02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

Chapter 1 DEFINITIONS

Summary: This Chapter defines specialized terms used in the Board's rules and in statute.

As used in the Board's rules, unless the context otherwise indicates, the following terms have the following meanings:

1.1 **Affidavit**. "Affidavit" means a form provided by the Board to document an applicant's licensed practical experience and/or required training.

1.2 **ASME**. "ASME" means American Society of Mechanical Engineers.

1.3 **Board**. "Board" means the Maine Fuel Board, including inspectors and administrative staff acting on behalf of the Board.

1.4 **Board-approved training program**. "Board-approved training program" means a training program approved by the Board as qualified to prepare candidates to qualify for the examination.

1.5 **Certificate of Supervision**. A form provided by the Board that is signed by a licensee's supervising master or supervising propane and natural gas technician to affirm responsibility as set forth in Section 1.17 or 1.18.

1.6 **CETP**. "CETP" means the National Propane Gas Association's Certified Employee Training Program.

1.7 **Cleaning of oil, solid fuel or gas equipment**. "Cleaning of oil, solid fuel or gas equipment" means the process of: brushing and vacuuming a heating appliance heat exchanger, warm air furnace, boiler (steam or hot water) flue passages and connectors; lubricating motors and bearings; replacing nozzles, belts, filters, and electrodes; performing combustion efficiency testing; testing; safety controls; and performing any other procedure for cleaning and annual maintenance as described in the manufacturer's instructions.

1.8 **Combination unit**. "Combination unit" means a heating appliance that is listed for the use of more than one fuel in the same vessel.

1.9 **Combustion efficiency test**. "Combustion efficiency test" means a test conducted to determine efficiency of combustion by measuring the composition and temperature of flue gases as they leave the appliance.

1.10 **ENT flexible conduit**. "ENT flexible conduit" means electrical non-metallic tubing.

1.11 **Equipment installations**. "Equipment installations" means the installation, alteration or repair of oil, solid fuel, propane or natural gas burning equipment and chimneys, or pellet-fired central heating appliances, including accessory equipment as relating only to the safety of the

installation. Associated electrical equipment must be wired in compliance with the rules of the Electricians' Examining Board established in Title 5, section 12004-A, subsection 13.

1.12 **GPH**. “”GPH” means gallons per hour.

1.13 **License authority**. “License authority” means the scope of permission granted to service and install various types of oil and solid fuel burning and propane and natural gas equipment.

1.14 **Listed**. “Listed” means the determination that a piece of equipment or material meets appropriate standards for specific purposes established by a nationally-recognized testing agency.

1.15 **Licensed practical experience**. “Licensed practical experience” means work performed on oil, solid fuel, propane or natural gas burning equipment while holding a valid license issued by the Board. For purposes of calculating hours, one year of licensed practical experience means an individual has worked at least 2,000 hours within a 12-month period. Six months of licensed practical experience means an individual has worked at least 1,000 hours within a 6-month period.

1.16 **Self-service dispenser**. “Self-service dispenser” means a user-operated device or system designed to measure and transfer volumes of propane or natural gas into permanently mounted fuel containers on vehicles, which dispenser meets the requirements set forth in 32 M.R.S. § 18142.

1.17 **Supervising master**. “Supervising master” means a licensed master oil burner and/or solid fuel technician who affirms full and complete responsibility for the workmanship and training required of the journeyman or apprentice.

1.18 **Supervising propane and natural gas technician**. “Supervising propane and natural gas technician” means a licensed propane and natural gas technician who affirms supervisory responsibility of the helper’s work workmanship and training required of the helper.

1.19 **Supervision**. “Supervision” means the direction and oversight of the work and performance of a licensed apprentice, journeyman or helper as clarified below:

1.19.1 **Direct Supervision**: Supervision which requires that the master, journeyman or propane and natural gas technician be on site with the supervisee at all times.

1.19.2 **Indirect Supervision**: Supervision which does not require the master, journeyman or propane and natural gas technician to be on site with the supervisee at all times.

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

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Chapter 2 ADVISORY RULINGS

Summary: This Chapter sets forth procedures for the issuance of advisory rulings.

2.1 Authority and Scope

The Board may issue an advisory ruling in accordance with 5 M.R.S. § 9001 concerning the applicability of a statute or rule to existing facts. The Board shall review each request for an advisory ruling to determine whether the requested ruling is appropriate. The Board may, at its discretion, decline to issue an advisory ruling if the question is hypothetical, if there is insufficient information upon which to base a ruling, or for any other reason the Board deems proper.

2.2 Submission

A request for an advisory ruling must be submitted to the Board in writing and must set forth in detail all facts pertinent to the question. The Board may require submission of additional information it deems necessary to provide a complete factual background.

2.3 Ruling

The Board shall issue advisory rulings in writing. The advisory ruling must include a statement of facts or assumptions, or both, upon which the ruling is based. The statement, without reference to other documents, must be sufficiently detailed to apprise the reader of the basis of the opinion. The ruling must be signed by the Board chair, must be identified specifically as an advisory ruling and must be numbered serially.

2.4 Publication

The Board shall mail the advisory ruling to the requesting party and the Board administrator shall retain a copy. An advisory ruling is a public document and is available for public inspection during the normal working hours of the Board. In addition, the Board may otherwise publish or circulate an advisory ruling as it deems appropriate.

STATUTORY AUTHORITY: 5 M.R.S. §§ 8051, 9001(4)

EFFECTIVE DATE: September 16th, 2023

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Chapter 3 CATEGORIES AND RESPONSIBILITIES OF LICENSURE

Summary: This Chapter describes the duties, responsibilities and limitations of licensure.

3.1 Master Oil Burner and/or Solid Fuel Technician

3.1.1 License Authorities

Capabilities for a master oil burner and/or solid fuel technician are limited to the following license authorities:

3.1.1.1 1 & 2 oils up to 15 GPH

3.1.1.2 1 & 2 oils over 15 GPH

3.1.1.3 4, 5, & 6 oils

3.1.1.4 1-6 oils

3.1.1.5 Pellet-fired central heating

3.1.1.6 Solid fuel

3.1.2 Mandatory Verification of Licensed Practical Experience

Upon a valid request for verification of licensed practical experience by an apprentice or journeyman, a master oil burner and/or solid fuel technician shall provide a signed Affidavit documenting all licensed practical experience performed by a journeyman or an apprentice under the master oil burner and/or solid fuel technician's supervision or employ.

3.1.3 Supervising Master

3.1.3.1 When signing a Certificate of Supervision as required for an application for licensure pursuant to Chapter 4, Sections 4.2.1.4 and 4.3.1.2, a master oil burner and/or solid fuel technician is acknowledging all responsibility as that licensee's supervising master.

3.1.3.2 A master oil burner and/or solid fuel technician cannot supervise an apprentice oil and/or solid fuel technician or journeyman oil burner and/or solid fuel technician whose license authority exceeds that of the master oil burner and/or solid fuel technician.

3.1.3.3 It is the duty of the supervising master to personally inspect any installation work performed by any journeyman for whom the supervising master is responsible at the conclusion of the installation.

3.1.4 **Notice of Termination of Status as Supervising Master**

Whenever a master oil burner and/or solid fuel technician ceases to be an apprentice's or journeyman's supervising master, they must notify the Board and supervisee in writing, a copy of which shall be kept in both the supervisee's and the former supervising master's file.

3.1.5 **Responsibility for Work and Complete Installations**

A master oil burner and/or solid fuel technician who sells, contracts, dispatches or subcontracts any work or installation to another master oil burner and/or solid fuel technician or other licensee is responsible for the completion of the installation and the work performed. The master oil burner and/or solid fuel technician contracting the work and the licensee performing the work both have equal responsibility to ensure that all work complies with the Board's rules.

3.1.6 **Combination Oil/Solid Fuel Units**

A master oil burner technician may clean a combination unit and service and repair the oil burner assembly without direct supervision if they are licensed as an apprentice solid fuel technician.

3.1.7 **Master 1 & 2 oils up to 15 GPH Installing Parts of Propane and Natural Gas Systems**

A master oil burner technician, who also holds a propane and natural gas helper license, may perform the following tasks.

3.1.7.1 Under the indirect supervision of a propane and natural gas technician with appliance connection and service authority as set forth in Section 3.7.1.1 of this Chapter may:

1. Set propane or natural gas fired boilers or warm air furnaces;

2. Pipe radiation, vents, valves, etc.;

3. Install mains and returns to boiler or ductwork to a warm air furnace;

4. Connect make up water to boiler;

5. Install backflow preventer;

6. Install electric wiring to a breaker or fuse box, including service switch, thermal cut off and Emergency switch; and

7. Connect a tankless or indirect fired water heater within the boiler room or, if not enclosed, with fifteen (15) feet horizontally to the nearest branch water supply.

3.1.7.2 Under the direct supervision of propane and natural gas technician with appliance connection and service authority as set forth in Section 3.7.1.1 of this Chapter may:

1. Pipe or install any propane or natural gas lines;

2. Connect electrical wiring to any gas appliance control circuit;

3. Install any safety controls;

4. Install any flue pipe or tie appliance into chimney or vent system; and

5. Fire or adjust any gas appliance.

3.2 Journeyman Oil Burner and/or Solid Fuel Technician

3.2.1 License Authorities

Capabilities for a journeyman oil burner and/or solid fuel technician are limited to the following license authorities:

3.2.1.1 1 & 2 oils up to 15 GPH

3.2.1.2 1 & 2 oils over 15 GPH

3.2.1.3 4, 5, & 6 oils

3.2.1.4 1-6 oils

3.2.1.5 Pellet-fired central heating

3.2.1.6 Solid fuel

3.2.3 Supervising Master Required

A journeyman oil burner and/or solid fuel technician must at all times have a supervising master who has signed a Certificate of Supervision that is on file with the Board. A journeyman oil burner and/or solid fuel technician shall not work on any oil burning and/or solid fuel equipment if for any reason they no longer have a supervising master.

3.2.5 License Authority of Supervising Journeyman vs. Apprentice

A journeyman oil burner and/or solid fuel technician shall not supervise an apprentice oil burner and/or solid fuel technician whose license authority exceeds that of the journeyman oil burner and/or solid fuel technician.

3.2.6 Limitation on Number of Apprentices

A journeyman oil burner and/or solid fuel technician shall not have more than two (2) apprentice technicians working under the journeyman's direct supervision at any one time.

3.2.7 **Combination Oil/Solid Fuel Units**

A journeyman oil burner technician may clean a combination unit and service and repair the oil burner assembly without direct supervision if they are also licensed as an apprentice solid fuel technician.

3.2.8 **Journeyman 1 & 2 oils up to 15 GPH Installing Parts of Propane and Natural Gas Systems**

A journeyman oil burner technician, who also holds a propane and natural gas helper license may perform the following tasks.

3.2.8.1 Under the indirect supervision of a propane and natural gas technician with appliance connection and service authority as set forth in Section 3.7.1.1 of this Chapter may:

1. Set propane or natural gas fired boilers or warm air furnaces;

2. Pipe radiation, vents, valves, etc.;

3. Install mains and returns to boiler or ductwork to a warm air furnace;

4. Connect make up water to boiler;

5. Install backflow preventer;

6. Install electric wiring to a breaker or fuse box, including service switch, thermal cut off and Emergency switch; and

7. Connect a tankless or indirect fired water heater within the boiler room or, if not enclosed, with fifteen (15) feet horizontally to the nearest branch water supply.

3.2.8.2 Under the direct supervision of propane and natural gas technician with appliance connection and service authority as set forth in Section 3.7.1.1 of this Chapter may:

1. Pipe or install any propane or natural gas lines;

2. Connect electrical wiring to any gas appliance control circuit;

3. Install any safety controls;

4. Install any flue pipe or tie appliance into chimney or vent system; and

5. Fire or adjust any gas appliance.

3.3 Apprentice Oil Burner and/or Solid Fuel Technician

3.3.1 License Authorities

Capabilities for an apprentice oil burner and/or solid fuel technician are limited to the are limited to the following license authorities:

3.3.1.1 1 & 2 oils up to 15 GPH

3.3.1.2 1 & 2 oils over 15 GPH

3.3.1.3 4, 5, & 6 oils

3.3.1.4 1-6 oils

3.3.1.5 Pellet-fired central heating

3.3.1.6 Solid fuel

3.3.3 Supervising Master Required

An apprentice oil burner and/or solid fuel technician must at all times have a supervising master who has signed a Certificate of Supervision that is on file with the Board. An apprentice oil burner and/or solid fuel technician shall not work on any oil burning and/or solid fuel equipment if for any reason they no longer have a supervising master.

3.3.4 Direct Supervision –Apprentice Oil Burner Technician

An apprentice oil burner technician must be under the direct supervision of a journeyman or master oil burner technician at all times while altering, repairing, or installing oil burning equipment.

3.3.4.1 **Exception for cleaning oil burning equipment**. An apprentice oil burner technician may clean oil burning equipment without direct supervision if the licensee has either:

3.3.4.1.1 Successfully completed at least 160 hours of training approved by the Board; or

3.3.4.1.2 Completed at least one year of supervised oil burner work experience. For the purposes of this subsection, “one year of supervised oil burner work experience” means licensed practical experience as defined in Section 1.14 of Chapter 1 of Board rules.

3.3.4.2 **Exception for bleeding an oil burner**. An apprentice oil burner technician may also bleed an oil burner without direct supervision. If the oil burner fails to operate properly after bleeding, the apprentice must refer the problem to

a journeyman or master oil burner technician. Failure to conform to this requirement may subject the apprentice and the supervising master to disciplinary action for servicing oil burning equipment without proper supervision.

3.3.5 **Direct Supervision – Apprentice Solid Fuel Technician**

An apprentice solid fuel technician must be under the direct supervision of a journeyman or master solid fuel technician at all times while altering, repairing, or installing solid fuel burning equipment. For the purposes of this subsection, "altering" includes but is not limited to control adjustments.

3.3.5.1 **Exception for cleaning solid fuel burning equipment**. An apprentice solid fuel technician may clean solid fuel burning equipment without direct supervision so long as:

3.3.5.1.1 The licensee has successfully completed at least 160 hours of training approved by the Board; or

3.3.5.1.2 The licensee has completed one year of supervised solid fuel work experience. For the purposes of this subsection, "one year of supervised solid fuel work experience" means licensed practical experience as defined in Section 1.14 of Chapter 1 of Board rules.

3.4 Oil Energy Auditor

3.4.1 **Scope of Practice**

In accordance with 32 M.R.S. § 18138(1), an oil energy auditor is restricted to performing combustion safety and efficiency testing on oil-fired space-heating or water-heating equipment to ensure health and safety standards. Oil energy auditors shall not make any adjustments to oil-fired space-heating or water-heating equipment.

3.4.2 **Obtaining Manufacturer's Instructions**

Prior to performing a combustion safety and efficiency test, an oil energy auditor must obtain the manufacturer's installation and operating instructions for the specific equipment to be tested.

3.4.3 **Following Manufacturer's Instructions**

An oil energy auditor must observe all provisions of the manufacturer's installation and operating instructions when performing a combustion and efficiency test including, but not limited to, any restrictions or limitations relating to equipment access and pipe penetration.

3.4.4 **Test Results**

Combustion efficiency test results must fall within the guidelines contained in the manufacturer's installation and operating instructions. The oil energy auditor must

provide a copy of the test results to the property owner and must notify the property owner and, if different, the occupant of the property, in writing if the test results do not meet the manufacturer's guidelines.

3.5 Tank Installer

In accordance with 32 M.R.S. § 18140(1), an oil tank installer is restricted to installing outside residential heating oil tanks connected to manufactured housing units as set forth in 10 M.R.S. § 9002(7)(A).

3.6 Wood Pellet Technician

A wood pellet technician's privileges to practice are set forth in 32 M.R.S. § 18141 and are limited to cleaning the ash pan, cleaning the burn pot, scraping and cleaning the distribution tubes, emptying fines from the collection box and cleaning the fan.

3.7 Propane and Natural Gas Technician

3.7.1 License Authorities

Except as provided in 3.7.2, a propane and natural gas technician is limited to the following license authorities:

3.7.1.1 **Appliance Connection and Service**. An appliance connection and service technician may perform the following tasks.

3.7.1.1.1 Install and repair all inside or outside piping from the outlet of the valve, meter, second stage regulator or 2psi regulator based upon whichever is closest to the customer's piping, to the gas utilization equipment.

3.7.1.1.2 Install, adjust and repair all customer-owned gas utilization equipment including the fuel train, electrical systems and venting systems that are associated with the correct operation of the equipment.

3.7.1.1.3 If also holds an oil burner apprentice license, and only under the indirect supervision of a master oil burner technician, may:

1. Set oil fired boilers, water heaters or warm air furnaces;

2. Pipe radiation, vents, valves, etc;

3. Install mains and returns to boiler or ductwork to a warm air furnace;

4. Connect make up water to boiler;

5. Install backflow preventer;

6. Install electric wiring to a breaker or fuse box, including service switch, thermal cut off and Emergency switch; and

7. Connect a tankless or indirect fired water heater within the boiler room or, if not enclosed, with fifteen feet (15) horizontally to the nearest branch water supply.

3.7.1.1.4 If also holds an oil burner apprentice license, and only under the direct supervision of a master or journeyman oil burner technician, may:

1. Pipe or set oil tank or install any oil lines;

2. Connect electrical wiring to any oil fired appliance control circuit;

3. Install any safety controls;

4. Install any flue pipe or vent system;

5. Connect appliance into chimney or vent system; and

6. Fire or adjust any oil fired appliance.

3.7.1.2 **Large Equipment**. A large equipment connection and service technician may install and service propane and natural gas appliances and piping within the scope of NFPA 54 to appliances over 500,000 BTUs per appliance.

3.7.1.3 **Delivery Technician**. A delivery technician may perform the following tasks:

3.7.1.3.1 Inspect and maintain propane delivery vehicles;

3.7.1.3.2 Fill propane containers and cargo tanks on bulk delivery trucks;

3.7.1.3.3 Make propane deliveries of either containers or bulk propane to customer locations; and

3.7.1.3.4 Perform a leak check and re-light pilots after interruption of service.

3.7.1.5 **Plant Operation.** A plant operator may perform the following tasks:

3.7.1.5.1 Fill and remove propane from railroad cars, tractor-trailers, trucks, transports or bobtails as required; and

3.7.1.5.2 Fill and remove propane from storage containers, and repair propane storage containers as needed including valves and gauges.

3.7.1.6 **Tank Setting and Outside Piping**. A tank setter/outside piping technician may perform the following tasks:

3.7.1.6.1 Determine the correct location of and set aboveground or underground propane tanks;

3.7.1.6.2 Install or maintain pumps or vaporizers associated with product delivery on an end user's site;

3.7.1.6.3 Install or repair aboveground or underground piping, risers, valves, regulators or other fittings up to the outlet of the valve, meter, or second stage regulator based on whichever is closest to the customer-owned piping;

3.7.1.6.4 Transport propane containers solely for the purpose of setting a tank at a customer location;

3.7.1.6.5 Construct bulk plants and dispensing stations and associated piping; and

3.7.1.6.6 Perform a leak check and re-light pilots after an interruption of service.

3.7.2 A licensed propane and natural gas technician may perform duties outside of their license authority while working under the direct supervision of a propane and natural gas technician having that authority.

3.7.3 **Responsibility of Propane and Natural Gas Technician with Delivery Authority**

3.7.3.1 When delivering propane or natural gas to a customer's location, the delivery technician must notify the tank owner and/or property owner in writing of any code violations related to the tank installation.

3.7.3.2 If a dangerous condition exists, in the opinion of the delivery technician, no delivery shall be made until the condition is made safe.

3.7.4 **Supervising Propane and Natural Gas Technician**

3.7.4.1 When signing a Certificate of Supervision as required for an application for licensure pursuant to Chapter 4, Section 4.8.1.2, the supervising propane and natural gas technician is acknowledging all responsibility as that licensee's supervising propane and natural gas technician.

3.7.4.2 A supervising propane and natural gas technician shall not supervise a propane and natural gas helper outside the scope of their license authority.

3.7.5 **Responsibility for Work and Complete Installations**

A propane and natural gas technician who sells, contracts, dispatches or subcontracts any work or installation to another propane and natural gas technician is responsible for the completion of the installation and the work performed. The propane and natural gas technician contracting the work and the licensee performing the work both have equal responsibility to ensure that all work complies with the Board's rules.

3.8 Propane and Natural Gas Helper

3.8.1 **License Authorities**

A propane and natural gas helper is limited to the license authority or authorities held by the supervising propane and natural gas technician, which may include one or more of the following:

3.8.1.1 Appliance Connection and Service

3.8.1.2 Large Equipment

3.8.1.3 Delivery Technician

3.8.1.4 Plant Operation

3.8.1.5 Tank Setting and Outside Piping

3.8.2 **Direct Supervision by a Technician Required**

A propane and natural gas helper may assist in making propane and natural gas installations, delivering propane or natural gas or operating a bulk plant. A propane and natural gas helper must be under the direct supervision of a propane and natural gas technician at all times while: altering, repairing, or installing propane and natural gas burning equipment, delivering propane or natural gas, or operating a bulk plant.

