 60 Appendix A, Method 29	Determination of Metals Emissions from Stationary Sources	NR 446.04 (1) (c) 1. a. NR 446.08 (1) (c) 1. NR 462 Table 5
(20s)	40 CFR part 60 Appendix A, Method 30A	Determination of Total Vapor Phase Mercury Emissions from Stationary Sources	NR 446.04 (1) (c) 1. a. NR 446.08 (1) (c) 1.
(20t)	40 CFR part 60 Appendix A, Method 30B	Determination of Total Vapor Phase Mercury Emissions from Coal-Fired Combustion Sources Using Carbon Sorbent Traps	NR 446.04 (1) (c) 1. a. NR 446.08 (1) (c) 1.
(20v)	40 CFR part 60 Appendix A, Method 320	Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy	NR 439.06 (2) (a) NR 439.06 (3) (a) NR 439.06 (6) (a) NR 439.07 (8) (e)
(21)	40 CFR part 60 Appendix B	Performance Specifications	NR 405 NR 408 NR 428 NR 439 NR 460 to 469

Table 2 (Continued)

CFR Appendix References			
CFR Appendix Referenced	Title	Incorporated by Reference For	
(21m) 40 CFR part 60 Appendix F	Quality Assurance Procedures	NR 428.23 (1) (b) 2. c. NR 439.06 (2) (b) NR 439.06 (4) (b) NR 439.06 (6) (b) NR 439.06 (7) (b) NR 439.06 (9) (a) 2. NR 439.07 (8) (b) 4. NR. 439.09 (1)-(4), (7)-(7r), (7v) NR 439.095 (6) NR 466.10 (2) NR 466.24 (2) (d) 1. b.	
(21s) 40 CFR part 61 Subpart M, Appendix A	Interpretive Rule Governing Roof Removal Operations	NR 447.08 (1) (am)	
(22) 40 CFR part 61 Appendix A	National Emission Standards for Hazardous Air Pollutants: Compliance Status Information	NR 447.16 (2)	
(23) 40 CFR part 61 Appendix B	Test Methods	NR 400.02 (131) NR 439 NR 446 to NR 469	
(24) 40 CFR part 63, Subpart KK, Appendix A	Data Quality Objective and Lower Confidence Limit Approaches for Alternative Capture Efficiency Protocols and Test Methods	NR 439.06 (3) (am) NR 465.09 (4) (b) 3. NR 465.25 (1) (b) 9. a. NR 465.28 (6) (b) 3. NR 465.35 (1) (c) 9. a. NR 465.38 (6) (e) NR 465.45 (1) (c) 9. a. NR 465.48 (6) (e) NR 466.09 (6) NR 466.24 (3) (f) 3.	
(24g) 40 CFR part 63, Subpart MMMM, Appendix A	Alternative Capture Efficiency and Destruction Efficiency Measurement and Monitoring Procedures for Magnet Wire Coating Operations	NR 465 subch. V	
(24m) 40 CFR part 63, Subpart DDDDD, Appendix A	Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives	NR 462	
(24r) 40 CFR part 63, Subpart PPPP, Appendix A	Determination of Weight Volatile Matter Content and Weight Solids Content of Reactive Adhesives	NR 465 subchs. IV and V	
(25) 40 CFR part 63 Appendix A	Test Methods	NR 400.02 (131) NR 419.045 (5) (f) 4. NR 439 NR 460 to 469	
(25g) 40 CFR part 63 Appendix C	Determination of the Fraction Biodegraded (F_{bio}) in a Biological Treatment Unit	40 CFR 63.457 (1) NR 464.09 (10) (b)	
(25r) 40 CFR part 63 Appendix E	Monitoring Procedure for Nonthoroughly Mixed Open Biological Treatment Systems at Kraft Pulp Mills under Unsafe Sampling Conditions	NR 464.09 (16) (c)	
(26) 40 CFR part 72 Appendix D	Calculation of Potential Electric Output Capacity	NR 409.02 (57)	
(26m) 40 CFR part 75 (a) Appendix A	Specifications and Test Procedures	NR 446.07 (3) NR 446.08 (1) (a)	
(b) 40 CFR part 75, Appendix B	Quality Assurance and Quality Control Procedures	NR 446.07 (3) NR 446.08 (1) (a)	
(bm) 40 CFR part 75, Appendix E	Optional NO _x Emissions Estimation Protocol for Gas-Fired Peaking Units and Oil-Fired Peaking Units	NR 428.23 (1) (b) 2. e.	
(c) 40 CFR part 75, Appendix C	Missing Data Estimation Procedures	NR 446.07 (3) NR 446.08 (1) (a)	
(d) 40 CFR part 75, Appendix F	Conversion Procedures	NR 428.23 (1) (b) 5. c. and 6. b. and c. NR 446.07 (3) NR 446.08 (1) (a)	

Table 2 (Continued)
CFR Appendix References

CFR Appendix Referenced	Title	Incorporated by Reference For
(27) 40 CFR part 75 Appendices A to I		NR 428 NR 428.23 (1) (b) 1. NR 439 NR 446.18 (1) (a) and (c)
(27m) 40 CFR part 82, Subpart A, Appendices A and B		NR 405 NR 408
(27s) 40 CFR part 136, Appendix A	Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater	NR 419.045 (5) (f) 3.
(28) 40 CFR part 763 Subpart E, Appendix E, Section 1	Polarized Light Microscopy	NR 447.02 (1) (a) and (b) NR 447.02 (16) NR 447.02 (27) NR 447.02 (36) NR 447.09 (1) (a) and (b) (intro.)

