



# VERMONT PLUMBING RULES

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The Plumbers' Examining Board

*Effective Date .....July 15, 2019*

# 2018

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## **Section 1: PURPOSE OF THE RULES**

The purpose of these rules is to protect and improve the general health and welfare of the people of the State of Vermont in the fields of environmental sanitation, water treatment, domestic supply and hydronically related hot water heating, by authorizing and enforcing rules and regulations for properly designed, acceptably installed and adequately maintained plumbing, water treatment and hydronically related water heating systems and by licensing qualified plumbers and qualified heating and water treatment specialists. These rules are enacted in conformance with the Vermont statutes covering plumbers and plumbing. Those statutes are attached as Appendix A.

## **Section 2: SCOPE OF THE RULES**

(A) These rules shall apply to all public buildings, whether or not connected to public water systems or public sewage systems, and to all other buildings or facilities connected to a public water or sewage system. Owner-occupied single family residences which are not on public water systems or public sewage systems do not require a work notice.

Existing public buildings, and all other existing buildings or facilities which are on public water systems or public sewage systems must comply with these rules whenever the plumbing in those buildings or premises is changed, replaced, or altered. These rules shall not apply to existing private dwellings and public buildings except as the plumbing systems in them may be altered in the future.

(B) Section 403.4.2 shall apply to all new and existing single user toilet facility/room.

## **Section 3: DEFINITIONS**

(A) The definitions set out at 26 V.S.A. Section 2172 shall be applicable for these rules:

(1) A "public water system" or "public sewerage disposal system" shall mean any system supplying or serving 15 or more customers, each family, tenement, store or other establishment being considered a single customer.

(2) A "master plumber" shall mean any person, licensed under this chapter, as a business, designs and/or installs plumbing systems, hires or employs a person or persons to do plumbing work, or supervises journeyman plumbers, or apprentice plumbers in completion of their work. Licensed master plumbers may perform all aspects of the trade under a specialist license without being required to obtain a specialist license.

(3) A "journeyman plumber" shall mean any person licensed under this chapter who installs plumbing and water treatment or heating specialties under the direction of a master plumber. A journeyman plumber may supervise an apprentice employed by a master plumber and under the master plumber's direction. A journeyman plumber may perform all plumbing covered by a specialist

license without being required to obtain a specialist license. A journeyman plumber shall not act as a master plumber.

- (4) An "apprentice plumber" shall mean any person, employed by a master plumber or under the direction of a master plumber or a journeyman plumber, who is engaged in learning and assisting in the installation of plumbing and water treatment or heating specialties under an apprenticeship program properly registered with the Vermont Apprenticeship Council. An apprentice plumber shall be supervised on the job by either a master or a journeyman plumber as per Vermont Department of Labor apprenticeship guidelines.
- (5) "Plumbing" is the art of installing pipes, fixtures and other apparatus for bringing in the water supply and removing liquid and water carried wastes and drainage venting systems within or on any building or structure.
- (6) "State plumbing inspector" means a master plumber or duly qualified employee of the department designated to enforce the rules and regulations pursuant to this chapter.
- (7) "Municipal inspector" means a plumbing inspector authorized to conduct municipal inspections pursuant to this chapter.
- (8) "Specialist" means any person licensed under this chapter who performs work in connection with water treatment and heating, or both, or performs that work as a principal business or an auxiliary to a principal business for the person's own account as designated on the person's license.
- (9) "Commissioner" means the commissioner of the Department of Public Safety.
- (10) "Legislative body" means the select board, the alder board, city council or board of trustees of a municipality or an incorporated village.
- (11) "Work notice" means the notice required to be filed and validated under Section, 14 of this rule by a licensee prior to commencement of plumbing work.

(B) In addition, for the purposes of these rules:

- 1) "person" shall include any person or entity who performs plumbing work or is responsible for the performance of plumbing work under the jurisdiction of the Plumbers' Examining Board or the Department of Public Safety.
- 2) "board" shall mean the Plumbers' Examining Board created by 26 V.S.A. 2181;
- 3) "department" shall mean the Department of Public Safety.
- 4) "public building" shall be as defined in 20 V.S.A. Section 2900. (Refer to appendix B for link to statute)

5) "investigator" shall mean the person designated by the Department to work at the direction of the Assistant Attorney General on the investigating panel as detailed in Appendix C Section (a) (3).

#### **Section 4: PLUMBERS' EXAMINING BOARD**

(A) The Plumbers' Examining Board is comprised of 5 members: the Commissioner of Public Safety or designee; the Commissioner of Health or designee; a master plumber; a journeyman plumber; a public member not associated with the plumbing or heating trades.

(B) By statute the Board is responsible for: adopting plumbing rules; licensing and disciplining plumbers.

1) The plumbing rules the Board adopts must be minimum performance standards reasonably necessary for the protection of the public against recognized health hazards (26 V.S.A. Section 2173). The Board may adopt a nationally recognized plumbing code and amend it to suit Vermont in fulfilling its rule-making duties.

2) The Board controls the issuance, suspension and revocation of plumbers' licenses. In order to exercise its powers and carry out its responsibilities the board may:

- (a) Conduct or otherwise provide examinations, and review and approve applications for licensure;
- (b) Investigate all matters within its jurisdiction;
- (c) Conduct hearings with regard to the administration of its affairs, including disciplinary hearings with regard to licensed persons; and,
- (d) Adopt rules consistent with its statutory authority.

(C) The public may obtain information and make submissions or requests at the Board's office. The Board's office is located at the Department of Public Safety, Division of Fire Safety, 1311 US Route 302, Barre, VT 05641-2351.

#### **Section 5: THE COMMISSIONER OF PUBLIC SAFETY**

The Commissioner of Public Safety or a designated representative may:

(A) Enter any public building or premises in which an installation subject to these rules is being or has been installed, replaced or altered for the purpose of performing inspections necessary to carry out inspection responsibilities under these rules.

(B) In accordance with 20 V.S.A. Section 2733, order a building or premises or any part of it closed until any unsafe condition or violation of these rules is corrected. Where appropriate, the Commissioner may order the demolition, removal, or disconnection of any plumbing systems or equipment deemed to constitute a hazard to persons or property.