3.9 Temporary License; Plant Operator or Delivery Technician

A person licensed as a temporary plant operator or delivery technician as set forth in 32 M.R.S. § 18137 is limited to the following license authorities, respectively:

3.9.1 Plant Operation; or

3.9.2 Delivery Technician.

3.10 Propane and Natural Gas Energy Auditor

3.10.1 **Scope of Practice**

In accordance with 32 M.R.S. § 18139(1), a propane and natural gas energy auditor is restricted to performing combustion safety and efficiency testing on natural gas-fired or propane gas-fired space-heating equipment or water-heating equipment to ensure health

and safety standards. Propane and natural gas energy auditors may not make any adjustments to natural gas-fired or propane gas-fired space-heating equipment or water-heating equipment.

3.10.2 **Obtaining Manufacturer's Instructions**

Prior to performing a combustion safety and efficiency test, a propane and natural gas energy auditor must obtain the manufacturer's installation and operating instructions for the specific equipment to be tested.

3.10.3 **Following Manufacturer's Instructions**

A propane and natural gas energy auditor must observe all provisions of the manufacturer's installation and operating instructions when performing a combustion and efficiency test including, but not limited to, any restrictions or limitations relating to equipment access and pipe penetration.

3.10.4 **Test Results**

Combustion efficiency test results must fall within the guidelines contained in the manufacturer's installation and operating instructions. The propane and natural gas energy auditor must provide a copy of the test results to the property owner and must notify the property owner, and, if different occupant of the property, in writing if the test results do not meet the manufacturer's guidelines.

STATUTORY AUTHORITY: 32 M.R.S. §§ 18123(2), 18132, 18133, 18134, 18134-A, 18135, 18136, 18138, 18139

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

Chapter 4 QUALIFICATIONS FOR EXAMINATION AND LICENSURE

Summary: This Chapter sets forth qualifications for examination and licensure.

4.1 Master Oil Burner and/or Solid Fuel Technician

4.1.1 Application for Licensure

To qualify for a master oil burner and/or solid fuel technician license, an individual must:

4.1.1.1 Apply for and receive written approval from the Board to sit for an examination;

4.1.1.2 Achieve a passing score of 70% on the examination;

4.1.1.3 Submit a completed application on a form provided by the Board;

4.1.1.4 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.1.2 Application for Examination

To qualify for the master oil burner and/or solid fuel technician examination, an applicant must:

4.1.2.1 Submit proof of the professional qualifications as set forth in 32 M.R.S. § 18132(2) and Section 4.1.3.1 , as applicable, on a form provided by the Board;

4.1.2.2 Submit a completed application on a form provided by the Board; and

4.1.2.3 Submit the application fee required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.1.3 Proof of Professional Qualifications

4.1.3.1 Pursuant to 32 M.R.S. § 18132(2)(A), a journeyman oil burner and/or solid fuel technician must provide to the Board documented proof of the required licensed practical experience. It is the responsibility of the licensee to obtain a signed Affidavit from all licensed master oil burner and/or solid fuel technicians who provided supervision as to the dates (day, month, year) of

accumulated licensed practical experience to establish eligibility when applying for a master oil burner and/or solid fuel technician license.

If a licensee is unable to provide documented proof as required by this subsection, the Board may, in its sole discretion, permit alternative forms of documented proof. An example of an alternative form of documented proof is a sworn statement detailing licensed practical experience by persons knowledgeable about the duration and extent of the licensee's licensed practical experience.

4.1.4 **Examination – Master Oil Burner Technician**

4.1.4.1 To be eligible for a 1 & 2 over 15 gph oils license, the applicant must pass the examinations for both the 1 & 2 oils up to 15 gph and the 1 & 2 oils over 15 gph.

4.1.4.2 To be eligible for a 1-6 oils license, the applicant must pass the examinations for both the 1 & 2 up to 15 gph oils and the 4, 5, & 6 oils.

4.1.5 **Pellet-Fired Central Heating Appliance Technician Authority**

To qualify for licensure as a master oil burner technician with pellet-fired central heating appliance authority, an applicant must hold a license as a master oil burner technician and:

4.1.5.1 Complete the Board-approved online training program, and

4.1.5.2 Submit evidence of completion of a Board-approved test with a passing grade of 70% or higher.

4.2 Journeyman Oil Burner and/or Solid Fuel Technician

4.2.1 **Application for Licensure**

To qualify for a journeyman oil burner and/or solid fuel technician license, an individual must:

4.2.1.1 Apply for and receive written approval from the Board to sit for an examination;

4.2.1.2 Achieve a passing score of 70% on the examination;

4.2.1.3 Submit a completed application on a form provided by the Board; and

4.2.1.4 Submit a Certificate of Supervision completed by a supervising master; and

4.2.1.5 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.2.2 **Professional Qualifications To be Completed Before Examination**

4.2.2.1 An applicant who applies for licensure pursuant to 32 M.R.S. §18133(2)(A) (one-year of licensed practical experience as an apprentice) must complete the apprenticeship before qualifying for examination.

4.2.2.2 An applicant who applies for licensure pursuant to 32 M.R.S. §18133(2)(B) (six-months of licensed practical experience as an apprentice and completion of a board-approved course) may qualify for examination upon successful completion of the requisite education, prior to completion of the apprenticeship.

4.2.2.3 An applicant who applies for licensure pursuant to 32 M.R.S. §18133(2)(C) (one-year course) must complete the requisite education before qualifying for examination.

4.2.3 **Application for Examination**

To qualify for the journeyman oil burner and/or solid fuel technician examination, an applicant must:

4.2.2.1 Submit proof of the professional qualifications as set forth in 32 M.R.S. § 18133(2) and Section 4.2.4.1 - 4.2.4.2, as applicable, on a form provided by the Board;

4.2.2.2 Submit a completed application on a form provided by the Board; and

4.2.2.3 Submit the application fee required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.2.4 **Proof of Professional Qualifications**

4.2.4.1 Pursuant to 32 M.R.S. § 18133(2)(B)-(C), an applicant must submit school certificate(s) and/or transcript(s) to evidence completion of the requisite education.

4.2.4.2 Pursuant to 32 M.R.S. § 18133(2)(A)-(B), an apprentice oil burner and/or solid fuel technician must provide to the Board documented proof of the required licensed practical experience. It is the responsibility of the licensee to obtain a signed Affidavit from all licensed master oil burner and/or solid fuel technicians who provided supervision as to the dates (day, month, year) of accumulated licensed practical experience to establish eligibility when applying for a journeyman oil burner and/or solid fuel technician license.

4.2.5 **Examination – Journeyman Oil Burner Technician**

4.2.5.1 To be eligible for a 1 & 2 over 15 gph oils license, the applicant must pass the examination for both the 1 & 2 up to 15 gph oils and the 1 & 2 over 15 gph oils.

4.2.5.2 To be eligible for a 1-6 oils license, the applicant must pass the examination for both the 1 & 2 up to 15 gph oils and the 4, 5, & 6 oils.

4.2.6 **Journeyman with Pellet-Fired Central Heating Appliance Technician Authority**

To qualify for licensure as a journeyman oil burner technician with pellet-fired central heating appliance authority, an applicant must hold a license as a journeyman oil burner technician and:

4.2.6.1 Complete the Board-approved online training program, and

4.2.6.2 Submit evidence of completion of a Board-approved test with a passing grade of 70% or higher.

4.3 Apprentice Oil Burner and/or Solid Fuel Technician

4.3.1 **Application for Licensure**

To qualify for an apprentice oil burner and/or solid fuel technician license, an individual must:

4.3.1.1 Submit a completed application on a form provided by the Board;

4.3.1.2 Submit a Certificate of Supervision completed by a supervising master; and

4.3.1.3 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.4 Oil Energy Auditor

4.4.1 **Application for Licensure**

To qualify for an oil energy auditor license, an individual must:

4.4.1.1 Submit a completed application on a form provided by the Board;

4.4.1.2 Submit proof of the professional qualifications as set forth in 32 M.R.S. § 18138(2) and Section 4.4.2; and

4.4.1.3 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.4.2 **Proof of Professional Qualifications**

An applicant for the oil energy auditor license must provide evidence of satisfactory completion of: the Certified Building Analyst 1 certification test and field examination offered by the Building Performance Institute, the equivalent Maine residential energy

auditor certification program, or an equivalent training program acceptable to the Board.

4.4.3 **Limitation on Use of Experience**

Experience gained as an oil energy auditor shall not be used to satisfy the licensed practical experience prerequisite for licensure as a master or journeyman oil burner and/or solid fuel technician.

4.5 Tank Installer

4.5.1 **Application for Licensure**

To qualify for a tank installer's license, an individual must:

4.5.1.1 Submit a completed application on a form provided by the Board;

4.5.1.2 Submit proof of the professional qualifications as set forth in 32 M.R.S. § 18140(3) and Section 4.5.2; and

4.5.1.3 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.5.2 **Professional Qualifications**

An applicant for the oil energy auditor license must provide evidence of satisfactory completion of a training program that includes at least four (4) hours on installation of outside oil tanks, as approved by the Board.

4.5.3 **Training Program – One Year Limit**

If an applicant fails to apply for a license within one year from successful completion of a training program approved by the Board pursuant to 4.5.2 and 32 M.R.S. § 18140(3), the applicant must retake the training program.

4.5.4 **Limitation on Use of Experience**

Experience gained as a tank installer shall not be used to satisfy the licensed practical experience prerequisite for licensure as a master or journeyman oil burner technician license.

4.6 Wood Pellet Technician

4.6.1 **Application for Licensure**

To qualify for a wood pellet technician license, an individual must:

4.6.1.1 Submit a completed application on a form provided by the Board; and

4.6.1.2 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.6.2 **Limitation on Use of Experience**

Experience gained as a wood pellet technician may not be used to satisfy the licensed practical experience prerequisite for licensure as a master or journeyman oil burner and/or solid fuel technician's license.

4.7 Propane and Natural Gas Technician

4.7.1 **Application for Licensure**

To qualify for a propane and natural gas technician license, an individual must:

4.7.1.1 Apply for and receive written approval from the Board to sit for an examination;

4.7.1.2 Achieve a passing score of 70% on the examination;

4.7.1.3 Submit a completed application on a form provided by the Board; and

4.7.1.4 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.7.2 **Application for Examination**

To qualify for the propane and natural gas technician examination, an applicant must:

4.7.2.1 Submit proof of the professional qualifications as set forth in 32 M.R.S. § 18135(2) and Section 4.7.3.1-4.7.3.2, as applicable;

4.7.2.2 Submit a completed application on a form provided by the Board; and

4.7.2.3 Submit the application fee required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.7.3 **Proof of Professional Qualifications**

4.7.3.1 Pursuant to 32 M.R.S. § 18135(2)(A), an applicant must submit documentation issued by a CETP to the Board as proof of completion. The documentation submitted must be specific to the license authority requested.

4.7.3.2 Pursuant to 32 M.R.S. § 18135(2)(B), an applicant must submit wall certificate(s) and/or transcript(s) to evidence completion of the requisite education.

4.7.4 **Large Equipment Authority**

To qualify for licensure as a propane and natural gas technician with the large equipment connection and service technician authority, an applicant must hold a license as a propane and natural gas technician with the appliance connection and service technician authority and:

4.7.4.1 Pass the large equipment connection and service technician examination; and

4.7.4.2 Successfully complete the large equipment connection and service technician CETP certification or Board approved training with testing.

4.8 Propane and Natural Gas Helper

4.8.1 Application for Licensure

To qualify for a propane and natural gas helper license, an individual must:

4.8.1.1 Submit a completed application on a form provided by the Board;

4.8.1.2 Submit a Certificate of Supervision completed by a supervising propane and natural gas technician; and

4.8.1.3 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.9 Temporary License; Plant Operator or Delivery Technician

4.9.1 Application for Licensure

To qualify for a temporary license as a plant operator or delivery technician, an individual must:

4.9.1.1 Submit a completed application on a form provided by the Board;

4.9.1.2 Submit a completed Affidavit as set forth in Section 4.9.2; and

4.9.1.3 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.9.2 Affidavit Required

The temporary license application must include a completed Affidavit on a form provided by the Board and signed by a licensed propane and natural gas technician with the delivery authority for delivery technician or the plant operator authority for bulk plant operator. By signing the Affidavit, the licensed propane and natural gas technician verifies that the applicant has completed job function training specific to bulk plant operator and/or delivery technician.

4.10 Propane and Natural Gas Energy Auditor

4.10.1 Application for Licensure

To qualify for propane and natural gas energy auditor license, an individual must:

4.10.1.1 Submit a completed application on a form provided by the Board;

4.10.1.2 Submit proof of the professional qualifications as set forth in 32 M.R.S. § 18139(2) and Section 4.10.2; and

4.10.1.3 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.10.2 **Proof of Professional Qualifications**

An applicant for a propane and natural gas energy auditor license must provide evidence of one of the following: satisfactory completion of the Certified Building Analyst 1 certification test and field examination offered by the Building Performance Institute, the equivalent Maine residential energy auditor certification program, or an equivalent training program acceptable to the Board.

4.10.3 **Limitation on Use of Experience**

Experience gained as a propane and natural gas energy auditor shall not be used to satisfy the prerequisites for licensure as a propane and natural gas technician.

4.11 Dispensing Station

4.11.1 **Application for Licensure**

To qualify for a dispensing station license, the applicant must:

4.11.1.1 Submit a completed application on a form provided by the Board that is signed by the owner of the dispensing station equipment as set forth in 4.11.2.1;

4.11.1.2 Submit a completed Affidavit as set forth in Section 4.11.2; and

4.11.1.3 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.11.2 **Signature of Owner and Affidavit of Training Required**

4.11.2.1 The dispensing station license application must be signed by the owner of the dispensing station equipment.

4.11.2.2 The application must include a completed Affidavit on a form provided by the Board and signed by the gas supplier's technician, verifying that the on-site limited operator of the dispensing station has been trained as required by 32 M.R.S. § 18142(2)(B) to be the limited operator of the facility.

4.11.2.3 The limited operator training must be conducted by and the Affidavit signed by a licensed propane and natural gas technician with delivery or plant operation authority.

4.11.3 **Minimum Age**

No person under the age of 18 years old shall operate a dispensing station.

4.11.4 **On-Site Limited Operator Required**

Each dispensing station must employ an on-site limited operator who is responsible for training on-site dispensing station operators. The training documentation required will include the Propane Gas Association of New England's dispensing station operator's manual and the National Propane Gas Association Video entitled "Dispensing Propane Safely" or equivalent materials approved by the Board. A record of this training for all operators must be maintained on-site at all times and be available for inspection.

The gas supplier must provide refresher training to the limited operator prior to each license renewal. The training must be documented and signed by the gas supplier indicating that the on-site operator of the dispensing station has been trained. A copy of the training record must be submitted at time of license renewal and a copy must remain on site with the dispensing station license.

4.11.5 **Change of Limited Operator**

When a change of limited operator occurs, a change of limited operator application must be submitted on a form provided by the Board and signed by the gas supplier's technician (see 4.11.2.3) indicating that the on-site operator of the dispensing station has been trained as required by 32 M.R.S. § 18142(2)(B) to be the limited operator of the facility.

4.11.6 **Display of License Required**

An active dispensing station license must be conspicuously displayed at the dispenser with the name of the dispensing station, license number and expiration date visible at all times.

4.12 Self-Service Dispensing Station

4.12.1 **Application for Licensure**

To qualify for a self-service dispensing station license, the applicant must:

4.12.1.1 Submit a completed application on a form provided by the Board that is signed by the owner of the dispensing station equipment as set forth in 4.12.2.1;

4.12.1.2 Submit a completed Affidavit as set forth in Section 4.12.2; and

4.12.1.3 Submit any fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.12.2 **Signature of Owner and Affidavit of Training Required**

4.12.2.1 The self-service dispensing station license application must be signed by the owner of the dispensing station equipment.

4.12.2.2 The application must include a completed Affidavit on a form provided by the Board and signed by the gas supplier's technician, indicating that the on-site limited operator of the self-service dispensing station has been trained as required by 32 M.R.S. § 18142(2)(B) to be the limited operator of the facility.

4.12.2.3 The limited operator training must be conducted by and the Affidavit signed by a licensed technician with the Delivery or Plant Operator authority.

4.12.3 **On-Site Limited Operator Required**

Each self-service dispensing station must employ an on-site limited operator who is responsible for training on-site self-service dispensing station operators. The training documentation required will include the Propane Gas Association of New England's dispensing station operator's manual and the National Propane Gas Association Video entitled "Dispensing Propane Safely" or equivalent materials approved by the Board. A record of this training for all operators must be maintained on-site at all times and be available for inspection.

The gas supplier must provide refresher training to the limited operator prior to each license renewal. The training must be documented and signed by the gas supplier indicating that the on-site operator of the self-service dispensing station has been trained. A copy of the training record must be submitted at time of license renewal and a copy must remain on site with the dispensing station license.

4.12.4 **Trained Operator on Duty Required –Self Service Dispensing Station**

A self-service dispensing station must have at least one trained operator on duty while the station is open for business. The operator's primary functions shall be to supervise, observe, and control the dispensing of propane and natural gas while said products are actually being dispensed. The trained operator on duty shall not be under the age of 18 years old.

4.12.5 **Responsibilities of Operator on Duty- Self Service Dispensing Station**

It shall be the responsibility of the operator on duty to:

4.12.5.1 Prevent the dispensing of propane or natural gas into portable containers;

4.12.5.2 Prevent the use of hose nozzle valve latch-open devices that are not recommended by the valve manufacturer;

4.12.5.3 Control sources of ignition; and

4.12.5.4 Immediately activate emergency procedures pertaining to the site.

4.12.6 **Change of Operator**

When a change of operator occurs, a change of operator application must be submitted on a form provided by the Board and signed by the gas supplier indicating that the on-site operator of the self-service dispensing station has been trained as required by 32 M.R.S. § 18142(2)(B) to be the operator of the facility.

4.13 Incomplete or Illegible Applications

Incomplete or illegible applications will be returned to the applicant together with any attachments.

4.14 Time Limits

4.14.1 An applicant's approval to take an examination will remain valid for a period of two (2) years from the date the Board sends approval to the applicant's supplied email address. An applicant who fails to pass the examination within two (2) years of Board approval must reapply as a new applicant.

4.14.2 An applicant who fails to apply for a license within 2 years from the date of notice of a passing score on the examination must reapply as a new applicant and retake the examination.

4.15 Renewal of License

4.15.1 **Expiration**

All licenses expire two (2) years from the date of issuance.

4.15.2 **Eligibility for Renewal**

To renew a license, an applicant must comply with 32 M.R.S. § 18144. A license may be renewed up to 90 days after expiration upon payment of a late fee in addition to the renewal fee.

4.16 Reinstatement of License

4.16.1 **More than 90 Days but not more than 2 Years**

Licensees who fail to renew a license for more than 90 days but not more than two (2) years from the date of expiration may reinstate as follows:

4.16.1.1 Master oil burner and/or solid fuel technicians, journeyman oil burner and/or solid fuel technicians and propane and natural gas technicians who qualified for licensure by examination may reinstate the license without taking the examination by filing an application for renewal and by filing and paying the license fee and late fees as set forth in Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.16.1.2 Oil energy auditors, propane and natural gas energy auditors, tank installers, and wood pellet technicians may reinstate the license by filing an application for renewal and by filing and paying the license fee and penalty as set forth in Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.16.1.3 Dispensing stations may reinstate the license by filing an application for renewal and by filing and paying the license fee and penalty as set forth in Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

4.16.1.4 Apprentice oil burner and/or solid fuel technicians and propane and natural gas helpers must reapply as a new applicant.

4.16.2 **More than 2 Years**

4.16.2.1 An individual who fails to renew a license for more than 2 years from the date of expiration may obtain a new license by satisfying all of the requirements of Title 32 of the Maine Revised Statutes, Chapter 139, and the Board's rules.

4.16.2.2 A dispensing station that fails to renew a license for more than 2 years from the date of expiration may obtain a new license by satisfying all of the requirements of Title 32 of the Maine Revised Statutes, Chapter 139, the Board's rules and the NFPA 58 or NFPA 52.

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

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Chapter 5 USE OF OTHER LICENSE AUTHORITIES

Summary: This chapter sets forth the requirements for licensed master and journeyman oil burner and/or solid fuel technicians to gain licensed experience as an apprentice to qualify for an additional license authority. Current license authorities are: 1 & 2 up to 15 gph oils; 1 & 2 over 15 gph oils; 4, 5 & 6 oils; 1–6 oils; solid fuel; and pellet-fired central heating appliances.

5.1 Examination in Another License Authority

In order for a licensed journeyman or master oil burner and/or solid fuel technician to be eligible to take an examination in another license authority, the applicant must file an examination application on a form provided by the Board accompanied by fees as set forth in Chapter 10 of the rules of the Office of Professional and Occupational. The application must include an Affidavit attesting to completion of the licensed practical experience under the requisite supervision for the relevant authority as follows:

5.1.1 Journeyman Oil Burner Technician Applying for a Different Authority

A licensed journeyman oil burner technician applying for a journeyman examination for a different authority must provide documented proof of one year of direct supervision by a master holding the authority applied for.

5.1.2 Journeyman Oil Burner Technician Applying for a Journeyman Solid Fuel Authority

A licensed journeyman oil burner technician applying for a journeyman solid fuel examination is automatically qualified to sit for the examination.

5.1.3 Journeyman Oil Burner Technician applying for a Pellet-Fired Central Heating Appliance Authority

A journeyman oil burner technician may apply to add the pellet fired central heating appliance authority after successfully completing the Board approved online course and submitting evidence of a passing score on the accompanying test.

5.1.4 Master Oil Burner Technician Applying for a Different Authority

A licensed master oil burner technician applying for a master examination of a different authority must provide documented proof of one year of indirect supervision by a master holding the authority applied for.

