

## **Introduction to this document**

Seattle Municipal Code Section 22.502.016 adopts chapter 51-56 of the Washington Administrative Code (WAC) as the base language for the 2018 Seattle Plumbing Code. Chapter 51-56 WAC adopts the 2018 Uniform Plumbing Code and adds state-level amendments. This document contains Seattle-specific amendments to the WAC.

Seattle typically adopts its own Chapter 1 in place of WAC 51-56-0100; it is laid out in this document as an entirely new chapter, with no underline. Other WAC sections in chapter 51-56 are numbered based on the Uniform Plumbing Code chapter they contain/amend; 51-56-0200 addresses Chapter 2, 51-56-0300 addresses Chapter 3, and so on up to Chapter 51-56-1700 addressing Chapter 17. So each chapter's amendments in this document are amendments to the corresponding WAC section.

## CHAPTER 1 ADMINISTRATION

### SECTION 101 TITLE, SCOPE AND PURPOSE

**101.1 Title.** These regulations shall be known as the “Seattle Plumbing Code,” may be cited as such, and are referred to herein as “this code.” All references to the Uniform Plumbing Code contained in this code mean the Seattle Plumbing Code.

**101.2 Scope.** This code applies to the erection, installation, alteration, repair, relocation, replacement, addition to, use or maintenance of plumbing systems within the City. The design and testing of equipment regulated by this code are subject to the approval of the Authority Having Jurisdiction.

**101.3 Purpose.** The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation, and maintenance or use of plumbing systems within the City.

The purpose of this code is to provide for and promote the health, safety and welfare of the general public, and not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this code.

**101.4 Applicability of city laws.** A plumbing permit application shall be considered under applicable city law in effect on the date a valid and fully complete plumbing permit application is submitted or on a date as otherwise required by law.

**101.4.1 Complete plumbing permit applications.** A plumbing permit application is complete if the Authority Having Jurisdiction determines it meets

the requirements of Sections 107.1.1 and 107.6 through 107.7.4.

**Exception:** If the Authority Having Jurisdiction allows a plumbing permit application to be submitted in phases for portions of the building, each phased portion submittal shall meet the requirements of Sections 107.1.1 and 107.6 through 107.7.4 applicable to the scope of the allowed phased portion, and the plumbing permit application shall be considered complete for the purpose of Section 101.4 on the date the phased portion submittal is submitted.

**101.4.2 Permit conditions and denial.** The Authority Having Jurisdiction may impose on a permit any conditions authorized by this code or other pertinent ordinances, regulations or laws. In addition, the Authority Having Jurisdiction may deny a permit if the Authority Having Jurisdiction determines that the proposed project or plumbing design documents do not conform to the requirements of this code, or other pertinent laws, ordinances or regulations.

**101.5 Internal Consistency.** If in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive governs. If there is a conflict between a general requirement and a specific requirement, the specific requirement governs.

**101.6 Referenced Codes and Standards.** The codes and standards referenced in this code are part of the requirements of this code to the extent prescribed by each such reference. If differences occur between provisions of this code and referenced codes and standards, the provisions of this code apply.

**Exception:** Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and manufacturer’s instructions apply.

**101.7 Appendices.** Provisions in the Uniform Plumbing Code appendices do not apply except Appendices A, B and I which are specifically adopted.

**101.8 Metric Units.** Wherever in this code there is a conflict between metric units of measurement and U.S. customary units, the U.S. customary units govern.

**101.9 References to Other Codes.** Whenever an International, National or Uniform Code is referenced in this code, it means the Seattle edition of that code, including local amendments. References to the “Building Code,” “Mechanical Code,” “Fuel Gas Code,” “Fire Code” and “Residential Code” mean the Seattle editions of those codes.

## **SECTION 102 ORGANIZATION AND DUTIES OF AUTHORITY HAVING JURISDICTION**

**102.1 Jurisdiction of Public Health—Seattle and King County.** The Director of Public Health—Seattle and King County is the Authority Having Jurisdiction. The Director and the Director’s authorized representative are authorized to administer and enforce this code; provided, that the Director of Seattle Public Utilities or his or her authorized representative shall administer and enforce provisions relating to the inspection and approval of water meters and, where applicable, building supply piping.

**102.2 Designees.** The Authority Having Jurisdiction may appoint such officers, inspectors, assistants and employees as are authorized from time to time. The Authority Having Jurisdiction may authorize such employees and other agents as may be

necessary to carry out the functions of the Authority Having Jurisdiction.

**102.3 Right of Entry.** With the consent of the owner or occupier of a building or premises, or pursuant to a lawfully issued warrant, the Authority Having Jurisdiction may enter a building or premises at any reasonable time to perform the duties imposed by this code.

**102.4 Modifications.** The Authority Having Jurisdiction may modify the provisions of this code for individual cases if the Authority Having Jurisdiction finds: (1) there are practical difficulties involved in carrying out the provisions of this code; (2) the modification is in conformity with the intent and purpose of this code; and (3) the modification will provide a reasonable level of strength, effectiveness, fire resistance, durability, safety and sanitation when considered together with other safety features of the building or other relevant circumstances. The Authority Having Jurisdiction may, but is not required to, record the approval of modifications and any relevant information in the files of the Authority Having Jurisdiction or on the approved construction documents.

**102.5 Alternate Materials and Methods of Construction and Design.** This code does not prevent the use of any material, design or method of construction not specifically allowed or prohibited by this code, provided the alternate has been approved and its use authorized by the Authority Having Jurisdiction. The Authority Having Jurisdiction may approve an alternate, provided the Authority Having Jurisdiction finds that the proposed alternate complies with the provisions of this code and that the alternate, when considered together with other safety features of the building or other relevant circumstances, will provide at least an equivalent level of strength, effectiveness, fire resistance, durability, safety and sanitation. The Authority Having

Jurisdiction may require that sufficient evidence or proof be submitted to reasonably substantiate any claims regarding the use or suitability of the alternate. The Authority Having Jurisdiction may, but is not required to, record the approval of alternates and any relevant information in the files of the Authority Having Jurisdiction or on the approved permit application documents.

**102.6 Tests.** Whenever there is insufficient evidence of compliance with the provisions of this code or evidence that any material or method of construction does not conform to the requirements of this code, the Authority Having Jurisdiction may require tests as proof of compliance, to be made at no expense to the City. Test methods shall be as specified in this code or by other recognized test standards. If there are no recognized and accepted test methods for the proposed alternate, the Authority Having Jurisdiction shall determine the test procedures. All tests shall be made by an approved agency. Reports of such tests shall be provided to the Authority Having Jurisdiction and retained by the Authority having Jurisdiction for the period required for retention of public records.

**102.7 Liability.** Nothing in this code is intended to be nor shall be construed to create or form the basis for any liability on the part of the Authority Having Jurisdiction or the City, or their officers, employees or agents, for any injury or damage resulting from the failure of equipment to conform to the provisions of this code, or by reason or as a consequence of any inspection, notice, order, certificate, permission or approval authorized or issued or done in connection with the implementation or enforcement of this code, or by reason of any action or inaction on the part of the Authority Having Jurisdiction or the City related in any manner to the enforcement of this code by their officers, employees or agents.

This code shall not be construed to lessen or relieve the responsibility of any person owning, operating or controlling any equipment, building or structure for any damages to persons or property caused by defects, nor shall the Authority Having Jurisdiction or the City of Seattle be held to have assumed any such liability by reason of the inspections authorized by this code or any permits or certificates issued under this code.

### **102.8 Responsibilities of Parties.**

#### **102.8.1 Responsibility for Compliance.**

Compliance with the requirements of this code is the obligation of the owner of the building, structure or premises, the authorized agent of the owner, and other persons responsible for the condition or work, and not of the Authority Having Jurisdiction or the City or any of their officers, employees or agents.

#### **102.8.2 Responsibilities of Registered Design Professional in Responsible Charge.**

It is the responsibility of the registered design professional in responsible charge to ensure that the information in the plumbing system documents is complete, accurate, and, to the best of the design professional's knowledge, conforms to the requirements of this code.

#### **102.8.3 Responsibilities of Contractor.**

It is the responsibility of the contractor to perform all the work in conformance with the approved plumbing system documents.