- (C) Cause a written notice to be delivered to the owner of any property directing them to correct any condition where, in the opinion of the Commissioner or a plumbing inspector, that condition constitutes a violation of these rules.
- (D) Order the owner to stop work on the building or premises if the work on the plumbing systems in them are proceeding in contravention of these rules or are considered unsafe.
- (E) Direct tests of materials, devices, or assemblies made, or sufficient evidence or proof be submitted, at the expense of the owner, where the evidence or proof is necessary to determine whether the material, device or installation method meets the requirements of these rules.
- (F) Revoke, amend, or refuse to issue a plumbing work notice where, in the opinion of the Commissioner or a plumbing inspector, the results of tests referred to in Subsection (e) of this section are not satisfactory.
- (G) Order the removal of any plumbing systems or equipment installed in violation of these rules.
- (H) Prioritize inspections of plumbing systems based on the relative risks to persons or property arising from potential plumbing code violations.
- (I) Pursuant to 26 V.S.A. 2175(d), assess an administrative penalty for each violation of this code.
- (J) Order any company supplying fuel service to the premises to disconnect the fuel supply until the cited violation has been removed or corrected.

## **Section 6: DUTIES OF THE OWNER**

The owner of the building or structure, or a designated representative shall:

- (A) Not install or maintain, or cause to be installed or maintained, any plumbing system or equipment which is unsafe or is likely to be unsafe to persons or property.
- (B) Observe these rules in all public buildings, or private residences on public water or sewer, which are under their control.
- (C) Allow the Commissioner or a plumbing inspector to enter any public building, or private residence on public water or sewer, at any reasonable time for the purposes of administering or enforcing these rules.
- (D) File a work notice and obtain a validated work notice required under Section 14 of these rules before any plumbing work begins in a single family home connected to a public water or sewage system.

(E) Engage the services of a properly licensed plumber to file a work notice and obtain a validated work notice as required under Section 14 of these rules before any plumbing work begins in a public building.

## **Section 7: DUTIES OF A LICENSE HOLDER**

(A) Any person who has obtained a plumbing license under these rules shall:

- (1) Observe these rules regarding the installation of all plumbing work and the supervision of unlicensed employees.
- (2) Not begin plumbing work until a work notice for the work has been validated by the department.
- (3) Notify the department of a change of address.
- (4) Provide all information requested by the department

(B) Any licensed plumber who has filed a work notice shall:

- (1) Keep records which outline who has accomplished the work covered under a work notice
- (2) Provide at least 5 working days' notice to the plumbing inspector for any required inspection.
- (3) Provide access for the plumbing inspector to all plumbing work and records subject to inspection.

## **Section 8: LICENSE EXAMINATIONS**

To become licensed to do plumbing work in the State of Vermont an applicant must meet the requirements established in the following sections:

### **(A) Master Plumbers**

Any person who completes an application for a master plumber's license, presents documentation of having held a valid journeyman plumber's license under this chapter for a least 12 months, or documents equivalent training and experience in or outside of this state acceptable to the board, and pays an examination fee in an amount determined by the board based on the costs associated with administering the examination, shall be entitled to an examination.

Upon successful completion of the examination and payment of a licensing fee, the applicant shall receive a master plumber's license in the form of a wallet-sized card. The license shall be carried by the master plumber at all times while performing the licensee's trade and shall be displayed upon request. Upon request of a license holder, a license certificate, suitable for framing, shall be available for a fee.

### **(B) Journeyman Plumbers**

Any person who completes an application for a journeyman plumber's license and documents apprenticeship in plumbing which includes both instruction and practice in work processes as verified by the Vermont apprenticeship council, or equivalent training and experience in or out of this state acceptable to the board, and pays an examination fee to be determined by the board based on the costs associated with administering the examination, shall be entitled to examination.

Upon successful completion of the examination and payment of a licensing fee, the applicant shall receive a journeyman plumber's license in the form of a wallet-sized card. The license shall be carried by the journeyman at all times while performing the licensee's trade and shall be displayed upon request. Upon request of a license holder, a license certificate, suitable for framing, shall be available for a fee.

### **(C) Limited Licensure; Specialists**

Any person who completes an application for a specialist's license and documents apprenticeship in plumbing which includes both instruction and practice in work processes as verified by the Vermont Apprenticeship Council, or successful completion of instruction, training and experience in or out of the state acceptable to the board and pays an examination fee to be determined by the board based on the costs associated with administering the examination, shall be entitled to an examination.

Upon successful completion of the examination and payment of a license fee, the applicant shall receive a specialist license in the form of a wallet-sized card. The license shall be carried by the licensee at all times while performing the licensee's specialty and shall be displayed upon request. Upon request by the license holder, a specialist license suitable for framing shall be available for a fee. A specialist license shall indicate each specialty for which the licensee has been approved. A specialist license does not take the place of any other license required by law.

#### **Specialty fields for limited licenses include the following:**

**(1) Water Heater Specialist:** Installation, replacement and repair of any residential, industrial or commercial domestic hot water supply tanks.

**(2) Heating System Specialist:** Installation, replacement and repair of residential, industrial, or commercial hydronic space heating systems, including radiant, solar and other types of hydronic system design. Any work on steam systems shall be limited to steam systems with operating pressure not to exceed 15 PSI.

**(3) Water Treatment Specialist:** Installation, replacement and repair of residential, industrial or commercial potable water treatment and filtration equipment.

A person duly licensed as a specialist under this section may perform specialty limited use work, either as an employee or as an independent contractor only in connection with the specialty field designated on the person's license. A specialist may perform a supply connection to an existing water supply for test and related system operation, but at no time shall any specialist perform any plumbing or heating work that is not specified or permitted under the specialist's license.

The intent of these rules as they apply to the installation of fixtures and plumbing related to specialist licenses is to ensure the safety of the potable water supply. It is not the intent of these rules to regulate the operation, efficiency or consumer satisfaction of water heaters, hydronic heating systems, or water treatment equipment. The Vermont Fire and Building Safety Code and the Vermont Electrical Safety Rules regulate the safe operation of water heaters, hydronic heating systems, water treatment equipment and the related fuel or power source.



