

1.6 Incorporations by Reference

The materials listed below are incorporated by reference in applicable source categories of this text. These materials are incorporated as they exist on the date of the approval, and any change in these materials will be published. The materials are available for purchase at the corresponding address noted below.

- 1.6.1 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.

ASTM Designations: The first letter is the classification of the standard:

A - Ferrous metals and products (steel)

B - Nonferrous metals and products (coatings)

C - Cementitious, ceramic, concrete, and masonry materials

D - Miscellaneous materials

E - Miscellaneous subjects.

F - end-use materials and products (bolts)

G - Corrosion, deterioration, weathering, durability, and degradation of materials and products

After the letter, there is a reference number given to the standard. From there, a grade can be added. Two numbers after the standard, like A449-14. The last two numbers signify the year the standard was updated.

ASTM A99-2019, 76, 82 (Reapproved 1987), Standard Specification for Ferromanganese.

ASTM A100-2024, 69, 74, 93, Standard Specification for Ferrosilicon.

ASTM A101-2019, 73, 93, Standard Specification for Ferrochromium.

ASTM D233-2022, 72, 77, Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method).

ASTM A482-2019, 76, 93, Standard Specification for Ferrochromesilicon.

ASTM A483-2020, 64, 74 (Reapproved 1988), Standard Specification for Silicomanganese.

ASTM A495-2020, 76, 94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon.

ASTM D86-2024, 78, 82, 90, 93, 95, 96, Distillation of Petroleum Product.

ASTM D129-2023, 64, 78, 95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method).

ASTM D240-2019, 76, 92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.2.3.

- ASTM D270-80, 65, 75, Standard Method of Sampling Petroleum and Petroleum Products, approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.2.1.
- ASTM D323-2020, 82, 94, Test Method for Vapor Pressure of Petroleum Products (Reid Method).
- ASTM D388-2023, 77, 90, 91, 95, 98, 98a, Standard Specification for Classification of Coals by Rank.
- ASTM D396-2021, 78, 89, 90, 92, 95, 96, 97, 98, Standard Specification for Fuel Oils.
- ASTM D737-2023, 85, Standard Test Method for Air Permeability of Textile Fabrics.
- ASTM 835-2021, 85, Standard Specification for Refined Benzene-485. WITHDRAWN.
- ASTM D836-89, 84, Standard Specification for Industrial Grade Benzene.
- ASTM D975-2023, 78, 96, 98, 98a, Standard Specification for Diesel Fuel Oils.
- ASTM D1072-2024, 80, 90 (Reapproved 1994), Standard Method for Total Sulfur in Fuel Gases.
- ASTM D1137-53, 75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer.
- ASTM D1192-2018, 77, Standard Specification for Reagent Water. WITHDRAWN.
- ASTM D1193-77, 91, Standard Specification for Reagent Water, approved for Appendix A: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.; Method 16C, Section 7.1.
- ASTM D1266-2018, 87, 91, 98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method).
- ASTM D1331-2021, 89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Appendix A: Method 306B, Sections 6.2, 11.1, and 12.2.2.
- ASTM D1475-2020, 60, 80, 90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, approved January 27, 1983 for Appendix A: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- ASTM D1552-2023, 83, 95, Standard Test Method for Sulfur in Petroleum Products (High Temperature Method), approved for Appendix A: Method 19, Section 12.5.2.2.3.
- ASTM D1826-2017, 77, 94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, approved January 27, 1983 for Appendix A: Method 19, Section 12.3.2.4.

ASTM D1835-2022, 82, 86, 87, 91, 97, Standard Specification for Liquefied Petroleum (LP) Gases.

ASTM D1945-2019, 64, 76, 91, 96, Standard Method for Analysis of Natural Gas by Gas Chromatography.

ASTM D1946-2023, 77, 90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography.

ASTM D2013-2021, 72, 86, Standard Method of Preparing Coal Samples for Analysis, approved January 27, 1983, for Appendix A: Method 19, Section 12.5.2.1.3.

ASTM D2015-2021, 77 (Reapproved 1978), 96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.1.3.

ASTM D2016-2017, 74, 83, Standard Test Methods for Moisture Content of Wood, approved for Appendix A: Method 28, Section 16.1.1.

ASTM D2234-2020, 76, 96, 97a, 97b, 98, Standard Methods for Collection of a Gross Sample of Coal, approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.1.1.

ASTM D2359-2019, 85a, Standard Specification for Refined Benzene-535.

ASTM D2267-2021, 68, 78, Aromatics in Light Napthas and Aviation Gasoline by Gas Chromatography.

ASTM D2369-2024, 81, 87, 90, 92, 93, 95, Standard Test Method for Volatile Content of Coatings, approved January 27, 1983 for Appendix A: Method 24, Section 6.2.

ASTM D2382-2017, 76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method).

ASTM D2504-2024, 67, 77, 88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography.

ASTM D2584-2018, 68 (Reapproved 1985), 94, Standard Test Method for Ignition Loss of Cured Reinforced Resins.

ASTM D2622-87, 94, 98, Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry,.

ASTM D2879-2023, 83, 96, 97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope.

ASTM D2880-2023, 78, 96, Standard Specification for Gas Turbine Fuel Oils.

ASTM D2908-2024, 74, 91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography.

ASTM D2986-71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, approved January 27, 1983 for Appendix A: Method 5, Section 7.1.1; Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2. WITHDRAWN.

ASTM D3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation. WITHDRAWN.

ASTM D3173-2017, 73, 87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.1.3.