History: Cr. Register, August, 1991, No. 428, eff. 9-1-91; am. (intro.), (5) and (6), renum. (3) to be NR 484.03 (4) and am., renum. (4) and (7) to be (3) and (4) and am. (4), Register, May, 1992, No. 437, eff. 6-1-92; renum. (2), (3) (intro.) (a) to (c) to be (2) (d), (intro.), (c), (a) and (b) and am. (2) (d), Register, May, 1993, No. 449, eff. 6-1-93; am. (intro.), (2) (d), cr. (7), Register, December, 1993, No. 456, eff. 1-1-94; cr. (1) (c), Register, June, 1994, No. 462, eff. 7-1-94; r. and recr. Register, February, 1995, No. 470, eff. 3-1-95; cr. (9), (19), Register, April, 1995, No. 472, eff. 5-1-95; cr. (13m), (15e) and (15m), Register, June, 1995, No. 474, eff. 7-1-95; am. (9), Register, September, 1995, No. 477, eff. 10-1-95; am. (18), cr. (18m), renum. (7) to (21) to be (9) to (27), cr. (7) and (8), Register, December, 1995, No. 480, eff. 1-1-96; am. (27), Register, January, 1997, No. 493, eff. 2-1-97; am. (intro.), (13), (16), (21) and (24), Register, March, 1997, No. 495, eff. 4-1-97; am. (intro.), (11), (13), (16), (23) and (24), Register, November, 1999, No. 527, eff. 12-1-99; am. (9), rn. (24) to (27) to be (25) to (28), cr. (21m) and (24) and am. (24), Register, March, 2000, No. 531, eff. 4-1-00; am. (21) and (27), Register, January, 2001, No. 541, eff. 2-1-01; CR 00-160: am. (9) and (24) of Table 2, Register August 2001 No. 548, eff. 9-1-01; CR 00-175: am. (intro.) and Table 2 Register March 2002 No. 555, eff. 4-1-02; CR 02-146: cr. (21s) Register October 2003 No. 574, eff. 11-1-03; CR 03-037: am. Table 2 (9) and (24) Register March 2004 No. 579, eff. 4-1-04; CR 02-097: am. (23), Register June 2004 No. 582, eff. 7-1-04; CR 01-081: cr. (20m) and (26m) Register September 2004 No. 585, eff. 10-1-04; CR 03-066: am. (2) and (4), cr. (4m) Register May 2005 No. 593, eff. 6-1-05; CR 05-040: am. (intro.), (9) and (24), cr. (24g) and (24r) Register February 2006 No. 602, eff. 3-1-06; CR 05-116: am. (15), (18) and (20m), cr. (24m) Register November 2006 No. 611, eff. 12-1-06; CR 03-118: am. (21), cr. (27m), Register June 2007 No. 618, eff. 7-1-07; CR 07-016: am. (13), (21m), (26m) (d) and (27), cr. (15m), (16m) and (26m) (bm) Register July 2007 No. 619, eff. 8-1-07; CR 07-045: am. (9), (21m) and (24) Register April 2008 No. 628, eff. 5-1-08; CR 07-017: cr. (11m) Register June 2008 No. 630, eff. 7-1-08; CR 07-036: am. (20m), (26m) (a) to (d) and (27), cr. (20s) and (20t) Register November 2008 No. 635, eff. 12-1-08; CR 07-105: am. (16) Register December 2008 No. 636, eff. 1-1-09; CR 08-102: am. (16), (19) and (20) Register July 2009 No. 643, eff. 8-1-09; CR 08-104: am. (16), (19) and (20) Register July 2009 No. 643, eff. 8-1-09; corrections in (16), (19) and (20) made under s. 13.92 (4) (b) 7., Stats., Register July 2009 No. 643; CR 07-082: am. (6), cr. (6g) and (6r) Register September 2009 No. 645, eff. 10-1-09; CR 09-088: am. (3), cr. (6t) and (6v) Register May 2010 No. 653, eff. 6-1-10; CR 10-049: r. (7) Register November 2010 No. 659, 12-1-10; CR 10-050: am. (5), (6g) Register November 2010 No. 659, eff. 12-1-10; CR 07-082: r. (3) Register November 2011 No. 671, eff. 12-1-11; CR 11-005: am. (intro.), (13), (17), (19), (20) in Table 2, cr. (20e), (27s) in Table 2 Register January 2012 No. 673, eff. 2-1-12; CR 15-033: am. (intro.), cr. (7), (7m) Register July 2016 No. 727, eff. 8-1-16; correction in (intro.) made under s. 35.17, Stats., Register August 2016, No. 728; CR 16-041: am. (6g), (6r) in Table 2 Register December 2017 No. 744, eff. 1-1-18; CR 21-022: cr. (7s) in Table 2 Register February 2022 No. 794, eff. 3-1-22; **CR 23-017: am. (15m) in Table 2 Register March 2024 No. 819, eff. 4-1-24; CR 24-030: cr. (9e), to (9s), (14m), (20c), (14m), (20v) Register June 2025 No. 834, eff. 7-1-25; correction in (14m) made under s. 35.17, Stats., Register June 2025 No. 834.**

NR 484.05 National technical information service.
The national technical information service (NTIS) documents listed in the first column of Table 3 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the third column of Table 3.

Note: Copies of these materials are available for inspection in the offices of the department of natural resources and legislative reference bureau, Madison, Wisconsin or may be purchased for personal use from:
National Technical Information Service
5285 Port Royal Road
Springfield VA 22161
1-800-553-6847

Table 3
NTIS Document References

Document Reference	Document Title	Incorporated by Reference For
(1) NTIS Order No. PB 87-100012	Standard Industrial Classification Manual, 1987	NR 400.02 (74) NR 400.02 (86) NR 400.02 (91) NR 400.02 (149) NR 405.02 (8) NR 406.02 (1) NR 407.02 (3) NR 407.02 (4) (intro.) NR 407.05 (4) (b) NR 408.02 (5) NR 410.02 (4) NR 419.045 (1) (a) 3. NR 421.02 (3) NR 421.02 (17) NR 422.02 (112) NR 422.095 (1) NR 422.15 (1) (intro.) NR 437.07 (2) (a) 4. NR 438.02 (1) NR 445.11 (1) (intro.) NR 465.02 (51)
(2) NTIS Order No. PB-266 227	Recommended Industrial Ventilation Guidelines, U.S. Department of Health, Education, and Welfare, National Institute of Occupational Safety and Health, 1976	NR 421.04 (3) (c) 2.
(3) NTIS Order No. PB 93-192664	Metropolitan Areas, 1993	NR 400.02 (96)
(8) EPA, OAQPS, AP-42	Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, Fifth Edition, January 1995, as revised by Supplement A (February 1996), Supplement B (November 1996), Supplement C (November 1997), Supplement D (July 1998), Supplement E (November 1999), Supplement F (October 2000) and Update 2001 (December 2001)	NR 437.04 (2) (a) 6. NR 438.03 (5) (a) NR 489.09 (2) (b)
(8g) EPA, OAQPS, AP-42	Compilation of Air Pollutant Emission Factors, Volume II: Mobile Sources, Fourth Edition, September 1985, as revised by Supplement A (1991)	NR 437.04 (2) (a) 7.
(8r) EPA, OAQPS, AP-42	Compilation of Air Pollutant Emission Factors, Volume II: Mobile Sources, Fifth Edition, Appendix G (1998), Appendix H (1995), Appendix I (1998), Appendix J (1998), and Appendix K (1998)	NR 437.04 (2) (a) 8.
(9) EPA-450/3-84-014, December 1984	Review of National Emission Standards for Mercury	NR 446.21 (3) (d) Note
(10) EPA-454/R-98-015, September 1997	Fabric Filter Bag Leak Detection Guidance	NR 463.15 (6) (a) 2.
(12) EPA-625/3-89-016	Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzop-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update	NR 463.12 (39) NR 463.166 (4)
(14) NTIS Order No. DE95003295INZ	Voluntary reporting of greenhouse gases under Section 1605(b) of the Energy Policy Act of 1992 - General Guidelines, October 1994	NR 437.04 (2) (a) 17.
(14) NTIS Order No. DE95003295INZ	Voluntary reporting of greenhouse gases under Section 1605(b) of the Energy Policy Act of 1992 - General Guidelines, October 1994	NR 437.04 (2) (a) 17.
(15) NTIS Order No. DE95003296INZ	Sector-Specific Issues and Reporting Methodologies Supporting the General Guidelines for the Voluntary Reporting of Greenhouse Gases under Section 1605(b) of the Energy Policy Act of 1992, Volume I, Electricity Supply Sector, Residential and Commercial Buildings Sector, and Industrial Sector, October 1994.	NR 437.04 (2) (a) 18.

