Propane

Containers

Maine Laws & Rules

2014 Edition

Licensing

Tank Setter / Outside Pipe Technician

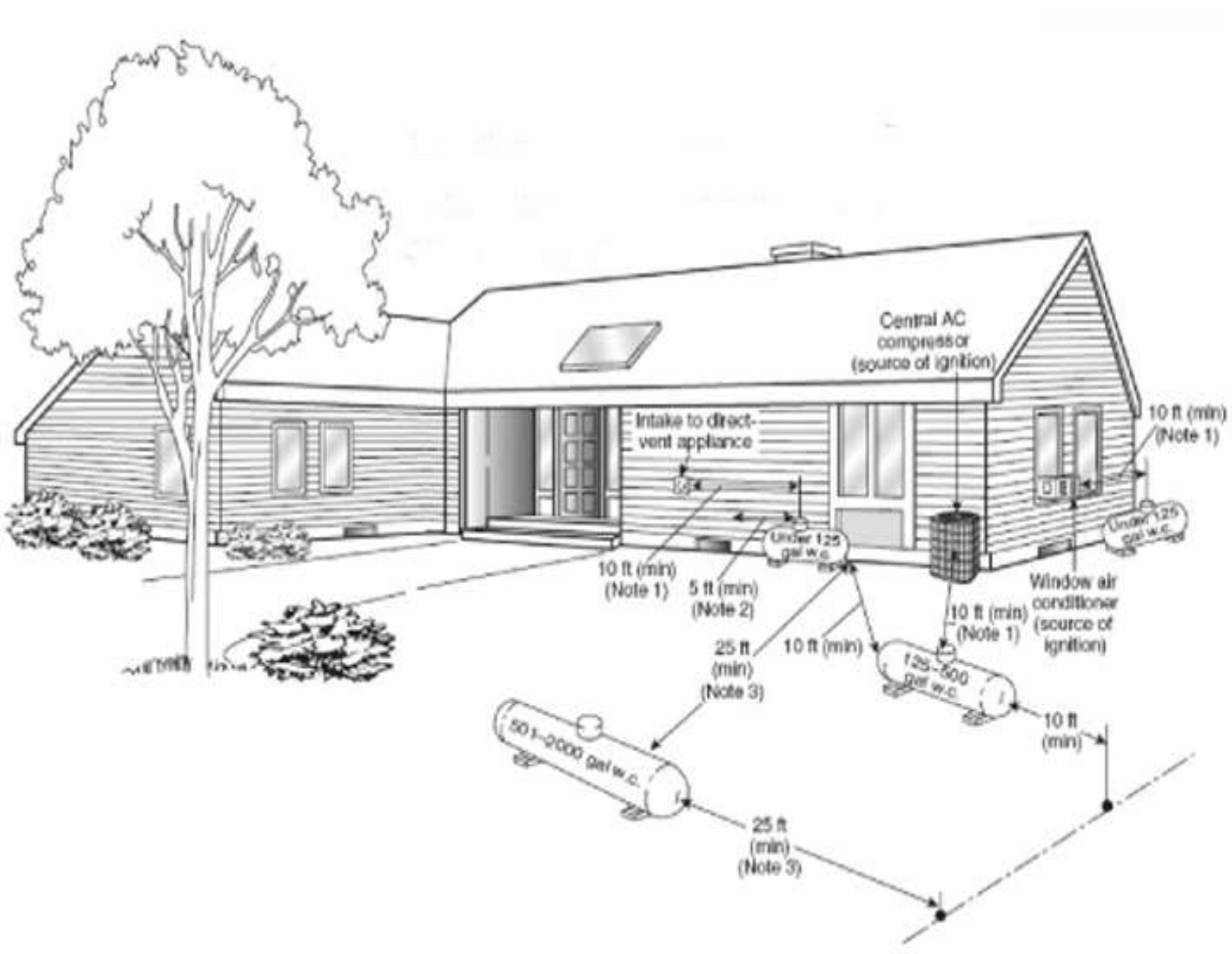
What can you do?

Tank Setter /OPT

You can…

Determine the correct location for a tank

Section 3.12


Central AC
compressor
(source of ignition)
Intake to direct-
vent appliance
10 ft (min)
(Note 1)
Under 125
gal w.c.
10 ft (min)
(Note 1)
5 ft (min)
(Note 2)
Window air
conditioner
(source of
ignition)
10 ft (min)
(Note 1)
25 ft
(min)
(Note 3)
10 ft (min)
125–500
gal w.c.
10 ft
(min)
501–2000 gal w.c.
25 ft
(min)
(Note 3)

Tank Setter /OPT

You can…

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

Section 3.12

Tank Setter /OPT

You can…

Install / repair piping and equipment between the tank and the outlet of the meter / 2nd stage regulator

Section 3.12

Tank Setter /OPT

You can…

Transport containers – but only those intended to be set at a customers site

Tank Setter /OPT

You can…

Build bulk plants and dispensing stations

Tank Setter /OPT

You can…

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

Section 3.12

Tank Setter /OPT

You must…

Provide vehicle protection to the tank(s), outside piping or accessory equipment at time of installation

Section 13.16.1

Tank Setter /OPT

You must…

Provide a non-combustible base for every container to set upon (unless the base is listed for installation under a propane container)

Section 6.2.5.1

Licensing

Delivery Technician

What can you do?
(Besides deliver propane)

Delivery Tech

You can…

Inspect and maintain propane delivery vehicles

Delivery Tech

You can…

Deliver and retrieve tanks from a site but cannot set any container filled on-site.

May set and connect exchange cylinders

Section 3.11

Delivery Tech

You can…

Fill propane containers and cargo tanks on bulk delivery trucks

Delivery Tech

You can…

Perform a leak test and re-light pilots after interruption of service

Section 3.11

Delivery Tech

Responsibilities

Delivery Tech

Must…

Verify that a dispensing station has a valid license before delivering

Section 3.7.2

Delivery Tech

Must…

Verify that an ASME container has a legible data plate before delivering

Section 3.7.2


CERTIFIED BY
NAT'L BD. 608262
CHEMI-TROL CHEMICAL CO. FREMONT, OHIO: U.S.A.
W-RT4
MAWP: 250 PSI AT 650°F
MDMT: -20°F AT 250 PSI
MFG. SERIAL NO. 608262
APPROX. GAL. 330
30" DIA.
1992 YEAR BUILT
ABOVE GROUND STATIONARY TYPE
SHELL THKNS. .199
HEAD THKNS. .169"
HEAD RAD. HEMI
SQ. FT. SURFACE AREA 80
THIS CONTAINER SHALL NOT CONTAIN A PRODUCT HAVING
A VAPOR PRESSURE IN EXCESS OF 215 PSIG AT 100°F
FIXED LIQUID LEVEL GAUGE INDICATES 80% FULL-D.T. 8.4"
PROPERTY OF


UL-BD.
PERMIT NO.
0 4
EVEREADY
GAS SYSTEMS
LISTED
CONTAINER ASSEMBLY
FOR LP-GAS
TRINITY INDUSTRIES
250 P.S.I.
MAX. ALLOWABLE
WORKING PRESSURE
SERIAL NO. 396754
97 S.F.
HEMI
500
4167
HEAD D.R.
WATER GALS.
WATER
0.264"
0.210"
118.75
SHELL THK.
HEAD THK.
LENGTH
NOT CONTAIN A PRODUCT HAVING
IN EXCESS OF 215 PSIG AT 100°F.
1986
80 %-10 5
MODEL
TYPE
YR. BUILT
DIP TUBE
07/29/2011

Delivery Tech

Must…

Ensure all tanks, piping and accessories are protected from vehicle damage before delivery

Section 13.16.2

Delivery Tech

Must…

Notify the tank owner , in writing, of any code violations pertaining to the tank

Section 3.7.2

Delivery Tech

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

Section 3.7.2


-THE-
GOOD
-STUFF-

ASME/ DOT Tanks Under Decks

Containers may be placed under decks,

As long as…

- Space is completely open to atmosphere for 50 percent of its perimeter or more
- 2 ft. vertical clearance to structure
- 125 Gallon (or less) water capacity
- 250 Gallon max. total water capacity

Section 6.2.5.4

Residential Dryer Vents

- Are NOT sources of ignition

- ARE openings into the building

Section 13.13

Underground Piping

If you bury metallic piping, a dielectric fitting must be installed before the piping enters the building and before any bond wire connection

Section 13.14.1

Underground Piping

No flare fittings underground …unless listed for such use and protected from corrosion

Section 13.14.2

Underground Piping

All underground metallic piping must be protected from corrosion

i.e. sleeving, approved coated pipe, etc.