ASTM D3176-2024, 74, 89, Standard Method for Ultimate Analysis of Coal and Coke, approved January 27, 1983 for Appendix A: Method 19, Section 12.3.2.3.

ASTM D3177-2013, 75, 89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.1.3.

ASTM D3178-2017, 73 (Reapproved 1979), 89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke.

ASTM D3246-81, 92, 96, Standard Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry. WITHDRAWN.

ASTM D3270-2021, 73T, 80, 91, 95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), approved for Appendix A: Method 13A, Section 16.1.

ASTM D3286-2021, 85, 96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, approved for Appendix A: Method 19, Section 12.5.2.1.3.

ASTM D3370-2019, 76, 95a, Standard Practices for Sampling Water.

ASTM D3431-80, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons (microcoulometric method). WITHDRAWN.

ASTM D3792-2022, 79, 91, Standard Method for Water Content of Water- Reducible Paints by Direct Injection into a Gas Chromatograph, approved January 27, 1983 for Appendix A: Method 24, Section 6.3.

ASTM D4017-2022, 81, 90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, approved January 27, 1983 for Appendix A: Method 24, Section 6.4.

ASTM D4057-2022, 81, 95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, approved for Appendix A: Method 19, Section 12.5.2.2.3.

ASTM D4084-2024, 82, 94, Standard Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method).

ASTM D4177-2023, 95, Standard Practice for Automatic Sampling of Petroleum and Petroleum

Products, approved for Appendix A: Method 19, 12.5.2.2.1.

ASTM D4239-2018, 85, 94, 97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, approved for Appendix A: Method 19, Section 12.5.2.1.3.

ASTM D4442-2020, 84, 92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, approved for Appendix A: Method 28, Section 16.1.1.

ASTM D4444-2018, 92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, approved for Appendix A: Method 28, Section 16.1.1. WITHDRAWN.

ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1, 1, 1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, approved for Appendix A: Method 24, Section 6.5.

ASTM D4734-2019, 87, Standard Specification for Refined Benzene-545.

ASTM D4809-2018, 95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method).

ASTM D5403-2021, 93, Standard Test Methods for Volatile Content of Radiation Curable Materials, approved September 11, 1995 for Appendix A: Method 24, Section 6.6.

ASTM D5865-2019, 98, Standard Test Method for Gross Calorific Value of Coal and Coke, approved for Appendix A: Method 19, Section 12.5.2.1.3.

ASTM D6216-2020, 98, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, approved February 6, 2001 of Appendix B, PS-1.

ASTM D6784-2024, 02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved for Appendix B, Performance Specification 12A, Section 8.6.2.

ASTM E50-2017, 82, 86, Standard Practices for Apparatus Reagents, and Safety Precautions for Chemical Analysis of Metals.

ASTM E168-2023, 67, 77, 92, General Techniques of Infrared Quantitative Analysis.

ASTM E169-2022, 63, 77, 93, General Techniques of Ultraviolet Quantitative Analysis.

ASTM E260-2019, 73, 91, 96, General Gas Chromatography Procedures (Packed Column).

1.6.2 The following material is available for purchase from the Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, Virginia 22209.

(1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11-12, IBR approved January 27, 1983.

1.6.3 The following material is available for purchase from the American Petroleum Institute, 2101

L Street, N.W., Washington, D.C. 20037.

- (1) API Publication 2517, Evaporation Loss from External Floating-Roof Tanks, ~~Second Edition, February 1980~~ Revised 1996, IBR approved January 27, 1983.

1.6.4 The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), Dunwoody Park, Atlanta, Georgia 30341.

- (1) TAPPI Method T624 os-68, IBR approved January 27, 1983.

1.6.5 The following material is available for purchase from the Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue, N.W., Washington, DC 20037.

- (1) Method 209A, Total Residue Dried at 103-105EC, in *Standard Methods for the Examination of Water and Wastewater*, 15th Edition, 1980, IBR approved February 25, 1985.

1.6.6 The following material is available for purchase from the following address: Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, Illinois 60062.

- (1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance.

1.6.7 The following material is available for purchase from the following address: West Coast Lumber Inspection Bureau, 6980 S.W. Barnes Road, Portland, Oregon 97223.

- (1) West Coast Lumber Standard Grading Rules, No. 16, pages 5-21 and 90 and 91. September 3, 1970, revised 1984.

1.6.8 The following material is available from the U.S. EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

- (1) Method 601, Test Method for Purgeable Halocarbons, July 1982, IBR approved September 30, 1986.

1.6.9 The following material is available for purchase from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

- (1) ANSI N13.1--1969, "Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities." IBR approved.

1.6.10 The following material is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325, telephone (202)783-3238.

- (1) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition, November 1986, as amended by Revision I, December 1987, Order Number 955-001-00000-1:

- (i) Method 8020, Aromatic Volatile Organics, IBR approved March 7, 1990.

- (ii) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary

Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series, IBR approved March 7, 1990.

- (iii) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics, IBR approved March 7, 1990.
- (iv) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique, IBR approved March 7, 1990.

1.6.11 The following material is available for purchase from the American Society of Mechanical Engineers (ASME), 345 East 47th Street, New York, New York 10017.

- (1) ASME QRO-1-1994. Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.56a and 60.58b(i)(6)(ii).
- (2) ASME PTC 4.1 1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b, 60.54b(a), 60.54b(b), and 60.58a(h).
- (3) ASME Interim Supplement 19.5 on Instruments and Apparatus; Application, Part II of Fluid Meters, 6th Edition (1971) IBR approved for §§60.58a(h) and 60.58(i)(6)(ii).