(16)	NTIS Order No. DE95003297INZ	Sector-Specific Issues and Reporting Methodologies Supporting the General Guidelines for the Voluntary Reporting of Greenhouse Gases under Section 1605(b) of the Energy Policy Act of 1992, Volume II, Transportation Sector, Forestry Sector, and Agricultural Sector, October 1994.	NR 437.04 (2) (a) 19.
(17)	NTIS Order Nos.: printed - PB2007-100002 CD-ROM - PB2007-500023	North American Industry Classification System United States, 2007	NR 405.02 (22) (a) 1. NR 405.07 (4) (a) 20. NR 407.02 (4) (b) 20. NR 408.02 (21) (e) 5.

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; am. (1), (4) to (6), renum. (7) (a) to (c) to be (7) (c) to (e) and am., cr. (7) (a) and (b), Register, May, 1992, No. 437, eff. 6-1-92; am. (1), Register, January, 1993, No. 445, eff. 2-1-93; am. (3), cr. (3) (b) to (e) and (8), Register, May, 1993, No. 449, eff. 6-1-93; cr. (1m), am. (3) (b), Register, December, 1993, No. 456, eff. 1-1-94; renum. (2) to be (9) and am. Register, August, 1994, No. 464, eff. 9-1-94; r. and recr. Register, February, 1995, No. 470, eff. 3-1-95; r. (6), (7), Register, April, 1995, No. 472, eff. 5-1-95; am. (3), Register, June, 1995, No. 474, eff. 7-1-95; am. (1), Register, August, 1995, No. 476, eff. 9-1-95; am. (8), Register, September, 1995, No. 477, eff. 10-1-95; am. (3), Register, December, 1995, No. 480, eff. 1-1-96; am. (1), (8), Register, January, 1997, No. 493, eff. 2-1-97; am. (1), (3), (8), r. and recr. (9), r. (10), Register, November, 1999, No. 527, eff. 12-1-99; CR 00-160: am. (1) of Table 3, Register August 2001 No. 548, eff. 9-1-01; CR 02-012: am. (1) and (8) of Table 3, cr. (8g), (8r), (14), (15) and (16) of Table 3, Register October 2002 No. 562, eff. 11-1-02; CR 02-097: am. (1), Register June 2004 No. 582, eff. 7-1-04; CR 01-081: am. (9) Register September 2004 No. 585, eff. 10-1-04; CR 04-107: am. (1) Register August 2005 No. 596, eff. 9-1-05; CR 07-104: cr. (17) Register July 2008 No. 631, eff. 8-1-08; CR 07-036: am. (9) Register November 2008 No. 635, eff. 12-1-08; CR 04-023: cr. (10) and (12) Register December 2008 No. 636, eff. 1-1-09; CR 11-005: am. (1) in Table 3 Register January 2012 No. 673, eff. 2-1-12; CR 15-077: r. (4), (5) Register July 2016 No. 727, eff. 8-1-16.

NR 484.06 Other government organizations. The following materials from other government organizations listed in the first column of Tables 4A to 4G are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the third column of Tables 4A to 4G.

Note: Copies of these materials are available for inspection in the offices of the

department of natural resources and legislative reference bureau, Madison, Wisconsin or may be purchased for personal use by writing to the organizations listed in the individual subsections.

(1) The following is a document published in the federal register.

Note: Copies can be made for personal use from the federal register on microfiche, which is available at the department of natural resources library.

Table 4A
Federal Register Document Reference

Citation	Title	Incorporated by Reference For
51 FR 43814, Dec. 4, 1986	Emissions Trading Policy Statement; General Principles for Creation, Banking, and Use of Emission Reduction Credits	NR 408.06 (1) (d) Note NR 425.05 (1) (b) 2.

(2) The following is a document from the U.S. bureau of mines.

Note: Copies may be purchased for personal use from:
Bureau of Mines
U.S. Department of the Interior
Washington DC 20240

Table 4B
U.S. Bureau Of Mines Document Reference

Document Number	Title	Incorporated by Reference For
Information Circular 7588	Fundamentals of Smoke Abatement, December, 1950, Ringelmann Chart	NR 400.02 (137) Note

(3) The following document is from the federal highway administration.

Note: Copies may be purchased for personal use from:
Superintendent of Documents
PO Box 371954
Pittsburgh PA 15250-7954

Table 4C
Federal Highway Administration Document Reference

Document Number	Title	Incorporated by Reference For
FP-92, 1992	Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, Section 401	NR 447.04 (2) (c)

(4) The following are from the U.S. environmental protection agency.

Note: Paragraph (a) lists a database document. Electronic copies may be downloaded for personal use from the following internet address:

<https://www.epa.gov/electronic-reporting-air-emissions/webfire>.

Those without access to a computer can obtain printed copies of all or of specific parts of FIRE from:

Department of Natural Resources
Bureau of Air Management
Box 7921
101 South Webster Street

Madison WI 53707-7921

Note: Copies of the documents listed in par. (b) may be downloaded for personal use from the following internet address: <https://www.epa.gov/air-emissions-inventories/air-emissions-inventory-improvement-program-eiip>.

Those without access to a computer can obtain printed copies from:

Info CHIEF
Emission Factor And Inventory Group (MD-D205-01)
Office of Air Quality Planning and Standards
U. S. Environmental Protection Agency
Research Triangle Park NC 27711

Phone: (919) 541-1000
Fax: (919) 541-5680

Note: Copies of the document listed in par. (c) may be downloaded from the internet for personal use from <https://www.epa.gov/sites/default/files/2021-01/documents/bagleakddetectionguidance.pdf>. Copies of the documents listed in par. (e) may be downloaded from the internet for personal use from <http://www3.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm>.