#### **102.8.4 Responsibilities of Plans Examiner.**

It is the responsibility of the plans examiner to verify that the description of the work in the plumbing system documents is substantially complete, and to require corrections where, to the best of the plans examiner's knowledge, the plumbing system documents do not conform to this code or other pertinent laws and ordinances.

### **102.8.5 Responsibilities of Field**

**Inspector.** It is the responsibility of the field inspector to conduct inspections to verify that the work in progress conforms with the approved plumbing system documents and to require corrections where, to the best of the field inspector's knowledge, the work either does not conform to the plumbing system documents or where the work is in violation of this code or other pertinent laws and ordinances.

## **SECTION 103 RULES OF THE AUTHORITY HAVING JURISDICTION**

**103.1 Authority.** The Authority Having Jurisdiction has authority to issue interpretations of this code and to adopt and enforce rules and regulations supplemental to this code as may be deemed necessary to clarify the application of the provisions of this code. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this code.

**103.2 Procedure for Adoption of Rules.** The Authority Having Jurisdiction shall promulgate, adopt and issue rules according to the procedures specified in the Administrative Code, Chapter 3.02 of the Seattle Municipal Code.

**103.3 Construction Codes Advisory Board Committee.** A committee of the Construction Codes Advisory Board may examine proposed administrative rules, and amendments relating to this code and related provisions of other codes and make recommendations to the Authority Having Jurisdiction and to the City Council for changes in this code. The committee will be called on as needed by the Construction Codes Advisory Board.

## **SECTION 104 APPLICATION TO EXISTING PLUMBING SYSTEMS**

**104.1 Additions, Alterations, Renovations or Repairs.** Additions, alterations, renovations or repairs may be made to any plumbing system without requiring the existing plumbing system to comply with all the requirements of this code, if the addition, alteration, renovation or repair conforms to the standards required for a new plumbing system. Additions, alterations, renovations or repairs shall not cause an existing system to become unsafe, unhealthy or overloaded. Minor additions, alterations, renovations, and repairs to existing plumbing systems may be installed in accordance with the law in effect at the time the original installation was made, if approved by the Authority Having Jurisdiction.

**104.2 Existing Installations.** Plumbing systems lawful at the time of the adoption of this code may continue their use, be maintained or repaired, or have components replaced if the use, maintenance, repair, or component replacement is done in accordance with the basic original design and location, and no hazard to life, health or property has been or is created by such plumbing system.

**104.3 Changes in Building Occupancy.** Plumbing systems that are a part of a building or structure undergoing a change in occupancy as defined in the International Building Code shall comply with all requirements of this code that are applicable to the new use or occupancy.

**104.4 Maintenance.** All plumbing systems, materials, equipment, appurtenances and all parts thereof shall be maintained in proper operating condition in accordance with the original design and in a safe and hazard-free condition. All devices or safeguards that were required by a code in effect when the plumbing system was installed shall be

maintained in conformance with the code edition under which installed.

The owner or the owner's designated agent is responsible for maintenance of plumbing systems and equipment. To determine compliance with this subsection, the Authority Having Jurisdiction may cause a plumbing system or equipment to be reinspected.

#### **104.5 Health and Safety**

Where compliance with the provisions of this code fails to eliminate or alleviate a nuisance, or other dangerous or insanitary condition that involves health or safety hazards, the owner or the owner's agent shall install such additional plumbing and drainage facilities or shall make such repairs or alterations as ordered by the Authority Having Jurisdiction.

#### **104.6 Landmarks—Historic Buildings and Structures.**

The Authority Having Jurisdiction may modify the specific requirements of this code as it applies to landmarks and require in lieu thereof alternate requirements that, in the opinion of the Authority Having Jurisdiction, will result in a reasonable degree of safety to the public and the occupants of those buildings.

For purposes of this section, a landmark is a building or structure: that is subject to a requirement to obtain a certificate of approval from the City Landmarks Preservation Board before altering or making significant changes to specific features or characteristics, that has been nominated for designation and the City Landmarks Preservation Board has not issued a determination regarding designation, that has been designated for preservation by the City Landmarks Preservation Board, that has been designated for preservation by the State of Washington, that has been listed or determined eligible to be listed in the National Register of Historic

Places, or that is located in a landmark or special review district subject to a requirement to obtain a certificate of approval before making a change to the external appearance of a structure.

### **SECTION 105 UNSAFE PLUMBING SYSTEM, EQUIPMENT AND HAZARD CORRECTION ORDER**

**105.1 Emergency Order.** Whenever the Authority Having Jurisdiction finds that any plumbing system or equipment regulated by this code is in such a dangerous and unsafe condition as to constitute an insanitary condition, which may cause an imminent hazard to life or limb, the Authority Having Jurisdiction may issue an emergency order. The emergency order may (1) direct that the plumbing system and equipment be restored to a safe and sanitary condition by a date certain; (2) require that the building, structure or premises, or portion thereof, containing the insanitary plumbing and equipment be vacated within a reasonable time to be specified in the order, or in the case of extreme danger and unsafe condition, the order may specify immediate vacation of the building, structure or premises, or portion thereof; or (3) authorize immediate disconnection of the utilities.

#### **105.1.1 Service of Emergency Order.**

The order shall be posted on the premises or personally served on the owner of the building or premises or any person responsible for the condition. The order shall specify the time for compliance.

**105.1.2 Effect of Emergency Order.** No person may occupy a building, structure or premises, or portion thereof, after the date on which the building is required to be vacated until the building, structure or premises, or portion thereof, is restored to a safe and sanitary condition as required by the order and this code. It is a violation for any person to fail to comply with an

emergency order issued by the Authority Having Jurisdiction.

**105.2 Hazard Correction Order.**

Whenever the Authority Having Jurisdiction finds that an unsafe plumbing system or equipment exists, the Authority Having Jurisdiction may issue a hazard correction order specifying the conditions causing the unsafe plumbing, or equipment to be unsafe and directing the owner or other person responsible for the unsafe plumbing or equipment to correct the condition by a date certain. In lieu of correction, the owner may submit a report or analysis to the Authority Having Jurisdiction analyzing said conditions and establishing that the equipment is, in fact, safe. The Authority Having Jurisdiction may require that the report or analysis be prepared by a licensed engineer.

**105.2.1 Service of Hazard Correction**

**Order.** The order shall be served upon the owner, agent or other responsible person by personal service or regular first class mail addressed to the last known address of such person or if no address is available after reasonable inquiry, the order may be posted in a conspicuous place on the premises. The order may also be posted if served by personal service or first class mail.

**105.2.2 Effect of Hazard Correction**

**Order.** It is a violation for any person to fail to comply with a hazard correction order as specified in this subsection.

**SECTION 106 ENFORCEMENT,  
VIOLATIONS AND PENALTIES**

**106.1 Violations.** It is a violation of this code for any person to:

(1) Install, erect, construct, enlarge, alter, repair, replace, remodel, move, improve, remove, convert or demolish, equip, occupy, use or maintain any plumbing system or equipment, or cause or permit the same to be

done, in the City, contrary to or in violation of any of the provisions of this code.

(2) Knowingly aid, abet, counsel, encourage, hire, induce or otherwise procure another to violate or fail to comply with this code.

(3) Use any material or install any device, appliance or equipment that is subject to this code and has not been approved by the Authority Having Jurisdiction.

(4) Violate or fail to comply with any order issued by the Authority Having Jurisdiction pursuant to the provisions of this code or with any requirements of this code.

(5) Remove, mutilate, destroy or conceal any notice or order issued or posted by the Authority Having Jurisdiction pursuant to the provisions of this code, or any notice or order issued or posted by the Authority Having Jurisdiction in response to a natural disaster or other emergency.

(6) Conduct work under a permit without requesting an inspection as required by Section 116.

**106.2 Notice of Violation.** If, after investigation, the Authority Having Jurisdiction determines that standards or requirements of this code have been violated or that orders or requirements have not been complied with, the Authority Having Jurisdiction may issue a notice of violation upon the owner, agent, or other person responsible for the action or condition. The notice of violation shall state the standards or requirements violated, shall state what corrective action, if any, is necessary to comply with the standards or requirements, and shall set a reasonable time for compliance.

**106.2.1 Service of Notice of Violation.**

The notice shall be served upon the owner, agent or other responsible person by personal service or regular first class mail addressed to the last known address of such person, or if no address is available after reasonable inquiry, the notice may be posted in a conspicuous place on the

premises. The notice may also be posted if served by personal service or first class mail. Nothing in this section limits or precludes any action or proceeding to enforce this code, and nothing obligates or requires the Authority Having Jurisdiction to issue a notice of violation prior to the imposition of civil or criminal penalties.