5.1.5 Licensed Master Oil Burner Technician Applying for a Master Solid Fuel Authority

A licensed master oil burner technician applying for a master solid fuel examination is automatically qualified to sit for the examination.

5.1.6 **Master Oil Burner Technician applying for a Pellet-Fired Central Heating Appliance Authority**

A master oil burner technician may apply to add the pellet-fired central heating appliance authority after successfully completing the Board-approved online course and submitting evidence of a passing score on the accompanying test.

5.2 Term of Certain Apprentice Licenses

An apprentice oil burner and/or solid fuel technician license issued to a licensed master or journeyman oil burner and/or solid fuel technician to gain experience towards an additional authority is co-extensive with the term of the underlying license.

5.3 Waiver of Fees for Certain Apprentice Licenses

The apprentice license fee will be waived for licensed master and journeyman oil burner and/or solid fuel technicians gaining licensed experience to qualify for an additional license authority. The applicant will be required to pay fees as set forth in Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

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Chapter 6 ADOPTION OF STANDARDS

Summary: This Chapter sets forth the standards, subject to the exclusions and amendments as set forth herein, for installation of any oil and solid fuel burning equipment, propane and natural gas equipment, chimneys, fireplaces and vents.

6.1 Adopted Standards

The Maine Fuel Board adopts and incorporates by reference into this Chapter the following editions of technical standards or codes, subject to the exclusions and amendments as set forth in this Chapter. All installations and servicing of any oil and solid fuel burning equipment, propane and natural gas equipment, and the installation of chimneys, fireplaces and vents must comply with applicable requirements of these technical standards and codes, as well as any additional standards imposed by Title 32, Maine Revised Statutes, Chapter 139 and Board rules.

6.1.1 NFPA 30A, *Code for Motor Fuel Dispensing Facilities and Repair Garages* (2021 edition, issued by the Standards Council on June 1, 2020, with an effective date of June 21, 2020) (referred to in Board rules as "NFPA 30A");

6.1.2 NFPA 31, *Standard for the Installation of Oil-Burning Equipment* (2020 edition, issued by the Standards Council on November 4, 2019, with an effective date of November 24, 2019), subject to the exclusions and amendments set forth in Section 6.2.1 of this Chapter (referred to in Board rules as "NFPA 31");

6.1.3 NFPA 52, *Vehicular Natural Gas Fuel Systems Code* (2019 edition, issued by the Standards Council on November 5, 2018, with an effective date of November 25, 2018), subject to the exclusions and amendments set forth in Section 6.2.2 of this Chapter (referred to in Board rules as "NFPA 52");

6.1.4 NFPA 54/ANSI Z223.1, *National Fuel Gas Code* (2021 edition, issued by the Standards Council on March 15, 2020, with an effective date of April 4, 2020), subject to the exclusions and amendments set forth in 6.2.3 of this Chapter (referred to in Board rules as "NFPA 54");

6.1.5 NFPA 55, *Compressed Gases and Cryogenic Fluids Code* (2020 edition, issued by the Standards Council on April 28, 2019, with an effective date of May 18, 2019), subject to the exclusions and amendments set forth in 6.2.4 of this Chapter (referred to in Board rules as "NFPA 55");

6.1.6 NFPA 58, *Liquefied Petroleum Gas Code* (2020 edition, issued by the Standards Council on August 5, 2019, with an effective date of August 25, 2019), subject to the exclusions and amendments set forth in 6.2.5 of this Chapter (referred to in Board rules as "NFPA 58");

6.1.7 NFPA 59, *Utility LP-Gas Plant Code* (2021 edition, issued by the Standards Council on March 15, 2020, with an effective date of April 4, 2020) (referred to in Board rules as "NFPA 59");

6.1.8 NFPA 59A, *Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)* (2019 edition, issued by the Standards Council on November 5, 2018, with an effective date of November 25, 2018) (referred to in Board rules as "NFPA 59A");

6.1.9 NFPA 70, *National Electrical Code* (2020 edition, issued by the Standards Council on August 5, 2019, with an effective date of August 25, 2019) (referred to in Board rules as "NFPA 70");

6.1.10 NFPA 88A, *Standard for Parking Structures* (2019 edition, issued by the Standards Council on May 4, 2018, with an effective date of May 24, 2018) (referred to in Board rules as "NFPA 88A");

6.1.11 NFPA 90B, *Standard for the Installation of Warm Air Heating and Air- Conditioning Systems* (2021 edition, issued by the Standards Council on March 15, 2020, with an effective date of April 4, 2020) (referred to in Board rules as "NFPA 90B"); and

6.1.12 NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances* (2019 edition, issued by the Standards Council on July 26, 2018, with an effective date of August 15, 2018), subject to the exclusions and amendments set forth in 6.2.6 of this Chapter (referred to in Board rules as "NFPA 211").

6.2 Exclusions and Amendments to Adopted Standards

6.2.1 NFPA 31

6.2.1.1 The Board does not adopt Chapter 7, Section 7.3.1 of NFPA 31. (*See instead* Chapter 8, Sections 8.10 and 8.11 of Board rules)

6.2.1.2 The Board does not adopt Chapter 7, Section 7.8.7 of NFPA 31.

6.2.1.3 The Board adopts Chapter 7, Section 7.12 of NFPA 31, as amended below:

7.12 Abandonment and Removal from Service of Tanks and Related Equipment. Except as provided for in Maine Fuel Board Rules, 02-658 C.M.R. ch. 8, § 8.9.4, if a tank and its related piping are abandoned for whatever reason, the tank and all piping connected to it, including the outside fill and vent piping and any piping connected to the appliance, shall be emptied of all contents, cleaned, removed from the premises or property, and disposed of in accordance with applicable local, state and federal rules and regulations.

6.2.1.4 The Board does not adopt Chapter 7, Section 7.12.1 of NFPA 31.

6.2.1.5 The Board does not adopt Chapter 7, Section 7.13.1 of NFPA 31.

6.2.1.6 The Board does not adopt Chapter 7, Section 7.13.2 of NFPA 31.

6.2.2 **NFPA 52**

6.2.2.1 The Board does not adopt Chapter 15, "Automotive Equipment (Onboard)" of NFPA 52.

6.2.2.2 The Board does not adopt Chapter 16 "Automotive Fuel and Safety Systems (Onboard)" of NFPA 52.

6.2.3 **NFPA 54**

6.2.3.1 The Board does not adopt Chapter 9, Section 9.1.22, Existing Appliances of NFPA 54.

6.2.3.2 The Board does not adopt Exception No. 1 and Exception No. 2 to Chapter 10, Section 10.21.2 of NFPA 54 (*See instead* Chapter 13, Section 13.4.7 of the Board's rules).

6.2.4 **NFPA 55**

The Board does not adopt the following Chapters of NFPA 55:

6.2.4.1 Chapter 8, Cryogenic Fluids;

6.2.4.2 Chapter 9, Bulk Oxygen Systems;

6.2.4.3 Chapter 10, Gas Hydrogen Systems;

6.2.4.4 Chapter 11, Bulk Liquefied Hydrogen Systems;

6.2.4.5 Chapter 13, Carbon Dioxide Systems;

6.2.4.6 Chapter 14, Storage, Handling, and Use of Ethylene Oxide for Sterilization and Fumigation;

6.2.4.6 Chapter 15, Acetylene Cylinder Charging Plants; and

6.2.4.7 Chapter 16, Liquid Nitrous Oxide Systems.

6.2.5 **NFPA 58**

6.2.5.1 The Board does not adopt Chapter 6, Sections 6.4.4.1 and 6.4.4.2 of NFPA 58 (*See instead* Chapter 14, Section 14.5 of Board rules).

6.2.5.2 The Board adopts Chapter 6, Section 6.5.3.6 of the NFPA 58 as amended below:

6.5.3.6

The minimum horizontal separation between aboveground LP-Gas containers and aboveground tanks containing liquids having flash points below 200 °F (93.4°C) shall be 20 ft (6 m). The requirements of this provision do not apply to a single tank containing methanol, connected to

and as part of a propane bulk plant, for the specific purpose of adding said methanol to the propane gas stored in the bulk plant.

6.2.5.3 The Board does not adopt Chapter 6 Section 6.8.3.5 of NFPA 58.

6.2.5.4 The Board adopts Chapter 6, Section 6.18.1 of NFPA 58 as amended below:

16.18.1* Piping, regulators, meters, and other equipment installed in the piping system shall be protected from the forces of accumulated and falling snow.

6.2.5.5 The Board does not adopt Chapter 6, Section 6.21.4.2(E) of NFPA 58. (*See instead* Chapter 12, Section 12.1.1; Chapter 14, Section 14.7.7 of the Board's rules).

6.2.5.6 The Board does not adopt Chapter 6, Sections 6.27.3.14 and 6.27.3.15 of NFPA 58 (*See instead* Chapter 14, Section 14.6 of the Board's rules).

6.2.6 **NFPA 211**

6.2.6.1 The Board does not adopt Chapter 9, Section 9.8.2 of NFPA 211 for interconnection. (*See instead* 32 M.R.S. § 18107(1)(A)).

6.2.6.2 The Board does not adopt Chapter 11, Fireplaces, of NFPA 211.

6.2.6.3 The Board does not adopt Chapter 12, Masonry Heaters, of NFPA 211.

6.2.6.4 The Board does not adopt Chapter 13, Section 13.5.2, Room Heaters, Fireplace Stoves, Room Heater/Fireplace Stove Combinations, and Ranges, of NFPA 211.

6.2.6.5 The Board does not adopt the following Sections of Chapter 14 of NFPA 211:

6.2.6.4.1 Section 14.2, Annual Inspection; and

6.2.6.4.2 Section 14.7.2.

6.2.6.6 The Board adopts Chapter 14, Section 14.4.1, of Section 14.4 of NFPA 211, Appliance or Connector Replacement, with the following amendment:

14.4.1 When an existing appliance or connector is replaced or a new appliance is connected to a chimney, the chimney flue shall be inspected.

6.2.6.7 The Board does not adopt Chapter 15, Inspection of Existing Chimneys, of NFPA 211.

6.3 Copies of the standards referenced in Section 6.1 of this Chapter may be purchased from:

National Fire Protection Association
1 Batterymarch Park
P.O. Box 9101

Quincy, MA 02269-9101
Telephone: 1-800-344-3555
www.nfpa.org

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

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CHAPTER 7 MODIFICATION OF STANDARDS

Summary: This Chapter allows the Board to authorize modifications to installations under unusual circumstances and provides the Board with the discretion to alter installation standards after appropriate technical consideration.

7.1 General

Where the circumstances or conditions of any particular installation are so unusual as to render the strict application of a standard imposed by the Board's rules impractical, the Board may permit such modifications as will provide a substantially equivalent degree of safety and be consistent with good engineering practice.

7.2 Procedure

Application for permission to deviate from installation standards imposed by the Board's rules must be made in writing to the Board and must document why compliance with a prescribed standard is technically impractical and how the proposed modification would provide an equivalent degree of safety. The Board may request any additional information it deems necessary to assure that the modification provides an equivalent degree of safety. Any modification allowed applies solely to the specific installation described in the application and no other.

7.3 Initial Review by Senior Fuel Inspector; Appeal to Board

The senior fuel inspector may grant the application in whole or in part or may deny the application. The senior fuel inspector's disposition of the application must be provided to the applicant in writing and must include written notice of the applicant's opportunity to appeal the disposition to the Board in writing within 30 days of the applicant's receipt of the disposition. The appeal must include an explanation of the reason for the appeal and a statement of the relief sought by the applicant. An appeal is deemed to be made on the date of its receipt by the Board. Untimely appeals will not be considered.

7.4 Appeal Hearing

An evidentiary hearing on the application will be held by the Board unless the applicant and the senior fuel inspector are able to resolve satisfactorily the matter. The appeal will be heard de novo and will be governed by the provisions of the *Maine Administrative Procedure Act* applicable to adjudicatory proceedings. The applicant has the burden of proof at hearing.

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

CHAPTER 8 INSTALLATION OF OIL BURNING EQUIPMENT

Summary: This Chapter sets forth requirements for the installation of oil burning equipment and describes the necessary safety controls, devices and standards for the reduction of fire hazards associated with oil-fired equipment used in residential, commercial, and industrial applications.

8.1 Nationally Accredited Testing Laboratory

All heating, chimney and fireplace equipment, as well as any accessory equipment, must be listed and approved by Underwriters' Laboratories or by an independent nationally recognized testing laboratory. Such listing must be in effect at the time of installation.

8.2 Workmanship

All work must be conducted, installed, and completed in a neat and professional manner reflecting a minimum level of competent workmanship.

8.3 Repair or Replacement

Repair of any system or replacement of parts may be made in the same manner as it was in the existing system provided that such repair or replacement is not hazardous. All material, equipment and devices must be constructed and installed in accordance with their specific purpose and listing.

8.4 Maintenance

8.4.1 General

All oil burning equipment and systems, both new and existing, and parts thereof must be maintained in a safe condition.

8.4.2 Notification to Property Owner of Code Violations

When performing any service on a customer's heating system, the licensee must notify the property owner in writing of any code violations and make recommendations to address them.

8.4.3 Combustion Efficiency Test Required

When performing an annual tune-up on a heating system, a combustion efficiency test must be conducted, and a copy of the test results must be posted on-site.

8.5 Installations

8.5.1 Code Compliance Required Prior to Placing into Operation

Whenever a furnace, direct-fired hot water heater, or boiler is installed, the total installation must be brought into compliance with the requirements of NFPA 31 and all other rules of the Board **BEFORE** the furnace, direct-fired hot water heater, or boiler is fired. Prior to leaving the installation (whether installed inside or outside any structure) unsupervised, the licensed oil burner technician must observe, inspect, and test the equipment to ensure that the installation is operating safely and properly and meets all applicable rules of the Board.

8.5.2 Wiring Compliance Required Prior to Firing

Whenever a new burner is installed, the wiring must be brought into compliance with the rules of the Board before the unit is fired. The wiring update must include the following:

1. Properly rated fuse or breaker;
2. Properly rated wiring;
3. Properly installed and located emergency switch;
4. Properly installed and located thermal electric switch;
5. Properly installed and located service switch; and
6. Properly installed and located low water cut-off.

8.5.3 Combustion Efficiency Test Required

When performing an installation, a combustion efficiency test must be conducted, and a copy of the test results must be posted on-site.

8.5.4 Water and Condensate Connections to Boilers and Water Heaters

8.5.4.1 Hot and Cold Water Piping

A master or journeyman oil burner technician may connect hot and cold water piping from a boiler or oil fired water heater to existing piping only in the same room where the installation is taking place. Such connections may not be made beyond any existing branch connection supplying water, in accordance with Maine Revised Statutes, Title 32, Section 3302.

8.5.4.2 State Plumbing Code

All piping and safety controls on domestic water heaters, domestic water connections to boilers and water heaters, and condensate disposal from oil fired condensing appliances must be made in accordance with the rules of the Plumbers' Examining Board, established by Title 5, section 12004-A, subsection 32 of the Maine Revised Statutes.

8.5.4.3 **Condensate from Fuel Fired Appliances**

1. An approved neutralizer shall be installed in the condensate drain system of all fuel fired condensing appliances, so the condensate is rendered innocuous.

2. Condensate from fuel fired appliances shall be drained into an existing open receptor through an air gap that is connected to a sanitary drainage system in accordance with the rules adopted by the Plumbers' Examining Board, established by Title 5, section 12004-A, subsection 32 of the Maine Revised Statutes.

3. If there is no existing open receptor, connection to a sanitary drainage system must be done by a Maine-licensed Master or Journeyman plumber utilizing a permit in accordance with the rules adopted by the Plumbers' Examining Board, established by Title 5, section 12004-A, subsection 32 of the Maine Revised Statutes.

4. Condensate shall not be disposed of by routing through a floor and into a perimeter drain system or underneath a slab.

5. When the installation requires a condensate pump, the condensate pump must be installed in accordance with the manufacturer's instructions. The condensate pump discharge shall rise vertically to a point where it is possible to discharge to an open receptor connected to the sanitary drainage system.

6. Where an installation requires a condensate pump, the condensate pump must be interlocked with the appliance to prevent to appliance from operating during a condensate pump failure.

7. Each fuel fired condensing appliance requiring a condensate pump shall be provided with its own individual condensate pump.

8.5.5 **Heat Loss Requirement**

8.5.5.1 **New Installations**. Heat loss system design and system load calculations for all new installations must be performed prior to the installation. The licensee must retain a copy of the heat loss system design and system load calculations such that they may be produced for inspection upon request of a Board inspector.

8.5.5.2 **Replacement Systems**. A heat loss and/or load calculation must be conducted before replacement of an existing system. The licensee must retain a copy of the heat loss system design or system load calculations, or the stamped plans of an engineered system, such that they may be produced for inspection upon request of a Board inspector.

8.6 Low Water Control for Oil-Fired Boilers

8.6.1 Low Water Control Required

All oil-fired boilers must be provided with a properly installed and operating low water cut-off.

8.6.2 Location

The low water cut-off may be installed in, or attached to, the boiler at the level recommended by the boiler manufacturer, but in no case shall the low water cut-off be installed below the crown sheet. The low water cut-off, when not installed directly in the boiler, may be installed either in the main supply line (vertical riser) as close to the boiler as possible, or in a water column of continuous piping attached directly to the boiler.

8.6.3 Appropriate Design

The low water cut-off must be designed and approved for the medium used (steam or water).

8.6.4 No Obstructions

No valves or other obstructive devices shall be installed between the boiler and safety controls or devices.

8.7 Piping, Pumps and Valves

8.7.1 Supply Connections/Oil Shut-off Valves

8.7.1.1 A listed lever or wheel thermally-operated oil shut-off valve, designed to shut off the oil supply in case of fire, must be installed at the burner and at the oil supply tank.

8.7.1.1.1 When outside tanks are used, a thermally operated shut-off valve must be installed where the supply line enters (inside) the building and where the oil line enters the room where the appliance is located.

8.7.1.1.2 When inside tanks are used, and the oil supply tank is installed in a separate room, a thermally operated shut-off valve must be installed where the line enters the room where the appliance is located.

8.7.1.2 Whenever the oil supply is taken from the top of an oil tank, whether the oil tanks are outside or inside, a thermally operated wheel or lever type shut-off valve must be installed at the tank and at the burner for control of the fuel. A check valve may be used in the supply line.

8.7.2 Thermally-Operated Valves

Thermally operated valves over ½″, that are not currently listed may be installed upon receipt of written approval of a Board inspector. The written approval must be requested and received prior to installation.

8.8 Oil Supply and Return Piping

8.8.1 Continuous Supply and Return Lines Required

Wherever a copper oil supply or return line is installed under cement, sub-floors, or earth surface, it must be continuous without any splices from the burner to the tank.

8.8.2 Conduit Required

All copper oil supply and return lines must be encased in a continuous piece of non-metallic liquid-tight conduit such as PVC, ENT, coated copper tubing, or other approved material and must be secured in order to prevent physical damage. The end of the conduit shall not exceed more than two (2) inches from any fitting, except the connection at the fuel tank and at the fuel pump located at the burner shall not exceed 6″.

In order to avoid undetected oil leaks under floors, the conduit must be a minimum of one pipe size larger than the oil supply and return lines. The ends of the conduit must penetrate the cement or earth surface a minimum of two (2) inches above grade.

An oil supply or return line that penetrates a foundation wall must be sealed at the wall to prevent the entry of water, insects or rodents.

8.8.3 OSV Valve or PRV Valve Required: Underground Tubing

Coated copper tubing must have an OSV valve or PRV valve installed at the tank when used underground.

8.8.4 OSV Valve or PRV Valve Required: Tanks Higher Than Burner

Wherever an outlet of an oil supply tank is located more than four (4) feet above the burner, an OSV valve or PRV valve is required.

8.8.5 Concealment of Oil Lines

No oil supply or return line shall be concealed in a wall, ceiling, or partition unless access to the oil supply or return line can be made without cutting through existing walls, ceilings or partitions. This may be accomplished by providing removable panels.

8.8.6 Use of Coated Copper Tubing

Coated copper tubing must be approved by the manufacturer for the intended use.

8.8.7 Oil Filter Support

When an oil filter or other accessory equipment is connected to copper piping smaller than ¾ inches and is not directly connected to the oil tank or oil burner, the filter or

other devices must be rigidly supported by a wall- or floor-mounted bracket or other means that provides sufficient support and stability for servicing this type of accessory equipment.

8.8.8 **Flare Fittings Required**

All oil supply and return lines of copper tubing must be connected by flare fittings only. All fittings must be accessible for service or replacement. No compression fittings shall be used on a supply or return oil line unless it is for the introduction of the lines at the top of the tank with a single or double tap bushing.

8.8.9 **Flare Frost Fittings Required Outside**

All connections of supply or return oil lines located outside must be made with flare frost fittings.

8.8.10 **Disconnected Lines**

No oil lines or oil devices which are disconnected from an oil supply tank, burner or unit, shall be left open. Any oil line or oil device which is disconnected or discontinued must be sealed or closed with a plug, cap or other approved fitting.

8.8.11 **Removal of Unprotected Supply Lines Required**

Unprotected supply lines that are buried or grouted must be removed from service.

8.8.12 **Underground Piping: Tanks Over 660 Gallons**

As set forth in the Appendix to this Chapter, if underground or under-slab piping is connected to a tank of over 660 gallons capacity, or to tanks with an aggregate capacity of over 1320 gallons, the installation of the underground piping must be installed by a certified underground oil tank installer and otherwise meet Maine Department of Environmental Protection requirements.