Section 13.14.3

Tank Identification

All gas containers installed at a consumer site must be identified as follows…..

Section 13.15.1

Tank Identification

The name of the tank owner must be clearly marked in letters which are a minimum of 1inch high, and…..

Section 13.15.1

Tank Identification

The 24-hour emergency contact number of the tank owner must be marked in numbers which are a minimum of 1inch high

Section 13.15.1


Franks Tank
1-207-555-1212

Tank Identification

On tanks which are consumer-owned, the tank must be marked "Consumer Owned" in letters which are a minimum of 1inch high

Section 13.15.1

Tank Identification

Underground tanks must have the previous information clearly marked on the inside of the dome cover

Section 13.15.1

Underground Tanks

Underground tank domes must extend at least 6 inches above finish grade

Section 13.15.2

Vehicle Protection

Spacing

There must be a maximum of 3´ of space between pieces or sections of protection.

Section 13.16.3

Vehicle Protection

Guardrail

Guardrail posts must be set at least 3´ below grade and extend at least 3´ above finished grade

Section 13.16.4

Vehicle Protection

Bollards

Bollards must be set 3´ below grade in cement , extend a minimum of 3´ above finished grade and be filled with cement

***See Appendix G**

Section 13.16.5

Vehicle Protection

Bollards

Bollards protecting vapor systems must be at least 4″ in diameter

Section 13.16.5.1

Vehicle Protection

Bollards

Bollards protecting Bulk Plants and Dispensers must be at least 6″ in diameter

Section 13.16.5.2

Vehicle Protection

Wooden Posts

- Must be at least 6″ x 6″ pressure-treated
- Must be set 3´ below grade in cement
- Must extend 3´above finished grade

*See Appendix G

Section 13.16.6


800-523-7918

Vehicle Protection

Boulders

Boulders must be at least 3´ in diameter and spaced a maximum 3´ apart

Section 13.16.7

Vehicle Protection

Concrete Barriers

Concrete barriers and blocks must be at least 3´ high and spaced a maximum 3´ apart

Section 13.16.8

Vehicle Protection

Plastic Barriers

Plastic “Type K” barriers that are 3´ high, spaced a maximum 3´ apart and filled with sand may be used.

Section 13.16.10

Forklift Cylinders

Portable motor fuel containers may be filled by volume or weight, as long as…

- **It is equipped for volumetric filling**
- **It meets NFPA #58 requirements of construction and inspection**

Section 6.2.5.5


Liquefied
Petroleum
Gas CODE
NFPA 58
2011 edition

Container Transportation

ASME containers of 125 gallons or more shall contain no more than 5% liquid during transportation….

Unless…

Section 9.6.2.1

Container Transportation

Four conditions apply to transporting a container with more than the 5 percent liquid limit. All must be met.

They are…

Section 9.6.2.2

Container Transportation

1 - The container shall not be filled beyond the filling limit of Section 7.4

2 – Containers shall be moved only from stationary installations to a bulk plant

Section 9.6.2.2

Container Transportation

3 – Valves and fittings shall be protected

4 – Lifting lugs shall not be used to move the container

Section 9.6.2.2

Container Transportation

Placarding

Vehicles carrying more than 1000 pounds of total container and propane weight must be placarded

Section 9.3.3.7

Container Transportation

Placarding 101

Single ASME 100 Gallon – Placard

Single DOT 100 Gallon – No Placard

Container Location

Containers located outside of buildings shall be located in accordance with Table 6.3.1

Section 6.3.1

Water Capacity per Container		Minimum Distances			
		Mounded or Underground Containers[a]		Aboveground Containers[b]	
gal	m^3	ft	m	ft	m
<125[d]	<0.5[d]	10	3	0[e]	0[e]
125-250	0.5–1.0	10	3	10	3
251-500	1.0+-1.9	10	3	10	3
501-2000	1.9+-7.6	10	3	25[f]	7.6
2001-30,000	7.6+-114	50	15	50	15
30,001-70,000	114+-265	50	15	75	23
70,001-90,000	265+-341	50	15	100	30
90,001-120,000	341+-454	50	15	125	38
120,001-200,000	454+-757	50	15	200	61
200,001–1,000,000	757+-3785	50	15	300	91
>1,000,000	>3785	50	15	400	122

[a] See 6.3.4.

[b] See 6.3.12.

[c] See 6.3.11.

[d] See 6.3.9.

[e] See 6.3.7, 6.3.8, and 6.3.9.

[f] See 6.3.3.

Table 6.3.1

Container Location

The distance horizontally from a relief valve discharge to a building opening below the level of that discharge shall be in accordance with Table 6.3.8

Section 6.3.8

Container Location

The distance in any direction from a relief valve discharge, vent or filling connection of a container to an exterior source of ignition shall be in accordance with Table 6.3.8

Section 6.3.9

Table 6.3.8 Separation Distance Between Container Pressure Relief Valve and Building Openings

Container Type	Exchange or Filled on Site at the Point of Use	Distance Horizontally from Relief Valve Discharge to Opening Below Discharge		Discharge from Relief Valve, Vent Discharge, and Filling Connection to Exterior Source of Ignition, Openings into Direct-Vent Appliances, and Mechanical Ventilation Air Intakes	
		ft	m	ft	m
Cylinder	Exchange	3	0.9	5	1.5
Cylinder	Filled on site at the point of use	3	0.9	10	3.0
ASME	Filled on site at the point of use	5	1.5	10	3.0

Container Location

Common Ignition Sources

- Electrical Meters
- Receptacles (electric outlets)
- Air conditioners / Heat Pumps
- Heating appliance air intakes/exhausts
- Generators

Section 6.6.1.5

Container Location

Where susceptible to high flood waters or a high water table, containers shall be securely anchored.

Section 6.6.1.6

Container Location

Loose or piled combustible material, weeds and/or long dry grass shall be separated from containers by at least 10 feet.

Section 6.4.5.2


Regulators

Regulators

The point of discharge shall not be less than 3 feet horizontally away from any building opening below the discharge point

Section 6.8.1.6

Regulators

The point of discharge shall not be less than 5 feet in any direction away from any source of ignition

Section 6.8.1.7

Regulators

Regulator Vent Piping
Shall be…

- Approved metal pipe or tubing
- Approved electrical PVC – NOT INDOORS
- Approved liquid-tight flexible conduit with approved non-metallic fittings

Section 5.8.3.1

Underground Containers

Underground Containers

Corrosion Protection

A corrosion protection system shall be installed on new installations of underground steel containers…

This system shall include…..

Section 6.6.6.1

Underground Containers

Corrosion Protection

- A coating complying with 5.2.1.11
- A cathodic protection system that consists of either a sacrifical anode(s) or an impressed current anode
- A means to test the system

Section 6.6.6.1

Underground Containers

Corrosion Protection

Cathodic protection systems shall be monitored by testing and the results documented

Section 6.6.6.1

Underground Containers

Sacrificial Anode Testing

Sacrificial anodes shall be tested in accordance with the following schedule….

Section 6.6.6.1

Underground Containers

Sacrificial Anode Testing

- Upon installation
- 12-18 months after initial test
- If previous test successful, a periodic test at intervals not exceeding every 36 months after…

Section 6.6.6.1

Underground Containers

Sacrificial Anode Testing

If testing fails, the system shall be repaired within 180 days after which the testing schedule starts over

Section 6.6.6.1

Underground Containers

Sacrificial Anode Testing

Documentation of the two most recent tests shall be retained

Section 6.6.6.1


Propane Delivery

Propane Delivery

A delivery hose shall not be routed in or through any building

Section 6.5.1.4

Propane Delivery

Vehicles and /or trailers shall utilize wheel stops in addition to the parking brake whenever loading, unloading, or while parked

Section 9.4.8

Cylinder Cages

Section 9.4.8

Cylinder Cages

All cylinder cages shall be provided with vehicle protection.