Those without access to a computer can obtain printed copies of these documents from:

National Technical Information Service
5285 Port Royal Road
Springfield VA 22161

Note: The wastewater treatment model listed in par. (f), along with supporting documentation, may be downloaded for personal use from <https://www.epa.gov/air-emissions-inventories/emission-inventory-improvement-program-eiip>. EPA contact information is also listed at this internet site.

Table 4D
U.S. Environmental Protection Agency Document References

Document Number	Title	Incorporated by Reference For
(a) EPA, OAQPS, FIRE 6.23	Factor Information Retrieval Data System, Version 6.23	NR 437.04 (2) (a) 22.
(b) EPA, EIIP Technical Report Series		
1. EPA-454/R-97-004a	EIIP Volume I, Introduction and Use of EIIP Guidance for Emission Inventory Development, July 1997	NR 437.04 (2) (a) 9.
2. Volume II	Point Sources, May 2002	NR 437.04 (2) (a) 10.
3. Volume III	Area Sources and Area Source Method Abstracts, June 2001	NR 437.04 (2) (a) 11.
4. Volume IV	Mobile Sources, September 1997	NR 437.04 (2) (a) 12.
5. Volume VI	Quality Assurance Procedures and DARS Software, September 1997	NR 437.04 (2) (a) 13.
6. Volume VII	Data Management Procedures, January 1999	NR 437.04 (2) (a) 14.
7. Volume VIII	Estimating Greenhouse Gas Emissions, October 1999	NR 437.04 (2) (a) 15.
8. Volume IX	Particulate Emissions, September 1999	NR 437.04 (2) (a) 16.
(c) EPA-454/R-98-015, September 1997	Fabric Filter Bag Leak Detection Guidance	NR 462.05 (6) (i) NR 463.23 (3) (b) 4.
(d) EPA-453/R-01-005	National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Plants--Background Information for Proposed Standards	NR 462.01 (4) (k)
(e) EPA, SW-846	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, September 1986, as amended by Updates I, II, IIA, IIB, III, IIIA, IIIB, IVA, and IVB	NR 419.045 (5) (f) 1. and 2. NR 462 Table 6 NR 463.22 (16)
(f) N/A	WATER9, Version 2.0	NR 419.045 (3) (b) 2. c.
(g) EPA-450/4-91-031	Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations Processes in the Synthetic Organic Chemical Manufacturing Industry	NR 421.07 (1) (a) 1.

(5) The following are documents from the State of California, Department of Consumer Affairs, Bureau of Home Furnishings and Thermal Insulation.

Note: Copies may be downloaded for personal use from the following Internet address: <https://bhgs.dca.ca.gov/industry/bulletin.shtml>.

Those without access to a computer can obtain printed copies from:

State of California
Department of Consumer Affairs
Bureau of Home Furnishings and Thermal Insulation
3485 Orange Grove Avenue
North Highlands CA 95660-5595
(916) 920-6951

Table 4E
State of California Document Reference

Document Number	Title	Incorporated by Reference For
(a) Technical Bulletin 116	Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Upholstered Furniture	NR 465.04 (1) (b) 1.
(b) Technical Bulletin 117	Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture	NR 465.04 (1) (b) 1.
(c) Technical Bulletin 133	Flammability Test Procedure for Seating Furniture for Use in Public Occupancies	NR 465.04 (1) (b) 1.

(6) The following document is from the Intergovernmental Panel on Climate Change.

Note: Copies may be downloaded for personal use from the following internet

address: <https://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html>.

Those without access to a computer can obtain printed copies from:
IPCC Secretariat
C/O World Meteorological Organization

7bis Avenue de la Paix
 C.P. 2300
 CH- 1211 Geneva 2, Switzerland

Phone: +41-22-730-8208
 Fax: +41-22-730-8025
 e-mail: ipcc_sec@gateway.wmo.ch

Table 4F
IPCC Document Reference

Publishing Organization	Title	Incorporated by Reference For
Intergovernmental Panel on Climate Change (IPCC)	Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volumes 1-3	NR 437.04 (2) (a) 4.

(7) The following document is from the U.S. department of energy.

Note: Copies may be downloaded for personal use from the following internet address: <http://www.ipmvp.org/info/Vol1book.pdf>.

Those without access to a computer can obtain printed copies from:

Energy Efficiency and Renewable Energy Clearinghouse (EREC)
 NCI, 8260 Greensboro Dr., Suite 400
 Mclean VA 22102
 Phone: (703) 287-8385
 Fax: (703) 893-0400
 or
 Phone: 1-800-DOE-EREC

Table 4G
U.S. Department of Energy Document Reference

Publishing Organization	Title	Incorporated by Reference For
U.S. Department of Energy, OEERE	International Performance Measurement and Verification Protocol, Volume 1 - Concepts and Options for Determining Energy Savings, January 2001	NR 437.04 (2) (a) 5.

History: Cr. Register, February, 1995, No. 470, eff. 3-1-95; am. (1), Register, December, 1996, No. 492, eff. 1-1-97; am. (2), cr. (4), Register, November, 1999, No. 527, eff. 12-1-99; CR 00-160: am. (intro.), cr. (5), Register August 2001 No. 548, eff. 9-1-01; CR 02-012: am. (intro.), (4) and (a) and (b) of Table 4, cr. (6) and Table 4F, (7) and Table 4G Register October 2002 No. 562, eff. 11-1-02; CR 05-116: cr. (4) (c) to (e) of Table 4D Register November 2006 No. 611, eff. 12-1-06; CR 06-110: am. (4) (c) and (e), Register July 2007 No. 619, eff. 8-1-07; CR 11-005: am. (4) (e) in Table 4D, cr. (4) (f), (g) in Table 4D Register January 2012 No. 673, eff. 2-1-12; CR 21-072: am. (4) (a) in Table 4D Register July 2022 No. 799, eff. 8-1-22.

NR 484.10 American Society for Testing and Materials. The American Society for Testing and Materials (ASTM) standards listed in the first column of Table 5 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the third column of Table 5. Some standards are incorporated into other documents which are separately incorporated by reference in this chapter. Those documents are also listed in the third column of Table 5.

