

AN AMERICAN NATIONAL STANDARD  
IAPMO/ANSI UPC 1 – 2015

# 2015 UNIFORM PLUMBING CODE®



**READ ME  
TABLE OF CONTENTS**



# 2015 **UNIFORM PLUMBING CODE**<sup>®</sup>

AN AMERICAN NATIONAL STANDARD  
IAPMO/ANSI UPC 1 – 2015



## **Important Notices and Disclaimers**

The 2015 edition of the *Uniform Plumbing Code* is developed through a consensus standards development process approved by the American National Standards Institute. This process brings together volunteers representing varied viewpoints and interests to achieve consensus on plumbing issues. While the International Association of Plumbing and Mechanical Officials (IAPMO) administers the process and establishes rules to promote fairness in the development of consensus, it does not independently test, evaluate, or verify the accuracy of any information or the soundness of any judgments contained in its codes and standards.

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## **Updating IAPMO Codes**

Users of IAPMO codes should be aware that IAPMO codes may be amended from time to time through the issuance of Tentative Interim Amendments or corrected by Errata. IAPMO codes consist of the current edition of the document together with any Tentative Interim Amendment and any Errata in effect.

In order to determine whether an IAPMO code has been amended through the issuance of Tentative Interim Amendments or corrected by Errata, please visit the IAPMO Group codes information pages on IAPMO's website ([www.iapmo.org](http://www.iapmo.org)). The codes information pages provide a list of IAPMO codes with up-to-date, specific information including any issued Tentative Interim Amendments and Errata.

To access the codes information pages for a specific code, go to <http://codes.iapmo.org> to select from the list of IAPMO codes. For Tentative Interim Amendments, go to the standard council decisions. For Errata, select the archived revision information.

## FOREWORD

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### Origin and Development

The advantages of a statewide adopted *Uniform Plumbing Code* are recognized throughout the industry. Disorder in the industry because of widely divergent plumbing practices and the use of many different, often conflicting, plumbing codes by local jurisdictions influenced the Western Plumbing Officials Association (now the International Association of Plumbing and Mechanical Officials [IAPMO]) to form a committee. This committee of plumbing inspectors, master and journeyman plumbers, and plumbing engineers, backed by public utility companies and the plumbing industry to create a basic plumbing document for general use. The product of this effort, the first edition of the *Uniform Plumbing Code*<sup>™</sup> (UPC<sup>™</sup>) was adopted by IAPMO in 1945. The widespread use of this code over the past five decades by jurisdictions throughout the United States and internationally is testament to its merit.

Publishing the 2003 *Uniform Plumbing Code*, is a significant milestone because it is the first time in the history of the United States, a plumbing code was developed through a true consensus process. The 2015 edition represents the most current approaches in the plumbing field and is the fifth edition developed under the ANSI consensus process. Contributions to the content of this code consists of diverse interests as consumers, enforcing authorities, installers/maintainers, labor, manufacturers, research/standards/testing laboratories, special experts, and users.

The *Uniform Plumbing Code* provides consumers with safe and sanitary plumbing systems while, at the same time, allowing latitude for innovation and new technologies. The public at large is invited and encouraged to take part in IAPMO's open consensus code development process. This code is updated every three years. The *Uniform Plumbing Code* is dedicated to all those who, in working to achieve "the ultimate plumbing code," have unselfishly devoted their time, effort, and personal funds to create and maintain this, the finest plumbing code in existence today.

The *Uniform Plumbing Code* updates every three years in revision cycles that begin twice each year that takes two years to complete.

Each revision cycle advances according to a published schedule that includes final dates for all major events and contains four basic steps as follows:

1. Public and Committee Proposal Stage;
2. Comment Stage;
3. Association Technical Meeting;
4. Council Appeals and Issuance of Code.

IAPMO develops "full consensus" codes built on a foundation of maximum participation and agreement by a broad range of interests. This philosophy has led to producing technically sound codes that promote health and safety, yet do not stifle design or development.

It is important to stress that; the process remains committed to the principles of consensus code development where consensus Technical Committees and Correlating Committees revise codes. The public and membership is offered multiple opportunities to debate, provide input and raise concerns through Amending Motions at the annual Assembly Consideration Session. Anyone may submit an appeal related to the issuance of a document through the IAPMO Standards Council.

The 2015 *Uniform Plumbing Code* is supported by the American Society of Sanitary Engineering (ASSE), the Mechanical Contractors Association of America (MCAA), the Plumbing-Heating-Cooling Contractors National Association (PHCC-NA), the United Association (UA), and the World Plumbing Council (WPC). The presence of these logos, while reflecting support, does not imply any ownership of the copyright to the UPC, which is held exclusively by IAPMO. Further, the logos of these associations indicate the support of IAPMO's open consensus process being used to develop IAPMO's codes and standards.

The addresses of the organizations are as follows:

ASSE – 18927 Hickory Creek Drive, Suite 220 • Mokena, IL 60448 • (708) 995-3019

MCAA – 1385 Piccard Drive • Rockville, MD 20850 • (301) 869-5800

PHCC-NA – PO Box 6808 • Falls Church, VA 22046 • (800) 533-7694

UA – Three Park Place • Annapolis, MD 21401 • (410) 269-2000

WPC – World Plumbing Council Secretariat, 353 Shepperton Road • East Victoria Park 6101 • Western Australia • +61 (439) 943-098

### **Adoption**

The *Uniform Plumbing Code* is available for adoption and use by jurisdictions in the United States and Internationally. Its use within a governmental jurisdiction is accomplished through adoption by reference in accordance with applicable jurisdictional laws. At adoption, jurisdictions should insert the applicable information in bracketed words in the sample ordinance. The sample legislation for adoption of the *Uniform Plumbing Code* on page xii provides key components, regulations and resolutions.

### **Revision Markings**

Solid vertical lines in the margins indicate a technical change from the requirements of the 2012 edition. An arrow (←) in the margin indicates where an entire section, paragraph, exception or table has been deleted, or an item in a list of items or a table has been deleted.

A double right angle (◄◄) in the margin indicates that the text or a table has been relocated within the code. The table found on page xiv points out the relocations in the 2015 edition of the *Uniform Plumbing Code*.

A reference in brackets [ ] following a section or paragraph indicates material that has been extracted from another document. This reprinted material is not the complete and official position of the source document on the referenced subject that is represented by the standard in its entirety.

Text that is extracted pursuant to IAPMO's Extract Guidelines, but outside of the regular revision process is denoted with the use of the source document in the margin. This text is not fully processed by IAPMO in accordance with ANSI's public announcement consensus requirements for an American National Standard (ANS) nor approved by ANSI's Board of Standards Review. The next revision cycle processes such text in accordance with those requirements.

## FORMAT OF THE UNIFORM PLUMBING CODE

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The format of the *Uniform Plumbing Code* (UPC) arranges each chapter in accordance with a specific subject matter. However, Chapter 3 is dedicated to general requirements that are applicable to every chapter. The subject matters are divided as follows:

CHAPTERS	SUBJECTS
1	Administration
2	Definitions
3	General Regulations
4	Plumbing Fixtures and Fixture Fittings
5	Water Heaters
6	Water Supply and Distribution
7	Sanitary Drainage
8	Indirect Wastes
9	Vents
10	Traps and Interceptors
11	Storm Drainage
12	Fuel Gas Piping
13	Health Care Facilities and Medical Gas and Medical Vacuum Systems
14	Firestop Protection
15	Alternate Water Sources for Nonpotable Applications
16	Nonpotable Rainwater Catchment Systems
17	Referenced Standards
Appendix A	Recommended Rules for Sizing the Water Supply System
Appendix B	Explanatory Notes on Combination Waste and Vent Systems
Appendix C	Alternate Plumbing Systems
Appendix D	Sizing Storm Water Drainage Systems
Appendix E	Manufactured/Mobile Home Parks and Recreational Vehicle Parks
Appendix F	Firefighter Breathing Air Replenishment Systems
Appendix G	Sizing of Venting Systems
Appendix H	Private Sewage Disposal Systems
Appendix I	Installation Standard
Appendix J	Combination of Indoor and Outdoor Combustion and Ventilation Opening Design
Appendix K	Potable Rainwater Catchment Systems
Appendix L	Sustainable Practices

The following is a summary of the scope and intent of the provisions addressed within the chapters and appendices of the *Uniform Plumbing Code*:

### **Chapter 1 Administration.**

Chapter 1 regulates the application, enforcement, and administration of subsequent requirements of the code. As well as establishing the scope of the code, this chapter is concerned with enforcing the requirements contained in the body of the code. A plumbing code, as with any other code, is intended to be adopted as a legally enforceable document to safeguard health, safety, property and public welfare. The code cannot be effective without satisfactory provisions for its administration and enforcement. The Authority Having Jurisdiction is to review the proposed and completed work and to decide whether a plumbing system conforms to the code requirements. As a public servant, the Authority Having Jurisdiction enforces the code in an unbiased, proper manner. The design professional is responsible for the design of a safe plumbing system. The contractor is responsible for installing the system in accordance with the plans.

### **Chapter 2 Definitions.**

To maintain consistency and encourage the use of common terminology, Chapter 2 establishes definitions to provide clarity of terms and promote the use of a common language throughout the code. Understanding definitions within the context of their application enables greater collaboration, efficiency, standardization and interpretation in applying and enforcing terms used throughout the code. Codes are technical documents, and every term can impact the meaning of the code text. Terms not defined have a normally accepted meaning.

### **Chapter 3 General Regulations.**

Chapter 3 regulates the general requirements, not specific to other chapters, for installing plumbing systems. Many regulations are not specific plumbing requirements, but relate to the overall plumbing system. This chapter contains safety requirements for installing plumbing and also contains nonplumbing requirements for identifying pipe, pipe fittings, traps, fixtures, materials and devices used in plumbing systems. Listing or labeling method of approval, based on applicable nationally recognized standards, for the safe and proper installation of plumbing systems is essential to ensure protection of public health, safety, and welfare. The safety requirements provide protection for piping, material, and structures, with provisions for installation practices, removing stress and strain of the pipe, sleeving, and hanger support. The building's structural stability is protected by the regulations for cutting and notching of structural members.

### **Chapter 4 Plumbing Fixtures and Fixture Fittings.**

This chapter regulates the minimum number of plumbing fixtures of a specific type and quality for each building. The fixtures must be properly installed to be usable by the individuals occupying the building. The quality and design of every fixture must conform to the applicable referenced standard. Compliance with this chapter will result in a building or structure having acceptable plumbing fixtures for the sanitary, hygienic, cleaning, washing and food preparation needs of the occupants.

### **Chapter 5 Water Heaters.**

Chapter 5 regulates the design, approval, installation, and safety devices of fuel burning and other types of water heaters with the combustion air requirements for ventilation and dilution of flue gases for appliances installed in buildings. This chapter does not apply to direct vent appliances. In addition, this chapter regulates the design, construction, installation, maintenance of chimneys, vents and their connections to fuel burning appliances. Methods to supply combustion air may be supplied from an indoor air supply, outdoor air supply, a combination of indoor and outdoor air supply, mechanical air supply, or an engineered system. Combustion air provisions are based on the number of openings and the total opening size required based on the total energy input rating of the appliance. Acceptable air supply for combustion and ventilation is necessary for proper operation of fuel burning appliances. A shortage of combustion air can result in incomplete combustion and production of poisonous gases, such as carbon monoxide or appliance overheating. Ventilation air provides cooling for the appliance casing and internal controls. Inadequate ventilation of the space in which an appliance is installed can result in increased surrounding temperatures that stress the appliance itself or other appliances in the vicinity.

### **Chapter 6 Water Supply and Distribution.**

Chapter 6 regulates the design, material and installation of water supply and distribution systems, including residential fire sprinklers. The water supply and distribution system is designed to achieve the correct water pressure and flow rates and

## **FORMAT OF THE UNIFORM PLUMBING CODE**

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avoid cross connections. For fixtures to perform properly, an acceptable supply of potable water is essential to their operation and use. Cross connections and backflow are ranked as the highest priority because of the long history of recognized health risks posed by cross connections, outbreaks, or cases of waterborne disease. Piping materials and components are evaluated for their possible effect on the potable water with which they are in contact. The intent is to control the potential adverse health effects produced by indirect additives, products, and materials that come in contact with potable water. When selecting materials for water supply and distribution systems, consider water pressure, water temperature, compatibility with the water supply, durability, support, and sustainability.

In addition, this chapter regulates the design, location, materials, and installation of multipurpose and stand-alone sprinkler systems that do not include the use of antifreeze. Where systems are installed as a portion of the water distribution system under the requirements of this chapter and are not provided with a fire department connection, backflow protection for the water supply system is not required.

### **Chapter 7 Sanitary Drainage.**

This chapter regulates the design and installation of sanitary drainage systems to ensure they will work as intended. Drainage piping should not be oversized nor undersized, and constructed of approved materials to guard against fouling, deposit of solids, clogging, and with cleanouts so arranged that the pipes may be readily cleaned. The purpose of the sanitary drainage system is to remove effluent discharged from plumbing fixtures and other equipment to an approved point of disposal, such as a public sanitary system or private sewage disposal system.

The basics of a sanitary drainage system include public and private sewage disposal; selection of materials; installation of the building drain and sewer; joining methods for pipe and fittings; drainage fixture units for sizing the drainage system; sumps and ejectors; vent sizing and length of vents; and testing.

### **Chapter 8 Indirect Wastes.**

Chapter 8 regulates indirect waste connections that are required for plumbing fixtures and plumbing appliances dealing with food preparation, dishwashing, potable liquids, and similar equipment. An indirect connection prevents sewage from backing up into a fixture or appliance, thus providing protection against potential health hazards. The waste pipe discharges through an air gap or air break into a waste receptor or standpipe. The protection in the form of an air gap is necessary when the contamination is a potential health hazard or cross connection with the potable water system. Where there is no possibility of contaminating the potable water (nonpotable discharge), the indirect waste pipe may connect in the form of an air break. This method is often preferred to prevent splashing. In addition, health care facilities and special wastes must be protected from contamination that may result from the connection to the drainage system. The waste must be treated to prevent any damage to the piping or sewage treatment process. Waste receptors are sized and designed to prevent splashing and allow for peak discharge conditions.