(Unless installed in an area where vehicles are not expected to be)

Section 8.4.2.2


PROPANE EXCHANGE STATION
NO SMOKING
1
4
0


PLEASE LEAVE YOUR
EMPTY CYLINDER HERE
PROPANE FLAMMABLE NO SMOKING
Chill & Grill!
Cylinder Exchange
$21.99
$49.99
FLAMMABLE
NO SMOKING
PROPANE FLAMMABLE NO SMOKING


Gas Appliance
Installation

Maine Laws & Rules

2014 Edition

Maine Fuel Board Rules

- All gas burning equipment and systems, must be maintained in a safe condition.
- When performing **any service** on a customer's gas system, the licensee must notify the homeowner of any code violations and make recommendations to address them.
- 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.

Section 13.3

Maine Fuel Board Rules

- 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 #54, NFPA #58 and all other rules of the Board **BEFORE** the furnace, direct-fired water heater, or boiler is fired.

Section 13.4

Maine Fuel Board Rules

- Prior to leaving the installation 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.

Section 13.4

Maine Fuel Board Rules

- 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.

Section 13.5

Maine Fuel Board Rules

- When an appliance other than a furnace, direct-fired water heater, or boiler is installed,
- 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,
- 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.

Section 13.4.2

Maine Fuel Board Rules

- All gas-fired boilers must be provided with a properly installed and operating low water cut-off.
- The low water cut-off must be designed and approved for the medium used (steam or water).
- No valves or other obstructive devices shall be installed between the boiler and safety controls.

Section 13.5


Safgard
Low Water Cut-Off
Honeywell
WARNING

Maine Fuel Board Rules

- A pressure switch or flow switch installed by the manufacturer and specified by the manufacturer as low-water protection shall be accepted as meeting the criteria of Chapter 10, Section 10.3.5 of NFPA #54 (2012 edition).

Section 13.5

Maine Fuel Board Rules

- **New Installations of Central Heating Systems**
- You must do a heat loss design **and** load calculation must be done and the licensee must retain a copy.

- **Replacement of Central Heating System**
- Either a heat loss or a load calculation must be done before the replacement is done and the licensee must retain a copy

Section 13.6

Maine Fuel Board Rules

Unvented Room Heaters

Unvented room heaters shall not be installed in bedrooms, bathrooms or in manufactured homes.

Maine Fuel Board Rules

Unvented Room Heaters

Unvented room heaters shall not be installed in any housing unit funded by Maine State Housing.

Maine Fuel Board Rules

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

- The electrical wiring and equipment must be installed in accordance with NFPA #70, National Electrical Code (2011 edition)

Section 13.8


ENERGYGUIDE
Taco

Maine Fuel Board Rules

- Safety control circuits must be two-wire, one side grounded, having a nominal voltage not exceeding 150 Volts.

- 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.

Section 13.8

Maine Fuel Board Rules

- 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.

Section 13.8.2

Maine Fuel Board Rules

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

Section 13.8.2

Maine Fuel Board Rules

- 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 3′ of the burner.

Section 13.8.3


MUNCHKIN

Maine Fuel Board Rules

- 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 (TC-1) must be wired into the burner circuit to shut off the burner in the event of a fire at the unit.

Section 13.8.4

Maine Fuel Board Rules

- The TC-1 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.

Section 13.8.4(1)

Maine Fuel Board Rules

When installing a central heating appliance or water heater that is provided with a cord and plug the following must be done:

- It must have a dedicated electrical circuit
- Install a single receptacle – not a duplex receptacle

Maine Fuel Board Rules

- If the appliance is to be installed in a basement/garage a GFCI receptacle is required
- If the appliance is to be installed in the living space an arc fault receptacle is required
- You may install a second single receptacle in the same dedicated electrical circuit for a condensate pump

Maine Fuel Board Rules

- On multi-unit installations **other than one- and two-family residences** 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.

Section 13.8.4.2

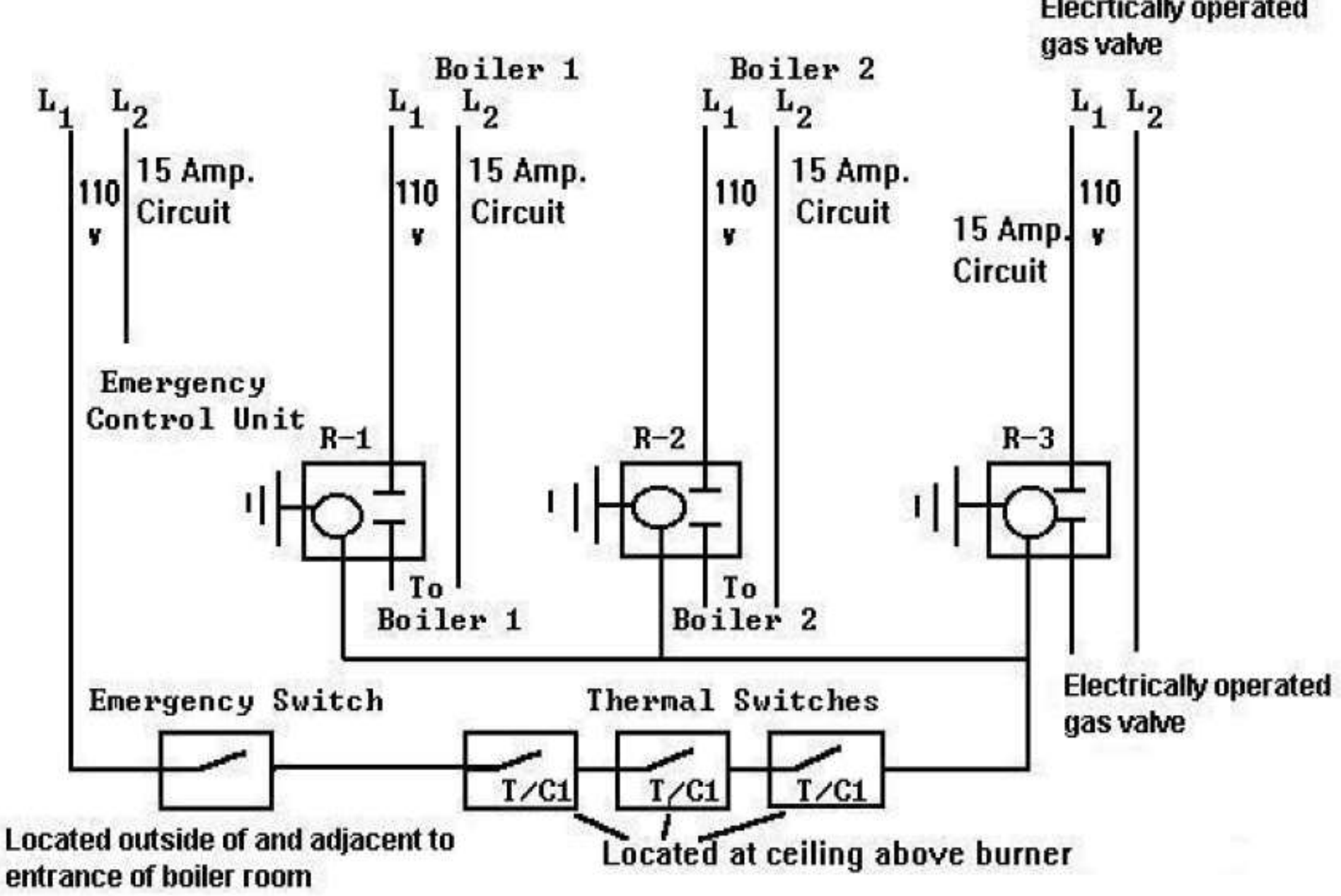


Figure 13-1 For use on commercial and industrial equipment only. This requirement shall not apply to one and two family residences.

Maine Fuel Board Rules

- All steam safety or pressure relief valves must terminate in a manner that reduces the risk of accidental scalding in accordance with ASME.

- Steam safety or pressure relief valves which **terminate in the structure** must terminate 6 inches to 12 inches above the floor.