**106.2.2 Review of Notice of Violation by the Authority Having Jurisdiction.** Any person affected by a notice of violation issued pursuant to Section 110.2 may obtain a review of the notice by making a request in writing to the Authority Having Jurisdiction within ten days after service of the notice. When the last day of the period computed is a Saturday, Sunday, or city holiday, the period runs until 5 p.m. of the next business day.

**106.2.2.1 Review Procedure.** The review shall occur not less than ten nor more than 20 days after the request is received by the Authority Having Jurisdiction unless otherwise agreed to by the person requesting the review. Any person affected by the notice of violation may submit additional information to the Authority Having Jurisdiction. The review shall be made by a representative of the Authority Having Jurisdiction who will review any additional information that is submitted and the basis for issuance of the notice of violation. The reviewer may request clarification of the information received and a site visit.

**106.2.2.2 Decision.** After the review, the Authority Having Jurisdiction shall:

- (1) Sustain the notice;
- (2) Withdraw the notice;
- (3) Amend the notice; or
- (4) Continue the review to a date certain.

**106.2.2.3 Order.** The Authority Having Jurisdiction shall issue an order containing the decision within 15 days of

the date that the review is completed and shall cause the order to be mailed by regular first class mail to the persons requesting the review and the persons named on the notice of violation, addressed to their last known address.

**106.3 Stop Work Orders.** The Authority Having Jurisdiction may issue a stop work order whenever any work is being done contrary to the provisions of this code, contrary to a permit issued by the Authority Having Jurisdiction, or in the event of dangerous or unsafe conditions related to equipment or construction. The stop work order shall identify the violation and may prohibit work or other activity on the site.

**106.3.1 Service of Stop Work Order.**

The Authority Having Jurisdiction shall serve the stop work order by posting it in a conspicuous place at the site. If posting is not physically possible, then the stop work order may be served by personal service or by regular first class mail to the last known address of: the property owner, the person doing or causing the work to be done, or the holder of a permit if work is being stopped on a permit. For purposes of this section, service is complete at the time of posting or of personal service, or if mailed, three days after the date of mailing. When the last day of the period so computed is a Saturday, Sunday or city holiday, the period runs until 5 p.m. on the next business day.

**106.3.2 Effective Date of Stop Work Order.**

Stop work orders are effective when posted, or if posting is not physically possible, when one of the persons identified in Section 110.3.1 is served.

**106.3.3 Review of Stop Work Orders by the Authority Having Jurisdiction.**

Any person aggrieved by a stop work order may obtain a review of the order by delivering to the Authority Having Jurisdiction a request in writing within two



business days of the date of service of the stop work order.

**106.3.3.1 Review Procedure.** The review shall occur within two business days after receipt by the Authority Having Jurisdiction of the request for review unless otherwise agreed by the person making the request. Any person affected by the stop work order may submit additional information to the Authority Having Jurisdiction for consideration as part of the review at any time prior to the review. The review will be made by a representative of the Authority Having Jurisdiction who will review all additional information received and may also request a site visit.

**106.3.3.2 Decision.** After the review, the Authority Having Jurisdiction may:

- (1) Sustain the stop work order;
- (2) Withdraw the stop work order;
- (3) Modify the stop work order; or
- (4) Continue the review to a date certain.

**106.3.3.3 Order.** The Authority Having Jurisdiction shall issue an order containing the decision within two business days after the review is completed and shall cause the order to be sent by regular first class mail to the person or persons requesting the review, any person on whom the stop work order was served, and any other person who requested a copy before issuance of the order, addressed to their last known address.

#### **106.4 Authority to Disconnect Utilities in Emergencies.**

The Authority Having Jurisdiction has the authority to disconnect water, fuel-gas utility service or energy supplies to a building, structure, premises or equipment regulated by this code in case of emergency where necessary to eliminate an immediate hazard to life or property. The Authority Having Jurisdiction may enter any building or

premises to disconnect utility service. The Authority Having Jurisdiction shall, whenever possible, notify the serving utility, the owner and the occupant of the building, structure or premises of the decision to disconnect prior to taking such action, and shall notify the serving utility, owner and occupant of the building, structure or premises in writing of such disconnection immediately thereafter.

**106.5 Authority to Condemn Equipment.** Whenever the Authority Having Jurisdiction determines that any equipment or portion thereof regulated by this code is hazardous to life, health or property, the Authority Having Jurisdiction shall order in writing that such equipment either be disconnected, removed or restored to a safe or sanitary condition, as appropriate. The written notice shall fix a date certain for compliance with such order. It is a violation for any person to use or maintain defective equipment after receiving such notice. When any equipment or installation is to be disconnected, the Authority Having Jurisdiction shall give written notice of such disconnection and causes therefore within 24 hours to the serving utility, the owner and the occupant of the building, structure or premises. When any equipment is maintained in violation of this code, and in violation of a notice issued pursuant to the provisions of this section, the Authority Having Jurisdiction shall institute any appropriate action to prevent, restrain, correct or abate the violation.

**106.6 Connection After Order to Disconnect.** No person shall make connections from any water, energy, fuel or power supply nor supply water, energy or fuel to any equipment regulated by this code that has been disconnected or ordered to be disconnected by the Authority Having Jurisdiction, or the use of which has been ordered to be discontinued by the Authority Having Jurisdiction until the Authority

Having Jurisdiction authorizes the reconnection and use of such equipment.

**106.7 Civil Penalties.** Any person violating or failing to comply with the provisions of this code is subject to a cumulative civil penalty in an amount not to exceed \$500 per day for each violation from the date the violation occurs or begins until the date compliance is achieved. In cases where the Authority Having Jurisdiction has issued a notice of violation, the violation will be deemed to begin, for purposes of determining the number of days of violation, on the date compliance is required by the notice of violation.

**106.8 Enforcement in Municipal Court.** Civil actions to enforce this code shall be brought exclusively in Seattle Municipal Court, except as otherwise required by law or court rule. In any civil action for a penalty, the City has the burden of proving by a preponderance of the evidence that a violation exists or existed; the issuance of a notice of violation or of an order following a review by the Authority Having Jurisdiction is not itself evidence that a violation exists.

**106.9 Judicial Review.** Because civil actions to enforce this code must be brought exclusively in Seattle Municipal Court pursuant to Section 106.8, orders of the Authority Having Jurisdiction, including notices of violation issued under this chapter, are not subject to judicial review pursuant to chapter 36.70C RCW.

**106.10 Alternative Criminal Penalty.** Anyone who violates or fails to comply with any notice of violation or order issued by the Authority Having Jurisdiction pursuant to this code or who removes, mutilates, destroys or conceals a notice issued or posted by the Authority Having Jurisdiction shall, upon conviction thereof, be punished by a fine of not more than \$5000 or by imprisonment for not more than 365 days,

or by both such fine and imprisonment for each separate violation. Each day's violation shall constitute a separate offense.

**106.11 Additional Relief.** The Authority Having Jurisdiction may seek legal or equitable relief to enjoin any acts or practices and abate any condition when necessary to achieve compliance.

**106.12 Administrative Review by the Authority Having Jurisdiction.** Prior to issuance of the plumbing permit, applicants may request administrative review by the Authority Having Jurisdiction of decisions or actions pertaining to the administration and enforcement of this code. Requests shall be addressed to the Authority Having Jurisdiction.

**106.13 Administrative Review by the Construction Codes Advisory Board.** After administrative review by the Authority Having Jurisdiction, and prior to issuance of the plumbing permit, applicants may request review of decisions or actions pertaining to the application and interpretation of this code by the Construction Codes Advisory Board according to Seattle Building Code Section 105.11, except for stop work orders, notices of violations and revocations of permits. The review will be performed by three or more members of the Construction Codes Advisory Board, chosen by the Board Chair. The Chair shall consider the subject of the review and members' expertise when selecting members to conduct a review. The decision of the review panel is advisory only; the final decision is made by the Authority Having Jurisdiction.

## SECTION 107 PERMITS

**107.1 Permits Required.** Except as otherwise specifically provided in this code, a permit shall be obtained from the Authority Having Jurisdiction prior to each installation, alteration, repair, replacement or remodel of any equipment or plumbing

system regulated by this code. A separate plumbing permit is required for each separate building or structure.