8.8.13 **Reporting of Oil Spills Required**

Oil spills, regardless of the amount spilled, must be reported within two (2) hours to the Maine Department of Environmental Protection in accordance with the Appendix to this Chapter.

8.9 Oil Supply Tanks

8.9.1 **Inside Tank Fabrication**

Rectangular built-in place tanks shall be fabricated using one-quarter (1/4) inch minimum thick steel sheets reinforced on maximum 24-inch centers. Tank bottoms must be supported on 12-inch-wide non-combustible piers, to a height of 8 inches above the floor. All welding must be performed by a welder. Tanks must be designed by a registered engineer who shall observe the tank under 5 PSI test and certify to it being tight under this test.

8.9.2 **Manholes**

8.9.2.1 Manholes, sixteen (16) inches in diameter or larger, must be installed in the top of all tanks of 5,000 gallons or more.

8.9.2.2 Manholes provided in 5,000 gallons supply tanks must be liquid tight when installed inside of a structure.

8.9.2.3 Manholes, when required for outside use, may take the form of a floating lifter roof or weak roof-to-shell seam, or other approved pressure relieving construction.

8.9.3 **Separation from Other Appliances**

All fuel oil supply tanks must be a minimum of five (5) feet from any gas and/or solid fuel burning appliance.

8.9.4 **Tank Requirements Upon Conversion to an Alternative Fuel**

If an oil burning appliance is converted to an alternative fuel, but the tank is left in place so that it can be returned to service at some future date, all of the following requirements must be met before the alternative fuel is used:

8.9.4.1 The vent piping must remain intact and open to the outside of the building;

8.9.4.2 The fill pipe must be removed completely, and the tank must be plugged with a threaded malleable iron plug;

8.9.4.3 The burner supply line must be removed and the valves on both the tank and burner must be capped or plugged; and

8.9.4.4 If an underground oil supply line is in use and complies with Section 8.9 of this Chapter, it may remain in place provided that all of the following conditions are met:

1. The oil line is emptied of its contents;

2. The oil line is disconnected from the oil tank and burner; and

3. The oil line is plugged on both ends in addition to the burner and tank fittings being plugged.

Oil can remain in the tank unless prohibited by the local Authority Having Jurisdiction or the Maine Department of Environment Protection.

8.9.5 **Fuel Supply Systems That Are Permanently Taken Out of Service**

If a fuel supply tank is permanently removed from service for whatever reason, the tank and all piping connected to it, including the outside fill and vent piping and any supply piping connected to the appliance, shall be:

1. Emptied of all liquid contents and sludge;

2. Cleaned and rendered free of combustible vapors;

3. Removed from the premises or property; and

4. Properly disposed of in accordance with all applicable local, state, and federal rules and regulations.

8.10 Outside Oil Supply Tanks

8.10.1 Installation on Wood Not Permitted

Oil supply tanks shall not be installed on wood or other combustible surfaces or supports.

8.10.2 Support of Horizontal Oil Supply Tanks

A horizontal oil supply tank must be mounted on steel pipe legs, not exceeding twelve (12) inches in height with floor flanges at the base of the steel legs and be supported by four 4″ x 8″ x 16″ solid concrete blocks or a one piece reinforced concrete pad not smaller than the tank dimensions. The four (4) blocks or the pad must rest on a firm subgrade consisting of a bed of compacted, well-draining gravel (6-inch minimum), crushed stone (6-inch minimum), or some other subgrade approved by the Board. There must be a minimum of four (4) inches of clearance under the tank from any surface. See Figure 8-1.

8.10.3 Support of Vertical Oil Supply Tanks

An upright or vertical oil supply tank must be mounted on steel pipe legs not exceeding twelve (12) inches in height, with floor flanges at the base of the steel leg and must be supported by a reinforced concrete pad at least three (3) inches thick. The pad's width and length shall not be smaller than the tank dimensions. The pad must be of one-piece construction. The pad must rest on a bed of compacted, well-draining gravel (6-inch minimum), crushed stone (6-inch minimum), or some other subgrade approved by the Board. There must be a minimum of four (4) inches of clearance under the tank from any surface. See Figure 8-2.

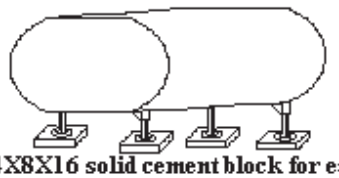

Figure 8-1 Tank footing & support for horizontal tanks of 350 gallons or less outside of buildings.

1. Footing, one (1) 4X8X16 solid cement block for each leg. Blocks to rest on a 6" bed of compacted, well draining gravel or 6" of crushed stone, or some other subgrade approved by theBoard.
2. Supports, maximum 12 inch legs with floor flanges.
3. Leg brackets shall not be used for supports on blocks.
4. Bottom of tank shall have a minimum of four (4) inch clearance from any surface.

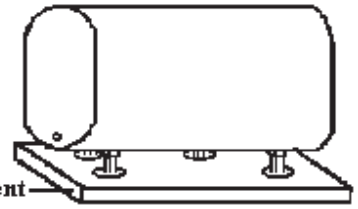

Figure 8-2 Tank footing & support for upright or vertical tanks of 350 gallons or less outside of buildings.

1. Footing, must be 3" reinforced cement slab (one piece construction) and rest on a 6" bed of compacted, well draining gravel or a 6" bed of crushed stone, or some other subgrade approved by the Board.
2. Supports, maximum 12 inch legs with floor flanges.
3. Leg brackets shall not be used for supports on blocks.
4. Bottom of tanks shall have a minimum of four (4) inch clearance from any surface.

8.10.4 Leg Brackets

The leg brackets welded on the tank are not considered a leg and may not be used to rest on the side of the reinforced concrete pad or solid concrete blocks.

8.10.5 Legs Not to be Embedded in Concrete

When a reinforced concrete pad is fabricated on-site, the legs of the supply tanks shall not be embedded as part of the pad.

8.10.6 Shims Not Permitted

In all installations, the pipe flanges must be in direct contact with a reinforced concrete pad or solid concrete blocks. The use of shims is prohibited.

8.10.7 Tank Disposal

Tanks must be disposed of in accordance with the rules of the Maine Department of Environmental Protection.

8.10.8 Prevention of Oil Spills Caused by Snow or Ice

In order to prevent oil spills, outside tanks and piping must be located such that they are not subject to falling snow or ice. To meet this requirement, the tank and outdoor piping must be installed with a protective cover over the tank valve, oil filter, and

any piping which is either without structural support or not attached to the side of the building.

8.10.9 **Existing Tanks to Meet Current Standards**

All existing outside supply tanks must be held to the same standards as newly installed tanks.

8.10.10 **Fuel Supply Line: Single Tank Installations**

For a single-tank installation, the fuel supply line shall not extend more than twelve (12) inches beyond the face of the tank.

8.11 Inside Oil Supply Tanks

8.11.1 **Leg Brackets**

The leg brackets welded on the tank are not considered a leg and may not be used to rest on the side of the reinforced concrete pad or solid concrete blocks.

8.11.2 **Installation on Wood Not Permitted**

Oil supply tanks shall not be installed on wood or other combustible surfaces.

8.11.3 **Support of Inside Oil Supply Tanks on Finished Floors**

The tank legs of an installation of an unenclosed supply tank(s) located inside a building(s) with a finished cement floor shall not exceed twelve (12) inches in height with floor flanges at the base of the steel legs. The use of shims is prohibited.

8.11.4 **Support of Inside Oil Supply Tanks on Unfinished Floors**

The installation of an unenclosed supply tank(s) located inside a building(s) without a finished cement floor must be supported by four 4 inch x 8 inch x16 inch solid concrete blocks or a reinforced concrete pad. The pad must be at least three (3) inches thick, the width and length extending the full dimensions of the tank. The tank legs shall not exceed twelve (12) inches in height with floor flanges at the base of the steel legs. There must be a minimum of four (4) inches of clearance under the tank from any surface. The use of shims is prohibited.

8.11.5 **Multiple Tank Installation: Tops to be on Same Horizontal Plane**

The top of all of the fuel oil tanks on a multiple tank installation must be on the same horizontal plane.

8.11.6 **Location of Oil Shut-Off Valves**

Oil shut-off valves must be provided immediately adjacent to the burner supply connections at the bottom of the supply tanks.

8.11.7 Manifold Requirements

The manifold at the cross connections of the burner supply line must be of steel, wrought-iron pipe or copper tubing. The manifold piping must be as close to the shut-off valves as possible so that the distance between the tank and the last fitting does not extend beyond six (6) inches from the face of the tanks and the final fitting (elbow or tee). See Figure 8-3.

8.11.8 Prevention of Oil Spills From Multiple Tank Installations

On multiple tank installations, it is the installer's responsibility to ensure that return line product will not cause spillage.

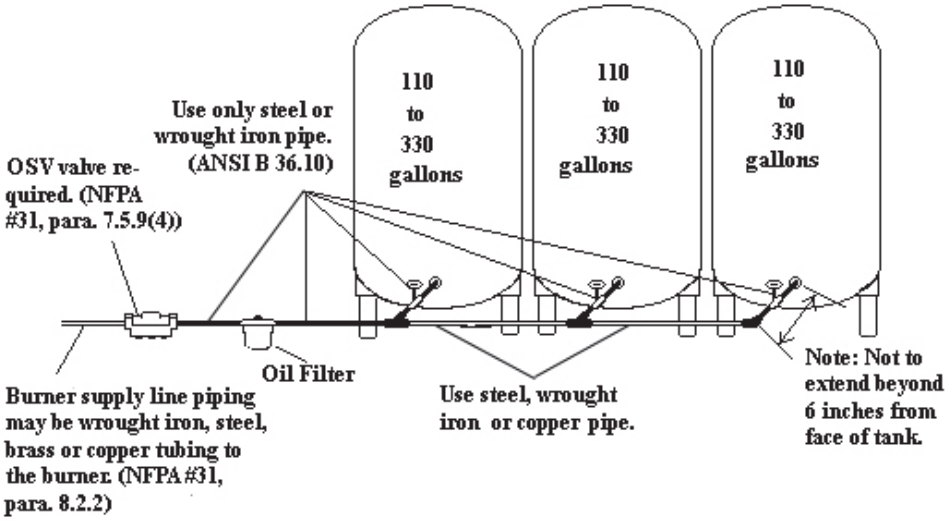

Figure 8-3 Piping for three tank oil supply arrangement

8.11.9 Multiple Tank Installations: Common Venting System

When installing multiple fuel oil tanks with separate fill pipes and a common venting system, the requirement for increasing the vent pipe one pipe size larger than the largest individual vent pipe is not applicable.

8.11.10 Cross-Connection of Two Oil Supply Tanks

When installing two tanks that are cross connected according to Figure 8.9.1 of NFPA 31, the gauge must be installed only in the vented tank and all burner supply piping from the tank outlet to the filter installed at the tank must be black iron pipe. The piping connected from the second tank may be either black iron pipe or copper tubing. If the filter is not located at the tank manifold, then copper tubing may be used to connect the black iron pipe manifold to the inlet of the filter.

8.11.11 Removal of Piping Required Upon Removing Tank From Service

When removing, replacing, or taking a tank out of service for any period of time, the oil tank fill and vent piping must be removed from the side of the building.

8.12 Vent Alarms

8.12.1 Inside Tanks

All No. 1 and No. 2 fuel oil tanks from 11 to 5,000-gallon capacity located inside a structure must have a vent alarm.

8.12.2 Outside Tanks

All No. 1 and No. 2 fuel oil tanks from 65 to 5,000-gallon capacity located outside must have a vent alarm.

8.12.3 Manufacturer's Instructions

All vent alarms must be installed according to manufacturer's Instructions.

8.13 Tank Patches

All oil supply tanks must be liquid tight. Leaking tanks may be temporarily repaired with a tank patch. Any tank so repaired must be replaced within thirty (30) days of the repair.

8.14 Used Underground Oil Tanks

Used underground oil storage tanks are prohibited from use for aboveground storage of oil unless:

8.14.1 Such use has been approved by the Maine State Fire Marshal; or

8.14.2 A Maine licensed professional engineer, or other person meeting the requirements of the statutes and rules governing professional engineers practicing in Maine, certifies that the tank meets all applicable specifications and requirements of UL #142 as referenced in NFPA 31.

8.15 Electrical Equipment, Required Control Switches

8.15.1 Thermal Cut-Off Switches

A thermal cut-off switch must be wired into the burner circuit to shut off the burner in the event of a fire at the unit. The switch must be placed at the highest point directly above the unit to be fired with the thermal element pointed downwards and must be placed on the bottom of the floor joist or stringer at the front of the unit. In no case shall it be lower than the point where the flue connector enters the chimney. The switch must be wired to shut off the burner, circulating fan, forced or induced draft fan and any remote oil pump that is not an integral part of the burner. A thermal electric switch is required for each oil-fired unit in a multi-appliance installation.

8.15.1.1 On multi-unit installations, the emergency and thermal electrical switches must be wired in series through individual unit relays so that, if one switch is opened, all equipment will be rendered inoperable whenever the "EMERGENCY" switch is opened.

8.15.1.2 All remote pump sets must have a thermal cut-out switch installed as follows:

1. Maximum of three (3) feet above pump set;

2. The element must be pointed downwards; and

3. The switch must be supported in accordance with NFPA 70.

8.15.2 **Service Switch**

A service disconnect switch for control of the burner while observing the flame must be placed at the unit, within arm's reach of the technician.

8.15.3 **Emergency Switch**

8.15.3.1 If the entrance to the boiler room is only accessible from the outside, the emergency switch may be placed at the inside not more than one foot beyond the door opening. An emergency switch shall not be placed outside of any building.

8.15.3.2 On commercial and industrial equipment, the emergency switch must be installed in accordance with Figure 8-4 on multi-unit installations. The requirements of Section 8.15.1.1 do not apply to one- or two-family residences.

8.15.3.2.1 On multi-unit installations, the emergency shut-off switch must be placed at the outside entrance of the room containing the appliances. The emergency switches and the thermal cut-off switches must be wired in series through individual unit relays so that, if the emergency switch is opened, all heating equipment in the room and the remote pump set will be rendered inoperable. This application also applies if there are two or more appliance rooms in the same building that are connected to a common fuel supply system.

[NOTE: For Primary Safety Controls, Required Programming and Timings for Burners, refer to ASME CSD-1.]

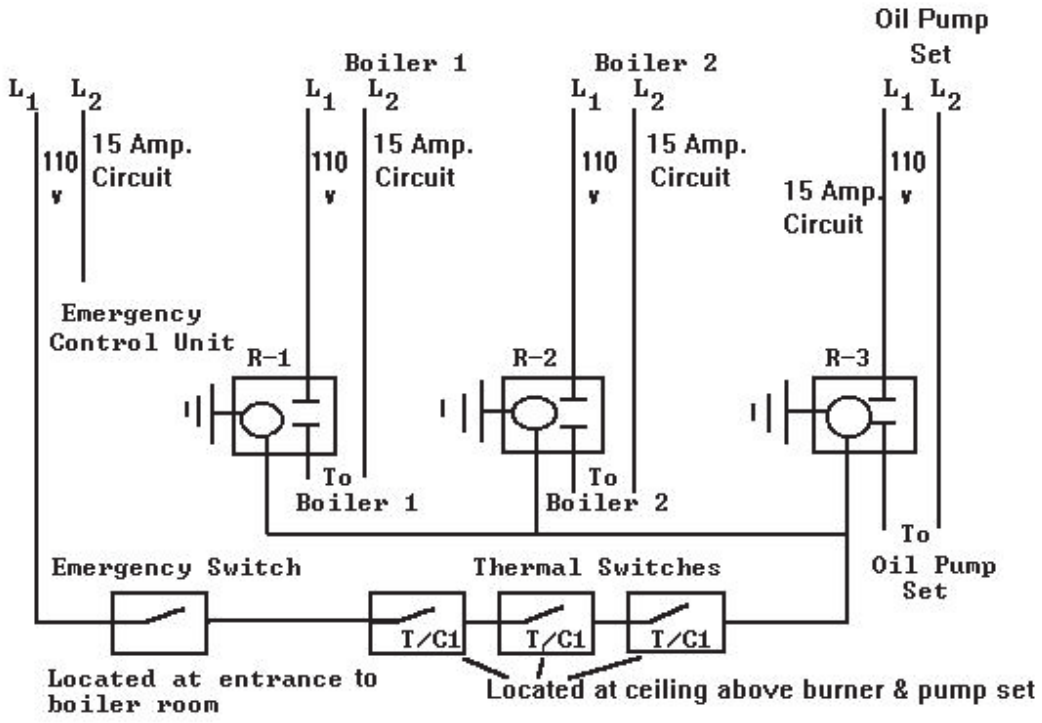

Figure 8-4 For use on commercial and industrial equipment only. This requirement shall not apply to one and two family residences.

8.15.4 Controls Containing Mercury

Thermostats containing mercury must be disposed of in accordance with all federal and State Regulations. (Refer to 38 M.R.S. § 1663 and check with your local supplier)

8.16 Use of Priority Controls

A priority control for installation of an oil-fired warm air furnace and an oil-fired hot water heater when the existing chimney flue is not of adequate size to accommodate both appliances is allowed. The chimney must be lined. A priority control is required when replacing an existing furnace or water heater when the chimney is not properly sized for both appliances.

8.17 Steam Boilers

Steam boilers must be installed according to manufacturer's instructions.

8.18 Safety and Pressure Relief Valves

8.18.1 Approved Safety or Pressure Relief Valve Required

Steam and hot water boilers must be equipped with listed or approved steam safety or pressure relief valves that conform to ASME requirements. A shut-off valve shall not be placed between the relief valve and the boiler or on discharge pipes between such valves and the atmosphere.

8.18.2 **Termination**

8.18.2.1 All steam safety or pressure relief valves must terminate in a manner which precludes the possibility of accidental scalding in accordance with ASME.

8.18.2.2 Steam safety relief valves over two (2) inches in diameter must terminate outside of the structure in a safe location.

8.18.2.3 Steam safety or pressure relief valves which terminate in the structure must terminate six (6) inches to twelve (12) inches above the floor.

8.18.3 **Installation in Upright Vertical Position Required**

Steam safety and pressure relief valves on boilers must be installed with the spindle in the upright vertical position.

8.19 Water and Steam Boiler Pipe Supports

8.19.1 **General**

Piping must be supported with pipe hooks, metal pipe straps, bands, brackets, or hangers suitable for the size of the piping and must be of adequate strength and quality and located at intervals so as to prevent or damp out excessive vibration.

8.19.2 **Spacing**

Spacing of supports shall not be greater than shown in Table 8-1.

8.19.3 **Allowance for Expansion and Contraction**

Supports, hangers, and anchors must be installed so as not to interfere with the free expansion and contraction of the piping between anchors. All parts of the supporting equipment must be designed and installed so that they will not be disengaged by movement of the supporting piping.

Table 8-1
Support of Piping

Steel Pipe, Nominal Size of Pipe (Inches)	Spacing of Supports (Feet)	Nominal Size of Tubing (Inch O.D.)	Spacing of Supports (Feet)
1/2	6	1/2	4
3/4 or 1	8	5/8 or 3/4	6
1 1/4 or larger (horizontal)	10	7/8 or 1	8
1 1/4 or larger (vertical)	every floor level		

8.20 PEX Tubing

All PEX tubing and fittings used in heating systems must be listed by the manufacturer for use on heating systems and be manufactured with an oxygen barrier.

8.21 Emergency Temporary Repairs of Warm Air Heat Exchangers

Emergency temporary repairs of warm air heat exchangers in oil burning appliances are allowed if the safety limitations of the repairs are explained in writing to the owner at the time of the repair.

8.22 Welding of Non-Residential Warm Air Heat Exchangers

8.22.1 General

8.22.1.1 Welding of non-residential warm air heat exchangers is permissible only as set forth in this Section (8.22).

8.22.1.2 Welding of residential warm air heat exchangers is not permissible under any circumstances.

8.22.2 Consultation With Manufacturer Required

The manufacturer must be consulted to determine whether the welding of a heat exchanger is sound engineering practice. The manufacturer must provide a written statement as to the feasibility of its heat exchanger being welded. If the heat exchanger is no longer in production, a master licensee must make a written request to the Board and obtain written approval from the Board before the repair is undertaken.

8.22.3 Master Licensee to Oversee Welding Repair

The repair of a heat exchanger by welding must be performed by a welder in a procedure suitable for the material. A master licensee must oversee such repairs. The master licensee must receive guidance from the welder as to the feasibility and acceptability of performing the welding procedure of the metals prior to the repair of

any heat exchanger. After completion of said repairs or welding, the master licensee must obtain a written statement from the welder documenting that the heat exchanger has been welded, tested and is acceptable for use without leakage of flue gases.

8.22.4 **Documentation of Repair to be Provided to Owner**

Written documentation of said repairs or welding must be provided to the owner. The original documentation must be kept on file by the master licensee who requested the welding. A copy of all the repair documents containing, at a minimum, the following information must be sent to the Board:

1. The name of the owner and location where the repairs were completed;

2. The name and address of the welder;

3. Specific area(s) or location(s) where the repair(s) or welding was performed;

4. Written approval of the repair from the manufacturer where applicable;

5. Equipment identification information, i.e., name, model number, serial number and gross Btu rating; and

6. The name, address, and license number of the master licensee who requested the repair.

8.22.5 **Limitation**

Welding repair of a heat exchanger may be performed only once. A subsequent welding repair shall not be made to a heat exchanger unless a master licensee makes written request to the Board and obtains written approval from the Board before the repair is undertaken.