Section 13.10

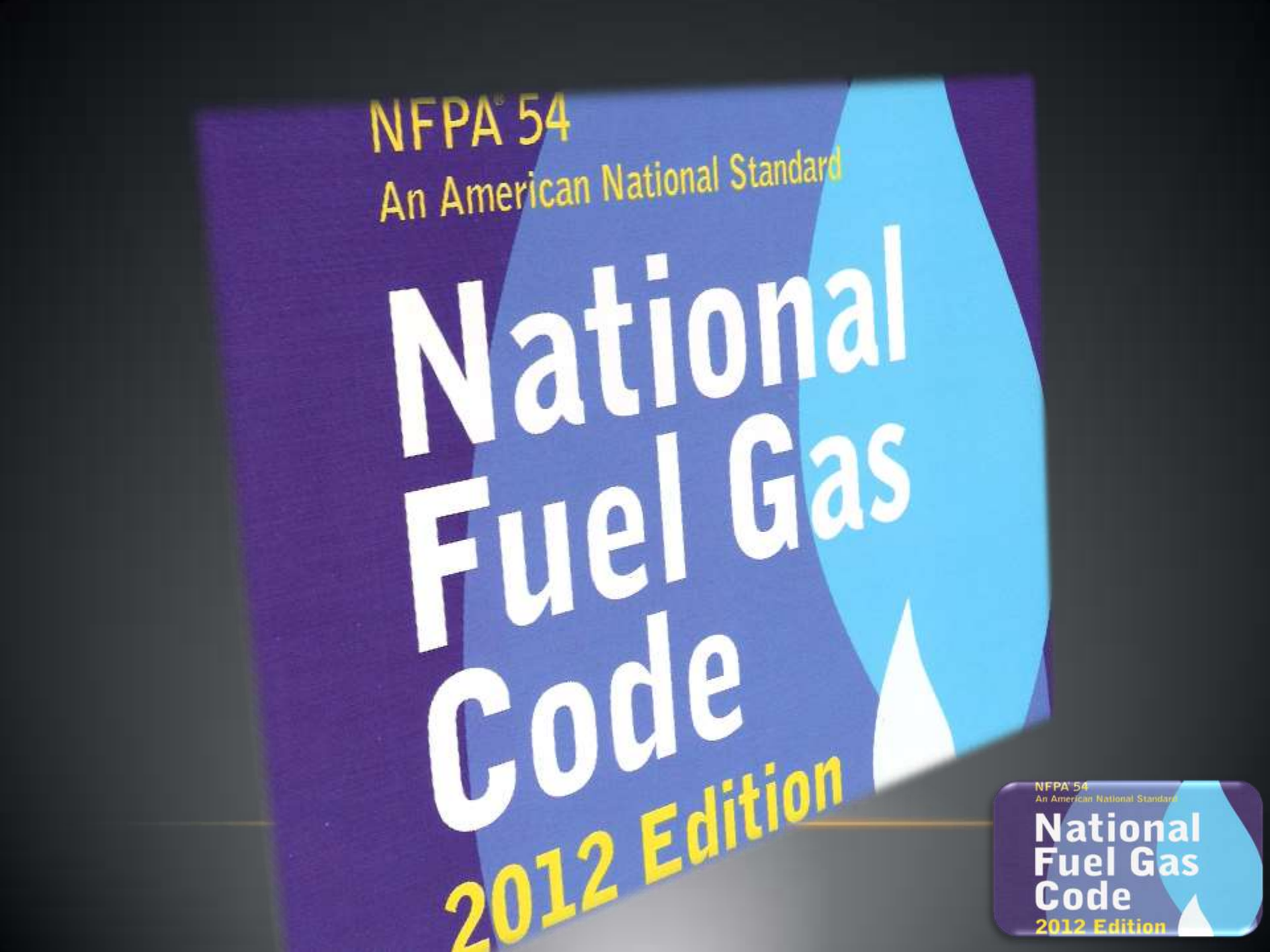
Maine Fuel Board Rules

- Steam safety relief valves over 2 inches in diameter **must terminate outside** of the structure in a safe location.

Section 13.10

Maine Fuel Board Rules

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


NFPA® 54
An American National Standard
National Fuel Gas Code
2012 Edition
NFPA 54
An American National Standard
National Fuel Gas Code
2012 Edition

Scope

NFPA 54 covers from the point of delivery to the appliance or equipment

Section 1.1.1.1 (A)

Definitions

Readily accessible – No panel or door

Accessible – Having a panel or door

Section 3.3

Definitions

Appliance – A device using fuel to produce heat, power, a/c, etc.

Leak Check – Verify no leaks in system

Pressure Test – Verify gastight integrity upon installation

Section 3.3

Definitions

Service Regulator – Reduces line gas pressure to delivery pressure

Line Regulator – Placed between Service and Appliance Regulators

Appliance Regulator – Controls pressure to appliance

Section 3.3

Gas Piping Systems

When additional appliances are connected to an existing system, the gas piping system shall be checked for adequate capacity.

Section 5.1.2.1

Gas Piping Systems

Gas pipe sizing – Must meet maximum system demand.

Gas pipe sizing methods – Pipe sizing tables, engineered systems, manufacturer instructions

Section 5.4

Max Design Pressure

Maximum operating pressure inside of a building shall not exceed 5 psi……

UNLESS….

Section 5.5.1

Max Design Pressure

- Pipe system is welded
- Piping is located in a ventilated shaft
- Piping is in buildings used for industrial processing/heating, research, warehousing, mechanical rooms
- Temporary installations for construction

Section 5.5.1

Materials and Joining Methods

- Used Pipe/Fittings – Don't use unless free of foreign material

- Cast Iron Pipe – Just don't use it

Section 5.6

Used Piping

Approved Pipe

- Steel pipe - must be at least schedule 40
- Copper and Brass pipe
- Threaded Copper, Brass, and Aluminum

Section 5.6.2

Approved Pipe

- Corrugated Stainless Steel

NFPA 54
An American National Standard
National Fuel Gas Code
2012 Edition

Section 5.6.3.4

Plastic Pipe, Tubing And Fittings

Polyethylene plastic pipe, tubing, and fittings shall conform to ASTM D 2513

Section 5.6.4.1.1

NFPA 54
An American National Standard
National Fuel Gas Code
2012 Edition

Metallic Pipe Joints

Pipe Joints

shall be threaded, flanged, brazed, or welded

Section 5.6.8.1

Metallic Pipe Joints

Tubing Joints

shall be made with approved gas tubing fittings

Or…

Section 5.6.8.2

Metallic Pipe Joints

Press connect fittings approved for

Copper pipe

Or

Black iron

Underground Piping

Gas piping that **could** corrode shall be protected against corrosion

Section 5.6.8.2

Metallic Pipe Joints

Cast iron fittings

1. Flanges are allowed
2. Bushings are not allowed

Section 5.6.8.4

Plastic Pipe Joints

Plastic pipe and fittings shall be joined according to the manufacturers instructions

Section 5.6.9

Gas Meters

- Gas meters shall be installed in ventilated spaces
- Gas meters shall not be placed where they will be subject to damage
- Gas meters shall not be located where they will be subjected to extreme temperatures

Section 5.7.2


MAINE
Professional
&
Financial
Regulation

Gas Meters

Meter Supports

- Shall be supported or connected to rigid piping

- Shall be free of strain

Section 5.7.3

Gas Meters

Gas meters installed at a multiple meter location must be permanently marked identifying what/where it supplies

Section 5.7.5


AC250
Gas


ULTA


47-48
INLET

Regulators

- Must be listed
- Must be accessible for service
- Must be protected from damage

Section 5.8

Regulator Venting

An independent vent to the exterior of the building shall be provided where the location of a regulator is such that a ruptured diaphragm could cause a hazard

Section 5.6.8.2

Regulator Venting

Where more than one regulator is at a location each shall have its own vent to the outdoors

Section 5.8.6.1

Regulator Venting

- The vents shall be designed to prevent water, insects, or other foreign material that could cause a blockage

- The vent shall terminate 3’ from a source of ignition

Section 5.8.6.1

Regulator Venting

Vent lines shall extend above the height of expected flood waters

A regulator shall not be vented to the appliance flue or exhaust system

Section 5.8.6.1

GAS PIPING INSTALLATIONS

Chapter 7

Underground Piping

Underground gas piping shall be installed with sufficient clearance to other underground structures

Section 7.1.1

Underground Piping

Underground piping systems shall be installed with a minimum of 12 in. of cover

Section 7.1.2.1

Underground Piping

Trenches

The trench shall be graded so that the pipe has a firm, substantially continuous bearing on the bottom of the trench.

Section 7.1.2.2

Underground Piping

Piping through a foundation wall shall be encased in a protective sleeve and sealed.

Section 7.1.5

Underground Piping

Plastic Piping

Plastic piping shall be installed outdoors, underground only.