**107.2 Work Exempt from Permit.** A plumbing permit is not required for the work listed below.

(1) The stopping of leaks in drains, soil, waste, or vent pipes, provided, that when a drainpipe, soil, waste, or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, the same shall be considered as new work and a permit shall be procured and inspection made as provided in this code.

(2) The clearing of stoppages, including the removal and reinstallation of water closets, or the repairing of leaks in pipes, valves, or fixtures, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

**107.3 Compliance Required.** All work shall comply with this code, even where no permit is required.

**107.4 Flood Hazard Areas.** In addition to the permit required by this section, all work to be performed in areas of special flood hazard as defined in Chapter 25.06 of the Seattle Municipal Code, subject to additional standards and requirements set forth in Chapter 25.06, the Seattle Floodplain Development Ordinance.

**107.5 Emergency Repairs.** In the case of an emergency, the installation, alteration or repair of any plumbing system or equipment may be made without a permit, provided that application for a permit is made within the later of 24 hours or one working day from the time when the emergency work was started.

**107.6 Application for Permit.** To obtain a permit, the applicant shall first file an application in a format determined by the Authority Having Jurisdiction. Every such application shall:

(1) Identify and describe the work to be covered by the permit for which application is made.

(2) Describe the land on which the proposed work is to be done by parcel number, property address or similar description that will readily and clearly locate the proposed building or project.

(3) Provide unit, space suite, floor level, or other information that will clearly identify the location of the project.

(4) Provide the owner's name, address, and phone number of the property.

(5) Provide the contractor's business name, address, phone number of the property.

(6) Be accompanied by plans, diagrams, computations and specifications, equipment schedules and other data as required by the Authority Having Jurisdiction.

(7) Be signed by the owner of the property of building, or the owner's authorized agent, who may be required to submit evidence to indicate such authority.

(8) Give such other data and information as may be required by the Authority Having Jurisdiction.

(9) State the name of the owner and the name, address, and phone number of a contact person.

**107.6.1 Plumbing design documents.**

Plumbing design documents shall be submitted in two or more sets with each application for a permit, or shall be submitted in electronic format determined by the Authority Having Jurisdiction. Diagrams, schedules and other data sufficient to show the adequacy of the plans shall be submitted when required by the Authority Having Jurisdiction.

**Exception:** The Authority Having Jurisdiction may waive the submission of plumbing design documents where the Authority Having Jurisdiction finds that the nature of the work applied for is such that reviewing plumbing documents is not

necessary to obtain compliance with this code.

**107.6.2 Preparation by registered design professionals.** Plumbing design documents for all plumbing work shall be prepared and designed by or under the direct supervision of a mechanical engineer licensed to practice under the laws of the State of Washington. Each sheet of plumbing documents shall bear the seal and the signature of the registered design professional before the permit is issued.

**Exceptions:**

- 1) Detached one- and two-family dwellings, and townhomes.
- 2) A person Certified in Plumbing Design (CPD), and a Washington State Licensed PL01 plumber shall be permitted to submit plumbing design documents when the design is prepared in compliance to this code, excepting Appendix A and C.
- 3) Other work as specified by the Authority Having Jurisdiction.

**107.6.3 Design professional in responsible charge.** The Authority Having Jurisdiction is authorized to require the owner to engage and designate on the plumbing permit application a registered design professional who shall act as the registered design professional in responsible charge. If the circumstances require, the owner shall designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered design professional in responsible charge. The Authority Having Jurisdiction shall be notified in writing by the owner if the registered design professional in responsible charge is changed or is unable to continue to perform the duties. The registered design professional in responsible charge is responsible for reviewing and coordinating submittal documents prepared by others, including

phased and deferred submittal items, for compatibility with the design and scope of the project.

**107.7 Information required on plumbing design documents.** The documents shall include the following, as applicable:

**107.7.1 Cover sheet.** The cover sheet shall include the following:

- 1) The building and street address of the work
- 2) Legal description of the property
- 3) The location (and/or location in the building), floor area, story and type of construction
- 4) The type of occupancy and occupancy load of all parts of the building as approved by the City's building code review
- 5) The name and address of the owner and person who prepared the plans
- 6) Code cycle(s)
- 7) Index schedule
- 8) General notes
- 9) Abbreviations
- 10) Plumbing symbols
- 11) Key legend

**107.7.2 Plan view and riser diagrams sheets.** These documents shall clearly identify all sanitary waste and vents systems, including but not limited to, grease (FOG) system, combination waste and vent system, designated greywater waste piping, etc., storm drainage system, condensate piping, and all potable and non-potable water systems.

**107.7.3 Schedules.** Schedules shall be provided for the plumbing system design; including but not limited to, sizing (fixture unit loading matrix), materials, fixtures, devices, appurtenances, and appliances.

**107.7.3.1 Washington State Energy Code.** Schedules shall be included to identify compliance to plumbing components identified in the energy code.

**107.7.3.2 Construction details.**

Construction details shall be submitted when the construction is related to the plumbing design.

**107.7.4 Deferred submittals.** Deferral of any submittal items shall have the prior approval of the Authority Having Jurisdiction. The registered design professional in responsible charge shall list deferred submittals on the plans for review by the Authority Having Jurisdiction. Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the Authority Having Jurisdiction with a notation indicating that the deferred submittal documents have been reviewed and been found to be in general conformance to the plumbing design. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the Authority Having Jurisdiction.

**107.7.5 Application review.** The plumbing design documents shall be reviewed by the Authority Having Jurisdiction. Such plumbing design documents may be reviewed by other departments of the City to check compliance with the laws and ordinances under their jurisdiction.

**107.7.6 Determination of completeness.** Within 28 days after an application is filed, the Authority Having Jurisdiction shall notify the applicant in writing either that the application is complete or that it is not complete, and if not complete, what additional information is required to make it complete. Within 14 days after receiving the additional information, the Authority Having Jurisdiction shall notify the applicant in writing whether the application is now complete or what additional information is necessary. An application shall be deemed to be

complete if the Authority Having Jurisdiction does not notify the applicant in writing by the deadlines in this section that the application is incomplete.

**107.7.7 Decision on application.** Except as provided in Section 108.4 the Authority Having Jurisdiction shall approve, condition or deny the application within 120 days after the Authority Having Jurisdiction notifies the applicant that the application is complete

To determine the number of days that have elapsed after the notification that the application is complete, the following periods shall be excluded:

1) All periods of time during which the applicant has been requested by the Authority Having Jurisdiction to correct plans, perform required studies, or provide additional required information, until the determination that the request has been satisfied. The period shall be calculated from the date the Authority Having Jurisdiction notifies the applicant of the need for additional information until the earlier of the date the Authority Having Jurisdiction determines whether the additional information satisfies the request for information or 14 days after the date the information has been provided to the Authority Having Jurisdiction.

2) If the Authority Having Jurisdiction determines that the information submitted by the applicant under item 1 of this subsection is insufficient, the Authority Having Jurisdiction shall notify the applicant of the deficiencies, and the procedures under item 1 of this subsection shall apply as if a new request for information has been made;

3) All extensions of time mutually agreed upon by the applicant and the Authority Having Jurisdiction.

If a plumbing permit application is substantially revised by the applicant, the time period shall start from the date at

which the revised plumbing permit application is determined to be complete under Section 107.7.6.

## **SECTION 108 PERMIT ISSUANCE**

**108.1 Issuance.** The application shall be reviewed by the Authority Having Jurisdiction. The application may be reviewed by other departments of the Authority Having Jurisdiction or the City to check compliance with the laws and ordinances under their jurisdiction.

**108.1.1 Issuance of Permit.** The Authority Having Jurisdiction shall issue a permit to the applicant if the Authority having Jurisdiction finds the following:

- (1) The work described in the construction documents substantially conforms to the requirements of this code and other pertinent laws and ordinances;
- (2) The fees specified in the Seattle Municipal Code Chapter 22.504 have been paid; and
- (3) The applicant has complied with all requirements to be performed prior to issuance of a permit for the work under other pertinent laws, ordinances or regulations, or otherwise imposed by the Authority Having Jurisdiction. When the permit is issued, the applicant or the applicant's authorized agent becomes the permit holder.