## **(D) Process for Examinations**

- (1) Each applicant for a license shall present to the executive office of the board on blanks furnished by the board, a written application for examination and license containing such information as the board may require, accompanied by the fee required. Examinations shall be in whole or in part in writing and shall include the theoretical and practical nature of plumbing or specialties, or both, and knowledge of state laws and department of health and environmental conservation regulations and such other regulations as the board may determine necessary to satisfactorily determine the qualifications of the applicant. Examinations shall be relevant to the instructional material taught in classes, the codes used and new developments and procedures within the trade.
- (2) In order to carry out its responsibilities under this section the board may contract with a national testing organization to develop and administer a written plumbing exam. Any test fees charged by the testing organization are separate from the examination fee charged by the board and shall be paid directly to the testing organization.
- (3) Any individual who fails to achieve a passing grade on a plumbing licensing examination, after having taken the examination three times, shall appear before the board for the purpose of the board recommending further education, training and/or tutoring, prior to the applicant taking the test a fourth time.
- (4) See License procedure in Appendix F. License testing is facilitated by a third party vendor.

## **(E) Examination not Required**

Appropriate licenses without examination may be issued to the following applicants upon payment of the required fee:

**(A) Reciprocal licenses** - To a person to whom a master plumber's license, a journeyman plumber's license, or a specialist plumber's license has been previously issued by another state or municipality therein, provided that state or municipality therein maintains a standard of requirements equivalent to those of this state and who presents satisfactory proof to the board that he or she is a bona fide master, journeyman, or specialist plumber. An applicant under this subsection shall be exempt from examination only if he or she holds a license from a foreign state or municipality and if under the laws or regulations of the foreign state or municipality issuing the license a like exemption is granted to plumbers duly licensed under the laws of this state.

**(B) Service Members and Veteran's** - Except as otherwise provided by law, a journeyman's license shall be issued without examination and upon payment of requested fee to an applicant who is a service member or veteran who:

- (1) submits a complete application and any documentation required by the Board;
- (2) has received designation by the U. S. Armed Forces as a 12K Plumber or equivalent; and
- (3) has completed a minimum of 8000 hours and four years of active duty field work as a 12K plumber or equivalent

## **Section 9: RENEWAL OF LICENSE**

- (A) A license shall be valid for **two years**. A notice of renewal and application for renewal of license shall be provided to each licensee prior to the expiration of the license. The application for renewal of license and the appropriate fee must be received by the department prior to the date the license expires. It is the responsibility of the licensee to contact the licensing office for a renewal application in advance of expiration date if no renewal form is received prior to expiration date.
- (B) If a license has lapsed it may be renewed within 90 days of its expiration date along with a \$15.00 reinstatement fee in addition to the renewal fee.
- (C) If a license is not renewed within 90 days of expiration date the inactive licensee shall make application for reinstatement and shall appear before the board to request reinstatement.
- (D) Applicants for license renewal shall provide to the Board evidence of completion of 8 hours of continuing education or training, approved by the Board, within the previous 24-month period, at least 2 hours of which must include code review. A course or training program is valid for only one license renewal. A copy of the certificate is acceptable evidence of meeting the requirements for continuing education.
- (E) Approval of continuing education or training;
- (1) Sponsors of training courses shall submit for approval the following information:
- a) Sponsoring organization or individuals;
  - b) Course content;
  - c) Number of hours of eligible training;
  - d) Instructors should be certified as a master plumber, engineer, plumbing inspector, vocational teacher with related experience, or otherwise acceptable by the Board;
  - e) Date and place of instruction;
  - f) Instructional materials to be used by attendees.
- (2) Subject matter shall deal with the adopted current plumbing codes, license renewal protocol or related information. This may include general or specific review of the code, code changes from preceding versions, common violations of the code, or other related areas that relate to the specialty plumbing installation.
- (3) Tests at training programs are optional.

- (4) Upon completion of a course, certificates shall be issued to attendees and shall include: a) Sponsor's name
- b) Course title
  - c) Date, place
  - d) Hours completed
  - e) Instructor's Signature
  - f) Attendees' full name, license number.

(F) Representatives of the Licensing Board and the Department of Public Safety reserve the right to monitor all courses.

## **Section 10: PLUMBING LICENSE FEES**

Plumbing license and 2 year renewal fees\* shall be as established under 26 V.S.A. Section 2193(c) as follows:

- (1) Master plumber license...\$120
- (2) Journeyman plumber license...\$90
- (3) Specialist license - per specialty field...\$50
- (4) Master renewal fee...\$120
- (5) Journeyman renewal fee...\$90
- (6) Specialist renewal fee - per specialty field...\$50
- (7) License certificate...\$10

\* Subject to fee change by Legislative Process

## **Section 11: LICENSE NOT REQUIRED**

(A) All plumbing and specialty work performed in Vermont shall be performed by persons licensed under this chapter except that a license shall not be required for the following types of work:

- (1) Any plumbing and specialty work performed by an owner or the owner's regular employees in the owner-occupied freestanding single family dwelling or in outbuildings accessory to the owner-occupied, single family dwelling.
- (2) Installations of plumbing systems in laboratories for experimental purposes only.
- (3) A person who regularly employs a maintenance person whose duties include the maintenance of plumbing on the property of that person.

- (4) Plumbing or specialty installations performed as part of a training project of a vocational school or other educational institution. However, the installation shall be inspected if the building is to be sold as a private dwelling or public building.
- (5) A person who performs miscellaneous jobs of manual labor on the person's own property in the course of which plumbing repairs or alterations are made.
- (6) For the construction, repair or maintenance of buildings used exclusively for agricultural purposes and animal housing located on owner-occupied farms.
- (7) Work performed by employees of any public or private water company, who in the main course of their employment install, maintain or repair water supply pipes, meters or control valves.

## **Section 12: COMPLAINTS**

A person may file a complaint with the board by doing so in writing, setting forth a full statement of the facts concerning the alleged infraction of the plumber's licensing statute or rules. In the event a complaint is filed with the Board, the Board's investigation shall not be limited to the matter set forth in the request for investigation but may extend to any act coming to the attention of the board which appears to violate the statute or these rules.

## **Section 13: DISCIPLINARY PROCEEDINGS.**

(A) In accordance with 26 V.S.A. Section 2181, the board may revoke or suspend a license, or refuse to renew a license. This shall not preclude the board from taking lesser steps, including, but not limited to formal reprimand, or required further education and training. The board may act for any of the following reasons:

- (1) Fraud or deceit in obtaining a license.
- (2) Gross negligence, incompetency, misrepresentation or misconduct by a licensee.
- (3) Violation by a licensee of the rules of the Department of Health, the Department of Public Safety or board.
- (4) Failure to comply with a written notice issued under sections 2173, 2174 or 2175 of this title.