### **Chapter 9 Vents.**

Chapter 9 regulates the material, design, and installation of vents. A vent system is a pipe or pipes installed in a drainage system that provide a flow of air to and from the system to ventilate it, provide a circulation of air to eliminate trap siphonage, and reduce back-pressure and vacuum surge. In addition, vents provide the rapid and silent flow of waste without exposing occupants of the building to any sewer gases. Proper installation of vents is crucial, as a telltale sign that there is a problem in the drain and vent system is related to the elevation of the horizontal portion of the venting. Venting is not limited to sanitary drainage systems. Venting methods are applicable to other drainage systems such as those for chemical waste, graywater waste, and clear water waste. Sizing the venting system is directly tied to the design of the drainage system. For example, the velocities in the drainage system and its peak flow rates affect the diameters in the venting system. Where the vertical distance between a fixture outlet and trap is excessive, velocities in the entire drainage system will be greater than those in the vent sizing table. All venting methods in this chapter are categorized as either dry vents or wet vents. Vent stacks, stack vents, branch vents, island vents, relief vents, and individual vents are dry vents. Wet vents (horizontal or vertical), circuit vents, combination drain and vents are versions of "wet venting" in which the vent is wetted by drainage flow.

### **Chapter 10 Traps and Interceptors.**

Chapter 10 regulates the material, design, and installation of traps, interceptors, and separators. Traps are required on drainage type plumbing fixtures and must be self-scouring without interior partitions. Interceptors, on the other hand, are

designed to control what goes down a drain. Interceptors are used to keep harmful substances from entering the sanitary drainage system, such as grease, sand, oil and other materials. The retained materials need periodic removal to maintain efficiency and function of the separating device. The capacity of an interceptor is based on retention and flow rate. There are many types of interceptors that are used at beauty salons, hospitals, meat, fish or fowl packaging, refineries, repair garages, gas stations, car washing facilities, various plants, factories, and processing sites. The designer of the building is responsible for locating interceptors with the expectation for the frequency of maintenance, ease of cleaning and floor space for equipment.

### **Chapter 11 Storm Drainage.**

Chapter 11 regulates the removal of stormwater from roofs, yards, paved areas, and similar areas. The objective of storm drainage systems is to provide a conduit or channel through which runoff will be carried from a point of collection to a point of disposal; this protects the property and the public from the uncontrolled flow of runoff and ensures that drains and inlets are adequately sized to receive the volume of runoff that flows to the drains. For the purpose of system design, it's necessary to specify the duration of a selected storm. All methods used to determine volumes and peak flow use historical data. Drain location must be coordinated with the architectural design of the building. When selecting the type of roof drain to use, the roof construction and its thickness, along with the intended use of the roof, are required. Where the roof perimeter extends above the roof in such a manner that water is entrapped and causes ponding, or if any portion of the roof is designed so water can pond, secondary drainage is required. Where secondary drainage is required, scuppers, or a secondary system of roof drains and pipes, are installed to prevent the accumulation of excessive rainwater.

### **Chapter 12 Fuel Gas Piping.**

Chapter 12 regulates the installation of gas piping in a building, structure or within the property lines of buildings up to 5 psi. Gas piping systems must supply the minimum volume of gas required by each gas appliance to perform their proper operation under working conditions without exceeding the maximum pressure specified by each manufacturer. Because of the hazards associated with fuel gas, it is important to ensure the gas system has been inspected and tested, and that it is safe to turn on the gas supply to the building.

### **Chapter 13 Health Care Facilities and Medical Gas and Medical Vacuum Systems.**

Chapter 13 regulates the installation, inspection, testing, maintenance, performance, and safe practices for medical gas and medical vacuum systems located in health care facilities. This chapter addresses the installation and maintenance of health care fixtures, devices, and equipment. The purpose of medical gas and medical vacuum systems is to provide safe and sufficient flows at required pressures to the medical gas outlet or vacuum inlet terminals. System design and layout should allow convenient access by the medical staff to outlet and inlet terminals, valves, and equipment during patient care or emergencies, as safety is of primary concern.

### **Chapter 14 Firestop Protection.**

Chapter 14 regulates piping penetrations of fire-resistance-rated walls, partitions, floors, floor and ceiling assemblies, roof and ceiling assemblies, or shaft enclosures through firestopping. To firestop is to create a physical barrier that impedes the spread of smoke, gases, and flames from one compartment in the building design to the next. The firestop is seen as a part that is essential to protecting the lives of people who live or work in the structure, increasing the chances of not succumbing to smoke or gases before they are able to evacuate the building. Fireproofing of this type helps to restore the fire-resistant properties of the building materials before the openings were created as part of the construction process.

### **Chapter 15 Alternate Water Sources for Nonpotable Applications.**

Chapter 15 regulates gray water sources, reclaimed (recycled) water sources and on-site treated nonpotable water systems. Water sources include subsurface irrigation, subsoil irrigation, and mulch basin systems. Subsoil water irrigation provides a means to disperse shallow drip irrigation lines and mulch basins that collect and spread water in various applications. The reclaimed water provisions to on-site nonpotable water systems include gray water and other nonpotable water sources that are used for on-site applications. Water reuse is integral to sustainable water management because it allows water to remain in the environment and be preserved for future use while meeting the water requirements of the present. Water reuse reduces energy use by removing added potable water treatment, offsetting water demands, and providing water for energy production.

## **FORMAT OF THE UNIFORM PLUMBING CODE**

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### **Chapter 16 Nonpotable Rainwater Catchment Systems.**

Chapter 16 regulates nonpotable rainwater catchment systems that include irrigation; toilet and urinal flushing with proper treatment; provisions where permits are required; maintenance of alternate water sources; and minimum water quality. This chapter provides guidance on how to optimize rainwater use while ensuring there is a decrease of risk to consumers from poor design, installation, and maintenance. Rainwater harvesting is the process of capturing, channeling, and storing water runoff for later use. Most systems are constructed of three principal components: the catchment area, the collection device, and the conveyance system.

### **Chapter 17 Referenced Standards.**

Chapter 17 provides a comprehensive list of referenced standards. Referenced standards set forth specific details of accepted practices, materials specifications, or test methods in many specialized applications. Standards provide an efficient method of conveying complex information and specifications on the performance requirements for materials, products, systems, application, and installation. The manner and purpose for a standard's use and, in turn, code compliance, must be definitive in all references to the standard. If the standard is intended to be a requirement for judging code compliance, the code must state its intent for use. The standard should adequately address a defined need and at the same time specify the minimum performance requirements, technical characteristics and methods of testing, and required test results.

The referenced standards table is organized in a manner that makes it easy to find specific standards in alphabetical order, and by acronym of the publishing agency of the standard. The table lists the title of the standard, the edition, any addenda, and the section or sections of the code that reference the standard. Contact information for each publishing agency is provided at the end of the chapter.

### **Appendix A Recommended Rules for Sizing the Water Supply System.**

Appendix A provides a method of sizing the water supply and distribution system that provides precise calculations to establish the proper pressures and flow to the system's fixtures. The goal of sizing the system is to deliver an acceptable volume of water to the most hydraulically remote fixture during minimum pressure and maximum flow conditions; provide satisfactory water pressure to the most hydraulically remote fixture during minimum pressure and maximum flow conditions; and to prevent excessive water velocity during maximum flow conditions.

### **Appendix B Explanatory Notes on Combination Waste and Vent Systems.**

Appendix B contains general guidelines for the design and installation of combination waste and vent systems. These systems are designed for waste piping and are purposely oversized to serve as both a waste and vent pipe to avoid excessive pneumatic effects at fixture drains.

### **Appendix C Alternate Plumbing Systems.**

The intent of this appendix is to provide clarification of procedures for the design and approval of engineered plumbing systems, alternate materials, and equipment that are not specifically covered in other parts of the code. Alternative methods are allowed to be used where approved by the authority having jurisdiction. Approval of alternatives is based on a demonstration showing that the method or material used is at least equivalent in strength, deflection, and capacity to that provided by the prescriptive methods and materials.

### **Appendix D Sizing Storm Water Drainage Systems.**

Appendix D provides general guidelines for the sizing of stormwater drainage systems. There are two pieces of information that must always be a given. They are the roof size and the rate of rainfall for the area.

### **Appendix E Manufactured/Mobile Home Parks and Recreational Vehicle Parks.**

The provisions of this appendix apply to the plumbing and drainage systems of mobile home and recreational vehicle parks. These provisions also apply to the use, maintenance, and installation for supplying fuel gas, water, electricity, and disposal of sewage from accessory buildings or structures, and building components.

### **Appendix F Firefighter Breathing Air Replenishment Systems.**

Appendix F provides guidance on installing firefighter breathing air replenishment systems. System components include outside fire department connection panel, interior air fill panel or station, interconnected piping distribution system and pressure monitoring switch. Fire departments access the system through an outside connection panel and are able to pump air into the system. The firefighters inside the structure access the system at fill stations that are found throughout the building. The piping distribution system is made from stainless tubing or other approved materials. It delivers compressed air to the building interior air fill stations and interior air fill panels. The tubing also acts as a conduit in the interior of the building between the outside connection panel and the air storage system. If the system becomes over-pressurized, the air monitoring system also acts as a pressure relief. A system isolation valve is placed alongside each interior air fill station and interior air fill panel to isolate the system.

### **Appendix G Sizing of Venting Systems.**

Appendix G provides added information on the sizing of gas vents. This appendix is useful to the end user for the proper sizing of venting systems. A series of examples are given that show how to use the tables and other requirements of Chapter 5.

### **Appendix H Private Sewage Disposal Systems.**

Appendix H provides general guidelines for the materials, design, and installation of new or existing private sewage disposal systems. Where a building cannot be served by a public sewer system, the building site must be provided with a system for treating the waste water generated from the use of plumbing fixtures in the building. The appendix addresses site evaluations, materials, soil absorption systems, holding tanks, cesspools and on-site waste-water treatment systems. Private sewage disposal systems must be designed based on the soil conditions, constructed using approved materials, and installed according to prescribed dimensions.

### **Appendix I Installation Standard for PEX Tubing Systems for Hot- and Cold-Water Distribution.**

The installation standard provides guidelines for SDR 9 crosslinked polyethylene (PEX) tubing and fittings intended for hot- and cold-water distribution systems. Provisions include joining methods, clearances, sizing and flow velocities, handling, storage, exposure to heat and chemicals, and thermal expansion and contraction.

### **Appendix J Combination of Indoor and Outdoor Combustion and Ventilation Opening Design.**

Appendix J provides an example of how to determine the required combination of indoor and outdoor combustion air opening sizes for appliances. The combustion air example also provides a table that contains the required volume of a space per the appliance BTU/h input that is based on the standard method.

### **Appendix K Potable Rainwater Catchment Systems.**

Potable rainwater catchment system is defined as a system that uses the principal of collecting and using rain from a rooftop or other man-made, aboveground collection surface. This appendix applies to new rainwater catchment installations, as well as changes, additions, maintenance, and repairs to existing installations. Rainwater harvesting is the practice of collecting the water produced during rainfall events before it has a chance to run off into a river or stream or soak into the ground and become groundwater.

### **Appendix L Sustainable Practices.**

This appendix provides a comprehensive set of technically sound provisions that encourage sustainable practices and works toward improving the design and construction of plumbing systems that result in a positive long-term environmental impact. Environmental sustainability is important because it involves natural resources that human beings need for economic or manufactured capital. Their sustainability is defined by their reliance on infinitely available resources that are naturally occurring, constant, and free to access.

## **SAMPLE LEGISLATION FOR ADOPTION OF THE UNIFORM PLUMBING CODE**

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The Uniform Codes are designed to be adopted by jurisdictions through an ordinance. Jurisdictions wishing to adopt the 2015 *Uniform Plumbing Code* as an enforceable regulation governing plumbing systems by reference should ensure the legal basis under which adoption and implementation are included in the ordinance.

The following sample ordinance is a guide for drafting an ordinance for adoption that addresses key components regulations and resolutions.

### **ORDINANCE NO.**

An ordinance of the [JURISDICTION] adopting the 2015 edition of the *Uniform Plumbing Code*, regulating and controlling the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of plumbing systems in the [JURISDICTION]; providing for the issuance of permits and collection of fees therefor; repealing Ordinance No. of the [JURISDICTION] and all other ordinances and parts of the ordinances in conflict therewith.

The [GOVERNING BODY] of the [JURISDICTION] does ordain as follows:

Section 1 Codes Adopted by Reference. That certain documents, three (3) copies of which are on file in the office of the [JURISDICTION'S KEEPER OF RECORDS] and the [JURISDICTION], being marked and designated as the 2015 *Uniform Plumbing Code*, including Appendix Chapters [FILL IN THE APPENDIX CHAPTERS BEING ADOPTED], as published by the International Association of Plumbing and Mechanical Officials, be and is hereby adopted as the Code of the [JURISDICTION], in the State of [STATE NAME] regulating and controlling the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of plumbing systems as herein provided; providing for the issuance of permits and collection of fees therefor; and each and all of the regulations, provisions, penalties, conditions and terms of such 2015 *Uniform Plumbing Code* on file in the office of the [JURISDICTION] are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance.

Section 2 Modifications. The following sections are hereby revised:

Section 101.1. Insert: [NAME OF JURISDICTION]

Section 104.5. Insert: [APPROPRIATE FEE SCHEDULE]

Section 3 Conflicting Ordinances Repealed. That Ordinance No. of [JURISDICTION] entitled [TITLE OF THE ORDINANCE OR ORDINANCES IN EFFECT AT THE PRESENT TIME SO THAT THEY WILL BE REPEALED BY MENTION] and all other ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 4 Severability. That if any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The [GOVERNING BODY] hereby declares that it would have passed this ordinance, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional.

Section 5 Legal Notice. That the [JURISDICTION'S KEEPER OF RECORDS] is hereby ordered and directed to cause this ordinance to be published. (An additional provision may be required to direct the number of times the ordinance is to be published and to specify that it is to be in a newspaper in general circulation. Posting may also be required.)

Section 6 Violations and Penalties. [INCORPORATE PENALTIES FOR VIOLATIONS]

Section 7 Effective Date. That this ordinance and the rules, regulations, provisions, requirements, orders and matters established and adopted hereby shall take effect and be in full force and effect [TIME PERIOD] from and after the date of its final passage and adoption.

## COMMITTEE ON UNIFORM PLUMBING CODE

These lists represent the membership at the time the Committee was balloted on the final text of this edition. Since that time, changes in the membership may have occurred.