Note: These materials are available for inspection in the offices of the department of natural resources and legislative reference bureau, Madison, Wisconsin or may be purchased for personal use at one of the following addresses:

American Society for Testing and Materials (ASTM)
 100 Barr Harbor Drive
 W Conshohocken PA 19428-2959
 Telephone: (610) 832-9585
 Fax: (610) 832-9555
 E-mail: service@astm.org
 Website <http://www.astm.org>
 or from:
 IHS Global Engineering Documents
 15 Inverness Way East
 Englewood, CO 80112
 Telephone: (800) 854-7179
 E-mail: globalcustomerservice@ihs.com
 Website: <http://global.ihs.com>

Table 5
ASTM Standard References

Standard Number	Standard Title	Incorporated by Reference For
(1) ASTM C136-01	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates	NR 415.02 (9)
(2) ASTM D97-02	Standard Test Methods for Pour Point of Petroleum Products	NR 420.02 (41)
(4) ASTM D240-19	Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendices A, D, E, and F NR 400.02 (79) NR 439.08 (2) (c)
(5) ASTM D287-92 (2000)	Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)	40 CFR part 75 Appendix D
(6) ASTM D323-08	Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method)	NR 419.045 (5) (d) NR 420.02 (31)
(7) ASTM D388-99e1 (2004)	Standard Classification of Coals by Rank	40 CFR part 75 Appendix F NR 400.02 (40) NR 462.02 (6)

Table 5 (Continued)
ASTM Standard References

	Standard Number	Standard Title	Incorporated by Reference For
(8)	ASTM D396-02a	Standard Specification for Fuel Oils	NR 400.02 (70) NR 400.02 (135) NR 420.03 (1) (a) NR 462.02 (11) and (41)
(9)	ASTM D523-89 (1999)	Standard Test Method for Specular Gloss	ANSI A135.5-2004 NR 422.02 (26), (41s), and (49m)
(10)	ASTM D737-96	Standard Test Method for Air Permeability of Textile Fabrics	NR 447.15 (1) (a) 1.
(12)	ASTM D968-93 (2001)	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive	ANSI A135.5-2004
(13)	ASTM D975-02	Standard Specification for Diesel Fuel Oils	NR 409.02 (34) NR 420.03 (1) (a)
(14)	ASTM D1037-99	Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials	ANSI A135.4-2004 ANSI A135.5-2004
(15)	ASTM D1072-90 (1999)	Standard Test Method for Total Sulfur in Fuel Gases	40 CFR part 75 Appendix D
(16)	ASTM D1193-99	Standard Specification for Reagent Water	40 CFR part 60 Appendix A: Method 5, par. 7.1.3 Method 5E, par. 7.2.1 Method 5F, par. 7.2.1 Method 6, par. 7.1.1 Method 7, par. 7.1.1 Method 7C, par. 7.1.1 Method 7D, par. 7.1.1 Method 10A, par. 7.1.1 Method 11, par. 7.1.3 Method 12, par. 7.1.3 Method 13A, par. 7.1.2 Method 14A, par. 7.1 Method 25D, par. 7.2.2.4 Method 26, par. 7.1.2 Method 26A, par. 7.1.2 Method 29, pars. 7.2.2, 7.4.2 and 7.5.6 40 CFR part 61 Appendix B, Method 101, par. 6.1.1
(17)	ASTM D1217-93 (1998)	Standard Test Method for Density and Relative Density (Specific Gravity) of Liquids by Bingham Pycnometer	40 CFR part 75 Appendix D
(18)	ASTM D1250-80 (1997)	Standard Guide for Petroleum Measurement Tables	40 CFR part 75 Appendix D
(20)	ASTM D1298-99	Standard Practice for Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method	40 CFR part 75 Appendix D
(21)	ASTM D1308-02	Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes	ANSI A135.5-2004
(22)	ASTM D1475-98 (2003)	Standard Test Method for Density of Liquid Coatings, Inks, and Related Products	40 CFR part 60 Appendix A: Method 24, par. 6.1 Method 24A, pars. 6.5 and 7.1 NR 465.26 (2) (b) 3. and (c) NR 465.37 (2) (c) NR 465.46 (2) (b) 4. and (c) NR 465.47 (2) (c)
(23)	ASTM D1480-93 (1997)	Standard Test Method for Density and Relative Density (Specific Gravity) of Viscous Materials by Bingham Pycnometer	40 CFR part 75 Appendix D
(24)	ASTM D1481-93 (1997)	Standard Test Method for Density and Relative Density (Specific Gravity) of Viscous Materials by Lipkin Bicapillary Pycnometer	40 CFR part 75 Appendix D
(25)	ASTM D1552-23	Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method)	40 CFR part 75 Appendices A and D NR 439.08 (2) (b)

Table 5 (Continued)
ASTM Standard References

Standard Number	Standard Title	Incorporated by Reference For
(25m) ASTM D1613-02	Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products	NR 422.02 (67m), 422.084 (2) (c), and 422.151 (2) (b) and (c)
(26) ASTM D1826-94 (2017)	Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendices E and F NR 400.02 (79)
(26m) ASTM D1835-03a	Standard Specification for Liquid Petroleum Gases	NR 462.02 (36) (b)
(27) ASTM D1945-96 (2001)	Standard Test Method for Analysis of Natural Gas by Gas Chromatography	40 CFR part 75 Appendices F and G
(28) ASTM D1946-90 (2000)	Standard Practice for Analysis of Reformed Gas by Gas Chromatography	40 CFR part 75 Appendices F and G NR 460.10 (2) (f) 1. a.
(30) ASTM D2013/D2013M-21	Standard Method of Preparing Coal Samples for Analysis	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendix F NR 439.08 (1) (b) NR 462, Table 6
(31) ASTM D2015-96	Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendices A, D, E and F
(32) ASTM D2197-98 (2002)	Standard Test Method for Adhesion of Organic Coatings by Scrape Adhesion	ANSI A135.5-2004
(33) ASTM D2234/D2234M-20	Standard Practice for Collection of a Gross Sample of Coal	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendix F NR 439.08 (1) (a) NR 439.085 (2) (a) 1. NR 439.085 (2) (b) 1. NR 439.085 (2) (c) 1. NR 462, Table 6
(34) ASTM D2369-01e1	Standard Test Method for Volatile Content of Coatings	40 CFR part 60 Appendix A, Method 24, par. 6.2
Note: ASTM D2382 was discontinued in 1994, and replaced by ASTM D4809.		
(36) ASTM D2486-00	Standard Test Method for Scrub Resistance of Wall Paints	ANSI A135.5-2004
(37) ASTM D2502-92 (1996)	Standard Test Method for Estimation of Molecular Weight (Relative Molecular Mass) of Petroleum Oils from Viscosity Measurements	40 CFR part 75 Appendix G
(38) ASTM D2503-92 (1997)	Standard Test Method for Relative Molecular Mass (Molecular Weight) of Hydrocarbons by Thermo-electric Measurement of Vapor Pressure	40 CFR part 75 Appendix G
(39) ASTM D2622-98	Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry	40 CFR part 75 Appendices A and D
(39e) ASTM D2697-86 (1998)	Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings	NR 465.26 (2) (b) 1. NR 465.46 (2) (b) 1.
(39m) ASTM D2879-10	Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope	NR 419.045 (5) (d) NR 422.142 (5) (d)
(40) ASTM D2880-00	Standard Specification for Gas Turbine Fuel Oils	NR 420.03 (1) (a)
(41) ASTM D2986-95a (1999)	Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test	40 CFR part 60 Appendix A: Method 5, par. 7.1.1 Method 12, par. 7.1.1 Method 13A, par. 7.1.1.2
(41m) ASTM D3172-13(2021)e1	Standard Practice for Proximate Analysis of Coal and Coke	NR 439.098 (1) (b)