(B) The board may take these actions only after notice and provision to the licensee of an opportunity to appear before the board for a hearing, in accordance with 3 V.S.A. Chapter 25, the Vermont Administrative Procedure Act, and these rules issued thereunder.

(C) The board and department will proceed with initiating a complaint against a licensee, investigation of the complaint, action and hearings as described in Appendix C.

## **Section 14: WORK NOTICES**

- (A) A work notice shall be filed with the department for all plumbing work covered by these rules and be validated by the department, prior to the start of such work, in order to facilitate the inspection process authorized by 26 V.S.A. 2199. The term "Permit" as used in the 2018 International Plumbing Code (IPC) shall have the same meaning as "Work Notice validated by the department".
- (B) The department may refuse to validate a work notice if the license holder has other ongoing plumbing work for which a work notice has not been filed, if the department is owed fees or penalties, or if requested by the Plumbers' Examining Board pursuant to 26 V.S.A. 2181(c).
- (C) A work notice is not required for plumbing work described as follows:
- (1) Delete and replace Replacement of a plumbing fixture/appliance by a similar fixture/appliance utilizing existing water supply, waste lines, source of fuel and venting termination if the fixture/appliance being replaced meets currently adopted codes and is not being moved to a new location
  - (2) Maintenance or repair within an existing plumbing fixture;
  - (3) Replacement of water supply and waste lines without relocation or installation of new plumbing fixtures.
- (D) The department may accept an annual plumbing work notice where plumbing installation work is ongoing in an existing building. A plumbing work notice filed under this section shall include the name and location of the building, the licensed plumber responsible for the work and the payment of the minimum fee. The acceptance of an annual plumbing work notice does not modify the requirements for licensure or supervision as established under these rules.
- (E) A validated work notice shall expire if the plumber of record ceases work authorized under the work notice is not commenced, or is suspended or abandoned, for a time period of 180 days.

## **Section 15: SCHEDULE OF WORK NOTICE AND INSPECTION FEES**

- (A) Fees established by the legislature under 26 V.S.A. Section 2175(a) shall be paid to the Commissioner or a designated representative prior to the validation of a work notice.
- (1) For all plumbing work, identified as a priority for inspection and review under Section 18 of these rules, the fee shall be:
- (a) \$10 for each plumbing fixture/appliance/device described as a washing machine, dishwasher, grease, oil, or sand interceptor, sewage ejector pump, water closet, urinal, bidet, disposal, drinking

fountain, water cooler, lavatory, bathtub, shower, sink, hose bibb, floor drain, backflow prevention device, pressure reducing valve or similar device. The total shall not be less than \$50.

(b) \$15 for each plumbing fixture described as a water heater, hydronic heating unit (boiler or unit heater), domestic hot water coil solar panel, water treatment, thermal expansion or pressure tank, temperature-actuated mixing valve or water treatment device.

2) For all plumbing work, not identified as a priority for inspection and review under Section 18 of these rules, the fee shall be \$50.

(B) At the discretion of the Commissioner, whenever an owner or licensed plumber requests for the owner's or licensed plumber's benefit that an inspection be made outside of the normal working hours, all fees payable by the owner under this section shall be paid in an amount twice that indicated under this section.

## **Section 16: INSPECTION OF PLUMBING INSTALLATIONS**

The process for inspection and review of plumbing work, identified as a priority for inspection and review under Section 18 of these rules, shall be as follows:

### **(A) PLANS**

Plumbing plans are not required for the plumbing work covered under these rules unless, in the opinion of the Commissioner or a designated representative, the job is of sufficient size or complexity to warrant such plans.

### **(B) ROUGH INSPECTIONS**

A plumbing system installed under these rules shall not be covered unless it is first inspected by a plumbing inspector. The provisions of this section may be specifically waived by a designated representative.

### **(C) FINAL INSPECTIONS**

(1) Upon completion of a new plumbing installation, the applicant shall request a final inspection by a plumbing inspector. Within 5 working days of the receipt of the inspection request, the Commissioner, or designated representative, shall conduct an inspection, establish a reasonable date for inspection, or issue a waiver of inspection.

(2) The plumbing inspector may waive the presence of the licensee who filed the work notice for rough and final inspections.

## **Section 17: CONNECTING INSTALLATIONS**

New plumbing installations shall not commence unless a work notice has been validated by the department.

## **Section 18: PRIORITIES FOR INSPECTION, REVIEW AND INVESTIGATION**

Priorities for inspection, review and investigation are established, consistent with 26 V.S.A. 2173 (b), based on the type and size of the building, the complexity of the plumbing work and consideration of health risks to persons or property resulting from potential plumbing code violations, as follows:

(A) Priority inspection and review work based on use:

- (1) Plumbing work involving commercial food preparation and food process areas.
- (2) Plumbing work involving special hazards in commercial operations such as a car wash, laundry, dry cleaning, funeral home, laboratory, or industrial hazardous waste discharge.
- (3) Plumbing work done in facilities where the occupants may be most vulnerable to risk such as a hospital, nursing home, health center, doctor or dentist's office, beauty parlor, day care or elementary or secondary school.
- (4) Plumbing work involving public swimming pools, public spas and hot tubs.
- (5) Plumbing work done in buildings containing multiple dwelling units, including hotels, motels and inns.
- (6) Plumbing work done in buildings having an occupant load of 300 or more persons or where multi-user style bathrooms are installed.

(B) Priority for investigations in descending order of priority:

- (1) Complaints alleging serious plumbing violations.
- (2) Plumbing work being done by non-licensed persons.
- (3) Plumbing work being done where no work notice has been filed with the Department.
- (4) Complaints alleging non-serious plumbing violations.

(C) Plumbing work not listed as a priority in subsection (A) or (B) above is required to be installed and completed in accordance with these rules and is subject to random inspection and enforcement actions by the State Plumbing Inspector.

(D) All plumbing work in a building shall be classified as priority plumbing work where both priority and non-priority plumbing work occur on the same water and/or waste water systems.

## **Section 19 APPROVAL, ALTERNATIVES, AND VARIANCES**

The approval of materials, equipment and devices and alternatives and variances to this code, shall be in accordance with Section 105 of the 2018 International Plumbing Code.