Appendix

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL REGULATIONS

The Maine Department of Environmental Protection's Bureau of Remediation and Waste Management regulates underground oil storage tanks and the cleanup of any discharge of oil onto or into land or waters of the State of Maine.

1. Underground Oil Storage Tanks:
All underground oil storage tanks must be installed by a person who is licensed by the Board of Underground Storage Tank Installers. The installation and operation of the tank is regulated by the Department of Environmental Protection.

2. Reporting Oil Spills:
To avoid fines or civil penalties, oil spills onto or into the lands or waters of the State of Maine must be reported within two (2) hours to the Department of Environmental Protection. To report a leak, call the 24-hour response line at 1-800-482-0777.

3. Abandonment of Tank by Removal:
Tanks must be disposed of in accordance with the Department of Environmental Protection Rules. Used, underground, oil storage tanks are prohibited from use for aboveground supply of oil except where a Maine registered engineer certifies that the tank meets the requirements of UL 142 and NFPA 30.

4. Underground Piping and Aboveground Tanks with Over 660 Gallons or Aggregate Volume Over 1320 Gallons

If underground or under-slab piping is to a tank of over 660 gallons capacity or to tanks with an aggregate capacity of over 1320 gallons, then the installation of the underground piping must be installed by a certified underground oil tank installer.

A. Piping must be installed by a certified underground oil tank installer as required under 38 M.R.S. §570-K, Aboveground oil storage facilities.
B. Piping must be constructed of fiberglass, cathodically protected steel, or other equally noncorrosive material approved by the Department of Environmental Protection as set forth in rule.
C. Piping installed on or after June 24, 1991 must include secondary containment and leak detection as required by Department of Environmental Protection rules.
D. Piping that is "grouted," such as piping run on the surface of a floor and then encased in grout or cement or some similar material, shall be considered underground piping. Such grouted piping must include secondary containment and leak detection as required by Department of Environmental Protection rules.

5. For more information about the Department of Environmental Protection's regulations, contact them at:

Maine Department of Environmental Protection
Bureau of Remediation and Waste Management
17 State House Station
Augusta, Maine 04333-0017
(207) 287-7688

STATUTORY AUTHORITY: 32 M.R.S. §18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

CHAPTER 9 INSTALLATION OF SOLID FUEL BURNING EQUIPMENT

Summary: This Chapter sets forth requirements for the proper installation of solid fuel burning equipment.

9.1 Scope

This Chapter applies to residential, commercial and industrial installations of solid fuel burning equipment which are connected to a central heating system or water heating equipment.

9.2 Nationally Accredited Testing Laboratory

All heating, chimney and fireplace equipment, as well as any accessory equipment, must be listed and approved by Underwriters' Laboratories or by an independent nationally recognized testing laboratory. Such listing must be in effect at time of installation.

9.3 Workmanship

All work must be conducted, installed, and completed in a neat and professional manner reflecting a minimum level of competent workmanship.

9.4 Installations

Whenever a furnace, direct-fired water heater, or boiler is installed, the total installation must be brought into compliance with the requirements of NFPA 211 and all other rules adopted by the Board **BEFORE** the furnace, direct-fired water heater, or boiler is fired. Prior to leaving the installation (whether installed inside or outside any structure) unattended, the licensed solid fuel technician must observe, inspect, and test the equipment to ensure that the installation is operating safely in accordance with the Board's rules.

9.5 Repair or Replacement

Repair of any system or replacement of parts may be made in the same manner as it was in the existing system provided that such repair or replacement is not hazardous. All material, equipment and devices must be constructed and installed in accordance with their specific purposes and listings.

9.6 Notification to Property Owner of Code Violations

When performing any service on a customer's heating system, the licensee must notify the property owner in writing of any code violations and make recommendations to address them.

9.7 Heat Loss Requirement

9.7.1 New Installations

Heat loss system design and system load calculations for all new installations must be performed prior to the installation. The licensee must supply a copy to the owner and the licensee must retain a copy of the heat loss system design and system load calculations such that it may be produced for inspection upon request of a Board inspector.

9.7.2 Replacement Systems

A heat loss and/or load calculation must be conducted before replacement. The heat loss and/or load calculation may be obtained from the original design plans. The licensee must retain a copy of the heat loss system design or system load calculations and produce it for inspection upon request of a Board inspector.

9.8 Appliances

9.8.1 Installation to Conform to Listing

Solid fuel burning appliances must be listed and installed in accordance with the terms of their listing.

9.8.2 Manufacturer's Instructions

The manufacturer's instructions must be provided to the owner along with a copy of the 9.7.1 calculations.

9.8.3 Installation to be Made by Experienced Technicians

The installation must be made by licensed technicians experienced in making such installations.

9.8.4 Accessibility for Cleaning, Repair and Maintenance

The installation must be such as to provide reasonable accessibility for: cleaning heating surfaces; removing burners (multi-fuel and/or combination units); replacing motors, controls, air filters, draft regulators, chimney connectors, and other working parts; and adjusting, cleaning, and lubricating parts requiring such attention. This requirement also pertains to stoker-fired units.

9.8.5 Clearance From Combustible Materials

No combustible material shall be placed adjacent to the solid fuel burning appliance with less clearance than permitted by the manufacturer, NFPA 211 or the Board's rules.

9.8.6 Flammable Vapors or Gases

Solid fuel burning units shall not be installed where gasoline or any other flammable vapors or gases are likely to be present unless the unit is a sealed combustion system for which the air is taken from the outside.

9.8.7 Installations in Conjunction With Oil Burning Equipment

Whenever a solid fuel appliance is installed to work in conjunction with an oil burning appliance, the wiring of the oil burning appliance must be brought into compliance with the requirements of the Board's rules before the unit is fired. The wiring update must include the following where applicable:

1. Properly rated fuse or breaker;
2. Properly rated wiring;
3. Properly installed and located emergency switch;
4. Properly installed and located thermal electric switch;
5. Properly installed and located service switch; and
6. Properly installed and located low water cut-off.

9.9 Solid Fuel in Garages

Except as described in Section 9.9.1, solid fuel burning appliances shall not be installed in any garage unless installed in a separate room, either in or attached to the garage, that is accessible only from the outside. For a major repair garage, the required fire wall separation is two (2) hours. For a minor repair or parking garage, the required fire wall separation is one (1) hour. All combustion air must be taken from outside the building.

9.9.1 Exception for Solid Fuel in Garages of One-and Two-Family Dwellings

Solid fuel burning appliances using sealed combustion systems for which the air for combustion is taken from the outside may be installed in garages of one- and two-family dwellings.

9.10 Power Failure By-Pass and Valves

9.10.1 Power Failure By-Pass and Valve Required

A solid fuel boiler must be provided with a power failure by-pass and valve in a closed system.

9.10.2 Installation of By-Pass Valves

To prevent overheating conditions during a power failure, a normally open zone valve must be connected to the largest heating loop in the system above the level of the boiler. A manual by-pass valve must be installed in case of the failure of the zone valve. This shall be accomplished by installing the zone valve prior to the flow valve and connecting it to the largest loop in the system. The hand valve must be installed in a loop around the zone valve as illustrated in Figure 9-1.

9.10.3 By-Pass Valves – Outside Boilers

Section 9.10.2 does not apply to listed outdoor solid fuel burning central heating appliances.

9.10.4 **Limitation of Applicability**

Section 9.10.2 does not apply to solid fuel burning appliances for which the interruption of power will arrest combustion and interrupt fuel supply if the appliance is a residential-type heating appliance as defined in NFPA 211

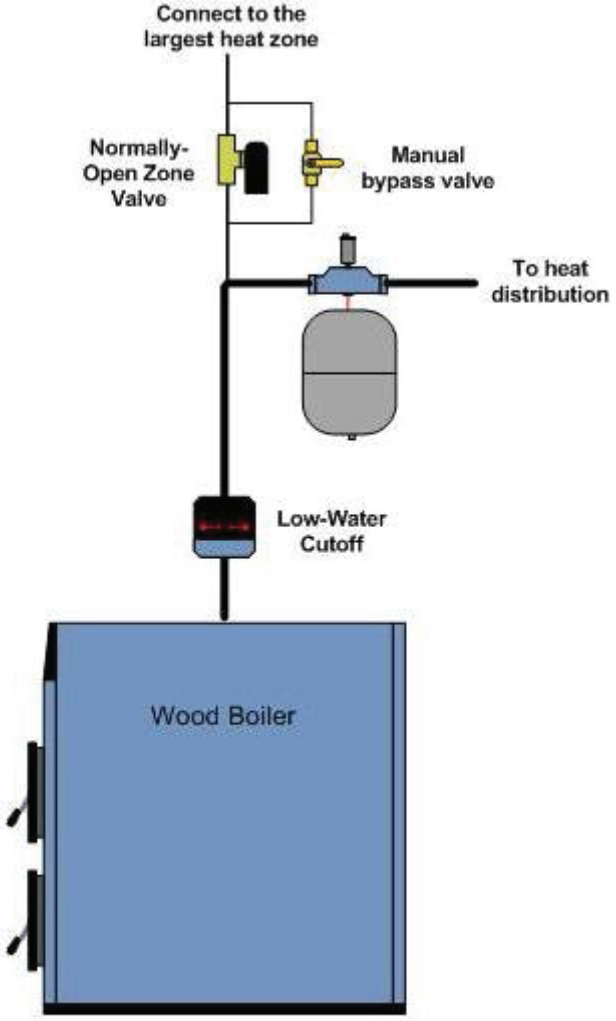

Figure 9-1
Power Failure By-Pass

9.11 Air Combustion and Ventilation

Solid fuel burning appliances must be installed in a location and manner to provide adequate ventilation and combustion air supply to permit proper fuel combustion, chimney draft and maintenance of safe temperatures. In cases of buildings which are so tight that normal infiltration does not provide the necessary air, outside air must be introduced in accordance with manufacturer's instructions.

9.12 Electrical Wiring and Equipment

9.12.1 Basic Standards

The following standards must be met for the electrical wiring and equipment used in connection with solid fuel burning equipment:

9.12.1.1 The electrical wiring and equipment used must be installed in accordance with NFPA 70.

9.12.1.2 Safety control circuits must be two-wire, one side grounded, having a nominal voltage not exceeding 150 Volts. A safety control or protective device must be connected so as to interrupt the ungrounded conductor; and

9.12.1.3 The control circuit must be connected to a power supply branch circuit fused at not more than the value appropriate for the rating of any control or device included in the circuit.

9.12.2 Additional Standards: Automatic Feed

The following additional standards must be met for solid fuel burning appliances where the fuel is automatically fed:

9.12.2.1 Electrical Equipment, Required Control Switches

9.12.2.1.1 **Thermal Electric Switches**. A thermal cut-off switch must be wired into the burner circuit to shut off the burner in the event of a fire at the unit. The switch must be placed directly above the unit to be fired with the thermal element pointed downwards and must be placed at the front of the unit. The switch must be no lower than the highest point of the flue connector where it enters the chimney. The switch must be wired to shut-off the burner, circulating fan, forced or induced draft fan and any remote fuel delivery device that is not an integral part of the burner. A thermal electric switch is required for each unit in a multi-appliance installation.

9.12.2.1.2 On multi-appliance installations the emergency and thermal electrical switches must be wired in series through individual unit relays such that, if one thermal switch or the "EMERGENCY" switch is open, the combustion air fan and fuel delivery system will be shut off. This also applies if there are two or more appliance rooms in the same building connected to a common fuel supply system.

[NOTE: An example of wiring for multi-appliance installations is illustrated in Figure 9-2.]

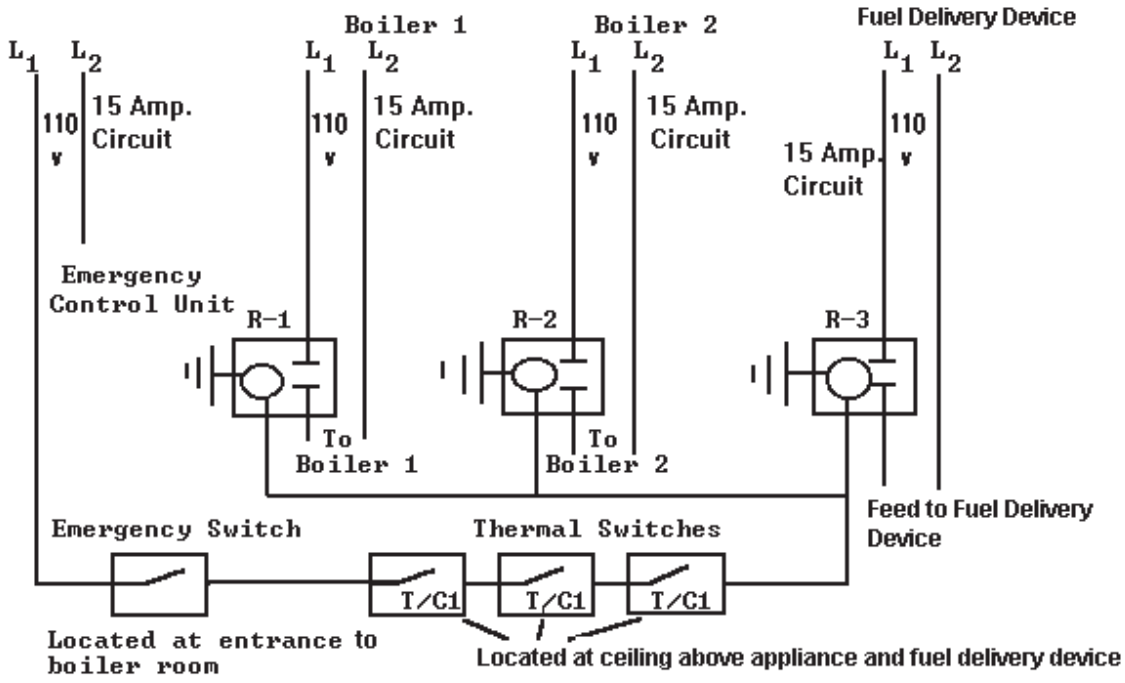

Figure 9-2

9.12.2.2 **Disconnect Switch**. A burner disconnect switch must be placed within three (3) feet of the burner.

9.12.2.3 **Emergency Switch**

9.12.2.3.1 An identified switch to shut down the boiler, furnace or water heater in an emergency must be placed outside of and adjacent to the entrance to the room where the appliance is located.

9.12.2.3.2 If the entrance to the room where the appliance is located is only accessible from outdoors, the emergency switch may be placed inside not more than one (1) foot beyond the door opening.

9.13 Installation of Combination Units (Solid Fuel/Oil/Gas)

All multi-fueled appliances must comply with the applicable provisions of the Board's rules.

9.14 Conversion Burners

When an appliance is converted from a liquid or gaseous fuel to a solid fuel, the conversion burner must be listed by Underwriters' Laboratory or by an independent nationally recognized testing laboratory and must comply with all Sections of this Chapter.

9.14.1 **Testing in Individual Appliance Required**

A conversion burner must be tested for use in the individual appliance in which it is intended to be installed and must meet one of the following conditions:

1. The conversion burner has been tested by the burner manufacturer in the individual appliance in which it is intended to be installed and has been approved for use in such appliance by a licensed professional engineer with the proper disciplines;

2. The conversion burner has been tested by an independent testing laboratory in the individual appliance in which it is intended to be installed and has been certified for use in such appliance by the independent testing laboratory; or

3. The conversion burner has been tested by the appliance manufacturer in the individual appliance in which it is intended to be installed and has been approved for use in such appliance by the appliance manufacturer.

Such appliance manufacturer or licensed professional engineer must provide installation and combustion set-up instructions for the appliance.

9.14.2 **Installation into Direct Vent Appliances**

A conversion burner shall not be installed into direct vent appliances unless the conversion burner has been approved for use in the appliance by the manufacturer of the appliance.

9.14.3 **Installation into Power Vented Appliances**

A conversion burner shall not be installed into power vented appliances unless the power venter is specifically approved for use with solid fuel.

9.14.4 **Conversion From Another Fuel Source**

When converting to solid fuel from another fuel source, the installation must comply with all applicable provisions of NFPA 211 and the Board's Rules.

9.14.5 **Clearance From Combustible Materials Required**

Warm air furnace plenums and ductwork must comply with the applicable provisions of NFPA 90B for clearance from combustible materials.

9.14.6 **Oil Tank Requirements upon Conversion to Solid Fuel**

9.14.6.1 If an oil burning appliance is converted to an alternative fuel, but the tank is left in place so that it can be returned to service at some future date, all of the following requirements must be met before the alternative fuel is used:

9.14.6.1.1 The vent piping must remain intact and open to the outside of the building;

9.14.6.1.2 The fill pipe must be removed completely and the tank must be plugged with a threaded malleable iron plug;

9.14.6.1.3 The burner supply line must be removed and the valves on both the tank and burner must be capped or plugged;

9.14.6.2 If an underground oil supply line is in use and complies with Section 8.8 of these rules, it may remain in place provided that all of the following conditions are met:

1. The oil line is emptied of its contents;

2. The oil line is disconnected from the oil tank and burner; and

3. The oil line is plugged on both ends in addition to the burner and tank fittings being plugged.

9.14.6.3 Oil can remain in the tank unless prohibited by the local authority having jurisdiction or the Department of Environment Protection.

9.14.6.4 The requirements of this section must be performed by a master or journeyman Oil Burner Technician.

9.14.7 **Interlock Device Required**

An interlock device must be installed so that combustion will be arrested if the burner is removed from the heating appliance.

9.14.8 **Limited Control Required**

Furnaces must have a 250 degree Fahrenheit limit control installed in the supply plenum not more than 10″ above the top surface of the heat exchanger. The limit control shall extend at least 12″ into the supply plenum.

9.15 Low Water Control For Solid Fuel Fired Boilers

Low water protection shall be accomplished in one of two ways:

9.15.1 **When Electrical Circuit Arrests Combustion**

If the opening of an electric circuit will arrest the combustion process, a low water cut-off will be satisfactory if it conforms to the following:

1. All solid fuel fired boilers must be provided with a properly installed and operating low water cut-off. The low water cut-off may be installed in, or attached to, the boiler at the level recommended by the boiler manufacturer, but in no case shall the low water cut-off be installed below the crown sheet. The low water cut-off, when not installed directly in the boiler, may be installed either in the main supply line (vertical riser) as close to the boiler as possible or in a water column of continuous piping attached directly to the boiler;

2. The low water cut-off must be designed and approved for the media in which it is used, either steam or water; or

3. No valves or other obstructive devices shall be installed between the boiler and any safety controls or devices.

9.15.2 When Electrical Circuit Does Not Arrest Combustion

If the opening of an electric circuit will not arrest the combustion process, low water protection must be accomplished in accordance with the appliance manufacturer's instructions.

9.16 Safety and Pressure Relief Valves

9.16.1 Approved Safety or Pressure Relief Valve Required

Steam and hot water boilers must be equipped with listed or approved steam safety or pressure relief valves that conform to ASME requirements. A shut-off valve shall not be placed between the relief valve and the boiler or on discharge pipes between such valves and the atmosphere.

9.16.2 Termination

1. All steam safety or pressure relief valves must terminate in a manner which precludes the possibility of accidental scalding.

2. Steam safety or pressure relief valves over two (2) inches in diameter must terminate outside of the structure in a safe location.

3. Steam safety or pressure relief valves which terminate in the structure must terminate 6″ to 12″ above the floor.

9.16.3 Installation in Upright Vertical Position Required

Steam safety and pressure relief valves on boilers must be installed with the spindle in the upright vertical position.

9.17 Water and Steam Boiler Pipe Supports

9.17.1 Generally

Piping must be supported with pipe hooks, metal pipe straps, bands, brackets, or hangers suitable for the size of the piping and must be of adequate strength and quality and located at appropriate intervals so as to prevent or damp out excessive vibration.

9.17.2 Spacing

Spacing of supports shall not be greater than shown in Table 9-1.

Table 9-1
Support of Piping

Steel Pipe, Nominal Size of Pipe (Inches)	Spacing of Supports (Feet)	Nominal Size of Tubing (Inch O.D.)	Spacing of Supports (Feet)
½"	6'	½"	4'
¾" or 1"	8'	5/8" or ¾"	6'
1 ¼" or larger (horizontal)	10"	7/8" or 1"	8'
1 ¼" or larger (vertical)	every floor level		

9.17.3 **Allowance for Expansion and Contraction**

Supports, hangers, and anchors must be installed so as to not interfere with the free expansion and contraction of the piping between anchors. All parts of the supporting equipment must be designed and installed so that they will not disengage by movement of the supporting piping.

9.18 PEX Tubing

All PEX tubing and fittings used in heating systems must be listed by the manufacturer for use on heating systems and be manufactured with an oxygen barrier.

9.19 Thermostatically-Controlled, Hand-Fired Warm Air Units

9.19.1 **Limit Control Required**

A 250 degree Fahrenheit limit control must be installed in the supply plenum not more than 10″ above the top surface of the heat exchanger and must extend at least 12″ into the supply plenum.

9.19.2 **Operation of Limit Control**

The limit control must automatically prevent operation of the furnace in the event of power failure or shut off when 250 degrees Fahrenheit temperature is reached whether or not the electrical power source is available.

9.19.3 **Barometric Draft Control**

A barometric draft control, if required, must be installed in accordance with the manufacturer's instructions.