### IAPMO Standards Council

**Linden Raimer**, *Chairman*

Raimer Consulting Services, LLC, [U]

**Tim Brink**, Mechanical Contractors Association of Eastern PA [I/M]

**Rex Crawford**, City of Lincoln [E]

**Carl Crimmins**, MN State Pipe Trades [SE]

**James Majerowicz**, UA Instructor [L]

**Rich Prospal**, ASSE [C]

**Ron Rice**, City of St. Paul [C]

**Bob Siemsen**, City of Lincoln [E]

**Kevin Tindall**, Tindall & Ranson Plumbing, Heating & A/C, Inc. [I/M]

### Nonvoting

**Gabriella M. Davis**, Secretary

International Association of Plumbing and Mechanical Officials

**Lynne Simnick**, Recording Secretary

International Association of Plumbing and Mechanical Officials

### IAPMO Uniform Plumbing Code Technical Committee

**Tim Collings**, *Chairman*

Salt Lake City, Utah [E]

**Bob Adler**, City of San Jose, California [E]

**Sarah Aguilar**, Southland Industries [I/M]

**Julius Ballanco**, American Society of Plumbing Engineers [SE]

**DJ Berger**, Plumbers and Steamfitters [L]

**Sylvanus Bloice**, Roots Plumbing Services [I/M]

**Jeremy Brown**, NSF International [R/S/T]

**Dan Buuck**, National Association of Home Builders [U]

**Paul Cabot**, American Gas Association [U]

**Phil Campbell**, United Association [L]

**Maggie Carroll**, Underwriters Laboratories [R/S/T]

**Ian Chang**, Intertek Testing Services [R/S/T]

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- U** *User*: A representative of an entity that is subject to the provisions of the standard or that voluntarily uses the standard.
- I/M** *Installer/Maintainer*: A representative of an entity that is in the business of installing or maintaining a product, assembly or system affected by the standard.
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- SE** *Special Expert*: A person not representing any of the previous classifications, but who has special expertise in the scope of the standard or portion thereof.

## SECTION RELOCATION

2015 Location	2012 Location
102.1	101.4
103.3	101.5
102.4	101.6, 101.11
102.4.1, 102.4.2	101.6.1, 101.6.2
102.3	101.7, 101.11.4
102.8	101.10
102.4	101.11
102.5	101.11.1
102.2	101.11.2
102.6	101.11.3
102.3	101.11.4
103.0, 103.1	102.0 – 102.2
103.4	102.2.1
106.4 – 106.6	102.2.2 – 102.2.4
103.2	102.2.5
107.0 – 107.2	102.3, 102.3.1
106.0, 106.1	102.4
106.3	102.5
104.0 – 104.2	103.0 – 103.1.1
103.3.1	103.1.2
104.3, 104.3.1	103.2, 103.2.1
104.4, 104.4.1	103.3
104.4.6	103.3.1
104.4.2 – 104.4.5	103.3.2 – 103.3.4
104.5	103.4
Table 104.5	Table 103.4
104.3.2, 104.3.3	103.4.1, 103.4.2
104.5.1, 104.5.2	103.4.3, 103.4.3.1
104.5.3	103.4.4 – 103.4.4.2
105.0, 105.1	103.5
105.2.1.1	103.5.1
105.2	103.5.2
105.2.1.2	103.5.3
105.2.1	103.5.4, 103.5.5
105.3	103.5.6 – 103.5.6.4
105.2.3 – 105.2.5	103.5.7 – 103.5.7.2
105.2.2	103.5.8
105.3.1	103.5.8.1
102.7	103.5.8.2
105.2.6	103.5.9
106.2	103.5.9.1
105.3.2, 105.3.3	103.5.9.2, 103.5.9.3
105.4	103.6 – 103.6.2

2015 Location	2012 Location
101.4, 101.5	103.7, 103.8
301.2 – 301.2.2	301.1 – 301.1.2
301.2.5 – 301.5.6	301.1.3 – 301.4.6
313.3 – 313.5	313.1 – 313.3
Table 313.3	Table 313.1
313.2	313.4
313.1	313.5
401.2	401.1
403.0, 403.1	402.7
402.7 – 402.11	402.8 – 402.12
411.2	403.2
412.1, 412.1.1	403.3, 403.3.1
407.2.2	403.4
420.3	403.5
405.0 – 405.3	406.0 – 406.3
406.0 – 406.4	407.0 – 407.4
408.7.5	408.7.1
411.3	411.2 – 411.2.2
412.2	412.1
413.1, 413.2	413.2, 413.3
420.4	420.3
403.2	421.0, 421.1
407.3	421.2
507.3	507.1.1
507.3.1 – 507.5	507.2.1 – 507.4
509.6.2.5	509.6
509.6.3.2	509.6.1
509.6.1	509.6.1.1
509.6.2.6	509.6.2.5
509.6.3.3	509.6.3.2
Table 509.10.1.3	Table 509.10.1
Table 509.10.1.4	Table 509.10.1(1)
601.2 – 601.3.5	601.1 – 601.2.4
Table 601.3.2	Table 601.2.2
603.5.13 – 603.5.20	603.5.14 – 603.5.21
604.3 – 604.11	604.2 – 604.10
605.1 – 605.2.3	605.3 – 605.4.3
605.4 – 605.16.3	605.5 – 605.17.3
701.2 – 701.3.3	701.1 – 701.2.3
Table 701.2	Table 701.1
701.5 – 701.7	701.3 – 701.5
Table 701.6	Table 701.4
Table 701.7	Table 701.5
705.2 – 705.9.4	705.4 – 705.11.4

## SECTION RELOCATION

2015 Location	2012 Location
801.2 – 801.7	801.1 – 801.6
803.3	803.1
807.2, 807.3	807.3, 807.4
Table 814.3	Table 814.1
814.3	814.2
814.5	814.3
901.2, 901.3	901.1, 901.2
903.2 – 903.2.3	903.2.1 – 903.2.4
912.0 – 912.2	911.0 – 911.2
1001.2	1001.1
1015.2 – 1015.4	1015.3 – 1015.5
1101.2 – 1101.4	1101.1 – 1101.3
1101.5 – 1101.14	1101.4 – 1101.13
Table 1101.8	Table 1101.7
Table 1101.12	Table 1101.11
1101.4.2	1102.1, 1102.1.1
1101.4.3 – 1101.4.6	1102.2 – 1102.5
Table 1101.4.6	Table 1102.5
1101.15 – 1101.15.3	1103.0 – 1103.4
1101.16	1104.0, 1104.1
1101.16.1, 1101.16.2	1104.2, 1104.3
1102.0	1105.0
1102.3 – 1102.3.2	1105.4 – 1105.4.2
1103.0 – 1106.2.3	1106.0 – 1109.2.3
Table 1103.3	Table 1106.3
Table 1105.1(1)	Table 1108.1(2)
Table 1105.1(2)	Table 1108.1(8)
1202.0 – 1202.3	1201.0 – 1201.3
1201.0 – 1201.1	1202.0 – 1202.1
1208.3, 1208.3.1	1208.3.1, 1208.3.2
1208.5.2 – 1208.5.2.3	1208.5.2.1 – 1208.5.2.4
1208.7.5 – 1208.7.9	1208.7.5.1 – 1208.7.7
1210.8 – 1210.8.2	1210.8.1 – 1210.8.3
1211.0 – 1211.6.1	1210.15 – 1210.17.1
1212.0, 1212.1	1211.0, 1211.1
1212.2 – 1212.3.2	1211.2 – 1211.3.2
1212.4	1211.4, 1211.4.1
1212.4.1 – 1212.9	1211.4.2 – 1211.9
1212.10	1212.0, 1212.1
1301.5	1301.1
1301.1	1301.2
1304.0 – 1304.2	1302.0 – 1302.2
1306.1 – 1306.2.1	1302.3 – 1302.5
1310.3.1	1303.2

2015 Location	2012 Location
1303.2	1304.0, 1304.1
1303.3	1305.0, 1305.1
1303.4, 1303.4.1	1306.0 – 1306.2
1303.4.2	1307.0, 1307.1
1303.5	1308.0, 1308.1
1301.4	1309.3
1301.2, 1301.3	1309.5, 1309.6
1301.6	1309.7
1313.1.1	1310.1.2
1304.4	1310.2
1304.3	1310.4
1306.3	1310.5
1307.0 – 1307.7	1310.6 – 1310.6.6
1304.5 – 1304.5.3	1311.1 – 1311.4
1305.0 – 1305.3	1312.0 – 1312.3
Table 1305.1 – Table 1305.3	Table 1312.1 – Table 1312.3
1310.2.1	1313.1
Table 1310.2.1(1)	Table 1313.1
1310.2.2	1313.2
1310.2.3	1313.3
1308.0 – 1308.4	1315.0 – 1315.4
1309.2.1	1315.5.2
1309.4	1315.6
1309.6	1315.7
1309.4.3	1315.7.1
1312.1	1315.8
1311.0 – 1311.2	1316.0 – 1316.2
1310.0	1317.0
1310.3	1317.1
1310.4	1317.2
1310.3.3	1317.3
1310.6 – 1310.6.8	1317.4
1310.7, 1310.7.1	1317.5
1310.9, 1310.9.1	1317.6
1310.5 – 1310.5.4	1317.7
Table 1310.5.4(1)	Table 1317.7
1310.5.5	1317.8
1310.8, 1310.8.1	1317.9
1309.0, 1309.1	1318.0, 1318.1
1309.3	1318.2
1309.3.5 – 1309.3.5.2	1318.3
1309.3.6 – 1309.3.6.9	1318.4
1309.3.7 – 1309.3.7.4	1318.5

## SECTION RELOCATION

2015 Location	2012 Location
1309.3.9, 1309.3.9.1	1318.6
1309.3.8 – 1309.3.8.10	1318.7
1309.3.10 – 1309.3.10.4	1318.8
1312.0	1319.0
1312.1.2	1319.1
1312.7 – 1312.8.1	1319.2 – 1319.3.2
1312.6.4, 1312.6.4.1	1319.3.3, 1319.3.4
1312.2 – 1312.4	1319.4 – 1319.6
1312.6 – 1312.6.2	1319.7 – 1319.7.2
1312.5.1	1319.8, 1319.8.1
1312.5	1319.8.2
1316.0, 1316.1	1320.0, 1320.1
1313.1.2	1320.2
1316.2 – 1316.3	1320.2.1 – 1320.3
1317.0, 1317.1	1321.0, 1321.1
1317.3	1321.2
1310.11 – 1310.11.2	1322.0 – 1322.2
1312.9	1322.3
1317.4	1322.4
1312.9.2	1322.5
1318.0, 1318.1	1323.0, 1323.1
1318.3	1323.2
1314.0 – 1314.1.1	1324.0 – 1324.2
1314.1.3.1	1324.3
1314.1.4	1324.4
1303.6	1324.5
1314.2.1	1324.6
1314.2	1324.7
1315.0 – 1315.3	1325.0 – 1325.2.1
1315.5	1325.3
1315.5.4	1325.3.1
1315.4	1325.4
1319.0, 1319.1	1326.0, 1326.1
1319.2	1326.2, 1326.2.1
1319.6 – 1319.6.4	1326.8
1319.7 – 1319.7.4	1326.9
1319.5 – 1319.5.3	1326.10
1319.8	1326.11
1320.0, 1320.1	1327.0, 1327.1
1319.12 – 1319.12.2	1327.1.1
1320.2	1327.2
1319.3	1327.3
1320.3	1327.4

2015 Location	2012 Location
1701.0, 1701.1	1401.0, 1401.1
Table 1701.1	Table 1401.1
1401.0 – 1406.4	1501.0 – 1506.4
1501.0 – 1501.9	1601.0 – 1601.9
Table 1501.5	Table 1601.5
1502.0, 1502.1	1602.0, 1602.1
1502.2	1602.2, 1602.2.1
1502.2.1 – 1503.8	1602.2.2 – 1603.8
Table 1502.4	Table 1602.4
Table 1502.10, Table 1502.11	Table 1602.10, Table 1602.11
Table 1502.11.3	Table 1602.11.3
Figure 1503.9	Figure 1603.9
1503.9 – 1503.12	1603.9.1 – 1603.10
1503.13	1603.11
1504.0 – 1504.11	1604.0 – 1604.11
1504.12	1604.12
1601.0, 1601.1	1701.0, 1701.1
1602.0 – 1602.11.2.4	1702.0 – 1702.11.2.4
Figure 1602.9	Figure 1702.9
A 102.0 – A 108.1	A 1.0 – A 7.1
Table A 103.1	Table A 2.1
Chart A 103.1(1), Chart A 103.1(2)	Chart A 2.1, Chart A 2.1(1)
Table A 104.4	Table A 3.4
Chart A 105.1(1) – Chart A 105.1(4)	Chart A 4.1 – Chart A 4.1(3)
B 101.2 – B 101.6.1	B 1.0 – B 5.1
C 301.0	C 2.0
C 201.0	C 2.1
C 301.1, C 301.2	C 2.2, C 2.3
C 302.0 – C 303.3	C 3.0 – C 4.3
Table C 303.1(1), Table C 303.1(2)	Table C 4.1, Table C 4.1(1)
C 304.0	C 5.0
C 304.1 – C 501.9	C 5.2 – C 7.9
Table C 304.2	Table C 5.3
Table C 304.3	Table C 5.4
Table C 401.1	Table C 6.1
911.0 – 911.5	C 8.0 – C 8.5
C 601.0 – C 601.3	C 9.0 – C 9.3
C 601.4	C 9.4, C 9.4.1
C 601.4.1 – C 601.9	C 9.4.2 – C 9.9
Table C 601.2	Table C 9.2
E 101.2	E 2.0