Table 5 (Continued)
ASTM Standard References

	Standard Number	Standard Title	Incorporated by Reference For
(42)	ASTM D3173/D3173M-17a	Standard Test Method for Moisture in the Analysis Sample of Coal and Coke	40 CFR part 60 Appendix A, Method 19 NR 439.08 (1) (f) NR 462, Table 6
(43)	ASTM D3174-12(2018)e1	Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal	40 CFR part 75 Appendix G NR 439.08 (1) (e)
(44)	ASTM D3176-24	Standard Practice for Ultimate Analysis of Coal and Coke	40 CFR part 75 Appendices A and F NR 439.08 (1) (g) NR 439.098 (1) (a)
(46)	ASTM D3178-89 (1997)	Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke	40 CFR part 75 Appendix G
(47)	ASTM D3238-95 (2000)	Standard Test Method for Calculation of Carbon Distribution and Structural Group Analysis of Petroleum Oils by the n-d-M Method	40 CFR part 75 Appendix G
(47g)	ASTM D3302/D3302M-22a	Standard Test Method for Total Moisture in Coal	NR 439.08 (1) (f)
(47L)	ASTM D3683-94 (2000)	Standard Test Method for Trace Elements in Coal or Coke Ash by Atomic Absorption	NR 462, Table 6
(47m)	ASTM D3684-01	Standard Test Method for Total Mercury in Coal by Oxygen Bomb Combustion/Atomic Absorption Method	NR 446.04 (1) (b) NR 446.04 (1) (c) 1. b. NR 446.07 (1) NR 446.07 (2) NR 446.08 (1) (b) NR 446.08 (1) (c) 2. NR 462, Table 6
(48)	ASTM D3792-99	Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph	40 CFR part 60 Appendix A, Method 24, par. 6.3
(49)	ASTM D4017-02	Standard Test Method for Water in Paints and Paint Materials by Karl Fischer Method	40 CFR part 60 Appendix A, Method 24, par. 6.4
(50)	ASTM D4052-96 (2002)	Standard Test Method for Density and Relative Density of Liquids by Digital Density Meter	40 CFR part 75 Appendix D
(51)	ASTM D4057-22	Standard Practice for Manual Sampling of Petroleum and Petroleum Products	40 CFR part 75 Appendix D NR 439.08 (2) (a)
(52)	ASTM D4177-22e1	Standard Practice for Automatic Sampling of Petroleum and Petroleum Products	40 CFR part 75 Appendix D NR 439.08 (2) (a)
(53)	ASTM D4239-18e1	Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendix A NR 439.08 (1) (c)
(54)	ASTM D4294-21	Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry	40 CFR part 75 Appendices A and D NR 439.08 (2) (b)
(55)	ASTM D4809-18	Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method)	40 CFR part 75 Appendices D, E and F NR 439.08 (2) (c)
(55b)	ASTM D4953-06	Standard Test Method for Vapor Pressure of Gasoline and Gasoline-Oxygenate Blends (Dry Method)	NR 419.045 (5) (d)
(55bg)	ASTM D5190-07	Standard Test Method for Vapor Pressure of Petroleum Products (Automatic Method)	NR 419.045 (5) (d)
(55br)	ASTM D5191-10b	Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method)	NR 419.045 (5) (d)
(55g)	ASTM D5865/D5865M-19	Standard Test Method for Gross Calorific Value of Coal and Coke	NR 400.02 (79) NR 439.08 (1) (d)
(55i)	ASTM D5965-02	Standard Test Methods for Specific Gravity of Coating Powders	NR 465.47 (2) (c)
(55L)	ASTM D6053-00	Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes	40 CFR part 63, Subpart MMMM, Appendix A

Table 5 (Continued)
ASTM Standard References

Standard Number	Standard Title	Incorporated by Reference For
(55m) ASTM D6093-97 (2003)	Standard Test Method for Percent Volume Non-volatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer	NR 465.26 (2) (b) 1. NR 465.46 (2) (b) 1.
(55p) ASTM D6323-98 (2003)	Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities	NR 462, Table 6
(55r) ASTM D6348-12 (2020)	Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy	NR 439.06 (2) (a) NR 439.06 (3) (a) NR 439.06 (6) (a) NR 439.07 (8) (e)
(55t) ASTM D6522-00	Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers and Process Heaters Using Portable Analyzers	NR 462, Table 5
(55v) ASTM D6751-09	Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels	NR 406.02 (1)
(55x) ASTM D6784-02	Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)	NR 462, Table 5
(55c) ASTM D5291-02	Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants	40 CFR part 63, Subpart MMMM, Appendix A
(56) ASTM E84-03	Standard Test Method for Surface Burning Characteristics of Building Materials	ANSI A135.5-2004
(56d) ASTM E711-87 (2004)	Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter	NR 462, Table 6
(56h) ASTM E776-87 (2004)	Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel	NR 462, Table 6
(56m) ASTM E145-94 (2001)	Standard Specification for Gravity-Convection and Forced-Ventilation Ovens	40 CFR part 63, Subpart PPPP, Appendix A
(56p) ASTM E871-82 (1998)	Standard Method of Moisture Analysis of Particulate Wood Fuels	NR 462, Table 6
(56t) ASTM E885-88 (2004)	Standard Test Methods for Analyses of Metals in Refuse-Derived Fuel by Atomic Absorption Spectroscopy	NR 462, Table 6
(57) ASTM G23-96	Standard Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials	ANSI/AHA A135.5-1988