**108.2 Phased permits.** The Authority Having Jurisdiction may authorize installation of a portion or portions of a plumbing system before complete plumbing design documents for the whole plumbing project have been submitted or approved. The applicant shall proceed at the applicant's risk without assurance that a permit for the entire plumbing project will be granted.

**108.3 Compliance with Approved Plans and Permit.** When the Authority Having Jurisdiction issues

a permit, the Authority Having Jurisdiction shall endorse the permit in writing or in electronic format and, where plans are required, stamp the plans "APPROVED." Such approved plans and permit shall not be changed, modified or altered without authorization from the Authority Having Jurisdiction, and all work shall be done in accordance with the approved plans and permit except as authorized by the Authority Having Jurisdiction during a field inspection to correct errors or omissions.

**108.4 Revisions to the permit.** When changes to the approved work (plumbing design documents) are made during installation, approval of the Authority Having Jurisdiction shall be obtained prior to execution. The Authority Having Jurisdiction may approve minor changes to the plumbing design documents for work without revisions to the approved plumbing design documents when it is determined that the changes conform to the requirements of this code and other pertinent laws, ordinances and other issued permits.

**108.5 Validity of Permit.** The issuance or granting of a permit or approval of plans shall:

- (1) Not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or other pertinent laws and ordinances.
- (2) Not prevent the Authority Having Jurisdiction from requiring the correction of errors in the plans, or from preventing building operations being carried on thereunder when in violation of this code or of other pertinent laws and ordinances of the City.
- (3) Not prevent the Authority Having Jurisdiction from requiring correction of conditions found to be in violation of this code or other pertinent laws and ordinances of the City, or
- (4) Not be construed to extend the period of time for which any such permit is issued or

otherwise affect any period of time for compliance specified in any notice or order issued by the Authority Having Jurisdiction or other administrative authority requiring the correction of any such conditions.

**108.6 Permit Expiration and Renewal.**

Authority to do the work authorized by a permit expires 18 months from the date of issuance. A permit may be renewed to extend the duration of the permit for an additional 18 months from the original expiration date.

**SECTION 109 INSPECTIONS**

**109.1 General.** All construction or work for which a permit is required is subject to inspection by the Authority Having Jurisdiction. In addition, the Authority Having Jurisdiction may make or require inspections of any plumbing work to ascertain compliance with the provisions of this code and other laws and ordinances that are enforced by the Authority Having Jurisdiction.

**109.2 Inspection Requests.** The owner of the property or the owner's authorized agent, or the person designated by the owner or agent to do the work authorized by a permit shall notify the Authority Having Jurisdiction that work requiring inspection as specified in this section is ready for inspection.

**109.3 Access for Inspection.** The permit holder and the person requesting any inspections required by this code shall provide access to and means for proper inspection of such work, including safety equipment required by the Washington Industrial Safety and Health Agency. The work shall remain accessible and exposed for inspection purposes until approved by the Authority Having Jurisdiction. Neither the Authority Having Jurisdiction nor the City shall be liable for expense entailed in

the required removal or replacement of any material to allow inspection.

**109.4 Inspection Record.** Work requiring a plumbing permit shall not be commenced until the permit holder or the permit holder's agent has posted an inspection record in a conspicuous place on the premises and in a position that allows the Authority Having Jurisdiction to conveniently make the required entries regarding inspection of the work. This record shall be maintained in such a position by the permit holder or the permit holder's agent until final approval has been granted by the Authority Having Jurisdiction.

**109.5 Approvals Required.** No work shall be done on any part of the building or structure beyond the point indicated in each successive inspection without first obtaining the written approval of the Authority Having Jurisdiction.

**109.5.1 Effect of Approval.** Approval as a result of an inspection is not approval of any violation of the provisions of this code or of other pertinent laws and ordinances of the Authority Having Jurisdiction or the City. Inspections presuming to give authority to violate or cancel the provisions of this code or of other pertinent laws and ordinances of the Authority Having Jurisdiction or the City are not valid.

**109.6 Operation of Plumbing Equipment.** The requirements of this section do not prohibit the operation of any plumbing systems installed to replace existing equipment or fixtures serving an occupied portion of the building in the event a request for inspection of such equipment or fixture has been filed with the Authority Having Jurisdiction not more than 48 hours after such replacement work is completed, and before any portion of such plumbing system is concealed by any permanent portion of the building.

**109.7 Special Investigation.** If work that requires a permit or approval is commenced or performed prior to making formal application and receiving the Authority Having Jurisdiction's permission to proceed, the Authority Having Jurisdiction may make a special investigation inspection before a permit is issued for the work. If a special investigation is made, a special investigation fee may be assessed in accordance with the Seattle Municipal Code.

**109.8 Reinspections.** The Authority Having Jurisdiction may require a reinspection if work for which inspection is called is not complete, required corrections are not made, the approved plans are not readily available to the inspector, access is not provided on the date for which inspection is requested, if deviations from the plans that require the approval of the Authority Having Jurisdiction have been made without proper

approval, or as otherwise required by the Authority Having Jurisdiction.

**109.8.1 Reinspection Fee.** The Authority Having Jurisdiction may assess a reinspection fee as set forth in the Seattle Municipal Code Section 22.504.010 for any action for which reinspection is required. In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

## **SECTION 110 FEES**

**110.1 Fees.** A fee for each plumbing permit and for other activities related to the enforcement of this code shall be paid as set forth in Seattle Municipal Code Chapter 22.504.



## CHAPTER 2 DEFINITIONS

### 203.0 -A-

\* \* \*

**Air Admittance Valve.** A device that allows air to enter the plumbing drainage system in one direction, to protect fixture traps from siphonage when negative pressures develop. The device shall prevent sewer gases from entering the interior building atmosphere during static pressure or positive pressure conditions in the plumbing waste system. The device shall be listed to ASSE 1051 or ASSE 1050.

\* \* \*

### 205.0 -C-

\* \* \*

**Circuit Vent.** A vent that connects to a group of two or more similar, adjacent fixtures that discharge into a common horizontal waste branch.

\* \* \*

### 210.0 -H-

\* \* \*

**High Distribution Uniformity.** A higher than average measurement indicating the evenness with which water is applied to the landscape by an irrigation system.

\* \* \*

### 218.0 -P-

\* \* \*

**Plumbing System.** Includes all potable water, ~~((alternate water sources))~~ building supply, and distribution pipes(~~(;)~~), all reclaimed or other alternate source water systems, all rainwater systems, all plumbing fixtures and traps; all drainage and vent pipes(s), and all building drains ((and building sewers)), including their respective joints and connections, devices, receptors,

and appurtenances within the property lines of the premises and shall include potable water piping, potable water treating or using equipment, medical gas and medical vacuum systems, ~~((liquid and fuel gas piping and water heaters))~~ and ~~((vents for same))~~; Provided, that no certification shall be required for the installation of a plumbing system within the property lines and outside a building.

\* \* \*

### 225.0 -W-

\* \* \*

**Water Heater ~~((or Water Heating Boiler))~~.** ~~((An))~~ Any heating appliance ~~((designed primarily to supply hot))~~ or equipment that heats potable water and supplies such water ~~((for domestic or commercial purposes and equipped with automatic controls limiting))~~ to the potable water ~~((temperature to a maximum of 210°F (99°C)))~~ distribution system, and includes only those appliances that do not exceed pressure of 160 pounds per square inch (1103 kPa), volume of 120 gallons (454 L) and a heat input of 200,000 Btu/hr (58 kW). Appliances and equipment that exceed these values are classified as boilers.

\* \* \*

**Wet Procedure Locations.** The area in a patient care ~~((space))~~ room where a procedure is performed that is normally subject to wet conditions while patients are present, including standing fluids on the floor or drenching of the work area, either of which condition is intimate to the patient or staff. [NFPA 99:3.3.171]

\* \* \*

### CHAPTER 3 GENERAL REGULATIONS

#### **310.4 Use of Vent and Waste Pipes.**

Except as hereinafter provided in Section 908((-θ)) through Section 911((-θ)), and Appendix C, no vent pipe shall be used as a soil or waste pipe, nor shall a soil or waste

pipe be used as a vent. (~~Also, single-stack drainage and venting systems with unvented branch lines are prohibited~~).

