

# CHAPTER 11

## REFERENCED STANDARDS

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**User note:**

**About this chapter:** This code contains numerous references to standards promulgated by other organizations that are used to provide requirements for materials and methods of construction. Chapter 11 contains a comprehensive list of all standards that are referenced in this code. These standards, in essence, are part of this code to the extent of the reference to the standard.

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section 102.7.

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### AHRI

Air Conditioning, Heating & Refrigeration Institute  
2311 Wilson Boulevard, Suite 400  
Arlington, VA 22201

**400 (I-P)—2015: Performance Rating of Liquid to Liquid Heat Exchangers**

Table 316.2(1)

**1160 (I-P)—2014: Performance Rating of Heat Pump Pool Heaters—(with Addendum 1)**

Table 316.2(1)

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### ANSI

American National Standards Institute  
25 West 43rd Street, 4th Floor  
New York, NY 10036

**A108/A118/A136.1—2019: Specifications for Installation of Ceramic Tile**

Table 307.2.2

**Z21.56a/CSA 4.7—2017: Gas Fired Pool Heaters**

Table 316.2(1)

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### APSP

Pool & Hot Tub Alliance (formerly The Association of Pool & Spa Professionals)  
2111 Eisenhower Avenue, Suite 500  
Alexandria, VA 22314

**ANSI/APSP/ICC 4—2012: American National Standard for Aboveground/Onground Residential Swimming Pools—Includes Addenda A Approved April 4, 2013**

702.2.1

**ANSI/PHTA/ICC 7—2020: American National Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins**

310.1

**ANSI/APSP/ICC 14—2019: American National Standard for Portable Electric Spa Energy Efficiency**

303.2

**ANSI/APSP/ICC 15—2011: American National Standard for Residential Swimming Pool and Spa Energy Efficiency Includes Addenda A Approved January 9, 2013**

303.3

**ANSI/APSP/ICC 16—2017: American National Standard for Suction Outlet Fitting (SOFA) for Use in Pools, Spas, and Hot Tubs**

202, 311.4.1, 311.4.4, 505.2.1, 612.4.2

**ANSI/APSP/ICC/NPC 12—2016: American National Standard for the Plastering of Swimming Pools and Spas**

307.2.5

## REFERENCED STANDARDS

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### ASCE/SEI

American Society of Civil Engineers  
Structural Engineering Institute  
1801 Alexander Bell Drive  
Reston, VA 20191-4400

**ASCE 24—14: Flood Resistant Design & Construction**  
304.3

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### ASHRAE

ASHRAE  
1791 Tullie Circle NE  
Atlanta, GA 30329

**62.1—2019: Ventilation for Acceptable Air Quality**  
325.1

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### ASME

American Society of Mechanical Engineers  
Two Park Avenue  
New York, NY 10016-5990

**A112.1.2—2012(R2022): Air Gaps in Plumbing Systems (For Plumbing Fixtures and Water-connected Receptors)**  
318.2

**B16.15—2013: Cast Alloy Threaded Fittings: Classes 125 and 250**  
Table 311.4.1

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### ASTM

ASTM International  
100 Barr Harbor, P.O. Box C700  
West Conshohocken, PA 19428-2959

**A182/A182M—2018A: Standard Specification for Forged or Rolled Alloy and Stainless Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-temperature Service**  
Table 311.4.1

**A240/A240M—17: Standard Specification for Chromium and Chromium-nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications**  
Table 307.2.2

**A312/A312M—2018: Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes**  
Table 311.4

**A403/A403M—2018A: Standard Specification for Wrought Austenitic Stainless Steel Piping Fittings**  
Table 311.4.1

**B88—2016: Standard Specification for Seamless Copper Water Tube**  
Table 311.4

**B447—12a: Specification for Welded Copper Tube**  
Table 311.4

**D1527—99(2005): Specifications for Acrylonitrile Butadiene Styrene (ABS) Plastic Pipe, Schedules 40 and 80**  
Table 311.4, Table 311.4.1

**D1593—13: Standard Specification for Nonrigid Vinyl Chloride Plastic Film and Sheeting**  
Table 307.2.2

**D1785—15E1: Specification for Poly Vinyl Chloride (PVC) Plastic Pipe, Schedules 40, 80 and 120**  
Table 311.4

**D2241—15: Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-rated Pipe (SDR Series)**  
Table 311.4

**D2464—15: Standard Specification for Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80**  
Table 311.4.1

**D2466—2017: Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40**  
Table 311.4.1

**D2467—15: Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80**  
Table 311.4.1

**ASTM—continued**

- D2672—14: Standard Specification for Joints for IPS PVC Pipe Using Solvent Cement**  
Table 311.4
- D2846/D2846M—2017BE1: Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems**  
Table 311.4, Table 311.4.1
- F437—15: Standard Specification for Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80**  
Table 311.4.1
- F438—2017: Standard Specification for Socket-type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40**  
Table 311.4.1
- F439—13: Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80**  
Table 311.4.1
- F1346—1991(2018): Standard Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs**  
305.1, 305.4