Section 7.1.5

Underground Piping

Plastic Piping

An electrically continuous corrosion resistant tracer wire (minimum AWG 14) or tape shall be buried with the plastic One end of the tracer wire or tape shall be brought aboveground at a building wall or riser.

Section 7.1.7.3

Underground Piping

Plastic Piping

A dielectric union is not required.

Section 7.1.7.3

Piping Installations

- Piping installed above ground shall be securely supported and protected.

- Piping passing through an exterior wall shall be sleeved and sealed.

Section 7.2.1


CERTIFIED
LINE PRESSU
REGULATO
Z21.80/CSA6

Piping Installations

In buildings the installation of gas piping shall not cause structural stress.

Section 7.2.2.1

Piping Installations

- Gas piping inside buildings shall not be installed in or through :

- Clothes chutes, chimney or gas vents, dumbwaiters, elevator shafts or air ducts

Section 7.2.4

Piping Installations

Piping shall be properly supported by **metal** pipe hooks, pipe straps, bands or hangers suitable for pipe size and of adequate strength and quality.

Section 7.2.5.1

1in X 10


200


ENERGYGUIDE

Piping Installations

Table 7.2.5.2

This table gives minimum distances between hangers

Table 7.2.5.2

Table 7.2.5.2 Support of Piping

Steel Pipe, Nominal Size of Pipe (in.)	Spacing of Supports (ft)	Nominal Size of Tubing Smooth Wall (in. O.D.)	Spacing of Supports (ft)
½	6	½	4
¾ or 1	8	⅝ or ¾	6
1¼ or larger (horizontal)	10	⅞ or 1 (horizontal)	8
1¼ or larger (vertical)	Every floor level	1 or larger (vertical)	Every floor level

Piping Installations

Piping on roof tops

Shall be elevated above the roof and shall be properly supported

Section 7.2.5.4

Piping Installations

CSST shall be installed in accordance with the manufacturers instructions

And this code

Section 7.2.7

Piping Installations

Concealed Spaces

Gas piping is permitted to be installed in concealed spaces

Section 7.3.1

Piping Installations

Fittings used in concealed piping shall be limited to the following:

Section 7.3.2

Piping Installations

- Threaded elbows, tees, and couplings
- Brazed fittings
- Welded fittings
- CSST fittings
- Press Fittings

Section 7.3.2

Piping Installations

Concealed gas piping shall not be installed in solid partitions

Section 7.3.3

Piping Installations

Tubing installed vertically and horizontally inside hollow walls or partitions without protection along its entire concealed length shall meet the following requirements:

Section 7.3.4

Piping Installations

- Steel striker plates shall be installed between the tubing and the finished wall and extend 4” beyond the concealed penetration of plates, firestops, and wall studs.

- The tubing shall be installed in single runs and not rigidly supported

Section 7.3.4 (1),(2)

Piping Installations

In industrial occupancies, gas piping in solid floors such as concrete shall be laid in channels in the floors

Section 7.3.5.1

Piping Installations

Gas Outlets shall be :

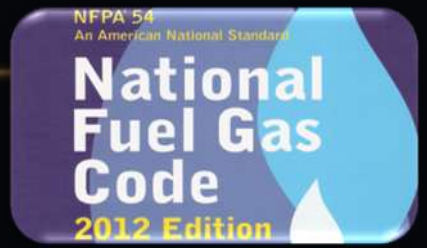
- Securely fastened in place
- Shall not be behind doors
- Shall be located to permit the use of wrenches without damaging the piping

Section 7.7.1.1

Piping Installations

Each outlet, including a valve, shall be closed gastight with a threaded plug or cap immediately after installation and shall be left closed until the appliance or equipment is connected thereto.

Section 7.7.2.1



Piping Installations

When an appliance or equipment is disconnected from an outlet and the outlet is not to be used again immediately, it shall be capped or plugged gastight.

Section 7.7.2.1


GROUND SCREW
BRS

Piping Installations

Accessibility of Gas Valves

Main gas valves controlling **multiple** gas piping systems shall be :

- Readily accessible
- Protected from physical damage

Section 7.9.2.1

Piping Installations

The main gas valve controlling multiple systems shall be marked with a metal tag or other permanent means and the tag must be attached by the installer for future identification

Section 7.9.2.1

Piping Installations

Emergency Shut Off Valves

- Shall be exterior to the building
- Shall be plainly marked
- Must be one for each building

Section 7.9.2.3

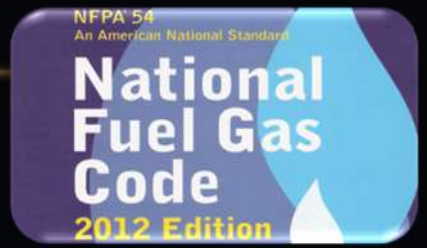
Piping Installations

Gas piping **other than CSST**, shall be considered bonded when, it is connected to an appliances that are connected through the electrical connection/cord for the appliance.

Section 7.13.1

Piping Installations

- **All CSST gas piping systems** shall be bonded to the electrical service grounding electrode system.
- The bonding jumper shall connect to a metallic pipe or fitting between the point of delivery and the first downstream CSST fitting. The bonding jumper **shall not be smaller than 6 AWG copper wire** or equivalent.



Section 7.13.2


CSST Tubing
Bonding Clamp

Appliances, Equipment, and Accessory Installations

Chapter 9

Equipment Installations

Appliances, equipment, and accessories shall be approved.

Section 9.1.1

Equipment Installations

Listed appliances, equipment, and accessories shall be installed in accordance with this chapter and the manufacturers' installation instructions.

Section 9.1.1.2

Equipment Installations

Acceptance of unlisted appliances, equipment, and accessories shall be on the basis of a sound engineering evaluation.

Section 9.1.1.3

Equipment Installations

The unlisted appliance, equipment, or accessory shall be safe and suitable for the proposed service and shall be recommended for the service by the manufacturer.

Section 9.1.1.4

Equipment Installations

The appliance shall be connected to the fuel gas for which it was designed. No attempt shall be made to convert the appliance from the gas specified on the rating plate.

Section 9.1.3

Equipment Installations

Appliances in residential garages and adjacent spaces, that open to the garage and are not part of the living space of a dwelling unit, shall be installed so that **all burners and burner ignition devices** are located not less than 18 in. above the floor unless listed as flammable vapor ignition resistant.

Section 9.1.10

Equipment Installations

Repair Garages

Appliances installed in repair garages shall be installed in a detached building, or room separated from repair areas by walls or partitions, floors, or floor–ceiling assemblies that are constructed so as to prohibit the transmission of vapors and that have no openings in the wall separating the repair area within 8 ft of the floor. All air for combustion purposes shall be obtained from the outdoors.

Section 9.1.11.2

Equipment Installations

Appliance Physical Protection

Where locating appliances close to a passageway traveled by vehicles or machinery is necessary, guardrails or bumper plates shall be installed to protect the equipment from damage.

Section 9.1.13

Equipment Installations

- When additional appliances are being connected to a gas piping system, the existing piping shall be checked to determine whether it has adequate capacity.
- If the capacity is inadequate, the existing system shall be enlarged, or separate gas piping shall be run.

Section 9.1.16

Equipment Installations

- The installer shall conform to the appliance and equipment manufacturers' recommendations in completing an installation.
- The installer shall leave manufacturers' installation, operating, and maintenance instructions in a location on the premises where they are readily available for reference and guidance.

Section 9.1.22

Equipment Installations

- All appliances shall be located to permit access to the appliance.

- Sufficient clearance shall be maintained to permit required service and maintenance of the appliance.

Section 9.2.1

Equipment Installations

- Appliances located on roofs or other elevated locations shall be accessible.

- Buildings of more than 15 ft in height shall have an inside means of access to the roof, unless other means acceptable to the authority having jurisdiction are used.

Section 9.4.3.2

Equipment Installations

Condensate Disposal

All condensate waste water shall be treated

Equipment Installations

Condensate Disposal Location

- Into home drainage system (**requires plumbing license**)
- Into floor drain or at sump pump

Equipment Installations

Condensate Disposal Location

Must **NOT** drain onto concrete floor or be directed through concrete slab

Equipment Installations

Attics

For attic installation, the passageway and servicing area adjacent to the appliance shall be floored.