9.20 Emergency Temporary Repair of Warm Air Heat Exchangers

Emergency temporary repairs of warm air heat exchangers in solid fuel burning appliances are allowed if the safety limitations of the repairs are explained in writing to the owner at the time of the repair.

9.21 Welding of Non-Residential Warm Air Heat Exchangers

Warm air heat exchangers in solid fuel burning appliances shall not be welded.

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

CHAPTER 10 CHIMNEYS

Summary: This Chapter governs the removal of waste gases and the reduction of fire hazards associated with the construction and installation of chimneys, fireplaces, and venting systems for residential, commercial, and industrial applications.

10.1 Nationally-Accredited Testing Laboratory

All heating, chimney and fireplace equipment, as well as any accessory equipment, must be listed and approved by Underwriters' Laboratories or by an independent nationally recognized testing laboratory. Such listing must be in effect at time of installation.

10.2 Chimney Construction Disclosure

All masonry chimney systems must be constructed in accordance with NFPA 211. An installer must complete the State of Maine Chimney or Fireplace Construction/Installation Disclosure on a form provided by the Board prior to connecting an appliance to a newly-constructed masonry chimney.

10.3 Use of Existing Chimneys

10.3.1 Except as provided in Section 10.3.1.1, the required 2″ minimum clearance to combustible material for existing interior chimneys and the required 1″ minimum clearance to combustible material for existing exterior chimneys is not required when replacing oil- or gas-fired appliances.

10.3.1.1 The 2" clearance to combustible material for existing interior chimneys and the 1" minimum clearance to combustible material for existing exterior chimneys are required when a solid fuel appliance or a wood stove is connected to the chimney flue**.**

10.3.2 When installing any gas, oil or solid fuel appliance, the chimney must be lined with a clay tile liner or listed lining system compatible with the intended fuel source.

10.4 Emergency Chimney Lining Update - Waiver For Oil Fired Heating Appliances

When an emergency situation arises that does not allow adequate time to replace or repair the chimney liner before installing a new oil-fired heating appliance, the licensee may defer the required replacement or repairs for up to ninety (90) days. It is the licensee's responsibility to ensure that the installation meets all standards adopted by the Board and the manufacturer's instructions. The licensee must either install or have installed the required liner or make the proper repairs within the 90-day time period.

10.4.1 For the purposes of this Section, an emergency situation may include, but is not limited to, situations of serious equipment failure, such as a cracked heat exchanger of a warm air furnace or a leaking boiler in cold weather, as well as failure of equipment that generates hot water when a chimney professional is unavailable.

10.4.2 Any licensee deferring the required repairs or replacement pursuant to this section must complete and provide a copy of the State of Maine Emergency Chimney Update Waiver on a form provided by the Board to the building owner and to the Board.

10.4.3 The waiver permitted by this Section only applies to the installation of oil-fired appliances. A chimney must be lined prior to a new solid fuel or gas-fired appliance being put into service.

10.5 Interconnection

10.5.1 Gas and Liquid Fuel Appliances

Gas utilization appliances and appliances burning liquid fuels may be connected to one chimney in accordance with the applicable sections(s) of NFPA 211and NFPA 54.

10.5.2 Oil and Solid Fuel-Burning Equipment

The interconnection of oil and solid fuel-burning equipment must meet the requirements of 32 M.R.S. § 18107.

10.5.3 Gas and Solid Fuel Burning Equipment

The interconnection of gas and solid fuel burning equipment is prohibited unless the appliance is a listed combination gas/solid fuel appliance.

STATE OF MAINE
CHIMNEY OR FIREPLACE CONSTRUCTION/INSTALLATION DISCLOSURE

Dear Consumer: As of January 1, 1992, State law, specifically 32 M.R.S. § 18108, requires that chimney or fireplace installers provide you with this "Disclosure" prior to the installation or construction of your chimney or fireplace. The purpose of this Disclosure is to inform you that the National Fire Protection Standard 211 (NFPA 211), as adopted in Chapter 6 in the Maine Fuel Board rules, is the current standard which applies to all new construction of chimneys and fireplaces. Please note that the State of Maine does not require registration or licensure of chimney or fireplace installers. It is important to realize that many fires are caused each year from improperly constructed fireplaces and chimneys. This disclosure form should help you in making an informed decision as to the abilities of the installer and under what requirements the installation must comply.

INSTALLER INFORMATION

Name of Installer:		D/B/A:
Name of Installer (if incorporated):		D/B/A:
Legal Address:		
City:	State:	Zip Code:
County:	Home Telephone: (_____) _____ Work Telephone: (_____) _____	
Years of experience doing fireplace or chimney installations:		

CONSUMER INFORMATION

Name of Consumer:		
Mailing Address:		
City:	State:	Zip Code:
County:	Home Telephone: (_____) _____ Work Telephone: (_____) _____	

Installer, please give a brief description of installation being offered: _____

_____

_____

I hereby attest that the preceding information provided is true to the best of my knowledge. I also understand that if I fail to conform with the standards as outlined in NFPA 211 and as adopted by the Maine Fuel Board that I shall be subject to penalties as outlined in Title 32, M.R.S., Chapter 139 and the Maine Fuel Board Rules.

Signature of Installer: _____ Date: _____

STATE OF MAINE
EMERGENCY CHIMNEY UPDATE
WAIVER FORM

Dear Consumer: The State of Maine, Maine Fuel Board adopted the National Fire Protection Association (NFPA) Standard # 31 in Chapter 6 of Board Rules, which requires that before an existing oil-fired appliance is replaced with a new appliance, the chimney to which it is connected must be lined with an approved lining system. This regulation is intended to protect you, the consumer.

When an emergency situation arises that does not allow adequate time to get the chimney lined and/or repaired before installing the new heating appliance, the licensee may grant a waiver of up to 90 days to make required repairs. It is the licensee's responsibility to ensure that the installation meets all standards adopted by the board and the manufacturer's instructions. The licensee must either install or have installed the required liner or make the proper repairs within the 90 day time period. In cold weather an emergency situation may include, but is not limited to, situations of serious equipment failure, such as a cracked heat exchanger of a warm air furnace or a leaking boiler. Emergency situations may also include failure of equipment that generates hot water, and the unavailability of a chimney professional.

A copy of this waiver must be provided to the building owner and the Maine Fuel Board.

INSTALLER INFORMATION

Name of Installer:		License #:
D/B/A		
Mailing Address:		
City:	State:	Zip Code:
County:	Home Telephone: (_____) _____ Work Telephone: (_____) _____	

By my signature, I certify that I will follow-up within 90 days to ascertain if the liner has been installed.

Signature of Installer:

_____Date:_____

CONSUMER INFORMATION

Name of Consumer:		
Mailing Address:		
City:	State:	Zip Code:
County:	Home Telephone: (_____) _____ Work Telephone: (_____) _____	

By my signature, I certify that I am aware that, if I do not get my chimney lined, I may be in violation of State of Maine Law, 32 M.R.S. Chapter 139 and a Maine Fuel Board Inspector may contact me.

Signature of Consumer:

_____Date:_____

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

CHAPTER 11 INSTALLATION OF WASTE OIL APPLIANCES AND WASTE OIL SUPPLY TANKS

Summary: This Chapter sets forth requirements for the use of waste (used) oil burning equipment and accessory equipment installations in specific applications.

11.1 License and Experience Required

11.1.1 License Authorities

The installation and service of waste oil appliances is covered as a function granted under the 1 & 2 oils up to 15 GPH and the 1 & 2 oils over 15 GPH oil burner technician license authorities.

11.1.2 Experience

Installation and service of waste oil burning units must be performed by licensed individuals experienced in installing and servicing such equipment.

11.2 General Installation and Service Standards

11.2.1 Nationally-Accredited Testing Laboratory

All heating, chimney and fireplace equipment, as well as any accessory equipment, must be listed and approved by Underwriters' Laboratories or by an independent nationally recognized testing laboratory. Such listing must be in effect at time of installation.

11.2.2 Workmanship

All work must be conducted, installed and completed in a neat and professional manner reflecting a minimum level of competent workmanship.

11.2.3 Manufacturer's Instructions

The installation and servicing of waste oil appliances must be made in accordance with the manufacturer's instructions and State and local codes.

11.2.4 Labeling of Waste Oil Tanks

Waste oil tanks must be labeled with the words "Used Oil" in accordance with 40 C.F.R. § 279.22(c)(1-2).

11.3 Repair or Replacement

Repair of any system or replacement of parts may be made in the same manner as it was in the existing system provided that such repair or replacement is not hazardous. All material,

equipment and devices must be constructed and installed in accordance with their specific purposes and listings.

11.4 Maintenance

11.4.1 General

All oil burning equipment and systems, both new and existing, and parts thereof must be maintained in a safe condition.

11.4.2 Notification to Owner of Code Violations

When performing any service on a customer's heating system, the licensee must notify the property owner in writing of any code violations and make recommendations to address them.

11.4.3 Combustion Efficiency Test Required

When performing an annual tune-up on a heating system, a combustion efficiency test must be conducted and a copy of the test must be posted on-site.

11.5 Installations

11.5.1 Code Compliance Required Prior to Firing

Whenever a furnace, direct-fired hot water heater, or boiler is installed, the total installation must be brought into compliance with the requirements of NFPA 31 and all other rules of the Board **BEFORE** the furnace, direct-fired hot water heater, or boiler is fired. Prior to leaving the installation (whether installed inside or outside any structure) unattended, the licensed oil burner technician must observe, inspect, and test the equipment to ensure that the installation is operating safely and properly and meets all applicable rules of the Board.

11.5.2 Wiring Compliance Required Prior to Firing

Whenever a new burner is installed, the wiring must be brought into compliance with the requirements of Board's rules before the unit is fired. The wiring update must include the following:

1. Properly rated fuse or breaker;
2. Properly rated wiring;
3. Properly installed and located emergency switch;
4. Properly installed and located thermal electric switch;
5. Properly installed and located service switch; and
6. Properly installed and located low water cut-off.

11.5.3 **Combustion Efficiency Test Required**

When performing an installation, a combustion efficiency test must be conducted and a copy of the test results must be posted on-site.

11.5.4 **Water Connections to Waste Oil Boilers**

11.5.4.1 **Hot and Cold Water Piping**

A master or journeyman oil burner technician may connect hot and cold water piping from a waste oil boiler to existing piping only in the same room where the installation is taking place. Such connections may not be made beyond any existing branch connection supplying water, in accordance with Title 32, Section 3302.

11.5.4.2 **State Plumbing Rules**

All piping and safety controls on domestic water heaters, domestic water connections to boilers and water heaters as well as condensate disposal from oil fired condensing appliances must be made in accordance with the currently adopted rules of the Plumbers' Examining Board as established by Title 5, Section 12004-A, subsection 32 of the Maine Revised Statutes.

11.6 Low Water Control for Used Oil Fired Boilers

11.6.1 **Low-Water Control Required**

All used oil-fired boilers must be provided with a properly installed and operating low-water cut-off.

11.6.2 **Location**

The low water cut-off may be installed in, or attached to, the boiler at the level recommended by the boiler manufacturer, but in no case shall the low water cut-off be installed below the crown sheet. The low water cut-off, when not installed directly in the boiler, may be installed either in the main supply line (vertical riser) as close to the boiler as possible, or in a water column of continuous piping attached directly to the boiler.

11.6.3 **Appropriate Design**

The low water cut-off must be designed and approved for the medium used (steam or water).

11.6.4 **No Obstructions**

No valves or other obstructive devices shall be installed between the boiler and safety controls or devices.

11.7 Piping, Pumps and Valves

11.7.1 Supply Connections

11.7.1.1 A listed lever or wheel, thermally-operated oil shut-off valve designed to shut off the oil supply in case of fire, must be installed at the burner and at the oil supply tank.

11.7.1.1.1 When outside tanks are used, a thermally operated shut-off valve must be installed where the supply line enters (inside) the building.

11.7.1.1.2 When inside tanks are used and the oil supply tank is installed in a separate room, a thermally operated shut-off valve shall be installed where the line enters the room where the appliance is located.

11.7.1.2 Whenever the oil supply is taken from the top of an oil tank, whether the oil tanks are outside or inside, a thermally operated wheel or lever type shut-off valve must be installed at the tank and at the burner for control of the fuel. A check valve may be used in the supply line, but no valve or obstruction shall be placed in a return line connected to a burner or pump.

11.7.2 Thermally-Operated Valves

Thermally operated valves over ½ inch that are not currently listed may be installed upon receipt of written approval of a Board inspector. The written approval must be requested and received prior to installation.

11.8 Oil Supply and Return Piping

11.8.1 Underground Supply and Return Lines

Whenever a copper oil supply or return line is installed under cement, sub-floors, or earth surface, it must be continuous from the burner to the tank without any splices.

11.8.2 Conduit Required

All copper oil supply and return lines must be encased in a continuous piece of non-metallic liquid-tight conduit such as PVC, ENT, coated copper tubing, or other approved material and must be secured in order to prevent physical damage. The end of the conduit shall not exceed more than two (2) inches from any fitting, except the connection at the fuel tank and at the fuel pump located at the burner shall not exceed 6 inches.

In order to avoid undetected oil leaks under floors, the conduit must be a minimum of one pipe size larger than the oil supply and return lines. The ends of the conduit must penetrate the cement or earth surface a minimum of two (2) inches above grade.

An oil supply or return line that penetrates a foundation wall must be sealed at the wall to prevent the entry of water, insects or rodents.

11.8.3 **OSV Valve or PRV Valve Required: Tanks Higher Than Burner**

Coated copper tubing must have an OSV valve or PRV valve installed at the tank when used underground.

11.8.4 **OSV Valve or PRV Valve Required: Outlets**

Wherever an outlet of an oil supply tank is located more than four (4) feet above the burner, an OSV valve or PRV valve is required.

11.8.5 **Non-Concealment of Oil Lines**

No oil supply or return line shall be concealed in a wall, ceiling, or partition unless access to the oil supply or return line can be had without cutting through existing walls, ceilings or partitions. This may be accomplished by providing removable panels.

11.8.6 **Bracket Required**

When an oil filter or other accessory equipment is connected to copper piping smaller than ¾ inches and is not located within the vicinity of the oil supply or burner connections, the filter or other devices must be rigidly supported by a wall- or floor-mounted bracket or other means that provides sufficient support and stability for servicing this type of accessory equipment.

11.8.7 **Flare Fittings Required**

All oil supply and return lines of copper tubing must be connected by flare fittings only. All fittings must be accessible for service or replacement. No compression fittings shall be used on a supply or return oil line unless it is for the introduction of the lines at the top of the tank with a single or double tap bushing.

11.8.8 **Flare Frost Fittings Required Outside**

All connections of supply or return oil lines located outside shall be made with flare frost fittings.

11.8.9 **Disconnected Lines**

No oil lines or oil devices which are disconnected from an oil supply tank, burner or unit, shall be left open. Any oil line or oil device which is disconnected or discontinued must be sealed or closed with a plug, cap or other approved fitting.

11.8.10 **Removal of Unprotected Supply Lines**

Unprotected supply lines that are buried and grouted must be removed from service.

11.8.11 **Underground Piping: Tanks Over 660 Gallons**

As set forth in the Appendix to Chapter 8 of Board rules, if underground or under-slab piping is connected to a tank of over 660 gallons capacity, or to tanks with an aggregate capacity of over 1320 gallons, the installation of the underground piping must be installed by a certified underground oil tank installer and otherwise meet Maine Department of Environmental Protection requirements.

11.8.12 **Reporting of Oil Spills Required**

Oil spills, regardless of the amount spilled, must be reported within two (2) hours to the Maine Department of Environmental Protection in accordance with the Appendix to Chapter 8 of Board rules.

11.9 Electrical Equipment, Required Control Switches

11.9.1 **Thermal Cut-Off Switch**

A thermal cut-off switch must be wired into the burner circuit to shut off the burner in the event of a fire at the unit. The switch must be placed at the highest point directly above the unit to be fired with the thermal element pointed downwards and must be placed on the bottom of the floor joist or stringer at the front of the unit. In no case shall it be lower than the point where the flue connector enters the chimney. The switch must be wired to shut off the burner, circulating fan, forced or induced draft fan and any remote oil pump that is not an integral part of the burner. A thermal electric switch is required for each oil-fired unit in a multi-appliance installation.

11.9.1.1 On multi-unit installations, the emergency and thermal electrical switches must be wired in series through individual unit relays so that, if one switch is opened, all equipment will be rendered inoperable whenever the "EMERGENCY" switch is opened.

11.9.1.2 All remote pump sets must have a thermal cut-out switch installed as follows:

1. Maximum of three (3) feet above pump set;

2. The element must be pointed downwards; and

3. The switch must be supported in accordance with NFPA 70.

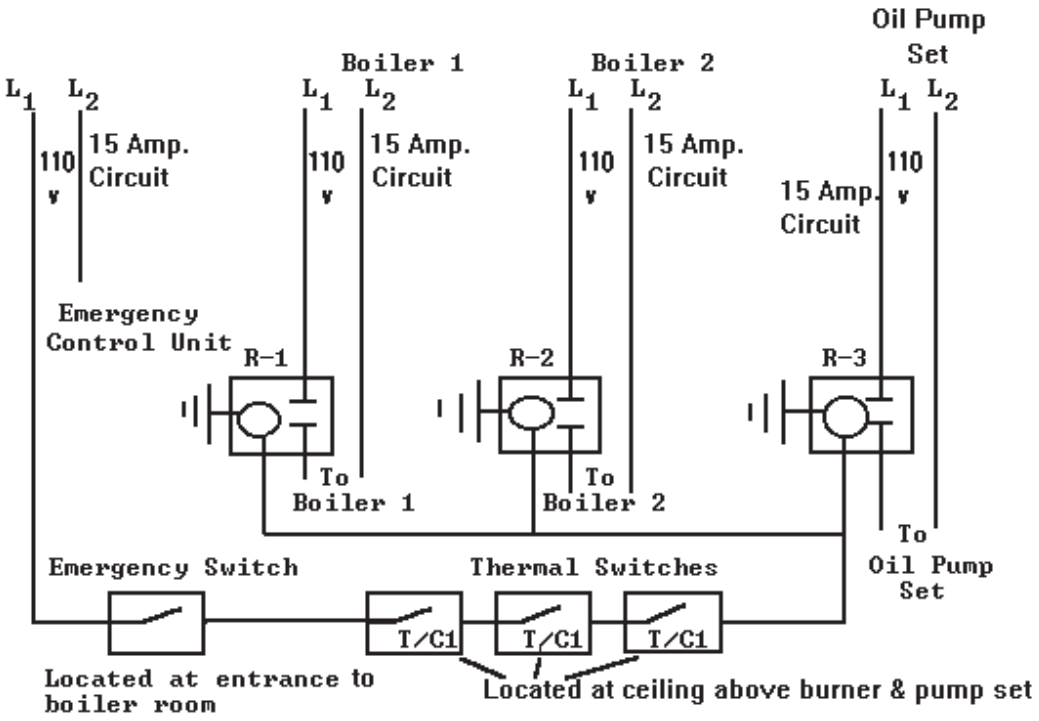

Figure 11-1 For use on commercial and industrial equipment only. This requirement shall not apply to one and two family residences.

11.9.2 **Service Switch**

A service disconnect switch for control of the burner while observing the flame must be placed at the unit within arm's reach of the technician.

11.9.3 **Emergency Switch**

11.9.3.1 If the entrance to the boiler room is only accessible from the outside, the emergency switch may be placed at the inside not more than one foot beyond the door opening. An emergency switch shall not be placed outside of any building.

11.9.3.2 On commercial and industrial equipment, the emergency switch must be installed in accordance with Figure 11-1 on multi-unit installations. The requirements of Section 11.9.1.1 do not apply to one- or two-family residences.

11.9.3.3 On multi-unit installations, the emergency shut-off switch must be placed at the outside entrance of the room containing the appliances. The emergency switches and the thermal cut-off switches must be wired in series through individual unit relays so that, if the emergency switch is opened, all heating equipment in the room and the remote pump set will be rendered inoperable. This application also applies if there are two or more appliance rooms in the same building that are connected to a common fuel supply system.

11.9.4 Controls Containing Mercury

Thermostats containing mercury must be disposed of in accordance with all federal and state regulations. (Refer to 38 M.R.S. § 1663 and check with your local supplier.)

11.10 Safety and Pressure Relief Valves

11.10.1 Approved Safety or Pressure Relief Valve Required

Steam and hot water boilers must be equipped with listed or approved steam safety or pressure relief valves that conform to ASME requirements. A shut-off valve shall not be placed between the relief valve and the boiler or on discharge pipes between such valves and the atmosphere.

11.10.2 Termination

11.10.2.1 All steam safety or pressure relief valves must terminate in a manner which precludes the possibility of accidental scalding in accordance with ASME.

11.10.2.2 Steam safety relief valves over two (2) inches in diameter must terminate outside of the structure in a safe location.

11.10.2.3 Steam safety or pressure relief valves which terminate in the structure must terminate six (6) inches to twelve (12) inches above the floor.

11.10.3 Installation in Upright Vertical Position Required

Steam safety and pressure relief valves on boilers must be installed with the spindle in the upright vertical position.

11.11 Water and Steam Boiler Pipe Supports

11.11.1 General

Piping must be supported with pipe hooks, metal pipe straps, bands, brackets, or hangers suitable for the size of the piping and must be of adequate strength and quality and located at intervals so as to prevent or damp out excessive vibration.