## CHAPTER 4 PLUMBING FIXTURES AND FIXTURE FITTINGS

**403.3 Exposed Pipes and Surfaces.** Water supply and drain pipes under accessible lavatories and sinks shall be insulated or otherwise be configured to protect against contact. Protectors, insulators, or both shall comply with ASME A112.18.9 (~~or ASTM C1822~~).

**407.1 Application.** Lavatories shall comply with ASME A112.19.1/CSA B45.2, ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4, ASME A112.19.12, CSA B45.5/IAPMO Z124, CSA B45.8/IAPMO Z403, CSA B45.11/IAPMO Z401 or CSA B45.8/IAPMO Z403, CSA B45.11/IAPMO Z401 or CSA B45.12/IAPMO Z402.

**407.2 Water Consumption.** The maximum water use allowed in gallons per minute

(gpm) or liters per minute (lpm) for any of the following faucets and replacement aerators is the following:

Lavatory faucets

2.2 gpm/~~(9.5)~~ 8.5 lpm

Kitchen faucets

2.2 gpm/~~(9.5)~~ 8.5 lpm

Replacement aerators

2.2 gpm/~~(9.5)~~ 8.5 lpm

Public lavatory faucets other than metering  
0.5 gpm/1.9 lpm

**408.7.2 Chlorinated Polyethylene (CPE) Sheets.** Nonplasticized chlorinated polyethylene sheets shall (~~conform to~~) comply with ASTM D4068. The liner shall be joined in accordance with the manufacturer's installation instructions.

### **423.0 Landscape Irrigation.**

**423.1 Automatic In-Ground Irrigation System Design and Installation.** Automatic in-ground irrigation systems shall comply with Sections 423.1.1 through 423.1.3.

**423.1.1 Automatic in-ground irrigation systems shall have an automatic clock, electric valves, and the ability to sense rainfall. The component used to sense rainfall shall be exposed to weather and comply with either Item 1 or 2:**

(1) Interrupt the circuit to the valve to stop the irrigation clock from watering after a rainfall event, or

(2) Reduce irrigation timing based on the amount of rainfall.

**Exception:** The following landscaped areas are exempt from this Section 423.1.1:

(1) Landscaped areas located where they do not receive natural precipitation.

(2) Landscaped areas requiring irrigation for only one year of plant establishment before the irrigation system is decommissioned or removed.

(3) Plant nurseries.

**423.1.2 Automatic in-ground irrigation shall include the following where applicable:**

(1) Low precipitation rate, high distribution uniformity rotary nozzles for sprinklers.

(2) All irrigation sprinklers within each zone shall have matched precipitation rates.

(3) A mainline master valve shall be installed when water for irrigation is municipally supplied.

(4) Sprinklers with internal check valves.

(5) Sprinklers shall have a pop up height of not less than 4 inches.

**423.1.3 Landscaped areas greater than 30,000 square feet shall also comply with the following:**

(1) Automatic in-ground irrigation systems shall not direct water onto building exterior surfaces, foundations, or exterior paved surfaces, or generate runoff or overspray.

(2) Automatic in-ground irrigation systems shall use controllers to automatically adjust irrigation schedules to changes in evapotranspiration or plant water need through soil moisture or climatological inputs.

(3) Except for centrally controlled automatic in-ground irrigation systems using weather or soil moisture to automatically adjust irrigation run-times, each required technology shall be WaterSense labeled if the WaterSense label is available for that technology.

(4) Irrigation zones shall be based on plant water needs with plants or similar needs grouped together. Turfgrass shall not be grouped with other plantings in the same zone.

(5) All sprinklers and micro-irrigation zones shall comply with manufacturer's specifications for recommending operating pressure.

(6) Sprinklers head spacing shall comply with manufacturer's specifications.

(7) Automatic in-ground irrigation systems shall include a flow sensor, master valve, and smart controller combination that shuts off the valve where abnormal water flow is detected, identifies the location of the abnormal water flow, and signals that there is a flow change at the controller.

(8) The sprinkler application rate shall be less than or equal to 0.5 inch per hour on slopes greater than 1 unit vertical to 4 units horizontal (25% slope).

## CHAPTER 5 WATER HEATERS

**501.1 Applicability.** The regulations of this chapter shall govern the construction, location, and installation of fuel-burning and other types of water heaters heating potable water. The minimum capacity for water heaters shall be in accordance with the first-hour rating listed in Table 501.1(2). See the Mechanical Code for combustion air and installation of all vents and their connectors. No water heater shall be hereinafter installed that does not comply with the manufacturer's installation instructions and the type and model of each size thereof approved by the Authority Having Jurisdiction. A list of accepted water heater appliance standards is are referenced in Table 501.1(1). Listed appliances shall be installed in accordance with the manufacturer's installation instructions. Unlisted water heaters shall be permitted in

accordance with Section 504.3.2. Domestic electric water heaters shall comply with UL

174 or UP 1453. Commercial electric water heaters shall comply with UL 1423. Oil-fired water heaters shall comply with UL 732. Solid-fuel-fired water heaters shall comply with UL 2523. Thermal solar water heaters shall comply with Chapter 14 of the International Mechanical Code and UL 174 or UL 1453.

**501.1.1 Water Heaters Used for Space Heating.** Water heaters utilized both to supply potable hot water and provide hot water for space-heating applications shall be listed and labeled for such applications by the manufacturer and shall be installed in accordance with the manufacturer's instructions and this code.

## CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

**603.1 General.** Cross-connection control shall be provided in accordance with the provisions of this chapter. Devices or assemblies for protection of the public water system must be models approved by the Department of Health under WAC 246-290-490. The Authority Having Jurisdiction shall coordinate with the local water purveyor where applicable in all matters concerning cross-connection control within the property lines of the premises. No person shall install a water-operated equipment or mechanism, or use a water-treating chemical or substance, where it is found that such equipment, mechanism, chemical, or substance causes pollution or contamination of the domestic water supply. Such equipment or mechanism shall be permitted where equipped with an approved backflow prevention device or assembly.

**603.2 Approval of Devices or Assemblies.** Before a device or an assembly is installed for the prevention of backflow, it shall have first been approved by the authority having jurisdiction. Devices or assemblies shall be tested in accordance with recognized standards or other standards acceptable to the authority having jurisdiction. Backflow prevention devices and assemblies shall comply with Table 603.2, except for specific applications and provisions as stated in Section 603.5.1 through Section 603.5.2((+)0).

All devices or assemblies installed in a potable water supply system for protection against backflow shall be maintained in good working condition by the person or persons having control of such devices or assemblies. Such devices or assemblies shall be tested in accordance with Section 603.4.2 and WAC 246-290-490. If found to be defective or inoperative, the device or assembly shall be repaired or

replaced. No device or assembly shall be removed from use or relocated or other device or assembly substituted, without the approval of the authority having jurisdiction. Testing shall be performed by a Washington State Department of Health certified backflow assembly tester.

**603.5.10 Steam or ((Hot)) Water Boilers.** Potable water connections to steam or ((hot)) water boilers shall be protected by an air gap or reduced pressure principle backflow preventer.

**604.14 ((Plastic Pipe Termination.** ~~Plastic water service piping may terminate within a building, provided the connection to the potable water distribution system shall be made as near as is practical to the point of entry and shall be accessible. Barbed insert fittings with hose clamps are prohibited as a transition fitting within the building.))~~  
**Termination of Building Supply Piping.** The building supply piping shall be permitted to terminate inside of a building or structure when the material is approved water distribution piping in accordance with Table 604.1.

**Exception:** PVC and PE piping may terminate within a building. The connection to the water distribution system shall be made within 1 foot of the point of entry and shall be accessible. Barbed insert fittings with hose clamps are prohibited as a transition fitting within the building.

**608.5 Discharge Piping.** The discharge piping serving a temperature relief valve, pressure relief valve, or combination of both shall have no valves, obstructions, or means of isolation and be provided with the following:

(1) Equal to the size of the valve outlet and shall discharge full size to the flood level of the area receiving the discharge and pointing down.

(2) Materials shall be rated at not less than the operating temperature of the system and approved for such use or shall comply with ASME A112.4.1.

(3) Discharge pipe shall discharge independently by gravity through an air gap into the drainage system or outside of the building with the end of the pipe not exceeding 2 feet (610 mm) and not less than 6 inches (152 mm) above the ground and pointing downwards.

(4) Discharge in such a manner that does not cause personal injury or structural damage.