## **Section 20: REQUEST FOR RECONSIDERATION**

A person aggrieved by an interpretation of these rules, or the result of any inspection or an order to correct code violations may request that the Commissioner or designated representative reconsider such refusal or order. A request for reconsideration shall be made within 15 days after receipt of written notice of such refusal or order. The Commissioner or designated representative shall review the refusal or order within 30 days of the date the request for reconsideration is received. The Commissioner or designated shall issue an order amending, modifying or affirming the prior refusal or order as circumstances require within 30 days of the date of the review. A person aggrieved by the decision under this section may appeal to the superior court.

## **Section 21: ADOPTION OF A NATIONALLY RECOGNIZED CODE:**

### **THE 2018 INTERNATIONAL PLUMBING CODE**

(A) Under 26 V.S.A. Section 2173, the board adopts the provisions of the 2018 International Plumbing Code (hereinafter referred to as 2018 IPC). All plumbing installations shall comply with the 2018 IPC, as amended in this section to meet the individual needs of Vermont. The deletion of certain articles and sections of the 2018 IPC has been necessary to ensure consistency with existing regulatory authority. The failure to incorporate these codes in their entirety should not be construed to minimize the value of these Codes as effective standards with current technology.

All references to the International Building Code, the International Fuel Gas Code or the International Mechanical Code in the 2018 IPC are deleted and replaced with the current Vermont Fire and Building Safety Code, including NFPA 31, 54, 58 and 211 <http://firesafety.vermont.gov>

Food and lodging Service Establishments shall conform to Vermont Health Department regulations (800-439- 8550) <http://healthvermont.gov>.

Public and private water systems, and underground injection control shall conform to the regulations of the Agency of Natural Resources (ANR) Drinking Water and Ground Water Protection Division ( 802-828-1535) <http://drinkingwater.vt.gov/>.

Stormwater management shall conform to the regulations of ANR's stormwater program. (802-828-1535) <http://www.vtwaterquality.org/stormwater.htm>.



(B) Add, amend, delete and replace as follows:

-delete and replace - Section 101.1 Title: These rules shall be known as the -2018 Vermont Plumbing Rules (hereinafter referred to as "this code").

-delete and replace- Section 101.2: Scope: The design and installation of plumbing systems including sanitary and storm drainage, sanitary facilities and water supplies, storm water and sewage disposal, located within the building and the connecting pipes within 10 feet of the building, shall comply with the requirements of this code. The design and installation of gas piping and the design and installation of fire sprinkler and standpipe systems shall be in accordance with the Vermont Fire and Building Safety Code.

-delete - Section 101.3

-delete and replace- Section 102.2 Existing Installations: Existing public buildings, and all other existing buildings or facilities must comply with these rules whenever the plumbing in those buildings or premises is changed, replaced, or altered as required by section 102.4.

-delete- Section 103 Department of Plumbing Inspection

-delete and replace- Section 104: Duties and Powers of the Code Official: The Commissioner of the department of Public Safety or designee shall be designated as the code official for the purpose of this code. The code official shall have the authority to render interpretations of this code and to adopt policies and procedures to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code.

-delete- Section 106 Permits: Except for 106.5.8 Posting of Permit: The permit (work notice) or a copy shall be kept on the site of the work until the completion of the project. [Note: *See sections 14 and 15 of these rules in regards to work notices*]

-delete and replace- Section 107.2 Required Inspections and Testing: The holder of the permit shall be responsible for notifying the code official to schedule inspections required by these rules and other inspections and testing as required by sections 107.2.1 through and including 107.7.

-delete- Section 108 Violations

-delete- Section 109 Means of Appeal: [Note: *See section 20 in regards to reconsideration*]

**-amend - Section 202 General Definitions**

**LEAD-FREE PIPE AND FITTING.** See Chapter 605.2.1 Pipe and fittings used for human consumption (water for drinking or cooking) shall meet the most recent NSF/ANSI low lead standard (<0.25% weighted average lead content-wetted surface). For additional information contact the office of the Attorney General at (802-828- 3171) or [AGO.lead@state.vt.us](mailto:AGO.lead@state.vt.us).

See also <http://ago.vermont.gov/assets/files/LeadinPlumbing.pdf>

**PLUMBING.** The art of installing pipes, fixtures and other apparatus for bringing in the water supply and removing liquid and water carried wastes and drainage venting systems within or on any building or structure.

~~-delete-~~ Section 301.3 exception (refer to Agency Natural Resources (ANR) regulations).

~~-delete and replace-~~ Section 302.2 Industrial Wastes: Waste products from manufacturing or industrial operation introduced into the public sewer system are regulated by the Vermont Agency of Natural Resources.

~~-delete-~~ Section 305.4.1 Sewer depth (refer to Agency Natural Resources (ANR) regulations)

~~-delete and replace-~~ Section 311 Toilet Facilities for Workers: Toilet Facilities for Workers are regulated by the Vermont Department of Labor (VOSHA).

~~-delete and replace-~~ Section 313.1 Equipment Efficiencies: Equipment efficiencies are regulated under the Commercial Building Energy Standards, as adopted by the Vermont Department of Public Service.

~~-add-~~ Section 314.1.1 All condensate disposal shall conform to ANR regulations (802-828-1535).

~~-amend-~~ Table 403.1 The minimum water closet and lavatory requirement for restaurants, banquet halls and food courts shall be in accordance with the Health Regulations for Food Service Establishments adopted by the Department of Health.

For access to Health Regulations for Food Establishments

refer to; <http://www.healthvermont.gov/about-us/laws-regulations/rules-and-regulations>

~~-add-~~ Section 403.1.1.1 Gender Free Restrooms and Required Fixture Counts: When a new gender free restroom is provided in an occupancy that has the total number of required plumbing fixtures set forth in the plumbing code and is fixed separately for both men and women, the fixtures in the new gender free restroom shall be deducted from the total required fixture count of either the men's or women's restrooms.

-add – Section 403.4.2 Single-user restroom signage: Single-user toilet facility/room shall be provided with a sign “RESTROOM”. Signage for Accessible toilet facility/room shall comply with the Vermont Access Rules.

-delete and replace- Section 404 Accessible plumbing facilities: Accessible plumbing facilities and fixtures shall be provided in accordance with the Vermont Access Rules.

-amend- Section 410.1 Faucets and other fittings shall meet the most recent NSF/ANSI low lead standard (<0.25% weighted average lead content – wetted surface).