Section 9.2.1

Equipment Installations

Attics

An attic in which an appliance is installed shall be accessible through an opening and passageway at least as large as the largest component of the appliance and not less than 22 in. × 30 in.

Section 9.5.1

Equipment Installations

Attics

Where the height of the passageway is less than 6 ft., the distance from the passageway access to the appliance shall not exceed 20 ft. measured along the centerline of the passageway.

Section 9.5.1.1

Equipment Installations

Attics

The passageway shall be unobstructed and shall have solid flooring not less than 24 in. wide from the entrance opening to the appliance.

Section 9.5.1.2

Equipment Installations

Attics

A level working platform not less than 30 in. × 30 in. shall be provided in front of the service side of the appliance.

Section 9.5.2

Equipment Installations

Commercial Cooking

Appliances that are moved for cleaning and sanitation purposes shall be connected in accordance with the connector manufacturer's installation instructions when using a listed appliance connector

Section 9.6.1.1

Equipment Installations

Commercial Cooking

Movement of appliances with casters shall be limited by a restraining device installed in accordance with the connector and appliance manufacturer's installation instructions.

Section 9.6.1.2

Equipment Installations

Commercial Cooking

Each appliance connected to a piping system shall have an accessible, approved manual shutoff valve with a non-displaceable valve member, or a listed gas convenience outlet.

Section 9.6.4

Equipment Installations

- The shutoff valve shall be located within 6 ft. of the appliance it serves

- (A) Where a connector is used, the valve shall be installed upstream of the connector. A union or flanged connection shall be provided downstream from the valve to permit removal of appliance controls.

Section 9.6.4.1

Equipment Installations

- (B) Shutoff valves serving decorative appliances shall be permitted to be installed in fireplaces if listed for such use.

Section 9.6.4.1

Equipment Installations

Quick-Disconnect Devices

Quick-disconnect devices used to connect appliances to the building piping shall be listed

Section 9.6.5.1

Equipment Installations

Where installed indoors, an approved manual shutoff valve with a non-displaceable valve member shall be installed upstream of the quick-disconnect device.

Section 9.6.5.2

Equipment Installations

Sediment Trap

A sediment trap shall be installed downstream of the appliance shutoff valve as close to the inlet of the appliance as practical at the time of appliance installation.

Section 9.6.7

Equipment Installations

Sediment Trap

- The sediment trap shall be either a tee fitting with a capped nipple in the bottom outlet or other device recognized as an effective sediment trap.
- Illuminating appliances, ranges, clothes dryers, decorative appliances for installation in vented fireplaces, gas fireplaces, and outdoor grills shall not be required to be so equipped.

Section 9.6.7

Equipment Installations

Electrical connections between appliances and the building wiring, including the grounding of the appliances, shall conform to *NFPA 70*, *National Electrical Code*.

Section 9.7.1

INSTALLATION OF SPECIFIC APPLIANCES

Chapter 10

Installation Of Specific Appliances

Listed appliances shall be installed in accordance with the manufacturers' installation instructions or, as elsewhere specified in this chapter.

Section 10.1.1

Installation Of Specific Appliances

Unlisted appliances shall be installed as specified in this chapter as applicable to the appliances.

Section 10.1.1

Installation Of Specific Appliances

Listed central heating furnaces and low-pressure boilers shall be installed with clearances in accordance with the manufacturer's instructions

Section 10.3.2.1

Installation Of Specific Appliances

Low-Water Cutoff

Water tube or coil-type boilers that require forced circulation to prevent overheating and failure, shall have an approved **flow sensing device** arranged to shut down the boiler when the flow rate is inadequate to protect the boiler against overheating.

Section 10.3.5

Installation Of Specific Appliances

- Listed Type 1 clothes dryers (**residential**) shall be installed with a minimum clearance of 6 in. from adjacent combustible material.
- Clothes dryers listed for installation at reduced clearances shall be installed in accordance with the manufacturer's installation instructions.
- Type 1 clothes dryers installed in closets shall be specifically listed for such installation.

Section 10.4.1

Installation Of Specific Appliances

Listed Type 2 clothes dryers (**commercial**) shall be installed with clearances of not less than shown on the marking plate and in the manufacturer's instructions.

Section 10.4.1

Installation Of Specific Appliances

- Type 1 and Type 2 clothes dryers shall be exhausted to the outdoors.
- Ducts for exhausting clothes dryers shall not be assembled with screws or other fastening means that extend into the duct and that would catch lint and reduce the efficiency of the exhaust system.
- Exhaust ducts shall be constructed of rigid metallic material.

Section 10.4.4

Installation Of Specific Appliances

- **Installation of conversion burners shall conform to ANSI Z21.8**
- ***Installation of Domestic Gas Conversion Burners.***

Under 400,000 BTU

Section 10.5

Conversion Burners

Vent Connectors

The vent connector shall be examined for corrosion or deterioration, if the connector is deteriorated it must be replaced

Section 2.3

ANSI Z21.8

Conversion Burners

Inspection of Chimneys

Before connecting a vent connector to a chimney and installing the gas conversion burner, the chimney passageways shall be examined to ascertain that it is properly lined, clear and free of obstructions and shall be cleaned if previously used for vent in solid fuel or liquid fuels.

Section 5.1.1

ANSI Z21.8

Conversion Burners

Draft Regulators

- Barometric draft regulators, when used, shall be of the double-acting type and shall be installed and adjusted in accordance with the manufacturers instructions.

- Single acting barometric draft regulators are not permitted

Section 5.6.3

ANSI Z21.8


TYPE MG1
FIELDCONTROLS

Conversion Burners

Blocked Vent Shut Off Systems

- At the time of conversion burner installation, a blocked vent shutoff system shall be installed on the draft hood or barometric draft regulator used on the conversion burner.

- The blocked vent shutoff system shall be of the manual reset type

Section 5.6.4 ANSI Z21.8

Conversion Burners

Installation of Piping

A sediment trap is required, it shall be a tee fitting with the bottom outlet capped to catch any dirt or other foreign material.

Appliance connectors shall not be used

Section 6.2

ANSI Z21.8


Carlin


Carlin

Conversion Burners

Electrical Requirements

- Must be wired according to NFPA 70, National Electrical Code
- Must be connected to its own electrical circuit
- Wiring must be installed in a neat and orderly manner

Section 7.1 ANSI Z21.8


Taco
Taco

Conversion Burners

When a gas conversion burner is installed and there is no longer an oil burning appliance on site the oil supply tank must be removed from the site.

Conversion Burners

When a gas conversion burner is installed and the oil burning appliance is left on site the following must be done:

- Fill pipe removed back to the tank and the tank plugged with a malleable iron plug
- Vent pipe must remain intact and left open
- The oil supply line must be removed and the valves on both the tank and burner must be capped or plugged.


Plastic Plug


Plastic Plug


Old Vent Pipe


New gas supply line
Pipe not open for oil tank

Conversion Burners
Oil Supply Lines

Appliance Venting

- Chimneys shall be lined in accordance with NFPA 211

Section 12.6.4.2

Appliance Venting

- Plastic pipe and fittings used to vent appliances shall be installed in accordance with the appliance manufacturer's installation instructions.
- **Where primer is required, it shall be of a contrasting color.**

Section 12.5.3


Primer

No Contrasting Color


Wrong hanger
Contrasting Primer?

DWV PVC1120 260 PSI

EAGLE

NFPA® 31

2011 Edition

NFPA® 31

Chapter 4
Installation and Operation

- 4.3.2 The Installation shall be made in accordance with the manufacturer's instructions as well as with all Federal, State and local rules and regulations
- 4.3.2.2 The instructions shall be left with the owner
- 4.3.7 After completing the installation the equipment or appliance shall be tested for proper operation and combustion performance.

NFPA® 31

Chapter 4
Installation and Operation

- 4.3.6 Oil burning appliances and equipment shall be installed so that a minimum separation of 3 ft. is maintained from any electrical panel board and a minimum 5 ft. separation is maintained from any unenclosed fuel oil tank.

NFPA® 31

NFPA 31 Chapter 7 Fuel Oil Tanks

5’ minimum to boiler block!

May be less than 5’ to burner

NFPA® 31

NFPA 31 Chapter 7 Fuel Oil Tanks

5’ to Heat Exchanger compartment

May be less than 5’ to Blower

May be less than 5’ from burner.