## SECTION RELOCATION

2015 Location	2012 Location
E 102.0 – E 401.3	E 3.0 – E 23.3
Table E 203.1(1), Table E 203.1(2)	Table E 6.1, Table E 6.1(1)
E 402.0	E 24.0
E 402.1 – E 404.3	E 24.1.1 – E 26.3
E 405.0 – E 501.1	E 28.0 – E 39.1
Table E 407.1	Table E 30.1
E 601.0 – E 1201.1	E 41.0 – E 78.1
Table E 903.1	Table E 68.1
E 401.4	E 79.0, E 79.1
G 101.2	G 1.0
Figure G 101.2(1) – Figure G 101.2(14)	Figure G 1.0(a) – Figure G 1.0(n)
G 101.3 – G 101.9	G 1.1 – G 2.4
Figure G 101.3 – Figure G 101.6	Figure G 1.1 – Figure G 2.2
Table G 101.8	Table G 2.3
H 101.2 – H 101.11	H 1.1 – H 1.10
J 101.2	J 1.1
Table J 101.2	Table J 1.1
K 104.4.1	K 103.3
K 104.4.2 – K 104.4.6	K 104.4.1 – K 104.4.5
L 402.5 – L 402.5.2.2	L 402.4 – L 402.4.2.2
L 402.6, L 402.6.1	L 402.5.1, L 402.5.2
L 406.0 – L 407.3	L 403.0 – L 404.3
L 409.0, L 409.1	L 405.0, L 405.1
L 504.4.1	L 503.3
L 504.4.2 – L 504.4.3.1	L 504.4.1 – L 504.4.2.1
L 504.4.4 – L 504.4.6	L 504.4.3.1 – L 504.4.5
L 603.1.1 – L 603.3.2	L 603.2.1 – L 603.4.2
Table L 603.3.2	Table L 603.4.2
L 603.3.4, L 603.3.4.1	L 603.4.4, L 603.4.4.1
L 603.3.4.2	L 603.4.4.4
L 603.3.5, L 603.3.5.1	L 603.4.5, L 603.4.5.1
L 603.3.5.2	L 603.4.5.3
L 603.3.6 – L 603.4.2	L 603.4.6 – L 603.5.2
L 603.4.3 – L 603.5	L 603.5.3 – L 603.6



# TABLE OF CONTENTS

<b>CHAPTER 1</b>	<b>ADMINISTRATION . . . . .1</b>	<b>CHAPTER 2</b>	<b>DEFINITIONS . . . . .9</b>
101.0	General . . . . .1	201.0	General . . . . .9
101.1	Title . . . . .1	201.1	Applicability . . . . .9
101.2	Scope . . . . .1	202.0	Definition of Terms . . . . .9
101.3	Purpose . . . . .1	202.1	General . . . . .9
101.4	Unconstitutional . . . . .1		
101.5	Validity . . . . .1	<b>CHAPTER 3</b>	<b>GENERAL REGULATIONS . . . . .21</b>
102.0	Applicability . . . . .1	301.0	General . . . . .21
102.1	Conflicts Between Codes . . . . .1	301.1	Applicability . . . . .21
102.2	Existing Installations . . . . .1	301.2	Minimum Standards . . . . .21
102.3	Maintenance . . . . .1	301.3	Alternate Materials and Methods of Construction Equivalency . . . . .21
102.4	Additions, Alterations, Renovations, or Repairs . . . . .1	301.4	Flood Hazard Areas . . . . .21
102.5	Health and Safety . . . . .1	301.5	Alternative Engineered Design . . . . .22
102.6	Changes in Building Occupancy . . . . .1	302.0	Iron Pipe Size (IPS) Pipe . . . . .22
102.7	Moved Structures . . . . .1	302.1	General . . . . .22
102.8	Appendices . . . . .1	303.0	Disposal of Liquid Waste . . . . .22
103.0	Duties and Powers of the Authority Having Jurisdiction . . . . .2	303.1	General . . . . .22
103.1	General . . . . .2	304.0	Connections to Plumbing System Required . . . . .22
103.2	Liability . . . . .2	304.1	General . . . . .22
103.3	Applications and Permits . . . . .2	305.0	Damage to Drainage System or Public Sewer . . . . .22
103.4	Right of Entry . . . . .2	305.1	Unlawful Practices . . . . .22
104.0	Permits . . . . .2	306.0	Industrial Wastes . . . . .22
104.1	Permits Required . . . . .2	306.1	Detrimental Wastes . . . . .22
104.2	Exempt Work . . . . .2	306.2	Safe Discharge . . . . .22
104.3	Application for Permit . . . . .2	307.0	Location . . . . .22
104.4	Permit Issuance . . . . .3	307.1	System . . . . .22
104.5	Fees . . . . .4	307.2	Ownership . . . . .22
105.0	Inspections and Testing . . . . .4	308.0	Improper Location . . . . .22
105.1	General . . . . .4	308.1	General . . . . .22
105.2	Required Inspections . . . . .4	309.0	Workmanship . . . . .23
105.3	Testing of Systems . . . . .5	309.1	Engineering Practices . . . . .23
105.4	Connection to Service Utilities . . . . .5	309.2	Concealing Imperfections . . . . .23
106.0	Violations and Penalties . . . . .5	309.3	Burred Ends . . . . .23
106.1	General . . . . .5	309.4	Installation Practices . . . . .23
106.2	Notices of Correction or Violation . . . . .5	310.0	Prohibited Fittings and Practices . . . . .23
106.3	Penalties . . . . .5	310.1	Fittings . . . . .23
106.4	Stop Orders . . . . .6	310.2	Drainage and Vent Piping . . . . .23
106.5	Authority to Disconnect Utilities in Emergencies . . . . .6	310.3	Waste Connection . . . . .23
106.6	Authority to Condemn . . . . .6	310.4	Use of Vent and Waste Pipes . . . . .23
107.0	Board of Appeals . . . . .6	310.5	Obstruction of Flow . . . . .23
107.1	General . . . . .6	310.6	Dissimilar Metals . . . . .23
107.2	Limitations of Authority . . . . .6	310.7	Direction of Flow . . . . .23
Table 104.5	Plumbing Permit Fees . . . . .7		

310.8	Screwed Fittings . . . . .	23
311.0	Independent Systems . . . . .	23
311.1	General . . . . .	23
312.0	Protection of Piping, Materials, and Structures . . . . .	23
312.1	General . . . . .	23
312.2	Installation . . . . .	23
312.3	Building Sewer and Drainage Piping . . . . .	23
312.4	Corrosion, Erosion, and Mechanical Damage . . . . .	23
312.5	Protectively Coated Pipe . . . . .	23
312.6	Freezing Protection . . . . .	23
312.7	Fire-Resistant Construction . . . . .	23
312.8	Waterproofing of Openings . . . . .	23
312.9	Steel Nail Plates . . . . .	24
312.10	Sleeves . . . . .	24
312.11	Structural Members . . . . .	24
312.12	Rodentproofing . . . . .	24
312.13	Exposed ABS Piping . . . . .	24
312.14	Exposed PVC Piping . . . . .	24
313.0	Hangers and Supports . . . . .	24
313.1	General . . . . .	24
313.2	Material . . . . .	24
313.3	Suspended Piping . . . . .	24
313.4	Alignment . . . . .	24
313.5	Underground Installation . . . . .	24
313.6	Hanger Rod Sizes . . . . .	24
Table 313.6	Hanger Rod Sizes . . . . .	24
313.7	Gas Piping . . . . .	24
314.0	Trenching, Excavation, and Backfill . . . . .	24
314.1	Trenches . . . . .	24
314.2	Tunneling and Driving . . . . .	24
314.3	Open Trenches . . . . .	25
314.4	Excavations . . . . .	25
315.0	Joints and Connections . . . . .	25
315.1	Unions . . . . .	25
315.2	Prohibited Joints and Connections . . . . .	25
316.0	Increases and Reducers . . . . .	25
316.1	General . . . . .	25
317.0	Food-Handling Establishments . . . . .	25
317.1	General . . . . .	25
318.0	Test Gauges . . . . .	25
318.1	General . . . . .	25
318.2	Pressure Tests (10 psi or less) . . . . .	25
318.3	Pressure Tests (greater than 10 psi to 100 psi) . . . . .	25
318.4	Pressure Tests (exceeding 100 psi) . . . . .	25

318.5	Pressure Range . . . . .	25
319.0	Medical Gas and Vacuum Systems . . . . .	25
319.1	General . . . . .	25
320.0	Rehabilitation of Piping Systems . . . . .	25
320.1	General . . . . .	25
Table 313.3	Hangers and Supports . . . . .	26

**CHAPTER 4**

401.0	General . . . . .	27
401.1	Applicability . . . . .	27
401.2	Quality of Fixtures . . . . .	27
402.0	Installation . . . . .	27
402.1	Cleaning . . . . .	27
402.2	Joints . . . . .	27
402.3	Securing Fixtures . . . . .	27
402.4	Wall-Hung Fixtures . . . . .	27
402.5	Setting . . . . .	27
402.6	Flanged Fixture Connections . . . . .	27
402.7	Supply Fittings . . . . .	27
402.8	Installation . . . . .	27
402.9	Design and Installation of Plumbing Fixtures . . . . .	28
402.10	Slip Joint Connections . . . . .	28
402.11	Future Fixtures . . . . .	28
403.0	Accessible Plumbing Facilities . . . . .	28
403.1	General . . . . .	28
403.2	Fixtures and Fixture Fittings for Persons with Disabilities . . . . .	28
403.3	Exposed Pipes and Surfaces . . . . .	28
404.0	Overflows . . . . .	28
404.1	General . . . . .	28
405.0	Prohibited Fixtures . . . . .	28
405.1	Prohibited Water Closets . . . . .	28
405.2	Prohibited Urinals . . . . .	28
405.3	Miscellaneous Fixtures . . . . .	28
406.0	Special Fixtures and Specialties . . . . .	28
406.1	Water and Waste Connections . . . . .	28
406.2	Special Use Sinks . . . . .	28
406.3	Special Use Fixtures . . . . .	28
406.4	Zinc Alloy Components . . . . .	28
407.0	Lavatories . . . . .	28
407.1	Application . . . . .	28
407.2	Water Consumption . . . . .	28
407.3	Limitation of Hot Water Temperature for Public Lavatories . . . . .	28
407.4	Transient Public Lavatories . . . . .	29
407.5	Waste Outlet . . . . .	29

**PLUMBING FIXTURES  
AND FIXTURE FITTINGS . . . . .27**

401.0	General . . . . .	27
401.1	Applicability . . . . .	27
401.2	Quality of Fixtures . . . . .	27
402.0	Installation . . . . .	27
402.1	Cleaning . . . . .	27
402.2	Joints . . . . .	27
402.3	Securing Fixtures . . . . .	27
402.4	Wall-Hung Fixtures . . . . .	27
402.5	Setting . . . . .	27
402.6	Flanged Fixture Connections . . . . .	27
402.7	Supply Fittings . . . . .	27
402.8	Installation . . . . .	27
402.9	Design and Installation of Plumbing Fixtures . . . . .	28
402.10	Slip Joint Connections . . . . .	28
402.11	Future Fixtures . . . . .	28
403.0	Accessible Plumbing Facilities . . . . .	28
403.1	General . . . . .	28
403.2	Fixtures and Fixture Fittings for Persons with Disabilities . . . . .	28
403.3	Exposed Pipes and Surfaces . . . . .	28
404.0	Overflows . . . . .	28
404.1	General . . . . .	28
405.0	Prohibited Fixtures . . . . .	28
405.1	Prohibited Water Closets . . . . .	28
405.2	Prohibited Urinals . . . . .	28
405.3	Miscellaneous Fixtures . . . . .	28
406.0	Special Fixtures and Specialties . . . . .	28
406.1	Water and Waste Connections . . . . .	28
406.2	Special Use Sinks . . . . .	28
406.3	Special Use Fixtures . . . . .	28
406.4	Zinc Alloy Components . . . . .	28
407.0	Lavatories . . . . .	28
407.1	Application . . . . .	28
407.2	Water Consumption . . . . .	28
407.3	Limitation of Hot Water Temperature for Public Lavatories . . . . .	28
407.4	Transient Public Lavatories . . . . .	29
407.5	Waste Outlet . . . . .	29

407.6	Overflow . . . . .	29	415.1	Application . . . . .	32
408.0	Showers . . . . .	29	415.2	Drinking Fountain Alternatives . . .	32
408.1	Application . . . . .	29	415.3	Drainage Connection . . . . .	32
408.2	Water Consumption . . . . .	29	415.4	Location . . . . .	32
408.3	Individual Shower and Tub-Shower Combination Control Valves . . . . .	29	416.0	Emergency Eyewash and Shower Equipment . . . . .	32
408.4	Waste Outlet . . . . .	29	416.1	Application . . . . .	32
408.5	Finished Curb or Threshold . . . . .	29	416.2	Water Supply . . . . .	32
408.6	Shower Compartments . . . . .	29	416.3	Installation . . . . .	32
408.7	Lining for Showers and Receptors . . . . .	29	416.4	Location . . . . .	32
408.8	Public Shower Floors . . . . .	30	416.5	Drain . . . . .	32
408.9	Location of Valves and Heads . . .	30	417.0	Faucets and Fixture Fittings . . . . .	32
408.10	Water Supply Riser . . . . .	30	417.1	Application . . . . .	32
409.0	Bathtubs and Whirlpool Bathtubs . . . . .	30	417.2	Deck Mounted Bath/Shower Valves . . . . .	32
409.1	Application . . . . .	30	417.3	Handheld Showers . . . . .	32
409.2	Waste Outlet . . . . .	30	417.4	Faucets and Fixture Fittings with Hose Connected Outlets . . . . .	32
409.3	Overflow . . . . .	30	417.5	Separate Controls for Hot and Cold Water . . . . .	32
409.4	Limitation of Hot Water in Bathtubs and Whirlpool Bathtubs . . . . .	30	418.0	Floor Drains . . . . .	32
409.5	Backflow Protection . . . . .	30	418.1	Application . . . . .	32
409.6	Installation and Access . . . . .	30	418.2	Strainer . . . . .	32
410.0	Bidets . . . . .	31	418.3	Location of Floor Drains . . . . .	33
410.1	Application . . . . .	31	418.4	Food Storage Areas . . . . .	33
410.2	Backflow Protection . . . . .	31	418.5	Floor Slope . . . . .	33
410.3	Limitation of Water Temperature in Bidets . . . . .	31	419.0	Food Waste Disposers . . . . .	33
411.0	Water Closets . . . . .	31	419.1	Application . . . . .	33
411.1	Application . . . . .	31	419.2	Drainage Connection . . . . .	33
411.2	Water Consumption . . . . .	31	419.3	Water Supply . . . . .	33
411.3	Water Closet Seats . . . . .	31	420.0	Sinks . . . . .	33
412.0	Urinals . . . . .	31	420.1	Application . . . . .	33
412.1	Application . . . . .	31	420.2	Water Consumption . . . . .	33
412.2	Backflow Protection . . . . .	31	420.3	Pre-Rinse Spray Valve . . . . .	33
413.0	Flushing Devices . . . . .	31	420.4	Waste Outlet . . . . .	33
413.1	Where Required . . . . .	31	421.0	Floor Sinks . . . . .	33
413.2	Flushometer Valves . . . . .	31	421.1	Application . . . . .	33
413.3	Flush Tanks . . . . .	31	421.2	Strainers . . . . .	33
413.4	Water Supply for Flush Tanks . . .	31	422.0	Minimum Number of Required Fixtures . . . . .	33
413.5	Overflows in Flush Tanks . . . . .	32	422.1	Fixture Count . . . . .	33
414.0	Dishwashing Machines . . . . .	32	422.2	Separate Facilities . . . . .	33
414.1	Application . . . . .	32	422.3	Fixture Requirements for Special Occupancies . . . . .	34
414.2	Backflow Protection . . . . .	32	422.4	Toilet Facilities Serving Employees and Customers . . . . .	34
414.3	Drainage Connection . . . . .	32	422.5	Toilet Facilities for Workers . . . . .	34
415.0	Drinking Fountains . . . . .	32	Table 422.1	Minimum Plumbing Facilities . . . . .	35