-add- Section 424.3 Waterless urinals: the installation of waterless urinals are permitted, subject to the prior approval of the Plumbers’ Examining Board guidelines.

-add-Section 501. Water heaters, tank style and tankless, shall be equipped with an ASSE 1017 temperature actuated mixing valve in accordance with 602.2.

-amend-Section 501.2 Water heater as space heater. Where a combination potable water and space heating system requires water for space heating at temperatures higher than 120°F (49°C), a temperature actuated mixing valve complying with ASSE 1017 shall be provided to limit the water supplied to the potable hot water distribution system to a temperature of 120°F (49°C) or less. The potability of the water shall be maintained throughout the system.

-delete and replace- Section 501.6 Water temperature control in piping from tankless heaters: The temperature of water from tankless water heaters shall be a maximum 120°F (49°C) after the temperature actuated mixing valve when intended for domestic uses. This provision shall not supersede the requirement for protective shower valves in accordance with Section 412.3.

-add-Section 503.3 Water Heater Connections: All connections to the water heater including the ASSE 1017 temperature actuated mixing valve and the full port cold water shut off valve shall be rigidly supported using code compliant metallic piping. Metallic piping must extend a minimum of three feet or greater from both the hot and cold water connection points.

-amend- Section 504.4 Relief Valve: Thermal expansion shall be controlled in accordance with Section 607.3

-delete and replace- Section 504.6.13 Material for Discharge Piping: Piping shall be constructed of metallic materials listed in section 605.4 or ASME 112.4.1.

-add- 504.6 (15) Outlet of all relief valve piping shall be cut on a 45 degree angle.

- delete and replace- 602.2 Potable water required: Only potable water shall be supplied to plumbing fixtures that provide water for drinking, bathing or culinary purposes, or for the processing of food, medical or pharmaceutical products. Unless otherwise required by law, potable water shall be supplied to all plumbing fixtures at a maximum temperature of 120°F (49°C).

-add- 602.3 Individual water supply systems are also regulated by Vermont Agency of Natural Resources

-add in part- Section 602.3.4 Disinfection of system; After construction or major repair, the individual water supply system shall be purged of deleterious matter and disinfected in accordance with Section 610.

-amend- Section 603.2 Separation of water service and building sewer: Water service pipe and the building sewer shall be separated by 10 feet (3048 mm) of undisturbed or compacted earth.

-amend- Section 603.2 delete “not less than 12 inches (305 mm)” and replace with “not less than 18 inches (458 mm)”.

-amend- Section 603.2 delete “at least 5 feet (1524 mm)” and replace with “at least 10 feet (3048 mm) from the sewer pipe centerline.”

-add- Section 604.4 Exception 6. In new construction, low flow water closets with a flow rate of 1.28 gallons per flush as outlined in the Vermont Residential Energy Code may be used in lieu of the maximum flow rate of 1.6 gallons per flush as outlined in Table 604.4 of the International Plumbing Code.

-amend- Section 604.7 Inadequate water pressure: Water pressure booster systems are also regulated under the Vermont Water Supply Rules; chapter 21, as adopted by the Vermont agency of natural resources.

-amend- Table 605.3 Delete copper or copper-alloy tubing of types M and WM as approved material.

-amend- Table 605.4 Copper and copper-alloy tubing of types M and WM are restricted to above-grade use only.

-amend- Section 606.5 Water pressure booster systems: Water pressure booster systems are also regulated under the Vermont Public Water Supply Rules, as adopted by the Vermont Agency of Natural Resources.

-add- Section 607.5 Pipe Insulation; Install in accordance with Vermont Energy Standards. *For additional information contact the Vermont Department of Public Service at 1-855-887-0673 or [http://www.ecodes.biz/ecodes\\_support/Free\\_Resources/2011Vermont/11Vermont\\_main.html](http://www.ecodes.biz/ecodes_support/Free_Resources/2011Vermont/11Vermont_main.html)*

-amend- Section 608.1 Plumbing under the scope of these rules shall also conform to the Vermont Water Supply Rules, as adopted by the Vermont Agency of Natural Resources, in regards to the prevention of cross-connections.

-add- Section 608.1 – equivalent wording and signage acceptable to code official

-delete and replace- Section 608.1 Protection of individual water supplies: Individual water supplies are regulated by the Vermont Agency of Natural Resources

-add-Section 610.1; or repaired

-delete and replace- Section 610.1.4 Repetition of Disinfection: The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system. Consecutive bacteriological samples must be taken 24 hours apart before the water system is put back into service.

-amend – Section 612.1 Solar Systems: in accordance with the Vermont Plumbing Rules

-delete and replace- Section 701.2 Sewer required: Every building in which plumbing fixtures are installed shall be connected to a public or private sewerage system. Public and private sewerage systems are regulated by the Vermont Agency of Natural Resources.

-delete and replace- Section 701.4 Sewage Treatment: Sewage treatment is regulated by the Vermont Agency of Natural Resources.

-delete and replace- Section 701.8 Drainage piping in food service areas: Waste piping above any working, storage or eating surfaces in food service establishments shall be suitably protected to prevent contamination from leakage.

-delete- Section 702.2 Table – Polyethylene (PE) Plastic Pipe

-delete- Section 702.4 Table – Polyethylene (PE) Plastic Pipe

-delete- Section 702.7 Lead bends and traps.

-amend- Section 703.1 Building sewer pipe. Delete “installed within 5 feet (1524 mm) of the water service” and replace with “installed within 10 feet (3048 mm) of the water service.”

-add- Section 704.5 Dead Ends: Drainage piping shall not be installed or altered that creates a dead end section of piping. Cleanout extensions and piping for future fixtures shall not be considered as a dead end.

-delete-Exception in Section 705.10.2

-delete and replace – Section 705.16.4 Plastic pipe or tubing to other piping material: Joints between different types of plastic pipe and/or other piping material shall be made with an approved adapter fitting. Joints between plastic pipe and cast-iron hub pipe shall be made by caulked joint or a mechanical compression joint.

-delete- 708.1.5 Cleanout Size - Exception (2)

-add- 803.3 Special Wastes System Design: Add “and shall conform to ANR regulations”.

-delete and replace – Section 903.1: Roof Extension “All open vent pipes that extend through a roof shall be terminated at least 6” but not more than 12” above the roof.”