NFPA® 31

NFPA 31 Chapter 7 Fuel Oil Tanks

5’ From gas Water heater

NFPA® 31

FUEL OIL TANKS

NFPA® 31

NFPA® 31

Tank Pitch

7.5.8

The tank shall be pitched toward the opening with a slope of not less than ¼" per foot.

NFPA® 31

NFPA 31 Chapter 8

8.4.7

Each tank or tank system shall be equipped with fill and vent pipes, both of which shall terminate *aboveground* outside the building.

Fuel Oil Tanks *(NEW)*

- **8.5.2 - Tank Fill Piping**

The fill pipe shall terminate as follows:

(1) Outside the building at a point at least 2’ from *any* building opening.

(2) In a manner that minimizes spills when the filling hose is disconnected.

NFPA® 31

Vent Piping

8.6.1

Vent pipe size must be a minimum of 1 1/4” but no longer needs to be at least as large as the fill.

NFPA® 31

Fuel Oil Tanks

- 8.6.2 – Vent Piping
- All vent pipes shall terminate outside of buildings at a point not less than 2’ from *any* building opening.
- 6.7.3.5 - The vent outlet of a supply tank shall terminate at least 5’ from any air inlet or any flue gas outlet of any appliance.

NFPA® 31

Fuel Oil Tanks*(NEW)

- 8.6.2.2 – Vent Piping

- Vent pipes shall terminate not more than 12’ from the fill pipe and *at a point visible from the fill point.*

NFPA® 31

OIL LINES/PIPING

NFPA 31 Chapter 8
Section 8.4.1

- Piping shall be substantially supported and protected against physical damage
- Piping shall be protected against corrosion
- Piping shall be maintained liquid tight


Corrosion?

NFPA® 31

NFPA® 31


NFPA® 31

OIL LINES/PIPING

8.3.4

CAST IRON FITTINGS

SHALL NOT

BE USED.

NFPA® 31

Maine Laws & Rules

2014 Edition

Maine Laws & Rules

2014 EDITION

CHAPTER 8

INSTALLATION OF OIL BURNING EQUIPMENT

MAINTENANCE

Notification to Homeowner of Code Violations

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

Section 8.4.2

MAINTENANCE

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.

Section 8.4.3

Installations

New Installations of Central Heating Systems

- You must do a heat loss design **and** load calculation must be done and the licensee **must** retain a copy.

Replacement of Central Heating System

- Either a heat loss or a load calculation must be done before the replacement is done and the licensee **must** retain a copy

Section 8.5.5

OIL LINES

All copper oil supply and return lines must be encased in a continuous piece of nonmetallic liquid-tight conduit such as PVC, ENT, coated copper tubing, or other approved material and must be secured in order to prevent physical damage.

Section 8.8.2

Existing Tanks

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

Section 8.10.10

Conversions

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:

Section 8.9.4

Conversions

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

And….

Section 8.9.4.1

Conversions

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

And….

Section 8.9.4.2

Conversions

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

And….

Section 8.9.4.3

Conversions

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

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

Section 8.9.4.3

Conversions

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

Section 8.9.4.4

Chapter 9

INSTALLATION OF SOLID FUEL BURNING EQUIPMENT

Listing

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.

Section 9.2

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 unsupervised, 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.

Section 9.4

Code Violation Notification

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

Section 9.6

Installations

New Installations of Central Heating Systems

- You must do a heat loss design **and** load calculation must be done and the licensee **must** retain a copy.

Replacement of Central Heating System

- Either a heat loss or a load calculation must be done before the replacement is done and the licensee **must** retain a copy

Section 9.7

Installations

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…

Section 9.8.7

Installations

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.

Section 9.8.7

Solid Fuel in Garages

- Except as described below, 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 2 hours. For a minor repair or parking garage, the required fire wall separation is one hour. All combustion air must be taken from outside the building.
- Exception: 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.

Section 9.9

Power Failure Valve

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. The hand valve must be installed in a loop around the zone valve as illustrated in Figure 9.1.

Section 9.10.2

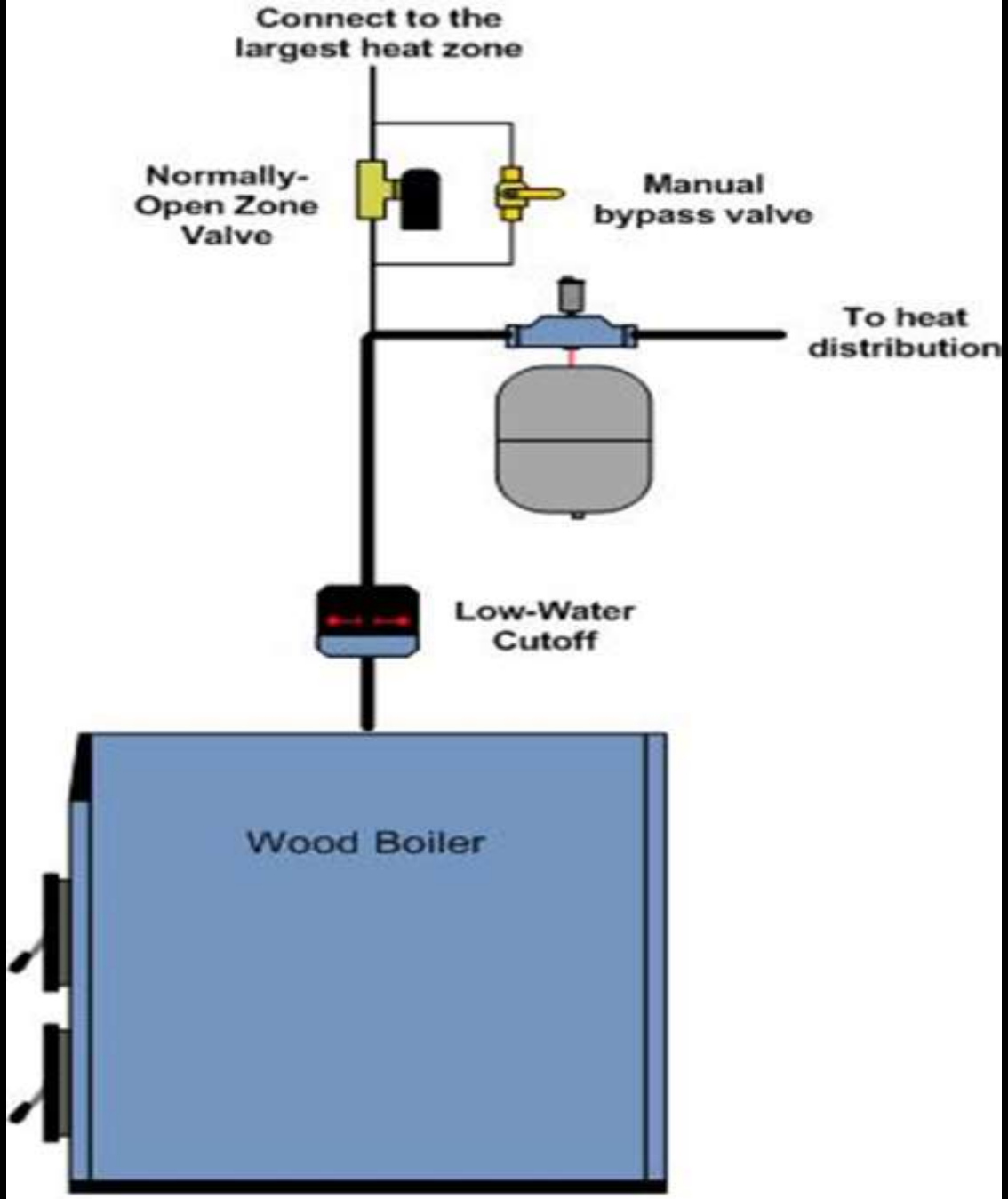


Figure SF-1
Power Failure By-Pass

Power Failure Valve

- 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.

- All non-residential solid-fuel appliances require a power failure valve.

Section 9.10.4

Low Water Cutoff

- If the opening of an electric circuit will arrest the combustion process, a low water cutoff must be installed.
- The LWCO must be designed and approved for the media in which it is used, either steam or water and no valves or other obstructive devices shall be installed between the boiler and any safety controls or devices.
- 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.