**CPSC**

Consumer Product Safety Commission  
4330 East-West Highway  
Bethesda, MD 20814

- 16 CFR Part 1207—04: Safety Standard for Swimming Pool Slides**  
406.10

**CSA**

CSA Group  
8501 East Pleasant Valley Road  
Cleveland, OH 44131-5516

- B137.2—17: Polyvinylchloride (PVC) Injection-moulded Gasketed Fittings for Pressure Application**  
Table 311.4, Table 311.4.1
- B137.3—17: Rigid Polyvinylchloride (PVC) Pipe and Fitting and Pressure Applications**  
Table 311.4, Table 311.4.1
- B137.6—17: Chlorinated Polyvinylchloride (CPVC) Pipe, Tubing, and Fitting for Hot- and Cold-water Distribution Systems**  
Table 311.4, Table 311.4.1
- C22.2 No. 108—14: Liquid Pumps**  
313.8
- C22.2 No. 218.1—13 (2017): Spas, Hot Tubs and Associated Equipment**  
302.3, 309.1, 310.1, 313.8, Table 316.2(1), 317.2, 509.1, 1001.4, 1001.7
- C22.2 No. 236—15: Heating and Cooling Equipment**  
Table 316.2(1)
- Z21.56a/CSA 4.7—2017: Gas Fired Pool Heaters**  
Table 316.2(1)

**IAPMO**

IAPMO  
4755 E. Philadelphia Street  
Ontario, CA 91761-USA

- IAPMO Z124.7—2013: Prefabricated Plastic Spa Shells**  
TABLE 307.2.2

**ICC**

International Code Council, Inc.  
500 New Jersey Avenue, NW 6th Floor  
Washington, DC 20001

- IBC—21: International Building Code®**  
201.3, 304.2, 306.1, 307.2, 410.1

## REFERENCED STANDARDS

### ICC—continued

**ICC 901/SRCC 100—2020: Solar Thermal Collector Standard**

316.6.2

**ICC 902/APSP/SRCC 400—2020: Solar Pool and Spa Heating System Standard**

Table 316.2(2)

**ICC A117.1—2017: Accessible and Usable Buildings and Facilities**

307.1.4

**IECC—21: International Energy Conservation Code®**

201.3, 316.4

**IFC—21: International Fire Code®**

201.3

**IFGC—21: International Fuel Gas Code®**

201.3, 316.4

**IMC—21: International Mechanical Code®**

201.3, 316.4

**IPC—21: International Plumbing Code®**

201.3, 302.2, 302.5, 302.6, 306.8, 318.2, 410.1

**IRC—21: International Residential Code®**

102.7.1, 201.3, 302.1, 302.5, 302.6, 304.2, 306.1, 306.3, 306.8, 307.2, 316.4, 318.2, 321.2.1, 321.4, 703.1, 802.1, 802.2

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## NEMA

National Electrical Manufacturers Association  
1300 North 17th Street Suite 900  
Rosslyn, VA 22209

**NEMA Z535—2017: ANSI/NEMA Color Chart**

409.3

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## NFPA

National Fire Protection Association  
1 Batterymarch Park  
Quincy, MA 02169-7471

**NFPA 70—2020: National Electrical Code**

302.1, 316.4, 321.2.1, 321.4

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## NSF

NSF International  
789 N. Dixboro Road P.O. Box 130140  
Ann Arbor, MI 48105

**NSF 14—2017: Plastics Pumping Systems Components and Related Materials**

302.3, 311.4

**NSF 50—2017: Equipment for Swimming Pools, Spas, Hot Tubs, and Other Recreational Water Facilities**

302.3, 309.2, Table 316.2(1), 508.1, 612.5.4

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## UL

UL LLC  
333 Pfingsten Road  
Northbrook, IL 60062

**372—2007: Automatic Electrical Controls for Household and Similar Use—Part 2: Particular Requirements for Burner Ignition Systems and Components—with revisions through July 2012**

506.2.1, 506.2.2

**873—2007: Temperature-indicating and Regulating Equipment—with revisions through February 2015**

506.2.1, 506.2.2

**1004-1—12: Rotating Electrical Machines General Requirements—with August 2018**

313.8

**UL—continued**

**1081—2016: Swimming Pool Pumps, Filters and Chlorinators—with revisions through October 2017**  
313.8

**1261—2016: Standard for Electric Water Heaters for Pools and Tubs—with revisions through September 2017**  
Table 316.2(1)

**1563—2009: Electric Spas Equipment Assemblies and Associated Equipment—with revisions through October 2017**  
302.3, 309.1, 310.1, 313.8, Table 316.2(1), 317.2, 509.1, 1001.4, 1001.7

**1995—2015: Heating and Cooling Equipment—with revisions through August 2018**  
Table 316.2(1)

**2017—2008: General-purpose Signaling Devices and Systems—with revisions through January 2018**  
305.4

**60335-2-100: Standard for Household and Similar Electrical Appliances: Particular Requirements for Electrically Powered Pool Lifts, with revisions through September 29, 2017**  
307.1.4

**UL/CSA 60335-2-40-17: Standard for Safety for Household and Similar Electrical Appliances – Safety – Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers**  
Table 316.2(1)