11.11.2 Spacing

Spacing of supports shall not be greater than shown in Table 11-1.

11.11.3 Allowance for Expansion and Contraction

Supports, hangers, and anchors must be installed so as to not interfere with the free expansion and contraction of the piping between anchors. All parts of the supporting equipment must be designed and installed so that they will not be disengaged by movement of the supporting piping.

Table 11-1
Support of Piping

Steel Pipe, Nominal Size of Pipe (Inches)	Spacing of Supports (Feet)		Nominal Size of Tubing (Inch O.D.)	Spacing of Supports (Feet)
1/2	6		1/2	4
3/4 or 1	8		5/8 or 3/4	6
1 1/4 or larger (horizontal)	10		7/8 or 1	8
1 1/4 or larger (vertical)	every floor level			

11.12 PEX Tubing

All PEX tubing and fittings used in heating systems must be listed by the manufacturer for use on heating systems and be manufactured with an oxygen barrier.

11.13 Emergency Temporary Repair of Warm Air Heat Exchangers

Emergency temporary repairs of warm air heat exchangers in waste oil burning appliances are allowed if the safety limitations of the repairs are explained in writing to the owner at the time of the repair.

11.14 Welding of Non-Residential Warm Air Heat Exchangers

11.14.1 General

11.14.1 Welding of non-residential warm air heat exchangers is permissible only as set forth in this Section (11.14).

11.14.2 Welding of residential warm air heat exchangers is not permissible under any circumstances.

11.14.2 Consultation With Manufacturer Required

The manufacturer must be consulted to determine whether the welding of a heat exchanger is sound engineering practice. The manufacturer must provide a written statement as to the feasibility of its heat exchanger being welded. If the heat exchanger is no longer in production, a master licensee must make a written request to the Board and obtain written approval from the Board before the repair is undertaken.

11.14.3 Master Licensee to Oversee Welding Repair

The repair of a heat exchanger by welding must be performed by a welder in a procedure suitable for the material. A master licensee must oversee such repairs. The

master licensee must receive guidance from the welder as to the feasibility and acceptability of performing the welding procedure of the metals prior to the repair of any heat exchanger. After completion of said repairs or welding, the master licensee must obtain a written statement from the welder documenting that the heat exchanger has been welded, tested and is acceptable for use without leakage of after-products.

11.14.4 **Documentation of Repair to be Provided to Owner**

Written documentation of said repairs or welding must be provided to the owner. The original documentation must be kept on file by the master licensee who requested the welding. A copy of all the repair documents containing, at a minimum, the following information must be sent to the Board:

1. The name of the owner and location where the repairs were completed;

2. The name and address of the welder;

3. Specific area(s) or location(s) where the repair(s) or welding was performed;

4. Written approval of the repair from the manufacturer where applicable;

5. Equipment identification information, i.e., name, model number, serial number and gross Btu rating; and

6. The name, address, and license number of the master licensee who requested the repair.

11.14.5 **Limitation**

Welding repair of a heat exchanger may be performed only once. A subsequent welding repair may not be made to a heat exchanger unless a master licensee makes written request to the Board and obtains written approval from the Board before the repair is undertaken.

11.15 Type of Fuel

11.15.1 **Permissible Fuels**

Waste oil fuel tank(s) may contain: 1 and 2 fuel oils; crankcase oil up to 50 SAE; automatic transmission fluid; and hydraulic oils; and specified refined waste fuels only.

11.15.2 **Prohibited Fuels**

Other types of liquids such as anti-freeze, cleaners, thinners, solvents, gasoline or additives, and any other types of hazardous materials shall not be introduced into a waste oil supply tank.

11.16 Used Underground Oil Tanks

Abandoned underground oil storage tanks shall not be used for aboveground storage of oil unless such use has been approved by:

1. The Maine State Fire Marshal; or

2. A Maine licensed professional engineer, or other person meeting the requirements of the statutes and rules governing professional engineers practicing in Maine, certifies that the tank meets all applicable specifications and requirements of NFPA 31.

11.17 Oil Supply Tank Arrangement

11.17.1 Code Compliance Required

Except as set forth in Section 11.17.2, all tanks serving a waste oil appliance must conform to NFPA 31 and this Chapter.

11.17.2 Exception

A waste oil supply tank of 660 gallons, or two tanks of aggregate capacity, supplying a Waste Oil Appliance must be installed with a receptacle or funnel used specifically for introducing waste oils into a specifically marked waste oil supply tank when the tank and accessories have a 2-inch diameter (nominal inside diameter) iron pipe vent to the outside of the building or structure.

11.17.3 Arrangement of Waste Oil Tank Recovery Receptacle

The arrangement of the waste oil tank recovery receptacle must comply with the following:

11.17.3.1 The recovered waste oil must be introduced into the supply tank manually through a valved recovery pan or funnel for waste oils only and must be located at the top of the tank. See Figure 11-2. The receptacle to receive the oils may be installed as follows:

1. Install a close x 2-inch threaded (NPT) metal nipple in the oil supply tank's 2-inch access opening;

2. Install the receptacle (funnel, pan, catch basin, etc.) at the top of the valve; and

3. Install a gauge in the other available access opening of the tank.

11.17.3.2 Spillage by individuals pouring recovered waste oil from a pan, catch basin, or other type of recovery container, must be minimized by metal steps, corresponding to the height of the tank, so that an individual does not have to reach beyond his or her shoulder level while transferring the fuel from the recovery container to the oil supply receptacle. Steps provided must be a minimum of three feet (3) wide, with a tread height of not more than eight (8) inches. Ladders are not an acceptable alternative.

11.17.3.3 Any spillage must be cleaned up immediately and reported to the Maine Department of Environmental Protection.

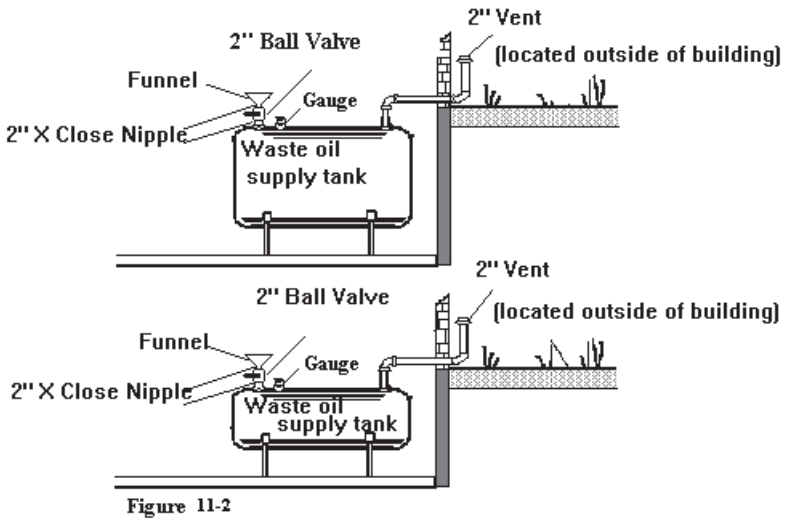

Figure 11-2

Note: The fill pipe can have a tee, a nipple, a manual ball valve and funnel. The funnel shall be constucted and placed so as not to restrict ball valve closure and transfer of oil without spillage. The vavle shall not be left open. It is the owner's responsibility to ensure the outsidefill is ready for delivery.

11.17.4 Optional Tank Arrangement

As an option to the tank arrangement in Section 11.17.3 and Figure 11-2, the tank arrangement may be supplied with a funnel and a fill and vent pipe extending to the outside, provided that the fill point is identified by a metal placard attached to the building stating: “Waste oil tank, check for inside valve closure prior to filling.” See Figure 11-3.

11.18.4.1 The waste oil supply tank in Figure 11-3 must be provided with a combination oil gauge and vent alarm at the vent pipe due to the availability of only three (3) access openings in the tank. Waste oil tanks with four (4) access openings may use a separate gauge and vent alarm.

11.18.4.2 Spillage due to pouring recovered waste oil from a pan, catch basin, or other type of recovery container must be minimized by metal steps, corresponding to the height of the tank, so that an individual does not have to reach beyond his or her shoulder level while transferring the fuel from the recovery container to the oil supply receptacle. Steps provided must be a minimum of three (3) feet wide, with a tread height of not more than eight (8) inches. Ladders are not an acceptable alternative.

11.18.4.3 Any spillage must be cleaned up immediately and reported to the Maine Department of Environmental Protection.

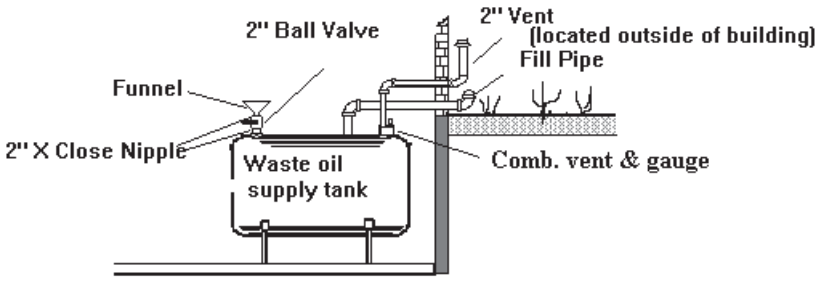

Figure 11-3
Note: Metal placard with 1" letters, must read "Waste Oil Tank. check for inside valve closure prior to filling."

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

CHAPTER 12 PERMITS FOR ABOVEGROUND AND UNDERGROUND PROPANE AND NATURAL GAS STORAGE FACILITIES AND ROOFTOP INSTALLATIONS

Summary: This Chapter sets forth requirements for permitting aboveground and underground propane and natural gas storage facilities and rooftop installations in Maine.

12.1 Installation

12.1.1 Aboveground and underground propane storage facilities

1. Installations of aboveground and underground propane storage facilities utilizing storage containers of over 2,000 gallon individual water capacity, or with aggregate water capacity exceeding 4,000 gallons, must be submitted to the Board for approval and permitting prior to installation.

2. Actuators on internal valves and emergency shut-off valves must not be operated with a flammable gas.

3. All facilities permitted under this section shall be enclosed with a minimum six (6) feet (1.8 m) high industrial type chain-link fence meeting clearance and egress requirements of NFPA 58. All piping, valves and pumps shall be within the enclosure.

4. In addition to the electrical shut-off switch that controls the pump used for liquid transfer, an identified and accessible emergency switch or circuit breaker shall be installed at a location not less than 25 ft or more than 100 ft, from the point of transfer at a bulk plant, to shut off the power in the event of a fire, an accident, or other emergency.

5.The emergency remote electrical shutoff shall be identified as such by a sign incorporating the words “Storage Facility” and “Emergency Electrical Shutoff” in block letters not less than two (2) inches in height on a background of contrasting color to the letters. The sign shall be visible from the point of transfer.

12.1.2 Aboveground and underground compressed natural gas and liquefied natural gas storage facilities.

The standards for installation as set forth in 12.1.1(1)-(5) apply to installations of aboveground and underground compressed natural gas and liquefied natural gas storage facilities utilizing storage containers of over 2,000 gallon individual water capacity, or with aggregate water capacity exceeding 4,000 gallons, and must be submitted to the Board for approval and permitting prior to installation.

12.1.3 Rooftop Propane Installations

Installations of rooftop propane containers must be installed in accordance with NFPA 58 and must be submitted to the Board for approval and permitting prior to installation.

12.1.3 **Rooftop Compressed Natural Gas Installations**

Installations of rooftop compressed natural gas containers must be installed in accordance with NFPA 55 and must be submitted to the Board for approval and permitting prior to installation.

12.1.4 **Rooftop Liquefied Natural Gas Installations**

Installations of rooftop liquefied natural gas containers must be installed in accordance with NFPA 59A and must be submitted to the Board for approval and permitting prior to installation.

12.2 Application Procedure

12.2.1 **Generally**

Application for a permit must be made on a form supplied by the Board. The application must be accompanied by detailed plans, including a cross-sectional view, front and side elevations, and plot plans, and the fee set forth in Chapter 10 of the rules of the Office of Professional and Occupational Regulation. A permit must be obtained prior to commencement of the installation or alteration.

12.2.2 **Change in Tank Capacity, Piping or Operation**

Any physical change that would increase the tank capacity or alter the piping or operation of the facility requires that a new application be filed, and a new permit be issued.

12.2.2.1 When any individual tank with a water capacity of 2,000 gallons or more is replaced, the following must be done:

1. If the facility has not been previously permitted, a new permit must be applied for and granted before the tank is replaced.

2. If the facility has been permitted, the Board must be informed in writing at least fifteen (15) days before the tank is replaced.

12.3 Inspection Required Prior to Placing in Operation

When the installation or alteration is completed, the person making the installation or alteration must notify the Board prior to placing into operation. A Board inspector shall inspect the installation within a reasonable time so as not to cause undue delay in the progress of the construction contract or installation. The inspector shall determine whether the installation complies with all applicable statutes and rules. If the inspector determines that the installation does not comply, the facility must not be placed into operation and the procedures set forth in 32 M.R.S. § 18110 apply.

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

CHAPTER 13 INSTALLATION OF PROPANE AND NATURAL GAS BURNING EQUIPMENT

Summary: This Chapter sets forth requirements for the installation of propane and natural gas burning equipment and describes the necessary safety controls, devices and standards for the reduction of fire hazards associated with propane- and natural gas-fired equipment used in residential, commercial, and industrial applications.

13.1 Workmanship

All work must be conducted, installed, and completed in a neat and professional manner reflecting a minimum level of competent workmanship.

13.2 Repair or Replacement

Repair of any system or replacement of parts may be made in the same manner as it was in the existing system provided that such repair or replacement is not hazardous. All material, equipment and devices must be constructed and installed in accordance with their specific purposes and listings.

13.3 Maintenance

13.3.1 General

All gas burning equipment and systems, both new and existing, and parts thereof must be maintained in a safe condition.

13.3.2 Notification to Property Owner of Code Violations

When performing any service on a customer's gas system, the licensee must notify the property owner in writing of any code violations and make recommendations to address them.

13.3.3 Combustion Efficiency Test Required

When performing an annual tune-up on a gas-fired central heating system, a combustion efficiency test must be conducted and a copy of the test results must be posted on-site.

13.4 Installations

13.4.1 Code Compliance Required Prior to Firing

13.4.1.1 Whenever a propane or natural gas appliance and/or system is installed, the total installation must be brought into compliance with the requirements of NFPA 54, NFPA 58 and all other rules of the Board **BEFORE** the furnace, direct-fired water heater, or boiler is

fired. Prior to leaving the installation (whether installed inside or outside any structure) unsupervised, the licensed propane and natural gas technician must observe, inspect, and test the equipment to ensure that the installation is operating safely and properly and meets all applicable rules of the Board.

13.4.1.2 Installations of propane and natural gas appliances and/or systems must also comply with all other applicable statutes or rules of the State and all applicable ordinances, orders, rules, and regulations of local municipalities.

13.4.2 **Gas Piping Identification**

Gas piping systems installed with ½ inch ID or larger pipe, excluding CSST, shall be permanently identified by utilizing one of the following methods:

13.4.2.1 With a sticker having a yellow background with black lettering identifying the pipe as containing "flammable gas." When used, stickers shall be placed at least every eight (8) feet along the length of the piping branch, not less than once per room and must be visible from floor level; or

13.4.2.2 A continuous stripe of yellow paint or manufacturer provided yellow covering may be utilized. The paint or covering must be continuous along the entire length of piping and must be visible from floor level.

13.4.3 **Water Connections to Boilers and Water Heaters**

13.4.3.1 **Hot and Cold Water Piping**

A propane and natural gas technician with the appliance connection and service authority may connect hot and cold water piping from a boiler or gas fired water heater to existing piping only in the same room where the installation is taking place. Such connections may not be made beyond any existing branch connection supplying water, in accordance with Maine Revised Statutes, Title 32, Section 3302.

13.4.3.2 **State Plumbing Rules**

All piping and safety controls on domestic water heaters, domestic water connections to boilers and water heaters, and condensate disposal from condensing gas fired appliances must be made in accordance with the rules of the Plumbers' Examining Board as established by Title 5, section 12004-A, subsection 32 of the Maine Revised Statutes.

13.4.4 **Condensate from Fuel Fired Appliances**

1. An approved neutralizer shall be installed in the condensate drain system of all fuel fired condensing appliances, so the condensate is rendered innocuous.

2. Condensate from fuel fired appliances shall be drained into an existing open receptor through an air gap that is connected to a sanitary drainage system in accordance with the rules of the Maine Plumbers' Examining Board as established by Title 5, section 12004-A, subsection 32 of the Maine Revised Statutes.

3. If there is no existing open receptor, connection to a sanitary drainage system must be done by a Maine licensed master or journeyman plumber utilizing a permit in accordance with the rules of the Maine Plumbers' Examining Board, as established by Title 5, section 12004-A, subsection 32 of the Maine Revised Statutes.

4. Condensate shall not be disposed of by routing through a floor and into a perimeter drain system or underneath a slab.

5. When the installation requires a condensate pump, the condensate pump must be installed in accordance with the manufacturer's instructions. The condensate pump discharge shall rise vertically to a point where it is possible to discharge to an open receptor connected to the sanitary drainage system.

6. Where an installation requires a condensate pump, the condensate pump must be interlocked with the appliance to prevent to appliance from operating during a condensate pump failure.

7. Each fuel fired condensing appliance requiring a condensate pump shall be provided with its own individual condensate pump.

13.4.5 **Additional Requirements**

When an appliance other than a furnace, direct-fired water heater, or boiler is installed, the following must be done:

1. The entire gas piping system must be brought into compliance with the requirements of NFPA 54 and all other rules of the Board;

2. All appliances which are designed to be vented, including existing appliances, must be vented in accordance with NFPA 54; and

3. Any existing code violations must be reported to the owner in writing, a copy of which must be retained by the installer such that it may be produced for inspection upon request of a Board inspector.

13.4.6 **Vented Central Heating Appliance - Efficiency Test**

When installing a vented central heating appliance, the installer must conduct a combustion efficiency test, unless prohibited by the manufacturer, and must post a copy of the test results on-site.

13.4.7 **Unvented Heaters in Bedrooms or Bathrooms or HUD-Code Homes**

13.4.7.1 The use of unvented heaters in bedrooms and bathrooms is prohibited.

13.4.7.2 The use of unvented heaters, in HUD-Code homes (Manufactured Housing) as defined in Maine Revised Statutes, Title 10, Section 9002(7)(A), is prohibited.

13.5 Low Water Control for Boilers

13.5.1 **Low Water Control Required**

All gas-fired boilers must be provided with a properly installed and operating low water cut-off.

13.5.2 **Location**

The low water cut-off may be installed in or attached to the boiler at the level recommended by the boiler manufacturer, but in no case shall the low water cut-off be installed below the crown sheet. The low water cut-off, when not installed directly in the boiler, may be installed either in the main supply line (vertical riser) as close to the boiler as possible or in a water column of continuous piping attached directly to the boiler.

13.5.3 **Appropriate Design**

The low water cut-off must be designed and approved for the medium used (steam or water).

13.5.4 **No Obstructions**

No valves or other obstructive devices shall be installed between the boiler and safety controls.

13.5.5 **Acceptable Manufacturer's Alternatives**

13.5.5.1 Installations meeting the low water cut off requirements of NFPA 54 shall be accepted as meeting the provisions of this Section.

13.5.5.2 A pressure switch installed by the manufacturer and specified by the manufacturer as low-water protection shall be accepted as meeting the low water cut off requirements of NFPA 54.

13.6 Heat Loss Requirement

13.6.1 **New Installations of Central Heating Systems**

Heat loss system design and system load calculations for all new installations of a central heating system must be performed prior to installation. The licensee must retain a copy of the heat loss system design and system load calculations such that it may be produced for inspection upon request of a Board inspector.

13.6.2 **Replacement of Central Heating Systems**

A heat loss and/or load calculation must be conducted before replacement of a central heating system. The licensee must retain a copy of the heat loss system design or system load calculations, or the stamped plans of an engineered system, such that they may be produced for inspection upon request of a Board inspector.

13.7 Conversion Burners

13.7.1 400,000 btu or less

When converting to propane or natural gas from another fuel source of which the input of the burner is 400,000 btu or less, the following requirements must be met:

1. The conversion burner must be a listed conversion burner.

2. The installer must obtain written verification from the manufacturer of the appliance to be converted or the burner manufacturer that the appliance is capable of being used with gas as a fuel source.

3. The burner selection criteria included in ANSI Z21.8, and the appliance and/or burner manufacturer's combustion setup instructions must be used.

4. If the appliance being converted is designed to operate with a positive chamber pressure, the appliance manufacturer or the conversion burner manufacturer must provide installation and setup instructions specific to the appliance being converted.

5. The installation must conform to NFPA 54 and ANSI Z21.8, as incorporated by reference into NFPA 54.

13.7.2 Greater than 400,000 btu

When converting to propane and natural gas from another fuel source of which the input of the burner is over 400,000 btu, the burner must be listed by Underwriters' Laboratory or by an independent nationally recognized testing laboratory and the following requirements must be met:

1. The installer must obtain written verification from the manufacturer of the appliance to be converted or the burner manufacturer that the appliance is capable of being used with gas as a fuel.

2. The burner must be selected for use in the make and model of appliance in which it is intended to be installed and must meet one of the following conditions:

   A. The burner manufacturer must provide written documentation that the burner has been approved by the burner manufacturer for use in the appliance intended to be converted;

   B. The burner has been tested by an independent testing laboratory in the make and model of appliance in which it is intended to be installed and has been certified for use in such appliance by the nationally recognized independent testing laboratory;

   C. The burner has been tested by the appliance manufacturer in the make and model appliance in which it is intended to be installed and has been approved for use in such appliance by the appliance manufacturer.