(5) No part of such discharge pipe shall be trapped or subject to freezing.

(6) The terminal end of the pipe shall not be threaded.

(7) Discharge from a relief valve into a water heater pan shall be prohibited.

(8) Relief valve drains shall not terminate in a crawl space.

**Exception:** Where no drainage was provided, replacement water heating equipment shall only be required to provide a drain pointing downward from the relief valve to extend between 2 feet (610 mm) and six (6) inches (152 mm) from the floor. No additional floor drain need be provided.

## CHAPTER 7 SANITARY DRAINAGE

**701.2 Drainage Piping.** Materials for drainage piping shall be in accordance with one of the referenced standards in Table 701.2 except that:

- (1) No galvanized wrought-iron or galvanized steel pipe shall be used underground and shall be kept not less than 6 inches (152 mm) aboveground.
- (2) ABS and PVC DWV piping installations shall be installed in accordance with applicable standards referenced in Table ~~((701.2 and Chapter 14 “firestop Protection.”))~~ 1701.1. Except for individual single - family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed index of not more than 50, where tested in accordance with ASTM E84 or UL 723. ~~((These tests shall comply with all requirements of the standards to include the sample the sample size, both for width and length. Plastic pipe shall not be tested filled with water.))~~
- (3) No vitrified clay pipe or fittings shall be used aboveground or where pressurized by a pump or ejector. They shall be kept not less than 12 inches (305 mm) belowground.
- (4) Copper or copper alloy tube for drainage and vent piping shall have a weight of not less than that of copper or copper alloy drainage tube type DWV.
- (5) Stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than 6 inches (152 mm) aboveground.
- (6) Cast-iron soil pipe and fittings ~~((and the stainless steel couplings used to join these products))~~ shall be listed and tested in accordance with standards referenced in Table ~~((701.2))~~ 1701.1. Such pipe and fittings shall be marked with the country of origin, and identification of the original manufacturer~~((’s name or registered~~

~~trademark as define in the product standards, the third party certifier’s))~~ addition to markings, ((and the class of the pipe or fitting)) required by referenced standards.

**704.3 Commercial Sinks.** ~~((Pots sinks, scullery sinks, dishwashing sinks, silverware sinks, and other similar fixtures shall be connected))~~ Except where specifically required to be connected indirectly to the drainage system. ((A floor drain shall be provided adjacent to the)), or when first approved by the Authority Having Jurisdiction, all plumbing fixtures, ((and the fixture shall be connected on the sewer side of the floor)) drains, ((trap, provided that no other)) appurtenances, and appliances shall be directly connected to the drainage ((line is connected between the floor waste connection and the fixture drain. The fixture and floor drain shall be trapped and vented in accordance with this code)) system of the building or premises.

**705.10 Joints Between Various Materials.** Joints between various materials shall be installed in accordance with the manufacturer’s installation instructions and shall comply with Section 705.10.1 through Section 705.10.4. Mechanical couplings used to join different materials shall comply with ASTM C1173 for belowground use, ASTM C1460 for aboveground use, or ASTM C1461 for aboveground and belowground use.

**707.4 Location.** Each horizontal drainage pipe shall be provided with a cleanout at its upper terminal, and each run of piping, that is more than 100 feet (30 480 mm) in total developed length, shall be provided with a cleanout for each 100 feet (30 480 mm), or fraction thereof, in length of such piping. An



additional cleanout shall be provided in a drainage line for each aggregate horizontal change in direction exceeding 135 degrees (2.36 rad). ~~((A cleanout shall be installed above the fixture connection fitting, serving each urinal, regardless of the location of the urinal in the building.))~~

**Exceptions:**

- (1) Cleanouts shall be permitted to be omitted on a horizontal drain line less than 5 feet (1524 mm) in length unless such line is serving sinks or urinals.
- (2) Cleanouts shall be permitted to be omitted on a horizontal drainage pipe installed on a slope of 72 degrees (1.26 rad) or less from the vertical angle (one-fifth bend).
- (3) Excepting the building drain, its horizontal branches, and urinals, a cleanout shall not be required on a pipe or piping that is above the floor level of the lowest floor of the building.
- (4) An approved type of two-way cleanout fitting, installed inside the building wall near the connection between the building drain and the building sewer or installed outside of a building at the lower end of a building drain and extended to grade, shall be permitted to be substituted for an upper terminal cleanout.

**707.9 Clearance.** Each cleanout in piping 2 inches (50 mm) or less in size shall be so installed that there is a clearance of not less than ~~((18))~~ 12 inches ~~((457 mm) by 18 inches (457 mm))~~ in front of the cleanout. Cleanouts in piping exceeding 2 inches (50 mm) shall have a clearance of not less than ~~((24))~~ 18 inches ~~((610 mm) by 24 inches)~~ (610 mm) in front of the cleanout. Cleanouts in under-floor piping shall be extended to or above the finished floor or shall be extended outside the building where there is less than 18 inches (457 mm) vertical overall, allowing for obstructions such as ducts, beams, and piping, and 30 inches of (762 mm) horizontal clearance from the means of access to such cleanout. No under-floor cleanout shall be located exceeding ~~((5))~~ 20 feet ~~((1,524 mm))~~ from an access door, trap door, or crawl hole.

**709.1 General.** ~~((Where practicable,))~~ Plumbing fixtures shall be drained to the ~~((public sewer or private sewage disposal))~~ sanitary waste system by gravity flow and are permitted to be pumped or ejected as allowed per sections 710.2 or approved by the Authority Having Jurisdiction.

Delete all of Part II, Sections 713 to 723, and Tables 717.1 and 721.1.

## CHAPTER 9 VENTS

### **913.0 Air Admittance Valves**

**913.1 General.** Vent systems utilizing air admittance valves shall comply with this section.

**913.2 Where permitted.** Individual fixtures, a branch vent, a vertical wet vent, and a horizontal wet vent shall be permitted to terminate with a connection to an air admittance valve. Fixtures connected to an air admittance valve shall be located on the same floor level.

**913.3 Installation.** Air admittance valves shall conform to ASSE 1051 for single fixtures, and ASSE 1050 for multiple fixtures, and shall be installed as required in this section and the manufactures installations guidelines.

#### **913.3.1 Location.**

- 1) Air admittance valves shall be accessible and located in an area that allows air to enter the valve.
- 2) The air admittance valve shall be located a minimum of four (4) inches above the trap arm.
- 3) The air admittance valve that serves as a vent termination for a branch vent, or vertical and horizontal wet vent, shall be located at a minimum of six (6) inches above the flood level rim of the highest fixture being vented.
- 4) The air admittance valve shall be located within the maximum developed length permitted for the vent as shown in Table 703.2.
- 5) The air admittance valve shall be installed not less than six (6) inches above insulation materials.

**913.4 Size.** The air admittance valve shall be rated in accordance with the standard for the vent size as determined in Table 703.2.

**913.5 Vent required.** Not less than one plumbing vent sized as required by Section 904.1, shall extend to the exterior of the building as required in Section 906.1.

**913.6 Relief vent.** When a horizontal branch drain utilizes an individual or branch type air admittance valve, a relief vent shall be installed when the horizontal branch drain is located more than four (4) branch intervals from the top of the building drain (waste stack), and the relief vent shall extend to the outdoors or connect to a vent stack.

The relief vent shall be sized in accordance with Section 904.1, installed in accordance with Sections 905.0, and shall be permitted to serve as the vent for other fixtures.

**913.6.1 Prior approval.** Installations that require a relief vent shall be submitted for an installation design review.

#### **913.7 Prohibited installations.**

**913.7.1 Sumps.** Air admittance valves shall not be utilized to vent sumps or tanks of any type.

**913.7.2 Chemical waste systems.** Air admittance valves shall not be installed in nonneutralized chemical waste systems without a design review and approval by the Authority Having Jurisdiction.

**913.7.3 FOG disposal systems.** Air admittance valves shall not be installed on any fixtures that are connected to a FOG disposal system.

**913.7.4 Plenums.** Air admittance valves shall not be located in spaces utilized as supply or return air plenums.

## CHAPTER 10 TRAPS AND INTERCEPTORS

**1007.3 Trap priming water.** Trap primers serving floor drains located in rooms that contain fixtures served by a nonpotable water system complying with Chapter 15 or 16 shall also be served by the nonpotable water system.

