

³⁹ Psychrometric Tables for Vapor Pressure, Relative Humidity and Temperatures of the Dew-Point (U. S. Department of Agriculture, Weather Bureau, Washington, D. C.).

⁴⁰ A Review of Existing Psychrometric Data in Relation to Practical Engineering Problems, by W. H. Carrier and C. O. Mackey (*A.S.M.E. Transactions*, January, 1937, p. 33; Discussion *A.S.M.E. Transactions*, August, 1937, p. 528).

⁴¹ Divided Flow Low Temperature Humidity Test Apparatus, by Arnold Wexler (*National Bureau of Standards*, Research Paper No. 1894).

⁴² Gas Analysis by Measurement of Thermal Conductivity, by H. A. Daynes (*Cambridge Press*, 1933).

⁴³ Standard Method of Test for Thermal Conductivity of Materials by Means of the Guarded Hot Plate, adopted July, 1942, by A.S.H.V.E. (*A.S.T.M. Designation* C177-42T).

⁴⁴ Guarded Hot Plate Apparatus Complying With the Requirements of Section 4 of A.S.T.M. Method of Test for Thermal Conductivity of Materials by Means of the Guarded Hot Plate, *A.S.T.M.*

⁴⁵ A.S.H.V.E. Standard Test Code for Heat Transmission Through Walls (*A.S.H.V.E. TRANSACTIONS*, Vol. 34, 1928, p. 253), adopted 1928.

⁴⁶ A.S.H.V.E. RESEARCH REPORT No. 635—Measuring Heat Transmission in Building Structures and a Heat Transmission Meter, by P. Nicholls (*A.S.H.V.E. TRANSACTIONS*, Vol. 30, 1924, p. 65).

⁴⁷ Instruments and Methods for Recording Thermal Factors Affecting Human Comfort, by C. P. Yaglou, A. P. Kratz and C. E. A. Winslow (Year Book, *American Journal Public Health*, 36-37).

⁴⁸ The Thermo-Integrator—A New Instrument for the Observation of Thermal Interchanges, by C. E. A. Winslow and Leonard Greenburg (*A.S.H.V.E. TRANSACTIONS*, Vol. 41, 1935, p. 149).

⁴⁹ I = B = R Testing and Rating Codes for Low Pressure Heating Boilers, 1947 (*Institute of Boiler and Radiator Manufacturers*).

⁵⁰ Commercial Standard for Warm Air Furnaces Equipped with Vaporizing Pot Type Oil Burners, C.S. 104-46, *National Bureau of Standards*.

⁵¹ Rapid Determination of Small Amounts of Carbon Monoxide, by Martin Shepherd. *Ind. Eng. Chem. Anal. Ed.* 19, 77: 1947.

⁵² Determination of Small Amounts of Carbon Monoxide in Air by Various Reference Methods, by Martin Shepherd, *National Bureau of Standards Journal of Research* 38, 351-8; 1947 R. P. 1777.

⁵³ A Carbon Monoxide Recorder, by S. H. Katz, D. A. Reynolds, H. W. Frevert and J. J. Bloomfield (*U. S. Bureau of Mines, Technical Paper* No. 355, 1926).

⁵⁴ Commercial Standard for Mechanical Draft Oil Burners Designed for Domestic Installations, C.S. 75-42, *National Bureau of Standards*.

⁵⁵ Industrial Dust, by Phillip Drinker and Theodore Hatch (McGraw-Hill Book Company, New York).

⁵⁶ Testing and Rating of Air Cleaning Devices Used for General Ventilation Work, by S. R. Lewis (*A.S.H.V.E. TRANSACTIONS*, Vol. 39, 1933, p. 277).

⁵⁷ A.S.H.V.E. Code for Testing and Rating Air Cleaning Devices Used in General Ventilation Work, adopted January, 1934 (*A.S.H.V.E. TRANSACTIONS*, Vol. 39, 1933, p. 225).

⁵⁸ A Test Method for Air Filters, by Richard S. Dill (*A.S.H.V.E. TRANSACTIONS*, Vol. 44, 1938, p. 379).

⁵⁹ Analytical Chemistry of Industrial Poisons, Hazards and Solvents, by Morris B. Jacobs (Interscience Publishers, Inc., New York, 1941).