History: Renum. from NR 484.06 (4) and am., Register, February, 1995, No. 470, eff. 3-1-95; am. (1), (3), (7), (8), (15), (39), (51), (54), cr. (12m), (19), Register, April, 1995, No. 472, eff. 5-1-95; cr. (39m), Register, June, 1995, No. 474, eff. 7-1-95; am. (12), (17), (23), (24), (26), (29) to (31), (34), (40), (43) to (46), (53), (55) and (56), r. (11), Register, January, 1997, No. 493, eff. 2-1-97; am. (intro.), (28) and (35), Register, March, 1997, No. 495, eff. 4-1-97; am. (intro.), (1) to (10), (13) to (16), (18), (19), (21), (22), (24), (25) to (29), (31), (32), (33), (34), (36), (37), (39) to (42), (44), (47) to (52), (54), r. (12m), (35), renum. and am. (55) and (56) to be (56) and (57) and cr. (41m) and (55), Register, November, 1999, No. 527, eff. 12-1-99; am. (9), cr. (25m), Register, January, 2001, No. 541, eff. 2-1-01; CR 00-175: am. (intro.) and Table 5 Register March 2002 No. 555, eff. 4-1-02; CR 02-146: am. (1), (2), (4), (6) to (8), (12), (13), (21), (25), (25m), (27) to (34), (40), (41m), (44), (45), (49) to (51), (53), (54) and (55g) Register October 2003 No. 574, eff. 11-1-03; CR 03-037: am. Table 5 (22), and cr. (39e) and (55m) Register March 2004 No. 579, eff. 4-1-04; CR 01-081: am. (47m) Register September 2004 No. 585, eff. 10-1-04; CR 05-040: am. (intro.), (22), (39e) and (55m), cr. (55c), (55i), (55L) and (56m), Register February 2006 No. 602, eff. 3-1-06; CR 05-116: am. (3), (7), (8), (30), (33), (42) and (47m), cr. (26m), (47L), (55p), (55i), (55x), (56d), (56h), (56p) and (56t) Register November 2006 No. 611, eff. 12-1-06; CR 07-036: am. (47m) Register November 2008 No. 635, eff. 12-1-08; CR 08-102: am. (9), (12), (14), (21), (32), (36), (56) Register July 2009 No. 643, eff. 8-1-09; CR 09-020: cr. (55v) Register January 2010 No. 649, eff. 2-1-10; CR 11-005: am. (6), (39m) in Table 5, cr. (55b), (55bg), (55br) in Table 5 Register January 2012 No. 673, eff. 2-1-12; CR 20-088: am. (9), (25m) in Table 5 Register May 2022 No. 797, eff. 6-1-22; correction in Table (4B) made under s. 35.17, Stats., Register April 2025 No. 832; **CR 24-030: r. (3), am. (4), (25), (26), (30), (33), (41m) to (44) in Table 5 Register June 2025 No. 834, eff. 7-1-25.**

NR 484.11 Other private organizations. The following materials from other private organizations listed in the first column of Tables 6A to 6K are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 listed in the third column of Tables 6A to 6K. Some of the materials are incorporated into other documents which are separately incorporated by reference in this chapter. Those documents are also listed in the third column of Tables 6A to 6K.

Note: Copies of these materials are available for inspection in the offices of the department of natural resources and legislative reference bureau, Madison, Wisconsin or may be purchased for personal use by writing to the organizations listed in the individual subsections.

(1) The following is a document from the American Architectural Manufacturers Association (AAMA).

Note: Copies may be purchased for personal use from:
 American Architectural Manufacturers Association
 1827 Walden Office Square Suite 104
 Schaumburg IL 60173-4628

Table 6A
AAMA Document Reference

Document Number	Title	Incorporated by Reference For
AAMA 2604-02	Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings On Aluminum Extrusions and Panels	NR 422.02 (42) NR 465.42 (21)

(2) The following are documents from the American Conference of Governmental Industrial Hygienists (ACGIH).

Note: Copies may be purchased for personal use from:
American Conference of Governmental Industrial Hygienists
Technical Information Office
1330 Kemper Meadow Dr
Cincinnati OH 45240

Table 6B
ACGIH Document References

	Document Number	Title	Incorporated by Reference For
(a)	ISBN:0-936712-72-4	Threshold Limit Values and Biological Exposure Indexes for 1987-1988	NR 445.04 (1) (a) 1. NR 445.04 (1) (a) 2. NR 445.04 (1) (b) NR 445.04 (2) (a) NR 445.04 (2) (b) NR 445.04 (3) (c) 6. NR 445.05 (1) (a) 1. NR 445.05 (1) (a) 2. NR 445.05 (1) (b) NR 445.05 (2) (a) NR 445.05 (2) (b) NR 445.05 (3) (c) 7.
(b)	ISBN:0-936712-86-4	1990-1991 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indexes	NR 445.04 (4) (a) 1. NR 445.04 (4) (a) 2. NR 445.04 (4) (b) NR 445.04 (4r) (b) 4. NR 445.05 (4) (a) 1. NR 445.05 (4) (a) 2. NR 445.05 (4) (b) NR 445.05 (4r) (b) 4.
(c)	ISBN: 1-882417-36-4	2000 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices	NR 445.07 (1) (b) (intro.) NR 445.07 (5) (d) 2. NR 445.15 (3)
(d)		Industrial Ventilation: A Manual of Recommended Practice, 23th ed., 1998	NR 421.04 (3) (c) 1. NR 460 Appendix RRR NR 463.14, Table 2 NR 463.14 (3) (a)

(3) The following is a document from the American Gas Association (AGA) laboratories.

Note: Copies may be purchased for personal use from:
American Gas Association Laboratories
8501 East Pleasant Valley Road
Cleveland OH 44131

Table 6C
AGA Laboratories Document Reference

Document Number	Title	Incorporated by Reference For
Standard Z21.6 - 1973 with addenda: Z21.6a - 1975, Z21.6b - 1978	American National Standard for Domestic Gas-Fired Incinerators	NR 415.07 (1) (b) 2. NR 415.07 (2) (a) 4.

(4) The following are documents from the American National Standards Institute.

Note: Copies may be purchased for personal use from:
Composite Panel Association
19465 Deerfield Avenue, Suite 306
Leesburg, VA 20176
Telephone: (703) 724-1128
Website: <http://www.pbmdf.com>
or from:
HIS Global Engineering Documents
15 Inverness Way East
Englewood, CO 80112
Telephone: (800) 854-7179
E-mail: globalcustomerservice@ihs.com
Website: <http://global.ihs.com>

Table 6D
AHA Document References

	Document Number	Title	Incorporated by Reference For
(a)	ANSI A135.4-2004	Basic Hardboard	ANSI A135.5-2004 NR 422.02 (12s)
(b)	ANSI A135.5-2004	Prefinished Hardboard Paneling	NR 422.02 (13)

(5) The following is a document from the American Petroleum Institute (API).

Note: Copies may be purchased for personal use from:
American Petroleum Institute
1220 L Street NW
Washington DC 20005

Table 6E
API Document Reference

	Document Number	Title	Incorporated by Reference For
	Publication 2517	Evaporative Loss from External Floating Roof Tanks, 3rd edition, February 1989	NR 419.045 (5) (d) NR 420.02 (33) NR 420.03 (3) (c)

(6) The following are documents from the American Society of Mechanical Engineers (ASME):

Note: Copies may be purchased for personal use from:
The American Society of Mechanical Engineers
22 Law Drive
Fairfield NJ 07007-2900
E-mail: infocentral@asme.org
Phone: (973) 882-1170
Fax: (973) 882-5155

Table 6F
ASME Document Reference

	Document Number	Title	Incorporated by Reference For
(a)	PTC 4.2-1969 (1997)	Test Code for Coal Pulverizers	NR 439.098 (1) (c)
(b)	PTC 19.10-1981	Flue and Exhaust Gas Analysis	NR 462, Table 5 NR 465.28 (7) (a) 3. NR 466.24 (3) (e) 1. c.