**1014.1 General.** Where it is determined by the Authority Having Jurisdiction that waste pretreatment is required, an approved type of grease interceptor(s) complies with ASME A112.14.3, ASME A112.14.4, CSA B481, PDI G-101, or PDI G-102, and sized in accordance with Section 1014.2.1 or Section 1014.3.6, shall be installed in accordance with the manufacturer's installation instructions to receive the drainage from fixtures or equipment that produce grease-laden waste located in areas of establishments where food is prepared, or other establishments where grease is introduced into the drainage or sewage system in quantities that can effect line stoppage or hinder sewage treatment or private sewage disposal systems. A combination of hydromechanical, gravity grease interceptors and engineered systems shall be allowed to meet this code and other applicable requirements of the Authority Having Jurisdiction where space or existing physical constraints of existing buildings necessitate such installations. A grease interceptor shall not be required for

individual dwelling units or private living quarters. Water closets, urinals, and other plumbing fixtures conveying human waste shall not drain into or through the grease interceptor.

**Exception:** A single family home that has an approved commercial kitchen, or prepares food for public sale, shall install a grease interceptor that complies to Section 1014.0 for all fixtures that produce grease (FOG) waste.

**1014.1.3 Food Waste Disposers and Dishwashers.** No food waste disposer or dishwasher shall be connected to or discharge into a grease interceptor. (~~Commercial food waste disposers shall be permitted to discharge directly into the building's drainage system.~~)

Exception: Food waste disposers shall be permitted to discharge to grease interceptors that are designed to receive the discharge of food waste, or a listed food solids interceptor shall be installed at the discharge of the food waste disposer.

**1018.0 Parking Garage Drainage Systems.** Parking garage drainage systems shall comply with Sections 1018.1 through 1018.3. All plans for parking garage floor drainage systems shall be submitted to the authority having jurisdiction prior to installation for approval.

## CHAPTER 11 STORM DRAINAGE

**1101.4 Material Uses.** Pipe, tube, and fittings conveying rainwater shall be of such materials and design as to perform their intended function to the satisfaction of the Authority Having Jurisdiction. Conductors within a vent or shaft shall be of cast-iron, galvanized steel, wrought iron, copper, copper alloy, lead, Schedule 40 ABS DWV, Schedule 40 PVC DWV, stainless steel 304 or 316L [stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than 6 inches (152 mm) aboveground], or other approved materials, and changes in direction shall ~~((be in accordance with))~~ conform to the requirements of Section 706.0. ABS and PVC DWV piping installations shall be installed in accordance with ~~((applicable standards referenced in Table 1701.1 and Chapter 14 “Firestop Protection.”))~~ IS 5 and IS 9. Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke developed index of not more than 50, where tested in accordance with ASTM E84 or UL 723. ~~((These tests shall comply with all requirements of the standards to include the sample size, both for width and length. Plastic pipe shall not be tested filled with water.))~~

**1101.13 Cleanouts.** Cleanouts for building storm drains shall comply with the requirements of this section ~~((719.0 of this code)).~~

~~((**1101.13.1 Rain Leaders and Conductors.** Rain leaders and conductors connected to a building storm sewer shall have a cleanout installed at the base of the~~

~~outside leader or outside conductor before it connects to the horizontal drain.))~~

**1101.13.1 Locations.** Rain leaders and conductors connected to a building storm sewer shall have a cleanout installed at the base of the outside leader or outside conductor before it connects to the horizontal drain. Cleanouts shall be placed inside the building near the connection between the building drain and the building sewer or installed outside the building at the lower end of the building drain and extended to grade.

**1101.13.2 Cleaning.** Each cleanout shall be installed so that it opens to allow cleaning in the direction of flow of the soil or waste or at right angles thereto, and except in the case of wye branch and end-of-line cleanouts, shall be installed vertically above the flow line of the pipe.

**1101.13.3 Access.** Cleanouts installed under concrete or asphalt paving shall be made accessible by yard boxes, or extending flush with paving with approved materials and be adequately protected.

**1101.13.4 Manholes.** Approved manholes may be installed in lieu of cleanouts when first approved by the authority having jurisdiction. The maximum distance between manholes shall not exceed three hundred (300) feet (91.4 m).

The inlet and outlet connections shall be made by the use of a flexible compression joint no closer than twelve (12) inches (305 mm) to, and not farther than three (3) feet (914 mm) from the manhole. No flexible compression joints shall be embedded in the manhole base.

**1105.0 Controlled-Flow Roof Drainage.** This section is not adopted.

## CHAPTER 13 HEALTH CARE FACILITIES AND MEDICAL GAS AND MEDICAL VACUUM SYSTEMS

**1301.4 Terms.** Where the terms medical gas or medical support gas occurs, the provisions shall apply to all piped systems for oxygen, nitrous oxide, medical air, carbon dioxide, helium, nitrogen, instrument air, and mixtures thereof. Wherever the name of a specific gas service occurs, the provision shall apply only to that gas. [NFPA 99:5.1.1.3]

**1303.8 Water ((Supply)) Mains for Hospitals.** Hospitals shall be provided with not less than two approved potable water ((sources)) mains that are installed in such a manner as to prevent the interruption of water service.

**1305.3 Minimum Station Outlets ((and)) / Inlets.** Station outlets and inlets for medical gas and medical vacuum systems for facilities licensed or certified by the Washington State Department of Health (DOH) or Washington State Department of Social and Health Services (DSHS) shall be provided as listed in Chapters 246-320 and 246-330 WAC as required by the applicable licensing rules as applied by DOH Construction Review Services. All other medical gas and medical vacuum systems shall be provided as listed in Table 1305.3.

**1306.3 Health Care Organization Personnel.** Health care organization personnel shall be permitted to install piping systems if all of the requirements of Section ((1306.0)) 1306.1 through 1306.2.1 are met during the installation. [NFPA 99:5.1.10.11.10.6]

**1308.5 Tubes for Medical Vacuum Systems.** Piping for medical vacuum systems shall be constructed of ~~((any))~~ one of the following:

- (1) Hard-drawn seamless copper tube in accordance with one of the following:
  - (a) ASTM B88 copper tube (Type K, L, or M)
  - (b) ASTM B280 copper ACR tube
  - (c) ASTM B819 copper medical gas tubing (Type K or L)
- (2) Stainless steel tube in accordance with the following:
  - (a) ASTM A269 TP304L or 316L.
  - (b) ASTM A312 TP304L or 316L.
  - (c) ASTM A312 TP 304L/316L, Sch 5S pipe, and ASTM A403 WP304L/316L, Sch 5S fittings. [NFPA 99:5.1.10.2.1]

**1309.3 Medical Vacuum Systems.** Medical ((Vacuum)) vacuum systems shall be permitted to have branch connections made using mechanically formed, drilled, and extruded tee-branch connections that are formed in accordance with the tool manufacturer's instructions. Such branch connections shall be joined by brazing, as described in Section 1309.4. [NFPA 99:5.1.10.3.2]

**1309.4.2 Filler Metals.** Filler metals shall bond with and be metallurgically compatible with the base metals being joined. ~~((Filler metals shall comply with AWS A5.8 [NFPA 99:5.1.10.4.1.5,5.1.10.4.1.6]))~~

## **CHAPTER 15**

### **ALTERNATE WATER SOURCES FOR NONPOTABLE APPLICATIONS**

**1501.1.1 Allowable Use of Alternate Water.** Where approved or required by the authority having jurisdiction, alternate water sources (reclaimed (recycled) water, gray water and on-site treated nonpotable water) shall be permitted to be used in lieu of potable water for the applications

identified in this chapter. Reclaimed (recycled) water shall not be used to flush toilets or for other indoor use in any residential property or dwelling unit where residents have access to plumbing systems for repairs or modifications.

## **CHAPTER 16**

### **NONPOTABLE RAINWATER CATCHMENT SYSTEMS**

**1601.1 Applicability.** The provisions of this chapter and the Washington state department of health shall apply to the construction, alteration, and repair of nonpotable rainwater catchment systems.

## CHAPTER 17 REFERENCED STANDARDS

**TABLE 1701.1**  
**~~((REFERENCED STANDARDS))~~**  
**STANDARDS FOR MATERIALS,**  
**EQUIPMENT, JOINTS AND**  
**CONNECTIONS**

Where more than one standard has been listed for the same material or method, the relevant portions of all such standards shall apply.