<b>CHAPTER 5</b>	<b>WATER HEATERS . . . . .</b>	<b>39</b>		
501.0	General . . . . .	39	507.8	Safety Shutoff Devices for Unlisted LP-Gas Appliances Used Indoors . . . . .
501.1	Applicability . . . . .	39	507.9	Use of Air or Oxygen Under Pressure . . . . .
502.0	Permits . . . . .	39	507.10	Protection of Gas Appliances from Fumes or Gases other than Products of Combustion . . . . .
502.1	General . . . . .	39	507.11	Process Air . . . . .
503.0	Inspection . . . . .	39	507.12	Flammable Vapors . . . . .
503.1	Inspection of Chimneys or Vents . . . . .	39	507.13	Installation in Garages . . . . .
503.2	Final Water Heater Inspection . . . . .	39	507.14	Installation in Commercial Garages . . . . .
504.0	Water Heater Requirements . . . . .	39	507.15	Installation in Aircraft Hangars . . . . .
504.1	Location . . . . .	39	507.16	Venting of Flue Gases . . . . .
504.2	Vent . . . . .	39	507.17	Extra Device or Attachment . . . . .
504.3	Clearance . . . . .	39	507.18	Adequate Capacity of Piping . . . . .
Table 501.1(1)	First Hour Rating . . . . .	39	507.19	Avoiding Strain on Gas Piping . . . . .
504.4	Pressure-Limiting Devices . . . . .	40	507.20	Gas Appliance Pressure Regulators . . . . .
504.5	Temperature-Limiting Devices . . . . .	40	507.21	Venting of Gas Appliance Pressure Regulators . . . . .
504.6	Temperature, Pressure, and Vacuum Relief Devices . . . . .	40	507.22	Bleed Lines for Diaphragm-Type Valves . . . . .
505.0	Oil-Burning and Other Water Heaters . . . . .	40	507.23	Combination of Appliances and Equipment . . . . .
505.1	Water Heaters . . . . .	40	507.24	Installation Instructions . . . . .
505.2	Safety Devices . . . . .	40	507.25	Protection of Outdoor Appliances . . . . .
505.3	Oil-Fired Water Heaters . . . . .	40	507.26	Accessibility for Service . . . . .
505.4	Indirect-Fired Water Heaters . . . . .	40	508.0	Equipment and Appliances on Roofs . . . . .
Table 501.1(2)	Water Heaters . . . . .	40	508.1	General . . . . .
506.0	Air for Combustion and Ventilation . . . . .	40	508.2	Installation of Equipment and Appliances on Roofs . . . . .
506.1	General . . . . .	40	508.3	Access to Equipment and Appliances on Roofs . . . . .
506.2	Indoor Combustion Air . . . . .	40	508.4	Appliances in Attics and Under-Floor Spaces . . . . .
506.3	Indoor Opening Size and Location . . . . .	41	509.0	Venting of Appliances . . . . .
506.4	Outdoor Combustion Air . . . . .	41	509.1	Listing . . . . .
506.5	Combination Indoor and Outdoor Combustion Air . . . . .	43	509.2	Connection to Venting Systems . . . . .
506.6	Engineered Installations . . . . .	43	509.3	Design and Construction . . . . .
506.7	Mechanical Combustion Air Supply . . . . .	43	509.4	Type of Venting System to be Used . . . . .
506.8	Louvers, Grilles, and Screens . . . . .	43	509.5	Masonry, Metal, and Factory-Built Chimneys . . . . .
506.9	Combustion Air Ducts . . . . .	43	Table 509.4	Type of Venting System to be Used . . . . .
507.0	Appliance and Equipment Installation Requirements . . . . .	43	509.6	Gas Vents . . . . .
507.1	Dielectric Insulator . . . . .	43	Table 509.6.2	Roof Pitch Height . . . . .
507.2	Seismic Provisions . . . . .	44		
507.3	Support of Appliances . . . . .	44		
507.4	Ground Support . . . . .	44		
507.5	Drainage Pan . . . . .	44		
507.6	Added or Converted Equipment or Appliances . . . . .	44		
507.7	Types of Gases . . . . .	44		

509.7	Single-Wall Metal Pipe . . . . .	52	601.2	Hot and Cold Water Required . . . . .	91
509.8	Through-the-Wall Vent Termination . . . . .	53	601.3	Identification of a Potable and Nonpotable Water System . . . . .	91
Table 509.7.3(1)	Clearance for Connectors . . . . .	53	Table 601.3.2	Minimum Length of Color Field and Size of Letters . . . . .	91
Table 509.7.3(2)	Reduction of Clearances with Specified Forms of Protection . . . . .	55	602.0	Unlawful Connections . . . . .	91
509.9	Condensation Drain . . . . .	56	602.1	Prohibited Installation . . . . .	91
509.10	Vent Connectors for Category I Appliances . . . . .	56	602.2	Cross-Contamination . . . . .	92
Table 509.10.1.3	Minimum Thickness for Galvanized Steel Vent Connectors for Low-Heat Appliances . . . . .	57	602.3	Backflow Prevention . . . . .	92
Table 509.10.1.4	Minimum Thickness for Steel Vent Connectors for Medium-Heat Appliances and Commercial and Industrial Incinerators . . . . .	57	602.4	Approval by Authority . . . . .	92
509.11	Draft Hoods and Draft Controls . . . . .	58	603.0	Cross-Connection Control . . . . .	92
509.12	Manually Operated Dampers . . . . .	59	603.1	General . . . . .	92
509.13	Automatically Operated Vent Dampers . . . . .	59	603.2	Approval of Devices or Assemblies . . . . .	92
509.14	Obstructions . . . . .	59	603.3	Backflow Prevention Devices, Assemblies, and Methods . . . . .	92
510.0	Sizing of Category I Venting Systems . . . . .	59	Table 603.2	Backflow Prevention Devices, Assemblies, and Methods . . . . .	93
510.1	Single Appliance Vent Table 510.1.2(1) through Table 510.1.2(6) . . . . .	59	Table 603.3.1	Minimum Air Gaps for Water Distribution . . . . .	95
510.2	Multiple Appliance Vent Table 510.2(1) through Table 510.2(9) . . . . .	61	603.4	General Requirements . . . . .	95
Table 510.2.1	Vent Connector Maximum Length . . . . .	61	603.5	Specific Requirements . . . . .	96
Table 510.1.2(1)	Type B Double-Wall Gas Vent . . . . .	65	604.0	Materials . . . . .	98
Table 510.1.2(2)	Type B Double-Wall Gas Vent . . . . .	68	604.1	Pipe, Tube, and Fittings . . . . .	98
Table 510.1.2(3)	Masonry Chimney . . . . .	70	604.2	Lead Content . . . . .	98
Table 510.1.2(4)	Masonry Chimney . . . . .	72	604.3	Copper or Copper Alloy Tube . . . . .	98
Table 510.1.2(5)	Single-Wall Metal Pipe or Type B Asbestos-Cement Vent . . . . .	74	604.4	Hard-Drawn Copper or Copper Alloy Tubing . . . . .	98
Table 510.1.2(6)	Exterior Masonry Chimney . . . . .	75	604.5	Flexible Connectors . . . . .	98
Table 510.2(1)	Type B Double-Wall Vent . . . . .	76	604.6	Cast-Iron Fittings . . . . .	98
Table 510.2(2)	Type B Double-Wall Vent . . . . .	80	604.7	Malleable Iron Fittings . . . . .	98
Table 510.2(3)	Masonry Chimney . . . . .	82	604.8	Previously Used Piping and Tubing . . . . .	98
Table 510.2(4)	Masonry Chimney . . . . .	84	604.9	Epoxy Coating . . . . .	98
Table 510.2(5)	Single-Wall Metal Pipe or Type B Asbestos-Cement Vent . . . . .	86	604.10	Plastic Materials . . . . .	98
Table 510.2(6)	Exterior Masonry Chimney . . . . .	86	604.11	Solder . . . . .	98
Table 510.2(7)	Exterior Masonry Chimney . . . . .	87	Table 604.1	Materials for Building Supply and Water Distribution Piping and Fittings . . . . .	99
Table 510.2(8)	Exterior Masonry Chimney . . . . .	88	604.12	Flexible Corrugated Connectors . . . . .	99
Table 510.2(9)	Exterior Masonry Chimney . . . . .	89	604.13	Water Heater Connectors . . . . .	99
<b>CHAPTER 6</b>	<b>WATER SUPPLY AND DISTRIBUTION . . . . .</b>	<b>91</b>	605.0	Joints and Connections . . . . .	99
601.0	General . . . . .	91	605.1	Copper or Copper Alloy Pipe, Tubing, and Joints . . . . .	99
601.1	Applicability . . . . .	91	605.2	CPVC Plastic Pipe and Joints . . . . .	100
			605.3	CPVC/AL/CPVC Plastic Pipe and Joints . . . . .	101
			605.4	Ductile Iron Pipe and Joints . . . . .	101
			605.5	Galvanized Steel Pipe and Joints . . . . .	101
			605.6	PE Plastic Pipe/Tubing and Joints . . . . .	101

605.7	PE-AL-PE Plastic Pipe/Tubing and Joints . . . . .	102	609.7	Abutting Lot . . . . .	105
605.8	PE-RT . . . . .	102	609.8	Low-Pressure Cutoff Required on Booster Pumps for Water Distribution Systems . . . . .	106
605.9	PEX Plastic Tubing and Joints . . . . .	102	609.9	Disinfection of Potable Water System . . . . .	106
605.10	PEX-AL-PEX Plastic Tubing and Joints . . . . .	102	609.10	Water Hammer . . . . .	106
605.11	Polypropylene (PP) Piping and Joints . . . . .	102	609.11	Pipe Insulation . . . . .	106
605.12	PVC Plastic Pipe and Joints . . . . .	103	610.0	Size of Potable Water Piping . . . . .	106
605.13	Stainless Steel Pipe and Joints . . . . .	103	610.1	Size . . . . .	106
605.14	Slip Joints . . . . .	103	610.2	Pressure Loss . . . . .	106
605.15	Dielectric Unions . . . . .	103	610.3	Quantity of Water . . . . .	106
605.16	Joints Between Various Materials . . . . .	103	610.4	Sizing Water Supply and Distribution Systems . . . . .	106
606.0	Valves . . . . .	103	Table 610.3	Water Supply Fixture Units (WSFU) and Minimum Fixture Branch Pipe Sizes . . . . .	107
606.1	General . . . . .	103	Table 610.4	Fixture Unit Table for Determining Water Pipe and Meter Sizes . . . . .	108
606.2	Fullway Valve . . . . .	103	610.5	Sizing per Appendices A and C . . . . .	109
606.3	Multidwelling Units . . . . .	104	610.6	Friction and Pressure Loss . . . . .	109
606.4	Multiple Openings . . . . .	104	610.7	Conditions for Using Table 610.4 . . . . .	109
606.5	Control Valve . . . . .	104	610.8	Size of Meter and Building Supply Pipe Using Table 610.4 . . . . .	109
606.6	Accessible . . . . .	104	610.9	Size of Branches . . . . .	109
606.7	Multiple Fixtures . . . . .	104	610.10	Sizing for Flushometer Valves . . . . .	109
607.0	Potable Water Supply Tanks . . . . .	104	Table 610.10	Flushometer Fixture Units for Water Sizing Using Table 610.3 . . . . .	109
607.1	General . . . . .	104	610.11	Sizing Systems for Flushometer Tanks . . . . .	110
607.2	Potable Water Tanks . . . . .	104	610.12	Sizing for Velocity . . . . .	110
607.3	Venting . . . . .	104	610.13	Exceptions . . . . .	110
607.4	Overflow . . . . .	104	611.0	Drinking Water Treatment Units . . . . .	110
607.5	Valves . . . . .	104	611.1	Application . . . . .	110
608.0	Water Pressure, Pressure Regulators, Pressure Relief Valves, and Vacuum Relief Valves . . . . .	104	611.2	Air Gap Discharge . . . . .	110
608.1	Inadequate Water Pressure . . . . .	104	611.3	Connection Tubing . . . . .	110
608.2	Excessive Water Pressure . . . . .	104	611.4	Sizing of Residential Softeners . . . . .	110
608.3	Expansion Tanks, and Combination Temperature and Pressure-Relief Valves . . . . .	104	612.0	Residential Fire Sprinkler Systems . . . . .	110
608.4	Pressure Relief Valves . . . . .	105	612.1	Where Required . . . . .	110
608.5	Discharge Piping . . . . .	105	Table 611.4	Sizing of Residential Water Softeners . . . . .	111
608.6	Water-Heating Devices . . . . .	105	612.2	Types of Systems . . . . .	111
608.7	Vacuum Relief Valves . . . . .	105	612.3	Sprinklers . . . . .	111
609.0	Installation, Testing, Unions, and Location . . . . .	105	Table 612.3.3.1	Locations Where Intermediate Temperature Sprinklers are Required . . . . .	112
609.1	Installation . . . . .	105			
609.2	Trenches . . . . .	105			
609.3	Under Concrete Slab . . . . .	105			
609.4	Testing . . . . .	105			
609.5	Unions . . . . .	105			
609.6	Location . . . . .	105			