-delete in part\_ 903.2 – not less than 1 foot (305mm)

-delete and replace- Section 904.3 Vent Termination: Vent stacks or stack vents shall terminate outside the building to the open air.

-add- Section 906.1 Size of stack vents and vent stacks: Every building shall have at least one 3 inch continuous stack vent or 3 inch continuous vent stack that extends to outside the building.

-add- Section 906.6 Horizontal branch vents: Horizontal branch vents within unheated areas shall be protected against freezing.

-add- Section 917.1.1 Single Stack Vent System: Single stack vent systems may not be used in single family homes. Single stack vent systems in all other occupancies may only to be used for engineered systems when approved by the plumbing inspector.

-delete and replace- Section 918.1 Air Admittance Valves: Vent systems utilizing air admittance valves for individual and branch-type air admittance valves shall conform to ASSE 1051. Stack-type air admittance valves are not permitted.

-amend- Section 918.3 Delete last sentence: Stack vents and vent stacks shall be permitted to terminate to stack-type air admittance valves in accordance with Section 918.3.2.

-delete- Section 918.3.2 Stacks.

-delete and replace- Section 918.7 Vent required: Within each plumbing system, a minimum of one continuous 3 inch stack vent or one continuous 3 inch vent stack shall extend outdoors to the open air.

-delete- Section 1002.1 Fixture Traps – Exception #3.

-delete and replace - Section 1002.6 –Building Traps. Building house traps shall be prohibited, except where local conditions necessitate such traps. Building traps shall be provided with a clean-out and a relief vent of fresh air intake on the inlet side of the trap. The size of the relief vent or fresh air intake shall not be less than one-half the diameter of the drain to which the relief vent or air intake connects. Such relief vent of fresh air intake shall be carried above grade and shall be terminated in a screened outlet located outside the building.

- add- Section 1003.1 Interceptors and Separators: External interceptors and separators located more than 10 feet from the building are regulated by the Agency of Natural Resources.

-delete-Section 1003.3.7 Gravity Grease Interceptors and gravity grease interceptors with fat oils and grease disposal systems.

~~-delete and replace-~~ Section 1101.2 Storm Drainage Required. Storm drainage for a building roof or courtyard shall be regulated by this section. Storm drainage from paved areas, yards and courts are regulated by Agency of Natural Resources Watershed Management Division, stormwater program (802-828-1535).

~~-add in part-~~ Section 1109.1 General: Where the public sewer is a combined system for both sanitary and storm water, the storm sewer shall be connected independently to the public sewer in accordance to Agency of Natural Resources Rules.

~~-delete-~~ Chapter 12: Special Piping and Storage Systems.

~~-add-~~ Section 1301.1.1 Nonpotable Water Systems: Contact Agency of Natural Resources Drinking Water and Groundwater Protection Division for prior approval.

~~-delete-~~ Chapter 14: Subsurface landscape irrigation systems

## **Section 22: SEVERABILITY CLAUSE**

In the event any part or provision of these rules is held to be illegal, this shall not have the effect of making void or illegal any of the other parts or provisions of these rules.

## **Section 23: EFFECTIVE DATE**

These rules shall take effect July 15, 2019.

## **APPENDIX (A) THE VERMONT PLUMBING LAW 26 V.S.A. CHAPTER 39**

For full text please refer to; <https://legislature.vermont.gov/statutes/chapter/26/039>

**§ 2171. Purpose**

**§ 2172. Definitions**

**§ 2173. Rules adopted by the board**

**§ 2174. Municipal rules and regulations; municipal inspections**

**§ 2175. Work notice; fees; enforcement; appeals; penalties**

**§ 2176. Existing buildings**

**§ 2181. Plumber's examining board; membership; powers**

**§ 2182. Terms of office**

**§ 2183. Fees; books and records**

**§ 2184. Per diem pay and expenses**

**§ 2191. Master plumbers**

**§ 2192. Journeyman plumbers**

**§ 2192a. Limited licensure; specialists**

**§ 2193. Applications and examinations; fees**

**§ 2194. Examinations not required; temporary licenses**

**§ 2195. Expiration and renewal; renewal; reinstatement; continuing education**

**§ 2197. Penalty**

**§ 2198. Exceptions; license not required**

**§ 2199. Inspections**



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## **APPENDIX (B) DEFINITION OF PUBLIC BUILDING - 20 V.S.A 2900(8)**

-add- For full text refer to; <https://legislature.vermont.gov/statutes/section/20/174/02900>

## **APPENDIX (C) PROCEDURE FOR LICENSING DISCIPLINARY PROCEDURE**

### **(A) INITIATING A COMPLAINT AGAINST A LICENSEE**

(1) Form of complaint: Filing. A person may register a complaint against a plumber licensed by the Plumbers' Examining Board by filing a written complaint with the Department of Public Safety, Division of Fire Safety, 1311 US Route 302, Barre, VT, 05641. The written complaint must set forth, at a minimum, the nature, date and place of the alleged violations. The board may also initiate a license review procedure on its own motion by filing a complaint with the department.

(2) Verification. Upon receipt of a complaint, the department will verify the Vermont license number of the person against whom the complaint is lodged. If the person is unlicensed and the complaint alleges criminal conduct, the department will refer the complaint to the Office of the Attorney General. If the person is a licensee of the board, the department will docket the complaint and open an investigation file under the name and license number of the person.

(3) Investigating Panel. An investigating panel consisting of an investigator designed by the department and an assistant attorney general will be formed upon the docketing of a complaint. The assistant attorney general assigned to the case will head the panel and supervise the investigation of the complaint.

### **(B) INITIATING THE INVESTIGATION.**

(1) Notice to the Attorney General and to the Investigator. Upon docketing the complaint, the department will send a copy of all materials contained in the newly opened file, including a copy of the complaint, to the attorney general, and notify the attorney general of the name, address and phone number of its designated investigator. The department will also send copies of the materials to the investigator, and inform the investigator of the name of the division chief in the attorney general's office responsible for the investigation.

(2) Notice to the Licensee. The department will send written notice of the initiation of an investigation to the licensee against whom the complaint has been filed. The notice shall include a copy of the complaint and a copy of the statute and these rules. The notice will inform the licensee that inquiries or materials regarding the investigation should be addressed to the investigating panel at the address of the department.

(3) Notice to the Board. The department will send written notice to the Board indicating that an investigation has been instituted regarding a licensing complaint.