Section 9.16

NFPA® 211

2013 Edition

NFPA 211

CHIMNEYS

NFPA 211


2006
NFPA 211

Masonry Chimneys

Masonry chimney construction and use shall be in accordance with Chapter 7 and Table 7.2 for wall thickness, liner, termination, and air space surrounding the chimney

NFPA 211

Table 7.2 Construction, Termination, and Clearances for Masonry Chimneys

	Column								
	I	II	III	IV	V	VI	VII	VIII	IX
	Chimney Wall Thickness		Chimney Liner *(See 7.2.2.3.)*			Termination		Minimum Air Space Clearances *(See 7.2.2.3.)*	
	Brick or Concrete	Rubble Stone		Thickness		Highest Point	Nearby Structures	Interior Chimney	Exterior Chimney
Chimney Type	in. mm	in. mm	Type	in. mm	Cement	ft m	ft m	in. mm	in. mm
Residential	4 102	12 305	Fireclay	⅝ 16	Medium duty	3 0.91	2 0.61 within 10 3.05	2 51	1 25
Low-heat	8 203	12 305	Fireclay	⅝ 16	Medium duty	3 0.91	2 0.61 within 10 3.05	2 51	2 51
Medium-heat	8 203	12 305	Fireclay brick	4½ 114	Medium duty	10 3.05	10 3.05 within 25 7.6	4 102	4 102
High-heat	See 7.2.1.3.		Fireclay brick	4½ 114	High duty	20 6.1	20 6.1 within 50 15.2	See 7.3.1.5.	

Firestopping

7.1.6.1

Gaps between fire-stopping and the chimney shall not exceed 1⁄16 in.

NFPA 211


NFPA 211

Factory Built Chimneys

6.1.1

Factory-built chimneys and chimney units shall be listed and installed in accordance with the temperature and pressure conditions of the listing and the manufacturer's instructions.

NFPA 211


NFPA 211

NFPA® 211

Chimney Lining

Masonry chimneys shall be lined.

NFPA 211

Chimney Lining

7.1.10.2

- Listed liner systems shall be installed in accordance with the listing.

7.1.10.4

- The relined chimney shall meet the requirements of the class of chimney service.

NFPA 211


NFPA 211

Space Around Liner

4.5.3

The remaining space surrounding a chimney liner, gas vent, special gas vent, or plastic piping installed within a chimney flue shall not be used to vent another appliance.

NFPA 211

Cleanout Openings

7.1.4.2

Cleanout openings shall be equipped with ferrous metal, stainless steel, precast cement, or other approved non-combustible doors and frames arranged to remain tightly closed and secured when not in use.

NFPA 211

aco

ME100823

Cleanout Openings

7.1.4.3

The lower edge of a cleanout opening inside a building shall be a minimum of 16” above the lowest accessible floor level.

NFPA 211

CHAPTER 9
VENT CONNECTORS

NFPA 211

Multiple Appliances

9.4.3

A connector or manifold serving two or more appliances shall have an effective area equivalent to the combined areas of the appliance flue collars or individual connectors, unless it is part of an engineered venting system.

NFPA 211

A chimney connector or vent connector shall not pass through any floor or ceiling or through a fire wall or fire partition. 9.7.2

NFPA 211

CHIMNEY LAW

Effective

September 28, 2011

NFPA 211

Chimney Law

May not prohibit the continued use of an existing connection of a solid fuel burning appliance to a chimney flue to which another appliance burning oil or solid fuel is connected, for any chimney existing and in use….

NFPA 211

Chimney Law

Prior to 1998 as long as…

- Sufficient draft is available for each appliance;
- The chimney is lined and structurally intact;
- A carbon monoxide detector is installed in the building near a bedroom.

NFPA 211

Chimney Law

Post 1998 as long as…

- Sufficient draft is available for each appliance;
- The chimney is lined and structurally intact;
- A carbon monoxide detector is installed in the building near a bedroom, And……

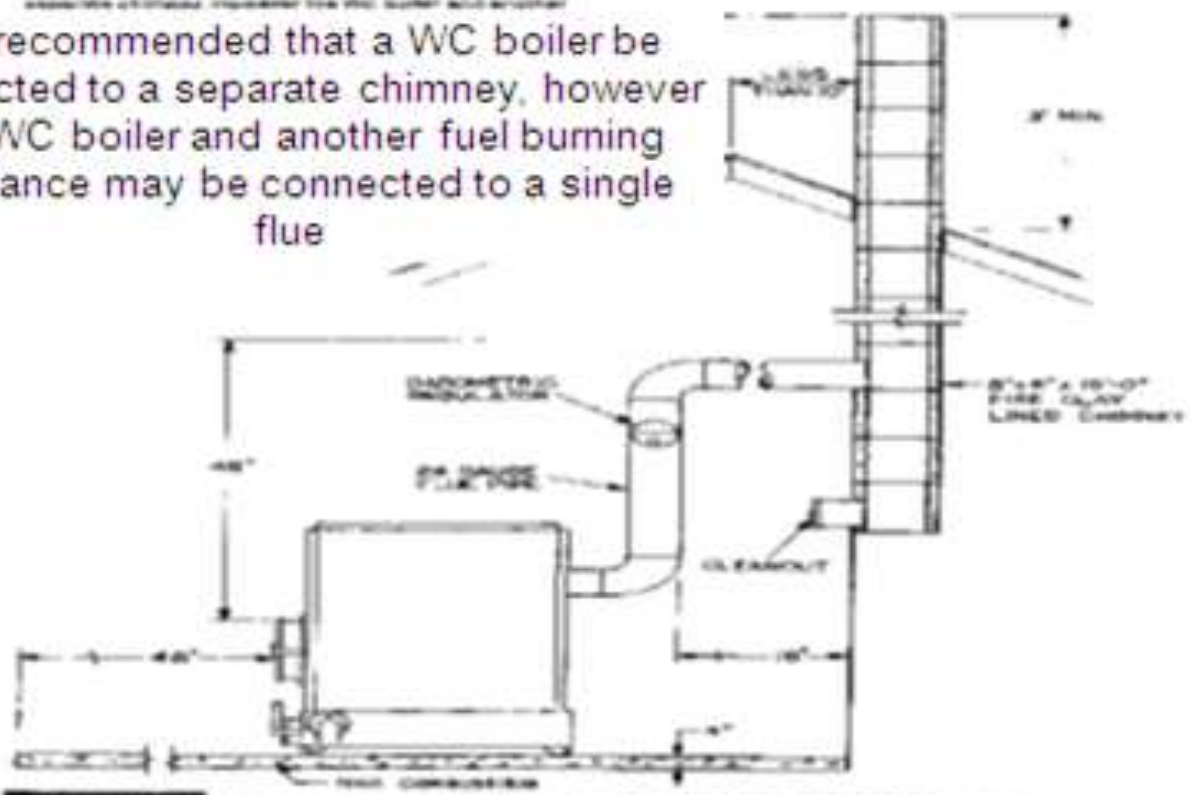
Chimney Law

- The solid fuel burning appliance has been listed by Underwriters Laboratories or by an independent, nationally recognized testing laboratory or other testing laboratory approved by the Maine Fuel Board
- The solid fuel burning appliance is installed in accordance with the manufacturer's installation specifications.


C.A.B.O. NER-GA 219
I.C.B.O. TL 116
C US
TESTED TO: UL 391, 1990
ETLM 79 1, 1979
CSA 9366 1-M87
DO NOT REMOVE OR
COVER THIS LABEL
MODEL
MAX. OIL FIRING RATE
CFM
.65 GPH
1100
.75 GPH
1300
1.00 GPH
1500
1.00 GPH
1500
1.50 GPH
2250
CLEARANCES TO COMBUSTIBLE MATERIALS
CHIMNEY FLUE TO BACKWALL
18"
CHIMNEY FLUE TO SIDEWALL
36"
UNIT BACK TO BACKWALL
32"
UNIT SIDE TO SIDEWALL
24"
UNIT PLENUM TO CEILING
18"
UNIT MUST BE INSTALLED ON A NON-COMBUSTIBLE FLOOR
DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE
DANGER
WARNING
CAUTION
Manufacturers Instructions

NFPA 211

It is recommended that a WC boiler be connected to a separate chimney, however the WC boiler and another fuel burning appliance may be connected to a single flue



WARNING

THE WC IS DESIGNED FOR NON-COMBUSTIBLE FLOORS ONLY

FIGURE 9

NFPA 211