612.4	Sprinkler Piping System . . . . .	112	703.0	Size of Drainage Piping . . . . .	126
612.5	Sprinkler Piping Design . . . . .	112	703.1	Minimum Size . . . . .	126
Table 612.3.6	Minimum Separation From Obstruction . . . . .	113	703.2	Maximum Number of Fixture Units . . . . .	126
Table 612.5.3.2(1)	Water Service Pressure Loss ( $PL_{WS}$ ) . . . . .	115	703.3	Sizing per Appendix C . . . . .	126
Table 612.5.3.2(2)	Minimum Water Meter Pressure Loss ( $PL_M$ ) . . . . .	116	704.0	Fixture Connections (Drainage) . .	126
612.6	Instructions and Signs . . . . .	116	704.1	Inlet Fittings . . . . .	126
612.7	Inspection and Testing . . . . .	116	704.2	Single Vertical Drainage Pipe . . .	126
Table 612.5.3.2(3)	Elevation Loss ( $PL_e$ ) . . . . .	116	704.3	Commercial Sinks . . . . .	126
Table 612.5.3.2(4)	Allowable Pipe Length for 3/4 Inch Type M Copper Water Tubing . . . . .	117	705.0	Joints and Connections . . . . .	126
Table 612.5.3.2(5)	Allowable Pipe Length for 1 Inch Type M Copper Water Tubing . . . . .	118	705.1	ABS and ABS Co-Extruded Plastic Pipe and Joints . . . . .	126
Table 612.5.3.2(6)	Allowable Pipe Length for 3/4 Inch IPS CPVC Pipe . . . . .	119	705.2	Cast-Iron Pipe and Joints . . . . .	126
Table 612.5.3.2(7)	Allowable Pipe Length for 1Inch IPS CPVC Pipe . . . . .	120	Table 703.2	Maximum Unit Loading and Maximum Length of Drainage and Vent Piping . . . . .	127
Table 612.5.3.2(8)	Allowable Pipe Length for 3/4 Inch PEX Tubing . . . . .	121	705.3	Copper or Copper Alloy Pipe (DWV) and Joints . . . . .	127
Table 612.5.3.2(9)	Allowable Pipe Length for 1 Inch PEX Tubing . . . . .	122	705.4	Galvanized Steel Pipe and Joints . . . . .	128
<b>CHAPTER 7</b>	<b>SANITARY DRAINAGE . . . . .</b>	<b>123</b>	705.5	PVC and PVC Co-Extruded Plastic Pipe and Joining Methods . . . . .	128
<b>PART I</b>	<b>Drainage Systems . . . . .</b>	<b>123</b>	705.6	Stainless Steel Pipe and Joints . .	128
701.0	General . . . . .	123	705.7	Vitrified Clay Pipe and Joints . . .	128
701.1	Applicability . . . . .	123	705.8	Special Joints . . . . .	128
701.2	Drainage Piping . . . . .	123	705.9	Joints Between Various Materials . . . . .	129
701.3	Drainage Fittings . . . . .	123	706.0	Changes in Direction of Drainage Flow . . . . .	129
701.4	Continuous Wastes . . . . .	123	706.1	Approved Fittings . . . . .	129
701.5	Lead . . . . .	123	706.2	Horizontal to Vertical . . . . .	129
701.6	Caulking Ferrules . . . . .	123	706.3	Horizontal to Horizontal . . . . .	129
701.7	Soldering Bushings . . . . .	123	706.4	Vertical to Horizontal . . . . .	129
Table 701.6	Caulking Ferrules . . . . .	123	707.0	Cleanouts . . . . .	129
Table 701.7	Soldering Bushings . . . . .	123	707.1	Plug . . . . .	129
702.0	Fixture Unit Equivalents . . . . .	123	Table 707.1	Cleanouts . . . . .	129
702.1	Trap Size . . . . .	123	707.2	Approved . . . . .	129
Table 701.2	Materials for Drain, Waste, Vent Pipe and Fittings . . . . .	124	707.3	Watertight and Gastight . . . . .	129
Table 702.1	Drainage Fixture Unit Values (DFU) . . . . .	125	707.4	Location . . . . .	129
702.2	Intermittent Flow . . . . .	126	707.5	Cleaning . . . . .	130
702.3	Continuous Flow . . . . .	126	707.6	Extension . . . . .	130
Table 702.2(1)	Maximum Drainage Fixture Units for a Trap and Trap Arm . .	126	707.7	Interceptor . . . . .	130
Table 702.2(2)	Discharge Capacity in Gallons Per Minute for Intermittent Flow Only . . . . .	126	707.8	Access . . . . .	130
			707.9	Clearance . . . . .	130
			707.10	Fittings . . . . .	130
			707.11	Pressure Drainage Systems . . . .	130
			707.12	Countersunk Cleanout Plugs . . .	130
			707.13	Hubless Blind Plugs . . . . .	130

707.14	Trap Arms . . . . .	130	714.4	Commercial Food Waste Disposer . . . . .	133
708.0	Grade of Horizontal Drainage Piping . . . . .	130	714.5	Tanks . . . . .	133
708.1	General . . . . .	130	715.0	Building Sewer Materials . . . . .	133
709.0	Gravity Drainage Required . . . . .	130	715.1	Materials . . . . .	133
709.1	General . . . . .	130	715.2	Joining Methods and Materials . . . . .	133
710.0	Drainage of Fixtures Located Below the Next Upstream Manhole or Below the Main Sewer Level . . . . .	130	715.3	Existing Sewers . . . . .	133
710.1	Backflow Protection . . . . .	130	716.0	Markings . . . . .	133
710.2	Sewage Discharge . . . . .	130	716.1	General . . . . .	133
710.3	Sewage Ejector and Pumps . . . . .	130	717.0	Size of Building Sewers . . . . .	133
710.4	Discharge Line . . . . .	131	717.1	General . . . . .	133
710.5	Size of Building Drains and Sewers . . . . .	131	Table 717.1	Maximum/Minimum Fixture Unit Loading on Building Sewer Piping . . . . .	133
710.6	Backwater Valves . . . . .	131	718.0	Grade, Support, and Protection of Building Sewers . . . . .	133
710.7	Drainage and Venting Systems . . . . .	131	718.1	Slope . . . . .	133
710.8	Sump and Receiving Tank Construction . . . . .	131	718.2	Support . . . . .	133
710.9	Alarm . . . . .	131	718.3	Protection from Damage . . . . .	133
710.10	Sump and Receiving Tank Covers and Vents . . . . .	131	719.0	Cleanouts. . . . .	134
710.11	Air Tanks . . . . .	131	719.1	Locations . . . . .	134
710.12	Grinder Pump Ejector . . . . .	131	719.2	No Additional Cleanouts . . . . .	134
710.13	Macerating Toilet Systems and Pumped Waste Systems . . . . .	131	719.3	Building Sewer Cleanouts . . . . .	134
711.0	Suds Relief . . . . .	132	719.4	Cleaning . . . . .	134
711.1	General . . . . .	132	719.5	Access . . . . .	134
712.0	Testing . . . . .	132	719.6	Manholes . . . . .	134
712.1	Media . . . . .	132	720.0	Sewer and Water Pipes . . . . .	134
712.2	Water Test . . . . .	132	720.1	General . . . . .	134
712.3	Air Test . . . . .	132	721.0	Location . . . . .	134
<b>PART II</b>	<b>Building Sewers</b> . . . . .	132	721.1	Building Sewer . . . . .	134
713.0	Sewer Required . . . . .	132	721.2	Abutting Lot . . . . .	134
713.1	Where Required . . . . .	132	722.0	Abandoned Sewers and Sewage Disposal Facilities . . . . .	134
713.2	Private Sewage Disposal System . . . . .	132	722.1	Building (House) Sewer . . . . .	134
713.3	Public Sewer . . . . .	132	722.2	Cesspools, Septic Tanks, and Seepage Pits . . . . .	134
713.4	Public Sewer Availability . . . . .	132	722.3	Filling . . . . .	134
713.5	Permit . . . . .	132	722.4	Ownership . . . . .	134
713.6	Lot . . . . .	132	Table 721.1	Minimum Horizontal Distance Required from Building Sewer . . . . .	135
713.7	Installation . . . . .	132	722.5	Disposal Facilities . . . . .	135
714.0	Damage to Public Sewer or Private Sewage Disposal System . . . . .	133	723.0	Building Sewer Test . . . . .	135
714.1	Unlawful Practices . . . . .	133	723.1	General . . . . .	135
714.2	Prohibited Water Discharge . . . . .	133	<b>CHAPTER 8</b>	<b>INDIRECT WASTES</b> . . . . .	137
714.3	Prohibited Sewer Connection . . . . .	133	801.0	General . . . . .	137
			801.1	Applicability . . . . .	137
			801.2	Air Gap or Air Break Required . . . . .	137

801.3	Food and Beverage Handling Establishments . . . . .	137	813.1	General . . . . .	139
801.4	Bar and Fountain Sink Traps . . . . .	137	814.0	Condensate Wastes and Control . . . . .	140
801.5	Connections from Water Distribution System . . . . .	137	814.1	Condensate Disposal . . . . .	140
801.6	Sterilizers . . . . .	137	814.2	Condensate Control . . . . .	140
801.7	Drip or Drainage Outlets . . . . .	137	814.3	Condensate Waste Pipe Material and Sizing . . . . .	140
802.0	Approvals . . . . .	137	Table 814.3	Minimum Condensate Pipe Size . . . . .	140
802.1	General . . . . .	137	814.4	Appliance Condensate Drains . . . . .	140
803.0	Indirect Waste Piping . . . . .	137	814.5	Point of Discharge . . . . .	141
803.1	Materials . . . . .	137	814.6	Condensate Waste From Air-Conditioning Coils . . . . .	141
803.2	Copper and Copper Alloys . . . . .	137	814.7	Plastic Fittings . . . . .	141
803.3	Pipe Size and Length . . . . .	137			
804.0	Indirect Waste Receptors . . . . .	138	<b>CHAPTER 9</b>	<b>VENTS . . . . .</b>	<b>143</b>
804.1	Standpipe Receptors . . . . .	138	901.0	General . . . . .	143
805.0	Pressure Drainage Connections . . . . .	138	901.1	Applicability . . . . .	143
805.1	General . . . . .	138	901.2	Vents Required . . . . .	143
806.0	Sterile Equipment . . . . .	138	901.3	Trap Seal Protection . . . . .	143
806.1	General . . . . .	138	902.0	Vents Not Required . . . . .	143
807.0	Appliances . . . . .	138	902.1	Interceptor . . . . .	143
807.1	Non-Classed Apparatus . . . . .	138	902.2	Bars, Soda Fountains, and Counter . . . . .	143
807.2	Undiluted Condensate Waste . . . . .	138	903.0	Materials . . . . .	143
807.3	Domestic Dishwashing Machine . . . . .	138	903.1	Applicable Standards . . . . .	143
808.0	Cooling Water . . . . .	138	903.2	Use of Copper or Copper Alloy Tubing . . . . .	143
808.1	General . . . . .	138		Changes in Direction . . . . .	143
809.0	Drinking Fountains . . . . .	138	903.3	Size of Vents . . . . .	143
809.1	General . . . . .	138	904.0	Size . . . . .	143
810.0	Steam and Hot Water Drainage Condensers and Sumps . . . . .	138	904.1	Length . . . . .	143
810.1	High Temperature Discharge . . . . .	138	904.2	Vent Pipe Grades and Connections . . . . .	144
Table 810.1	Pipe Connections in Blowoff Condensers and Sumps . . . . .	139	905.0	Grade . . . . .	144
810.2	Sumps, Condensers, and Intercepting Tanks . . . . .	139	905.1	Horizontal Drainage Pipe . . . . .	144
810.3	Cleaning . . . . .	139	905.2	Vent Pipe Rise . . . . .	144
810.4	Strainers . . . . .	139	905.3	Roof Termination . . . . .	144
811.0	Chemical Wastes . . . . .	139	905.4	Location of Opening . . . . .	144
811.1	Pretreatment . . . . .	139	905.5	Common Vertical Pipe . . . . .	144
811.2	Waste and Vent Pipes . . . . .	139	905.6	Vent Termination . . . . .	144
811.3	Joining Materials . . . . .	139	906.0	Roof Termination . . . . .	144
811.4	Access . . . . .	139	906.1	Clearance . . . . .	144
811.5	Permanent Record . . . . .	139	906.2	Use of Roof . . . . .	144
811.6	Chemical Vent . . . . .	139	906.3	Outdoor Installations . . . . .	144
811.7	Discharge . . . . .	139	906.4	Joints . . . . .	144
811.8	Diluted Chemicals . . . . .	139	906.5	Lead . . . . .	144
812.0	Clear Water Wastes . . . . .	139	906.6	Frost or Snow Closure . . . . .	144
812.1	General . . . . .	139	906.7	Vent Stacks and Relief Vents . . . . .	144
813.0	Swimming Pools . . . . .	139	907.0		

907.1	Drainage Stack . . . . .	144	1005.1	General . . . . .	148
907.2	Yoke Vent . . . . .	144	1006.0	Floor Drain Traps . . . . .	148
908.0	Wet Venting . . . . .	144	1006.1	General . . . . .	148
908.1	Vertical Wet Venting . . . . .	144	1007.0	Trap Seal Protection . . . . .	148
908.2	Horizontal Wet Venting for a Bathroom Group . . . . .	145	1007.1	General . . . . .	148
909.0	Special Venting for Island Fixtures . . . . .	145	1008.0	Building Traps . . . . .	148
909.1	General . . . . .	145	1008.1	General . . . . .	148
910.0	Combination Waste and Vent Systems . . . . .	145	1009.0	Interceptors (Clarifiers) and Separators . . . . .	148
910.1	Where Permitted . . . . .	145	1009.1	Where Required . . . . .	148
910.2	Approval . . . . .	145	1009.2	Approval . . . . .	148
910.3	Vents . . . . .	145	1009.3	Design . . . . .	148
910.4	Size . . . . .	145	1009.4	Relief Vent . . . . .	148
910.5	Vertical Waste Pipe . . . . .	145	1009.5	Location . . . . .	148
910.6	Cleanouts . . . . .	145	1009.6	Maintenance of Interceptors . . . . .	148
910.7	Fixtures . . . . .	145	1009.7	Discharge . . . . .	148
911.0	Circuit Venting . . . . .	146	1010.0	Slaughterhouses, Packing Establishments, etc . . . . .	148
911.1	Circuit Vent Permitted . . . . .	146	1010.1	General . . . . .	148
911.2	Vent Size and Connection . . . . .	146	1011.0	Minimum Requirements for Auto Wash Racks . . . . .	148
911.3	Slope and Size of Horizontal Branch . . . . .	146	1011.1	General . . . . .	148
911.4	Relief Vent . . . . .	146	1012.0	Commercial and Industrial Laundries . . . . .	149
911.5	Additional Fixtures . . . . .	146	1012.1	General . . . . .	149
912.0	Engineered Vent System . . . . .	146	1013.0	Bottling Establishments . . . . .	149
912.1	General . . . . .	146	1013.1	General . . . . .	149
912.2	Minimum Requirements . . . . .	146	1014.0	Grease Interceptors . . . . .	149
<b>CHAPTER 10</b>	<b>TRAPS AND</b>		1014.1	General . . . . .	149
	<b>INTERCEPTORS . . . . .</b>	<b>147</b>	1014.2	Hydromechanical Grease Interceptors . . . . .	149
1001.0	General . . . . .	147	1014.3	Gravity Grease Interceptors . . . . .	149
1001.1	Applicability . . . . .	147	Table 1014.2.1	Hydromechanical Grease Interceptor Sizing Using Gravity Flow Rates . . . . .	150
1001.2	Where Required . . . . .	147	Table 1014.3.6	Gravity Grease Interceptor Sizing . . . . .	151
1002.0	Traps Protected by Vent Pipes . . . . .	147	1015.0	FOG (Fats, Oils, and Greases) Disposal System . . . . .	151
1002.1	Vent Pipes . . . . .	147	1015.1	Purpose . . . . .	151
1002.2	Fixture Traps . . . . .	147	1015.2	Components, Materials, and Equipment . . . . .	151
1002.3	Change of Direction . . . . .	147	1015.3	Sizing and Installation . . . . .	151
1002.4	Vent Pipe Opening . . . . .	147	1015.4	Performance . . . . .	151
1003.0	Traps — Described . . . . .	147	1016.0	Sand Interceptors . . . . .	151
1003.1	General Requirements . . . . .	147	1016.1	Discharge . . . . .	151
1003.2	Slip Joint Fittings . . . . .	147	1016.2	Authority Having Jurisdiction . . . . .	151
Table 1002.2	Horizontal Lengths of Trap Arms . . . . .	147	1016.3	Construction and Size . . . . .	151
1003.3	Size . . . . .	148			
1004.0	Traps . . . . .	148			
1004.1	Prohibited . . . . .	148			
1004.2	Movable Parts . . . . .	148			
1005.0	Trap Seals . . . . .	148			