(7) The following is a document from The Business and Institutional Furniture Manufacturer's Association (BIFMA).

Note: Copies may be purchased for personal use from:
BIFMA International
2680 Horizon Drive SE, Suite A-1
Grand Rapids MI 49546-7500
E-mail: email@bifma.org
Phone: (616) 285-3963
Fax: (616) 285-3765

Table 6G
BIFMA Document Reference

	Document Number	Title	Incorporated by Reference For
	BIFMA X5.7-1991	Voluntary Upholstered Furniture Flammability Standard for Non-residential, Non-live-in Occupancies	NR 465.04 (1) (b) 1.

(8) The following is a document from the International Organization for Standardization (ISO):

Note: Copies may be purchased for personal use from:
American National Standards Institute
11 West 42nd Street
13th floor
New York NY 10036

Table 6H
ISO Document Reference

	Document Number	Title	Incorporated by Reference For
	ISO 9931 (1991)	Coal - Sampling of Pulverized Coal Conveyed by Gases in Direct Fired Coal Systems	NR 439.098 (1) (c)

(9) The following is a document from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI):

Note: Copies may be obtained for personal use from:
National Council of the Paper Industry for Air and Stream Improvement, Inc.
PO Box 13318
Research Triangle Park NC 27709-3318
<http://www.ncasi.org>
(919) 558-1987

Table 6I
NCASI Document Reference

Document Number	Title	Incorporated by Reference For
NCASI Method DI/MEOH-94.02	Methanol in Process Liquids by GC/FID, August 1998, Methods Manual	40 CFR 63.457(c)(3)(ii)

(10) The following are documents from the Upholstered Furniture Action Council (UFAC).

Note: Copies may be purchased for personal use from:
 Upholstered Furniture Action Council
 Box 2436
 High Point, NC 27261
 Phone: (336) 885-5065
 Fax: (336) 885-5072

Table 6J
UFAC Document Reference

Document Number	Title	Incorporated by Reference For
(a) DMTM--1990	Decking Materials Test Method--1990	NR 465.04 (1) (b) 1.
(b) WCTM--1990	Welt Cord Test Method--1990	NR 465.04 (1) (b) 1.
(c) IFTM--1990	Interior Fabrics Test Method--1990	NR 465.04 (1) (b) 1.
(d) F/PCTM--1990, PT A	Filling/Padding Component Test Method--1990 Part A - For Slab or Garnetted Materials	NR 465.04 (1) (b) 1.
(e) F/PCTM--1990, PT B	Filling/Padding Component Test Method--1990 Part B - For Fibrous or Particulate Materials	NR 465.04 (1) (b) 1.
(f) PTM--1990	Barrier Test Method--1990	NR 465.04 (1) (b) 1.
(g) FCTM--1990	Fabric Classification Test Method--1990	NR 465.04 (1) (b) 1.
(h) DTTM--1993	Standard Test Methods for Decorative Trims, Edging, and Brush Fringes--1993	NR 465.04 (1) (b) 1.

(11) The following documents are from the World Resources Institute and World Business Council for Sustainable Development.

Note: Copies of the document listed in par. (a) may be downloaded for personal use from the following internet address: <http://www.ghgprotocol.org/>
 Printed copies may be purchased from:
 World Resources Institute Publications
 PO Box 4852
 Hampden Station
 Baltimore MD 21211
 Phone: 1-800-822-0504
 Fax: (410) 516-6998

Note: Copies of the software documents listed in par. (b) may be downloaded for personal use from the following internet address: <http://www.ghgprotocol.org/calculation-tools>

To obtain the software by mail contact:
 WRI
 10 G Street NE
 Washington DC 20002
 Phone: (202) 729-7600
 Fax: (202) 729-7637

Table 6K
WRI/WBCSD Document Reference

Document Number	Title	Incorporated by Reference For
(a) ISBN 2-940240-18-3	The Greenhouse Gas Protocol – a corporate accounting and reporting standard, first edition, September 2001	NR 437.04 (2) (a) 20.
(b) N/A	GHG Calculation Tools	NR 437.04 (2) (a) 21.

(12) The following document is a joint publication of the American Public Health Association, the American Water Works Association, and the Water Environment Federation.

Note: Copies may be purchased for personal use from:

APHA
 Publications Sales
 PO Box 933019
 Atlanta, GA 31193-3019
 Telephone: (888) 361-2742
 Website: <http://www.apha.org/publications/pubscontact/>

Table 6L
APHA Document Reference

Document Number	Title	Incorporated by Reference For
N/A	Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998	NR 419.045 (5) (f) 5.

History: Cr. Register, February, 1995, No. 470, eff. 3-1-95; am. (1) (b), Register, April, 1995, No. 472, eff. 5-1-95; r. (1) (c), am. (1) (a), Register, December, 1995, No. 480, eff. 1-1-96; am. (5), Register, January, 1997, No. 493, eff. 2-1-97; am. (5), renum. (1) to (5) to be (2), (3), (4), (5) and (1), cr. (6) and (7), Register, November, 1999, No. 527, eff. 12-1-99; CR 00-160: renum. (7) and Table 6G to be (8) and Table 6H, cr. (7) and (10), Register August 2001 No. 548, eff. 9-1-01; CR 00-175: am. (intro.), cr. (9) and Table 6I Register March 2002 No. 555, eff. 4-1-02; CR 02-012: am. (intro.), cr. (11) and Table 6K Register October 2002 No. 562, eff. 11-1-02; CR 03-037: am. (6) and Table 6F, cr. (6) (b) Register March 2004 No. 579, eff. 4-1-04; CR 02-097: am. (2) (b), cr. (2) (c), Register June 2004 No. 582, eff. 7-1-04; CR 05-040: am. (intro.) and (1) Table 6A Register February 2006 No. 602, eff. 3-1-06; CR 05-116: am. (6) (b) Register November 2006 No. 611, eff. 12-1-06; CR 07-045: am. (6) (b) Register April 2008 No. 628, eff. 5-1-08; CR 04-023: am. (2) (d) Register December 2008 No. 636, eff. 1-1-09; CR 08-102: am. (4) Register July 2009 No. 643, eff. 8-1-09; CR 11-005: am. (5), cr. (12) Register January 2012 No. 673, eff. 2-1-12.