⁶⁰ The Determination and Control of Industrial Dust, by J. J. Bloomfield and J. M. Dalla Valle (*U.S. Public Health Bulletin* No. 217, 1935).

⁶¹ Sampling and Analysis of Atmospheric Contaminants, by F. A. Patty (*Industrial Hygiene and Toxicology*, Vol. I, Interscience Publishers, Inc., New York, 1948).

⁶² Electrical Engineer's Handbook, by Harold Pender and Knox McIlvaine (John Wiley and Sons, New York).

⁶³ Elements of Acoustical Engineering, by Harry F. Olson (D. Van Nostrand Co., New York).

⁶⁴ American Tentative Standards for Sound Level Meters for Measurement of Noise and Other Sounds, Z 24.3-1944 (American Standards Association).

CHAPTER 50

CODES AND STANDARDS

THE Codes and Standards listed in Table 1 represent accepted practice, methods, or standards prepared and accepted by the organizations indicated. They are valuable guides for the practicing engineer in determining test methods, ratings, performance requirements, and limits applying to equipment used in heating, ventilating, and air conditioning. Copies can usually be obtained from the organization listed in the reference column.

TABLE 1. CODES AND STANDARDS PREPARED AND ACCEPTED BY VARIOUS SOCIETIES AND ASSOCIATIONS

SUBJECT	TITLE	SPONSOR	REFERENCE
Air Conditioning	Code of Minimum Requirements for Comfort Air Conditioning (1938)	A.S.H.V.E. A.S.E.E.	A.S.H.V.E.
Air Conditioning (120,000 Btu/Hr or less)	Code and Manual for the Design and Installation of Warm Air Winter Air Conditioning Systems (1945).	N.W.A.H. & A.C.A.	N.W.A.H. & A.C.A. Manual No. 7
Air Conditioning (Above 120,000 Btu/hr)	The Technical Code for the Design and Installation of Mechanical Warm Air Heating Systems (1948).	N.W.A.H. & A.C.A.	N.W.A.H. & A.C.A. Manual No. 9
Airplane	Aeronautical Recommended Practice for Heating and Ventilating Airplanes (1943)	S.A.E.	S.A.E. ARP 85
Airplane	Aeronautical Recommended Practice for Internal Combustion Type Airplane Heaters (1945).	S.A.E.	S.A.E. ARP 143A
Attic Ventilation	Attic Ventilation Code (1946)	P.F.M.A.	P.F.M.A.
Boilers	I=B=R Testing and Rating Code for Low Pressure Heating Boilers (1947).	I.B.R.	I.B.R.
Boilers	Net Square Feet Radiation Loads in 70 Deg Fahr. Recommended for Low Pressure Heating Boilers (1943).	H.P. & A.C.C.N.A.	H.P. & A.C.C.N.A.
Boilers	Net Load Recommendations for Heating Boilers.	H.P. & A.C.C.N.A.	H.P. & A.C.C.N.A.
Boilers	Standard and Short Form Heat Balance Codes for Testing Low Pressure Steam Heating Solid Fuel Boilers (Codes 1 and 2) (1929).	A.S.H.V.E.	A.S.H.V.E.
Boilers	A.S.H.V.E. Performance Test Code for Steam Heating Solid Fuel Boilers (Code No. 3) (1929).	A.S.H.V.E.	A.S.H.V.E.
Boilers	A.S.H.V.E. Standard Code for Testing Steam Heating Boilers Burning Oil Fuel (1932).	A.S.H.V.E.	A.S.H.V.E.
Boilers	A.S.H.V.E. Standard Code for Rating Steam Heating Solid Fuel Hand Fired Boilers (Revised April 1930).	A.S.H.V.E.	A.S.H.V.E.
Boilers	A.S.H.V.E. Standard Code for Testing Stoker-Fired Steam-Heating Boilers (1938).	A.S.H.V.E.	A.S.H.V.E.
Boilers	A.S.M.E. Boiler Construction Code for Low Pressure Heating Boilers (1946 with 1948 Addenda).	A.S.M.E.	A.S.M.E.
Boilers (Miniature)	A.S.M.E. Miniature Boiler Code (1946).	A.S.M.E.	A.S.M.E.
Boilers	A.S.M.E. Boiler Construction Code (Combined Edition) (1946 with 1947 Addenda).	A.S.M.E.	A.S.M.E.