1016.4	Separate Use	152	Table 1105.1(1)	Controlled-Flow Maximum Roof Water Depth	156
1017.0	Oil and Flammable Liquid Interceptors	152	Table 1105.1(2)	Distance of Scupper Bottoms Above Roof	156
1017.1	Interceptors Required	152	1105.2	Setback Roofs	156
1017.2	Design of Interceptors	152	1106.0	Testing	157
<b>CHAPTER 11</b>	<b>STORM DRAINAGE</b>	<b>153</b>	1106.1	Testing Required	157
1101.0	General	153	1106.2	Methods of Testing Storm Drainage Systems	157
1101.1	Applicability	153	Table 1101.8	Sizing of Horizontal Rainwater Piping	158
1101.2	Where Required	153	Table 1101.12	Sizing Roof Drains, Leaders, and Vertical Rainwater Piping	159
1101.3	Storm Water Drainage to Sanitary Sewer Prohibited	153	Table 1103.3	Size of Gutters	160
1101.4	Material Uses	153	<b>CHAPTER 12</b>	<b>FUEL GAS PIPING</b>	<b>161</b>
Table 1101.4.6	Materials for Subsoil Drain Pipe and Fittings	153	1201.0	General	161
1101.5	Expansion Joints Required	153	1201.1	Applicability	161
1101.6	Subsoil Drains	153	1202.0	Coverage of Piping System	161
1101.7	Building Subdrains	154	1202.1	General	161
1101.8	Areaway Drains	154	1202.2	Piping System Requirements	161
1101.9	Window Areaway Drains	154	1202.3	Applications	161
1101.10	Filling Stations and Motor Vehicle Washing Establishments	154	1203.0	Inspection	161
1101.11	Paved Areas	154	1203.1	Inspection Notification	161
1101.12	Roof Drainage	154	1203.2	Excavation	161
1101.13	Cleanouts	155	1203.3	Type of Inspections	161
1101.14	Rainwater Sumps	155	1203.4	Inspection Waived	161
1101.15	Traps on Storm Drains and Leaders	155	1204.0	Certificate of Inspection	162
1101.16	Leaders, Conductors, and Connections	155	1204.1	Issuance	162
1102.0	Roof Drains	155	1204.2	Gas Supplier	162
1102.1	Applications	155	1204.3	Unlawful	162
1102.2	Dome Strainers Required	155	1205.0	Authority to Render Gas Service	162
1102.3	Roof Drain Flashings	155	1205.1	Authorized Personnel	162
1103.0	Size of Leaders, Conductors, and Storm Drains	155	1205.2	Outlets	162
1103.1	Vertical Conductors and Leaders	155	1206.0	Authority to Disconnect	162
1103.2	Size of Horizontal Storm Drains and Sewers	155	1206.1	Disconnection	162
1103.3	Size of Roof Gutters	155	1206.2	Notice	162
1103.4	Side Walls Draining onto a Roof	155	1206.3	Capped Outlets	162
1104.0	Values for Continuous Flow	156	1207.0	Temporary Use of Gas	162
1104.1	General	156	1207.1	General	162
1105.0	Controlled-Flow Roof Drainage	156	1208.0	Gas Piping System Design, Materials, and Components	162
1105.1	Application	156	1208.1	Installation of Piping System	162
			1208.2	Provision for Location of Point of Delivery	162
			1208.3	Interconnections Between Gas Piping Systems	162
			1208.4	Sizing of Gas Piping Systems	162

Table 1208.4.1	Approximate Gas Input for Typical Appliances . . . . .	163	1212.2	Suspended Low-Intensity Infrared Tube Heaters . . . . .	172
1208.5	Acceptable Piping Materials and Joining Methods . . . . .	163	1212.3	Use of Gas Hose Connectors . . .	172
Table 1208.5.7.2	Specifications for Threading Metallic Pipe . . . . .	164	1212.4	Connection of Portable and Mobile Industrial Gas Appliances . . . . .	172
1208.6	Gas Meters . . . . .	166	1212.5	Appliance Shutoff Valves and Connections . . . . .	172
1208.7	Gas Pressure Regulators . . . . .	166	1212.6	Quick-Disconnect Devices . . . . .	173
1208.8	Backpressure Protection . . . . .	167	1212.7	Gas Convenience Outlets . . . . .	173
1208.9	Low-Pressure Protection . . . . .	167	1212.8	Sediment Trap . . . . .	173
1208.10	Shutoff Valves . . . . .	167	1212.9	Installation of Piping . . . . .	173
1208.11	Expansion and Flexibility . . . . .	167	1212.10	Liquefied Petroleum Gas Facilities and Piping . . . . .	173
1209.0	Excess Flow Valve . . . . .	167	1213.0	Pressure Testing and Inspection . . . . .	173
1209.1	General . . . . .	167	1213.1	Piping Installations . . . . .	173
1210.0	Gas Piping Installation . . . . .	167	1213.2	Test Preparation . . . . .	173
1210.1	Piping Underground . . . . .	167	1213.3	Test Pressure . . . . .	174
1210.2	Installation of Piping . . . . .	168	1213.4	Detection of Leaks and Defects . .	174
Table 1210.2.4.1	Support of Piping . . . . .	169	1213.5	Piping System Leak Test . . . . .	174
1210.3	Concealed Piping in Buildings . .	169	1213.6	Purging Requirements . . . . .	174
1210.4	Piping in Vertical Chases . . . . .	169	Table 1213.6.1	Size and Length of Piping . . . . .	174
1210.5	Maximum Design Operating Pressure . . . . .	170	1214.0	Interconnections Between Gas Piping Systems . . . . .	175
1210.6	Appliance Overpressure Protection . . . . .	170	1214.1	Interconnections Supplying Separate Users . . . . .	175
1210.7	Gas Pipe Turns . . . . .	170	1214.2	Interconnections for Standby Fuels . . . . .	175
1210.8	Drips and Sediment Traps . . . . .	170	1215.0	Required Gas Supply . . . . .	175
1210.9	Outlets . . . . .	170	1215.1	General . . . . .	175
1210.10	Branch Pipe Connection . . . . .	171	1215.2	Volume . . . . .	175
1210.11	Manual Gas Shutoff Valves . . . . .	171	1215.3	Gas Appliances . . . . .	176
1210.12	Prohibited Devices . . . . .	171	1215.4	Size of Piping Outlets . . . . .	176
1210.13	Systems Containing Gas-Air Mixtures Outside the Flammable Range . . . . .	171	1216.0	Required Gas Piping Size . . . . .	176
1210.14	Systems Containing Flammable Gas-Air Mixtures . . . . .	171	1216.1	Pipe Sizing Methods . . . . .	176
1211.0	Electrical Bonding and Grounding . . . . .	171	1216.2	Tables for Sizing Gas Piping Systems . . . . .	176
1211.1	Pipe and Tubing other than CSST . . . . .	171	1216.3	Sizing Equations . . . . .	176
1211.2	Bonding of CSST Gas Piping . . .	171	Table 1216.3	<i>Cr</i> and <i>Y</i> for Natural Gas and Undiluted Propane at Standard Conditions . . . . .	176
1211.3	Grounding Conductor or Electrode . . . . .	171	1216.4	Sizing of Piping Sections . . . . .	176
1211.4	Lightning Protection System . . . .	171	1216.5	Engineering Methods . . . . .	177
1211.5	Electrical Circuits . . . . .	171	1216.6	Variable Gas Pressure . . . . .	177
1211.6	Electrical Connections . . . . .	171	Table 1216.2(1)	Schedule 40 Metallic Pipe . . . . .	179
1212.0	Appliance Connections to Building Piping . . . . .	172	Table 1216.2(2)	Schedule 40 Metallic Pipe . . . . .	180
1212.1	Connecting Gas Appliances . . . . .	172	Table 1216.2(3)	Schedule 40 Metallic Pipe . . . . .	181
			Table 1216.2(4)	Schedule 40 Metallic Pipe . . . . .	182

Table 1216.2(5)	Schedule 40 Metallic Pipe . . . . .	183	1301.5	Where Required . . . . .	215
Table 1216.2(6)	Schedule 40 Metallic Pipe . . . . .	184	1301.6	Existing Systems . . . . .	215
Table 1216.2(7)	Semi-Rigid Copper Tubing . . . . .	185	1302.0	Design Requirements . . . . .	215
Table 1216.2(8)	Semi-Rigid Copper Tubing . . . . .	186	1302.1	Building System Categories . . . . .	215
Table 1216.2(9)	Semi-Rigid Copper Tubing . . . . .	187	1302.2	Patient Care Rooms . . . . .	215
Table 1216.2(10)	Semi-Rigid Copper Tubing . . . . .	188	1302.3	Anesthetizing Locations . . . . .	215
Table 1216.2(11)	Semi-Rigid Copper Tubing . . . . .	189	1302.4	Wet Procedure Locations . . . . .	215
Table 1216.2(12)	Semi-Rigid Copper Tubing . . . . .	190	1303.0	Health Care Facilities . . . . .	215
Table 1216.2(13)	Semi-Rigid Copper Tubing . . . . .	191	1303.1	Drinking Fountain Control Valves . . . . .	215
Table 1216.2(14)	Corrugated Stainless Steel Tubing (CSST) . . . . .	192	1303.2	Psychiatric Patient Rooms . . . . .	215
Table 1216.2(15)	Corrugated Stainless Steel Tubing (CSST) . . . . .	193	1303.3	Locations for Ice Storage . . . . .	215
Table 1216.2(16)	Corrugated Stainless Steel Tubing (CSST) . . . . .	194	1303.4	Sterilizers and Bedpan Steamers . . . . .	215
Table 1216.2(17)	Corrugated Stainless Steel Tubing (CSST) . . . . .	195	1303.5	Aspirators . . . . .	216
Table 1216.2(18)	Corrugated Stainless Steel Tubing (CSST) . . . . .	196	1303.6	Drains . . . . .	216
Table 1216.2(19)	Polyethylene Plastic Pipe . . . . .	197	1303.7	Clinical Sinks . . . . .	216
Table 1216.2(20)	Polyethylene Plastic Pipe . . . . .	198	1303.8	Water Supply for Hospitals . . . . .	216
Table 1216.2(21)	Polyethylene Plastic Pipe . . . . .	199	1304.0	Medical Gas and Medical Vacuum Piping Systems . . . . .	216
Table 1216.2(22)	Polyethylene Plastic Tubing . . . . .	200	1304.1	General . . . . .	216
Table 1216.2(23)	Polyethylene Plastic Tubing . . . . .	200	1304.2	Manufacturer's Instructions . . . . .	216
Table 1216.2(24)	Schedule 40 Metallic Pipe . . . . .	201	1304.3	Supply Source . . . . .	216
Table 1216.2(25)	Schedule 40 Metallic Pipe . . . . .	202	1304.4	Certification of Systems . . . . .	216
Table 1216.2(26)	Schedule 40 Metallic Pipe . . . . .	203	1304.5	Construction Documents . . . . .	216
Table 1216.2(27)	Schedule 40 Metallic Pipe . . . . .	204	1305.0	System Performance . . . . .	216
Table 1216.2(28)	Semi-Rigid Copper Tubing . . . . .	205	1305.1	Required Operating Pressures . . . . .	216
Table 1216.2(29)	Semi-Rigid Copper Tubing . . . . .	206	1305.2	Minimum Flow Rates . . . . .	216
Table 1216.2(30)	Semi-Rigid Copper Tubing . . . . .	207	1305.3	Minimum Station Outlets and Inlets . . . . .	216
Table 1216.2(31)	Corrugated Stainless Steel Tubing (CSST) . . . . .	208	Table 1305.1	Standard Designation Colors and Operating Pressures for Medical Gas and Medical Vacuum Systems . . . . .	217
Table 1216.2(32)	Corrugated Stainless Steel Tubing (CSST) . . . . .	209	Table 1305.2	Minimum Flow Rates . . . . .	217
Table 1216.2(33)	Corrugated Stainless Steel Tubing (CSST) . . . . .	210	1306.0	Qualifications of Installers . . . . .	217
Table 1216.2(34)	Polyethylene Plastic Pipe . . . . .	211	1306.1	General . . . . .	217
Table 1216.2(35)	Polyethylene Plastic Pipe . . . . .	212	1306.2	Brazing . . . . .	217
Table 1216.2(36)	Polyethylene Plastic Tubing . . . . .	213	Table 1305.3	Minimum Outlets and Inlets Per Station . . . . .	218
			1306.3	Health Care Organization Personnel . . . . .	218
<b>CHAPTER 13</b>	<b>HEALTH CARE FACILITIES AND MEDICAL GAS AND MEDICAL VACUUM SYSTEMS . . . . .</b>	<b>215</b>	1307.0	Brazing Procedures . . . . .	218
<b>PART I</b>	<b>General Requirements . . . . .</b>	<b>215</b>	1307.1	General . . . . .	218
1301.0	General . . . . .	215	1307.2	Examination . . . . .	218
1301.1	Applicability . . . . .	215	1307.3	Brazing Procedure Specification . . . . .	218
1301.2	Where Not Applicable . . . . .	215	1307.4	Documentation . . . . .	218
1301.3	Conflict of Requirements . . . . .	215	1307.5	Procedures . . . . .	218
1301.4	Terms . . . . .	215	1307.6	Conditions of Acceptance . . . . .	218
			1307.7	Qualifications . . . . .	218