(4) The inspector assigned to investigate the complaint shall inspect the work which is the subject of the complaint and interview the complainant. The inspector may also meet and interview the licensee at the direction of the assistant attorney general assigned to the matter.

**(C) RECOMMENDED ACTION.**

(1) At the conclusion of the investigation the assistant attorney general assigned to the matter shall make a recommendation as to whether formal proceedings should commence against the licensee.

(2) If formal disciplinary proceedings are recommended, the assistant attorney general shall submit a complaint describing the alleged violations, and the rules or statutes violated, with the recommendation.

(3) If the licensee is willing to admit to the charges the assistant attorney general may explore the possibility of a stipulated settlement. A stipulated settlement must be approved by the board.

(4) If no disciplinary action is recommended the case will be closed and the complainant and the licensee will be notified that no further action will be taken at this time. The matter may be reopened if new evidence is presented.

**(D) FORMAL HEARING BY THE BOARD.**

(1) Notice and Place of Hearing. Upon the filing of a notice of charges by the investigating panel, the board will commence the hearing process by serving the notice of charges and a notice of the hearing upon the licensee. Notice will be served personally or by certified mail, return receipt requested. Copies will be sent to the members of the investigating panel and the complainant. The hearing will be scheduled at least 20 days after service.

(2) Failure to Appear. If the licensee fails to appear after proper notice has been given, the board shall hold the hearing and make a decision on the charges.

(3) A quorum of the board shall be a majority of its members.

(4) Conduct of Hearing; Receipt of Evidence; Argument. The board may admit any evidence it deems of a type commonly relied upon by reasonably prudent persons in the conduct of their affairs. All persons shall testify under oath or affirmation. The licensee or his attorney may examine or cross examine witnesses, inspect documents, and explain or rebut any evidence presented to the board. The assistant attorney general, investigator, and licensee may present oral and written argument in addition to evidence, which also shall be made part of the record.

Where a licensee is not represented by counsel the board shall advise the licensee and aid in the examining and cross examining of witnesses as effectively as possible compatible with the impartial discharge of its duties as a body of impartial review.

(5) Authority of the Chair. The chair shall administer oaths to witnesses, rule on questions of evidence and upon the service of subpoenas and other notices, and do whatever is necessary and proper to conduct the hearing in a judicious, fair and expeditious manner.

(6) Disqualification of a Board Member. A member of the board shall voluntarily disqualify himself or herself and withdraw from any hearing in which the member cannot act in a fair and impartial manner, or where the member has an interest in the proceedings. Any party to a hearing may request disqualification of a board member by filing an affidavit stating with particularity the grounds for disqualification. If the board member does not disqualify himself or herself in response to the motion, the chair of the board shall decide the issue of disqualification. A hearing shall be held if requested by the moving party or if deemed necessary by the chair. All materials pertinent to a matter of disqualification shall be made part of the record.

If a board member is disqualified, thereby negating the quorum, the chair shall appoint a hearing officer to decide the matter in the same manner as if the board were presiding.

(7) Judgment of the Board. The board will issue a decision within a reasonable time following the conclusion of the hearing. The decision must be in writing and be signed by the members of the board. The decision shall set forth findings of fact, conclusions of fact and law, and the judgment. If a decision of the board is not unanimous, the decision of the majority will control. The minority may file a dissenting opinion.

The Board promptly shall mail or deliver a copy of its decision to the licensee, the investigating panel and, if appropriate, to the complainant. An order attached to the judgment will go into effect after the end of the 30 day appeal period, if no appeal is filed.

(8) Appeal from a Decision of the Board. A licensee aggrieved by a judgment of the board may appeal that judgment to the Supreme Court. The board may grant, or the court may order, a stay of the board's order upon application of the licensee.

(9) Transcripts. A contested case hearing shall be recorded but not transcribed unless a transcript is requested by an interested person. Transcripts will be available for cost. The board will provide an estimate of transcription cost before filling an order for transcript.

## APPENDIX (D) ASBESTOS

The Vermont Department of Health regulates the removal of asbestos containing materials, as well as the training of persons who remove asbestos containing materials, in the Vermont Regulations for Asbestos Control. For additional information, contact the Vermont Department of Health, Division of Environmental Health (800-439-8550).

## APPENDIX (E) DESIGN OF GREASE INTERCEPTOR – Reference 2018 IPC Section 1003

### EXAMPLE

STEP 1- Determine the cubic content of the fixture by multiplying length X width X depth.

Example: A sink 48" long by 24" wide by 12" deep Cubic content  $48 \times 24 \times 12 = 13,824$  cubic in.

STEP 2 - Determine the capacity in gallons, 1 gal = 231 cubic inches.

Example: Contents in gals  $\frac{13,824}{231} = 59.8$  gals.

STEP 3 - Determine actual drainage load. The fixture is usually filled to about 75% of capacity with waste water, the items being washed displace about 25% of the fixture content. Actual drainage load = 75% of fixture capacity.

Example: Actual Drainage Load  $.75 \times 59.8$  gals = 44.9 gals.

STEP 4 - Determine the flow rate and the drainage period. In general, good practices dictate a one minute drainage period, however where conditions permit, a 2 minute period is acceptable. Drainage period is the actual time required to completely empty the fixture.

Flow Rate =  $\frac{\text{Actual Drainage Load}}{\text{Drainage Period}}$

Drainage Period

Example: Calculate flow rate for 1 minute period. Flow

Rate  $\frac{44.9 \text{ Gals}}{1 \text{ Min.}} = 44.9$  GPM

1 Min.

For 2 minute period

Flow Rate  $\frac{44.9 \text{ Gals}}{2 \text{ Min.}} = 22.5$  GPM

2 Min.

STEP 5 - Select the interceptor which corresponds to the flow rate calculated. Note --Select larger size when flow rate falls between two sizes listed.

As a general rule it is good practice to size the Interceptor so that it's rated capacity is never less than 40% of the fixture capacity in gallons. In the example above the actual fixture capacity is 59.8 gals., and 40% of this would be 23.9 gals. or a Fig. 8025. It is readily seen that a drainage period other than one or two minutes can be used. If conditions justify, any period between one and two minutes is satisfactory, however, we do not recommend a period longer than 2 minutes. Using the 40% rule of thumb gives a drainage period of  $1 \frac{7}{8}$  minutes.