   Cannot be used before the appliance and/or burner manufacturer provides installation and combustion set-up instructions for the appliance being converted.

3. The installation must conform to the requirements of NFPA 54 and NFPA 211 for the installation of a gas appliance.

13.7.3 **Oil Tank Requirements Upon Conversion to an Alternative Fuel**

The requirements of this Section must be performed by a master or journeyman oil burner technician.

If an oil burning appliance is replaced with a gas fired appliance, the fuel oil tank and burner supply piping must be removed from the premises in accordance with NFPA 31.

If an oil burning appliance is converted to an alternative fuel, but the tank is left in place so that it can be returned to service at some future date, all of the following requirements must be met before the alternative fuel is used:

13.7.3.1 The vent piping must remain intact and open to the outside of the building;

13.7.3.2 The fill pipe must be removed completely and the tank must be plugged with a threaded malleable iron plug;

13.7.3.3 The burner supply line must be removed and the valves on both the tank and burner must be capped or plugged; and

13.7.3.4 If an underground oil supply line is in use and complies with Section 8.9 of Chapter 8 of Board Rules, it may remain in place provided that all of the following conditions are met:

1. The oil line is emptied of its contents;

2. The oil line is disconnected from the oil tank and burner; and

3. The oil line is plugged on both ends in addition to the burner and tank fittings being plugged.

Oil can remain in the tank unless prohibited by the local authority having jurisdiction or the Maine Department of Environment Protection.

13.8 Electrical Wiring and Equipment

13.8.1 **Code Compliance; General Requirements**

The following requirements must be met with respect to the electrical wiring and equipment used in connection with propane or natural gas burning equipment:

1. The electrical wiring and equipment used must be installed in accordance with NFPA 70;

2. Safety control circuits must be two-wire, one side grounded, having a nominal voltage not exceeding 150 Volts. A safety control or protective device must be connected so as to interrupt the ungrounded conductor; and

3. The control circuit must be connected to a power supply branch circuit fused at not more than the value appropriate for the rating of any control or device included in the circuit.

4. Whenever a furnace, direct-fired hot water heater, or boiler is installed, each unit must have its own dedicated electrical circuit.

13.8.2 **Emergency Switch**

13.8.2.1 For central heating equipment and water heating appliances where the interruption of an electrical circuit will arrest the combustion process, an identified emergency shutdown switch must be placed outside of and adjacent to the entrance of the room where the appliance is located.

13.8.2.2 An emergency switch shall not be placed outside of any building.

13.8.2.3 If the entrance to the boiler room is only accessible from the outside, the emergency switch may be placed at the inside not more than one foot beyond the door opening.

13.8.2.4 On multi-unit installations of commercial and industrial equipment, the emergency switch must be installed in accordance with Figure 13-1.

13.8.2.5 On multi-unit installations, in other than one- and two-family residences, the emergency shut-off switch must be placed at the outside entrance of the room containing the appliances. The emergency switch must be wired so that, if the emergency switch is opened, all central heating equipment and water heating appliances (within that room) where the interruption of an electrical circuit will arrest the combustion process will be rendered inoperable. Where there are other (new or existing) multi-unit appliance rooms in the same building, those rooms must also be made compliant with this requirement.

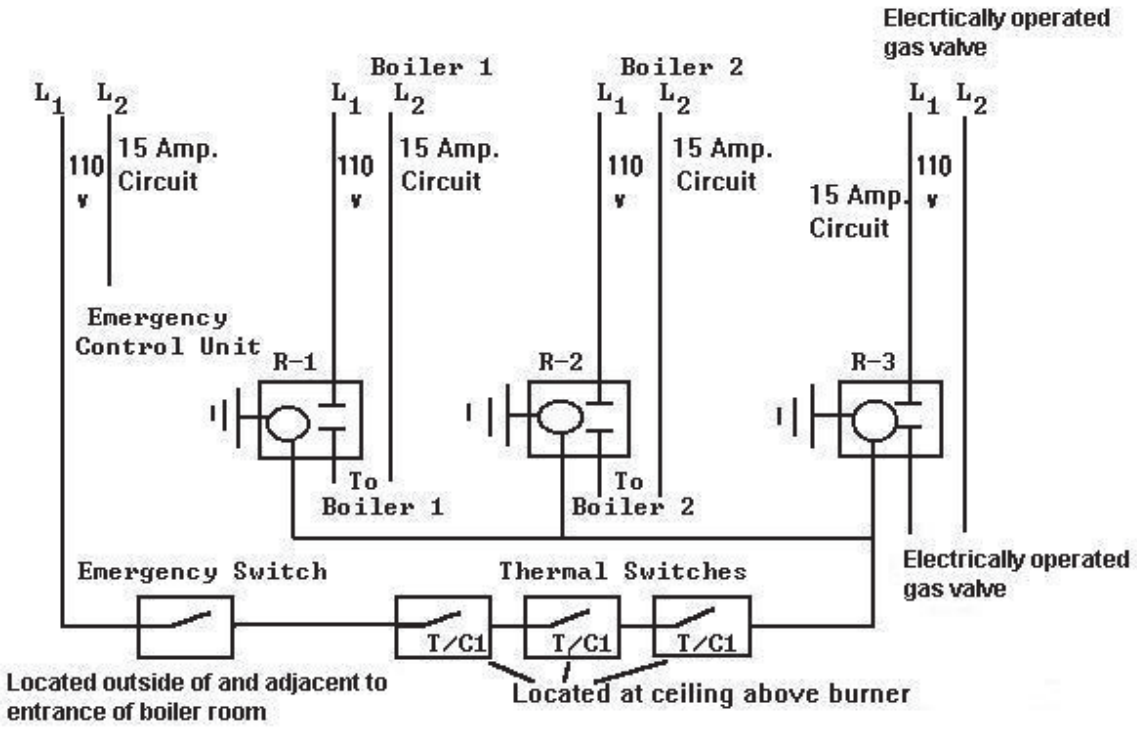

Figure 13-1 For use on commercial and industrial equipment only. This requirement shall not apply to one and two family residences.

13.8.3 **Service Switch**

For central heating equipment and water heating appliances where the interruption of an electrical circuit will arrest the combustion process, a service disconnect switch for control of the burner while observing the flame must be placed at the unit, within three (3) feet of the burner.

13.8.4 **Thermal Cut-Off Switches**

13.8.4.1 For central heating equipment and water heating appliances where the interruption of an electrical circuit will arrest the combustion process, a thermal cut-off switch must be wired into the burner circuit to shut off the burner in the event of a fire at the unit. The switch must be placed at the highest point directly above the unit to be fired with the thermal element pointed downwards, and must be placed on the bottom of the floor joist or stringer at the front of the unit. In no case shall it be lower than the point where the flue connector enters the chimney. The switch must be wired to shut off the burner, circulating fan, forced or induced draft fan and any electrically-operated gas valves. A thermal electric switch is required for each electrically-powered gas-fired unit in a multi-appliance installation.

13.8.4.2 On multi-unit installations other than one- and two-family residences the thermal electrical switches must be wired in series through individual unit relays so that, if one switch is opened, all equipment will be rendered inoperable.

13.8.5 **Controls Containing Mercury**

Thermostats containing mercury must be disposed of according to all federal and state regulations. (Refer to 38 M.R.S. § 1663 and check with your local supplier.)

13.9 Steam Boilers

Steam boilers must be installed according to manufacturer's instructions.

13.10 Safety and Pressure Relief Valves

13.10.1 **Approved Safety or Pressure Relief Valve Required**

Steam and hot water boilers must be equipped with listed or approved steam safety or pressure relief valves that conform to ASME requirements. A shut-off valve shall not be placed between the relief valve and the boiler or on discharge pipes between such valves and the atmosphere.

13.10.2 **Termination**

13.10.2.1 All steam safety or pressure relief valves must terminate in a manner which precludes the possibility of accidental scalding in accordance with ASME.

13.10.2.2 Steam safety relief valves over two (2) inches in diameter must terminate outside of the structure in a safe location.

13.10.2.3 Steam safety or pressure relief valves which terminate in the structure must terminate six (6) inches to twelve (12) inches above the floor.

13.10.3 **Installation in Upright Vertical Position**

Steam safety and pressure relief valves on boilers must be installed with the spindle in the upright vertical position.

13.11 Water and Steam Boiler Pipe Supports

13.11.1 **Generally**

Piping must be supported with pipe hooks, metal pipe straps, bands, brackets or hangers suitable for the size of the piping and must be of adequate strength and quality and located at intervals so as to prevent or damp out excessive vibration.

13.11.2 **Spacing**

Spacing of supports shall not be greater than as shown in Table 13-1.

13.11.3 **Allowance for Expansion and Contraction**

Supports, hangers, and anchors must be installed so as to not interfere with the free expansion and contraction of the piping between anchors. All parts of the supporting equipment must be designed and installed so that they will not be disengaged by movement of the supporting piping.

Table 13-1
Support of Piping

Steel Pipe, Nominal Size of Pipe (Inches)	Spacing of Supports (Feet)		Nominal Size of Tubing (Inch O.D.)	Spacing of Supports (Feet)
½"	6'		½"	4'
¾" or 1"	8'		5/8" or ¾"	6'
1 ¼" or larger (horizontal)	10'		7/8" or 1"	8'
1 ¼" or larger (vertical)	every floor level			

13.12 PEX Tubing

All PEX tubing and fittings used in heating systems must be listed by the manufacturer for use on heating systems and be manufactured with an oxygen barrier.

STATUTORY AUTHORITY: 32 M.R.S. §18123(2)

EFFECTIVE DATE: September 16th, 2023

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

658 MAINE FUEL BOARD

Chapter 14 PROPANE AND NATURAL GAS CONTAINERS, DISPENSERS, AND PIPING

Summary: This Chapter describes the necessary safety controls, devices and standards for the reduction of fire hazards associated with propane and natural gas storage and transfer equipment (including piping) used in residential, commercial and industrial applications.

14.1 Underground Gas Piping

14.1.1 Electrically Insulating Fitting Required

When metallic piping is buried underground, an electrically insulating (dielectric) fitting must be installed before the entrance of the piping into the building. In no case shall the fitting be located after the connection of a bond wire for use with corrugated stainless steel tubing (CSST) or other piping material.

14.1.2 Limitation on Use of Flare Fittings

No flare fittings shall be located underground, unless specifically rated for such use and protected from corrosion in accordance with the manufacturer's instructions.

14.1.3 Protection of Metallic Piping from Corrosion

All underground metallic piping must be protected from corrosion. This may be accomplished by sleeving, using a PVC coated pipe material approved for direct burial, or by other corrosion prevention material listed for such use.

14.2 Liquefied Petroleum Gas, Liquefied Natural Gas and Compressed Natural Gas Containers – General Requirements

1. Any ASME container that does not have a data plate or has a plate that is not legible will be considered to be out of compliance and may not be filled**.**

2. Department of Transportation cylinders and ASME containers must rest on noncombustible materials unless listed for such purpose.

3. Any cylinder that does not have a legible manufacture date or retest date will be considered to be out of compliance and shall not be filled.

4. Portable motor fuel containers which are equipped for volumetric filling and meet the requirements of construction and inspection set forth in NFPA 58 may be filled by volume or weight.

5. For the purpose of container location, exhaust terminations of all residential clothes dryers shall be considered openings into the building and not ignition sources.

6. For the purpose of container location, all electrical meters and disconnects are considered ignition sources.

14.3 Identification of Tank Owner

All liquefied petroleum gas, liquefied natural gas and compressed natural gas containers installed at a consumer site must be identified as follows:

1. The name of the tank owner must be clearly marked in letters which are a minimum of one (1) inch high;

2. The 24-hour emergency contact number of the tank owner must be marked in numbers which are a minimum of one (1) inch high;

3. On tanks which are consumer-owned, the tank must be marked "Consumer Owned" in letters which are a minimum of one (1) inch high; and

4. Aboveground containers must be placed so that the identification information is visible to emergency responders.

14.4 Underground Tanks

14.4.1 Underground tanks must have the requirements of Section 14.3, subsections (1)-(3), clearly marked on the inside of the dome cover.

14.4.2 Underground containers must be installed such that the top of the attached dome is a minimum of six (6) inches above finished grade.

14.4.3 Existing underground tanks installed prior to 2015 must be tested for corrosion protection in accordance with the corrosion protection requirements of NFPA 58 including schedules for continuing testing.

14.5 Container Installation Under Decks or Other Structures

Cylinders and ASME containers of 125 gallons water capacity or less may be located and installed underneath a deck or other structure, provided all of the following conditions are met:

1. The space is completely open to the atmosphere for 50 percent of its perimeter or more;

2. There is a minimum of two (2) feet vertical clearance between the top of the tank and any part of the structure;

3. The maximum aggregate water capacity of such tanks is no more than 250 gallons; and

4. The container is not installed beneath a means of egress, as defined by the local Authority Having Jurisdiction.

14.6 Vehicle Protection Requirements for Tanks, Gas Piping and Associated Accessory Equipment

When vehicle protection at an existing installation has been compromised, it shall be replaced to meet current vehicle protection requirements as set forth in this Section and as summarized in the Appendix to this Chapter.

14.6.1 **Responsibility of Installer**

It is the responsibility of the licensee installing the tank(s)/outside piping to provide vehicle protection to the tank(s), outside piping or accessory equipment at time of installation.

14.6.2 **Responsibility of Delivery Technician**

It is the responsibility of the delivery technician to assure that all gas tanks and associated piping and accessory equipment are protected from vehicular damage prior to the introduction of gas to that system.

14.6.3 **Spacing**

14.5.3.1 There must be a maximum of thirty-six (36) inches of space between pieces or sections of vehicle protection.

14.5.3.2 Vehicle protection must be located a minimum of twenty-four (24) inches from containers.

14.6.4 **Guardrail**

Guardrail posts must be set in a minimum of thirty-six (36) inches below grade and extend a minimum of thirty-six (36) inches above finished grade.

14.6.5 **Bollards**

14.6.5.1 Bollards must be set a minimum of thirty-six (36) inches below grade in cement and must extend a minimum of thirty-six (36) inches above finished grade.

14.6.5.2 Bollards protecting vapor systems must be at least four (4) inches in diameter and filled with concrete.

14.6.5.3 Bollards protecting Bulk Plants, Dispensers, vaporizers and liquid piping must be at least six (6) inches in diameter and filled with concrete.

14.6.6 **Wooden Posts**

Wooden posts must consist of a minimum six (6) inch x six (6) inch pressure-treated material and must be set a minimum of thirty-six (36) inches below grade and extend at least thirty-six (36) inches above finished grade.

14.6.7 **Boulders**

Boulders at least thirty-six (36) inches in diameter (all directions) and meeting the spacing criteria of subsection 14.6.3 above may be used.

14.6.8 **Concrete Barriers and Blocks**

Concrete barriers and blocks at least thirty-six (36) inches high and meeting the spacing criteria of subsection 14.6.3 above may be used.

14.6.9 **Non-Standard Protection Systems**

Non-standard engineered vehicle protection systems must be reviewed and approved by the senior fuel inspector prior to being placed into service.

14.6.9.1 **Initial Review by Senior Fuel Inspector; Appeal to Board**

The senior fuel inspector may grant the application for non-standard vehicle protection in whole or in part or may deny the application. The senior fuel inspector's disposition of the application must be provided to the applicant in writing and must include written notice of the applicant's opportunity to appeal the disposition to the Board in writing within thirty (30) days of the applicant's receipt of the disposition. The appeal must include an explanation of the reason for the appeal and a statement of the relief sought by the applicant. An appeal is deemed to be made on the date of its receipt by the Board. Untimely appeals will not be considered.

14.6.10 **Plastic Barriers**

Plastic "Type K" barriers filled with sand which meet the height and space criteria of this Chapter may be used.

14.7 Propane or Natural Gas Dispensing Stations

All installations of dispensing stations must comply with the following requirements:

14.7.1 Propane dispensers must be installed in accordance with NFPA 58.

14.7.2 Liquified or compressed natural gas dispensers must be installed in accordance with NFPA 52.

14.7.3 Dispenser installations are required to have the electrician get an electrical permit, and the permit approved by an electrical inspector, before the license can be issued.

14.7.4 All propane or natural gas dispensing stations must have available to the operator a chart showing permissible filling capacities of containers

14.7.5 All propane or natural gas dispensing stations must post signs indicating no smoking allowed within twenty-five (25) feet. Such signs shall be visible from all directions of the dispenser.

14.7.6 Dispensing station actuators on internal valves and emergency shut-off valves must not be operated with a flammable gas.

14.7.7 All dispensing stations shall be enclosed with a minimum six (6) feet (1.8 m) high industrial type chain-link fence meeting clearance and egress requirements of NFPA 58. All piping, valves and pumps shall be within the enclosure.

14.7.8 All Propane dispensing stations must post signs indicating "no smoking allowed within 25'", "Propane" and the "UN1075" hazard placard. Such signs shall be visible from all directions of the dispenser.

14.7.9 All Natural Gas dispensing stations must post signs indicating “no smoking allowed within 25 feet”, “Natural Gas” and the “UN 1972” hazard placard. Such signs shall be visible from all directions of the dispenser.

14.7.10 When delivering propane to a dispensing station, the delivery technician must verify that the dispensing station has a valid license prior to completing the delivery. If the dispensing station is not licensed, the delivery shall not be completed until such time as the dispenser has been properly licensed.

14.7.11 **Dispenser Weather Shelters**

Where propane, compressed natural gas or liquefied natural gas dispensers are installed beneath a weather shelter to cover the working space while filling operation is in progress, the following requirements must be met:

(1) The weather shelter must be designed to prevent accumulation or entrapment of ignitable vapors and shall not be enclosed for more than 50% of its perimeter.

(2) All electrical equipment installed beneath the weather shelter or enclosure must be suitable for Class I, Division 1 hazardous (classified) locations.

(3) The weather shelter and supporting structure must be made from noncombustible materials.

(4) No portion of the container supplying gas to the dispenser may be located beneath the weather shelter.

14.8 Self-Service Dispensing Stations

All installations of self-service dispensers at dispensing stations must comply with the following requirements in addition to the requirements of 14.7:

14.8.1 **Operating Instructions**

Operating instructions must be conspicuously posted in the dispensing area.

14.8.2 **View of Operator**

The dispensing area must be in clear view of the operator on duty at all times.

14.8.3 **Communications**

The operator must be able to communicate with persons in the dispensing area at all times.

14.8.4 **Warning Signs**

Warning signs incorporating the following or equivalent wording must be conspicuously posted in the dispensing area:

1. “The filling of portable propane and natural gas containers is prohibited;”

2. "No Smoking;"

3. "Stop Motor and Extinguish All Pilots - Extinguish all pilots and gas ignition systems. All appliances must be in the 'off' position;" and

4. "Remove All Occupants from Vehicles Containing Propane Appliances."

14.8.5 **Emergency Breakaway Device**

The dispensing station must have an emergency breakaway device under the dispensing unit that will retain the product on both sides of the breakaway point, or other devices affording equivalent protection.

14.8.6 **Thermally Activated Shut-off**

The dispensing station must have a thermally operated shutoff designed to shut off all transfer operations in case of a fire.

14.8.7 **Listing**

Motor fuel dispensing devices for compressed natural gas, liquefied natural gas, and liquefied petroleum gas must be listed.

14.8.8 **Hose Assemblies**

Listed hose assemblies must be used to dispense fuel. Hose length at automotive service stations must not exceed eighteen (18) feet (5.5 meters).

14.8.9 **Code Compliance Required: LP, LNG, CNG Dispensers**

Dispensing devices for liquefied petroleum gas (LP), liquefied natural gas (LNG) or compressed natural gas (CNG) must meet all requirements of the appropriate Sections of NFPA 58 for LP, and NFPA 52 for LNG and CNG dispensers. When a LP, LNG or CNG dispenser is located at a facility where other fuels are dispensed, it also meet the requirements of NFPA 30A.

14.9 Cylinder Exchange Systems

14.9.1 **Vehicle Protection**

Vehicle protection shall be provided in accordance with 14.6 where any type of vehicle traffic is expected at the location of any cylinder exchange system.

14.9.2 **Location**

Cylinder exchange systems shall be located no less than ten (10) feet from any opening into a building.

Appendix

VEHICLE PROTECTION

BARRIERS:

Stone:	Minimum 36 inches high Maximum 3 feet between stones
Concrete Blocks:	Minimum 36 inches high Maximum 3 feet between blocks
Highway Barriers:	Minimum 32 inches high Maximum 3 feet between blocks

GUARD RAIL:

Standard Steel:	Minimum 36 inches high Minimum post depth 3 feet in ground Maximum 3 feet breaks between sections for access
Special Engineered:	Must be reviewed and approved by the Maine Fuel Board

STEEL BOLLARDS:	4 inch minimum diameter filled with concrete BULK PLANTS AND DISPENSERS -6 inch diameter filled with concrete Minimum 36 inches high Minimum 3 feet below grade in cement (all sizes) Maximum 3 feet between bollards
WOODEN POSTS:	Minimum 6 inch X 6 inch pressure treated Minimum 36 inches high Minimum 3 feet below grade in cement Maximum 3 feet between posts

STATUTORY AUTHORITY: 32 M.R.S. § 18123(2)

EFFECTIVE DATE: September 16th, 2023