<b>PART II</b>	<b>Medical Gas and Medical Vacuum System Piping</b> . . . . .	219
1308.0	Pipe Materials . . . . .	219
1308.1	General . . . . .	219
1308.2	Cleaning . . . . .	219
1308.3	Delivery . . . . .	219
1308.4	Tubes for Medical Gas Systems . . . . .	219
1308.5	Tubes for Medical Vacuum Systems . . . . .	219
1309.0	Joints and Connections . . . . .	219
1309.1	General . . . . .	219
1309.2	Changes in Direction . . . . .	219
1309.3	Brazed Joints and Fittings . . . . .	219
1309.4	Special Fittings . . . . .	222
1309.5	Welded Joints . . . . .	222
1309.6	Prohibited Joints . . . . .	223
1310.0	Installation of Piping . . . . .	223
1310.1	General . . . . .	223
1310.2	Required Pipe Sizing . . . . .	223
Table 1310.2.1(1)	System Sizing – Flow Requirements for Station Outlets and Inlets . . . . .	223
Table 1310.2.2(1)	Maximum Permitted Pressure Loss in Medical Gas and Medical Vacuum Systems . . . . .	224
1310.3	Pipe Protection . . . . .	224
1310.4	Location of Piping . . . . .	224
1310.5	Pipe Support . . . . .	224
Table 1310.5.4(1)	Maximum Metallic Pipe Support Spacing . . . . .	224
Table 1310.5.4(2)	Maximum Plastic Pipe Support Spacing . . . . .	225
1310.6	Backfilling and Trenching . . . . .	225
1310.7	Connectors . . . . .	225
1310.8	Prohibited System Interconnections . . . . .	225
1310.9	Changes in System Use . . . . .	225
Table 1310.2.1(2)	Pressure Loss for Medical Air . . . . .	226
Table 1310.2.1(3)	Pressure Loss for Nitrogen . . . . .	226
Table 1310.2.1(4)	Pressure Loss for Nitrous Oxide and Carbon Dioxide . . . . .	227
Table 1310.2.1(5)	Pressure Loss for Oxygen . . . . .	227
Table 1310.2.1(6)	Pressure Loss for Vacuum . . . . .	228
Table 1310.2.1(7)	Pressure Loss for Vacuum (Category 3) . . . . .	229
1310.10	Breaching or Penetrating Medical Gas Piping . . . . .	230
1310.11	Labeling and Identification . . . . .	230

1311.0	Cleaning for Medical Gas Piping Systems . . . . .	231
1311.1	Cleaning . . . . .	231
1311.2	Contaminated Materials . . . . .	231
1312.0	Shutoff Valves . . . . .	231
1312.1	General . . . . .	231
1312.2	Source Valves . . . . .	231
1312.3	Main Valves . . . . .	231
1312.4	Riser Valves . . . . .	231
1312.5	Service Valves . . . . .	231
1312.6	Zone Valves . . . . .	232
1312.7	In-Line Shutoff Valves . . . . .	232
1312.8	Future Piping . . . . .	232
1312.9	Identification . . . . .	232
<b>PART III</b>	<b>Systems, Equipment, and Components</b> . . . . .	233
1313.0	Central Supply Systems . . . . .	233
1313.1	General . . . . .	233
1314.0	Medical Air Systems . . . . .	233
1314.1	Medical Air Compressors . . . . .	233
1314.2	Medical Air Receivers . . . . .	234
1315.0	Medical Vacuum System . . . . .	234
1315.1	General . . . . .	234
1315.2	Medical-Surgical Vacuum Sources . . . . .	235
1315.3	Vacuum Pumps . . . . .	235
1315.4	Vacuum Receivers . . . . .	235
1315.5	Vacuum Source Exhausts . . . . .	235
1316.0	Pressure-Regulating Equipment . . . . .	235
1316.1	Where Required . . . . .	235
1316.2	Pressure-Relief Valves . . . . .	235
1316.3	Pressure Gauges . . . . .	235
1317.0	Station Outlets and Inlets . . . . .	236
1317.1	General . . . . .	236
1317.2	Required Valves . . . . .	236
1317.3	Post Installation . . . . .	236
1317.4	Identification . . . . .	236
1318.0	Warning Systems . . . . .	236
1318.1	Category 1 and 2 Systems . . . . .	236
1318.2	Category 3 Systems . . . . .	236
1318.3	Components . . . . .	237
<b>PART IV</b>	<b>Testing, Inspection and Certification</b> . . . . .	237
1319.0	Testing and Inspection . . . . .	237
1319.1	Where Required . . . . .	237
1319.2	Breached Systems . . . . .	237
1319.3	Reports . . . . .	237

1319.4	Initial Piping Blow Down . . . . .	237	1406.1	General . . . . .	242
1319.5	Initial Pressure Tests – Medical Gas and Medical Vacuum Systems . . . . .	237	1406.2	Examination . . . . .	242
			1406.3	Penetrations . . . . .	242
			1406.4	Field Installations . . . . .	242
1319.6	Cross-Connection Tests – Medical Gas and Medical Vacuum Systems . . . . .	237	<b>CHAPTER 15</b>		
1319.7	Standing Pressure Tests – Medical Gas Piping Systems . . . . .	238	<b>ALTERNATE WATER SOURCES FOR NONPOTABLE APPLICATIONS . . . . .</b>		
1319.8	Standing Pressure Tests – Medical Vacuum Piping Systems . . . . .	238	1501.0	General . . . . .	243
1319.9	Purge Tests . . . . .	238	1501.1	Applicability . . . . .	243
1319.10	Operational Pressure Test . . . . .	238	1501.2	System Design . . . . .	243
1319.11	Medical Gas Concentration Test . . . . .	239	1501.3	Permit . . . . .	243
Table 1319.11	Gas Concentrations . . . . .	239	1501.4	Component Identification . . . . .	243
1319.12	System Verification . . . . .	239	1501.5	Maintenance and Inspection . . . . .	243
1320.0	System Certification . . . . .	239	1501.6	Operation and Maintenance Manual . . . . .	243
1320.1	Certification . . . . .	239	1501.7	Minimum Water Quality Requirements . . . . .	243
1320.2	Certification Tests . . . . .	239	1501.8	Material Compatibility . . . . .	243
1320.3	Report Items . . . . .	239	1501.9	System Controls . . . . .	243
			1501.10	Commercial, Industrial, and Institutional Restroom Signs . . . . .	243
<b>CHAPTER 14</b>	<b>FIRESTOP PROTECTION . . . . .</b>	<b>241</b>	Table 1501.5	Minimum Alternate Water Source Testing, Inspection, and Maintenance Frequency . . . . .	244
1401.0	General . . . . .	241	1501.11	Inspection and Testing . . . . .	244
1401.1	Applicability . . . . .	241	1501.12	Separation Requirements . . . . .	245
1402.0	Construction Documents . . . . .	241	1501.13	Abandonment . . . . .	245
1402.1	Penetrations . . . . .	241	1501.14	Sizing . . . . .	245
1403.0	Installation . . . . .	241	1502.0	Gray Water Systems . . . . .	245
1403.1	Materials . . . . .	241	1502.1	General . . . . .	245
1404.0	Combustible Piping Installations . . . . .	241	1502.2	System Requirements . . . . .	245
1404.1	General Requirements . . . . .	241	1502.3	Connections to Potable and Reclaimed (Recycled) Water Systems . . . . .	246
1404.2	Fire-Resistance Rating . . . . .	241	1502.4	Location . . . . .	246
1404.3	Firestop Systems . . . . .	241	1502.5	Plot Plan Submission . . . . .	246
1404.4	Connections . . . . .	241	1502.6	Prohibited Location . . . . .	246
1404.5	Insulation and Coverings . . . . .	241	1502.7	Drawings and Specifications . . . . .	246
1404.6	Sleeves . . . . .	241	Table 1502.4	Location of Gray Water System . . . . .	246
1405.0	Noncombustible Piping Installations . . . . .	241	1502.8	Procedure for Estimating Gray Water Discharge . . . . .	247
1405.1	General Requirements . . . . .	241	1502.9	Gray Water System Components . . . . .	247
1405.2	Fire-Resistance Rating . . . . .	241	1502.10	Subsurface Irrigation System Zones . . . . .	248
1405.3	Firestop Systems . . . . .	241	Table 1502.10	Design of Six Typical Soils . . . . .	248
1405.4	Connections . . . . .	242	1502.11	Subsurface and Subsoil Irrigation Field, and Mulch Basin Design and Construction . . . . .	248
1405.5	Unshielded Couplings . . . . .	242			
1405.6	Sleeves . . . . .	242			
1405.7	Insulation and Coverings . . . . .	242			
1406.0	Required Inspection . . . . .	242			

Table 1502.11	Subsurface Irrigation Design Criteria for Six Typical Soils . . . . .	.249
Table 1502.11.3	Subsoil Irrigation Field Construction . . . . .	.249
1502.12	Gray Water System Color and Marking Information . . . . .	.250
1502.13	Other Collection and Distribution Systems . . . . .	.250
1502.14	Testing . . . . .	.250
1502.15	Maintenance . . . . .	.250
1503.0	Reclaimed (Recycled) Water Systems . . . . .	.250
1503.1	General . . . . .	.250
1503.2	Permit . . . . .	.250
1503.3	System Changes . . . . .	.250
1503.4	Connections to Potable or Reclaimed (Recycled) Water Systems . . . . .	.250
1503.5	Initial Cross-Connection Test . . .	.250
1503.6	Reclaimed (Recycled) Water System Materials . . . . .	.250
1503.7	Reclaimed (Recycled) Water System Color and Marking Information . . . . .	.250
1503.8	Valves . . . . .	.250
1503.9	Hose Bibbs . . . . .	.250
1503.10	Required Appurtenances . . . . .	.250
1503.11	Same Trench as Potable Water Pipes . . . . .	.251
1503.12	Signs . . . . .	.251
1503.13	Inspection and Testing . . . . .	.251
1504.0	On-Site Treated Nonpotable Water Systems . . . . .	.251
1504.1	General . . . . .	.251
1504.2	Plumbing Plan Submission . . . . .	.251
1504.3	System Changes . . . . .	.251
1504.4	Connections to Potable or Reclaimed (Recycled) Water Systems . . . . .	.251
1504.5	Initial Cross-Connection Test . . .	.251
1504.6	On-Site Treated Nonpotable Water System Materials . . . . .	.251
1504.7	On-Site Treated Nonpotable Water Devices and Systems . . .	.251
1504.8	On-Site Treated Nonpotable Water System Color and Marking Information . . . . .	.251
1504.9	Valves . . . . .	.251
1504.10	Design and Installation . . . . .	.251
1504.11	Signs . . . . .	.252
1504.12	Inspection and Testing . . . . .	.252

**CHAPTER 16**

1601.0	
1601.1	
1601.2	
1601.3	
1601.4	
1601.5	
Table 1601.5	
1601.6	
1601.7	
1601.8	
1601.9	
1601.10	
1601.11	
1601.12	
1602.0	
1602.1	
1602.2	
1602.3	
1602.4	
1602.5	
1602.6	
1602.7	
1602.8	
1602.9	
Table 1602.9.4	
1602.10	
1602.11	

**NONPOTABLE RAINWATER  
CATCHMENT SYSTEMS . . . . .**

General . . . . .	.253
Applicability . . . . .	.253
System Design . . . . .	.253
Permit . . . . .	.253
Component Identification . . . . .	.253
Maintenance and Inspection . . .	.253
Minimum Alternate Water Source Testing, Inspection, and Maintenance Frequency . . .	.253
Operation and Maintenance Manual . . . . .	.254
Minimum Water Quality Requirements . . . . .	.254
Material Compatibility . . . . .	.254
System Controls . . . . .	.254
Separation Requirements . . . . .	.254
Abandonment . . . . .	.254
Sizing . . . . .	.254
Nonpotable Rainwater Catchment Systems . . . . .	.254
General . . . . .	.254
Plumbing Plan Submission . . . . .	.254
System Changes . . . . .	.254
Connections to Potable or Reclaimed (Recycled) Water Systems . . . . .	.254
Initial Cross-Connection Test . . .	.254
Sizing . . . . .	.255
Rainwater Catchment System Materials . . . . .	.255
Rainwater Catchment System Color and Marking Information . .	.255
Design and Installation . . . . .	.255
Minimum Water Quality . . . . .	.256
Signs . . . . .	.257
Inspection and Testing . . . . .	.257

**CHAPTER 17**

1701.0	
1701.1	

**REFERENCED STANDARDS . . .259**

General . . . . .	.259
Standards . . . . .	.259

**APPENDICES**

Appendix A	
Appendix B	

**TABLE OF CONTENTS . . . . .**

Recommended Rules for Sizing the Water Supply System . . . . .	.285
Explanatory Notes on Combination Waste and Vent Systems . . . . .	.295

Appendix C	Alternate Plumbing Systems . . . .	297
Appendix D	Sizing Storm Water Drainage Systems . . . . .	305
Appendix E	Manufactured/Mobile Home Parks and Recreational Vehicle Parks . . . . .	313
Appendix F	Firefighter Breathing Air Replenishment Systems . . . . .	323
Appendix G	Sizing of Venting Systems . . . . .	327
Appendix H	Private Sewage Disposal Systems . . . . .	337
Appendix I	Installation Standard . . . . .	347
Appendix J	Combination of Indoor and Outdoor Combustion and Ventilation Opening Design . . . . .	355
Appendix K	Potable Rainwater Catchment Systems . . . . .	357
Appendix L	Sustainable Practices . . . . .	363
<b>INDEX</b>	. . . . .	<b>383</b>