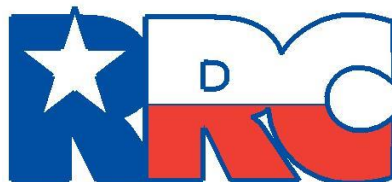


TEXAS LP-GAS EXAMINATION STUDY GUIDE

Category M
Recreational Vehicle
Management Level



RAILROAD COMMISSION OF TEXAS

Rev. – 1.0

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LP-GAS EXAMINATION STUDY GUIDE

Management-LEVEL

Category M

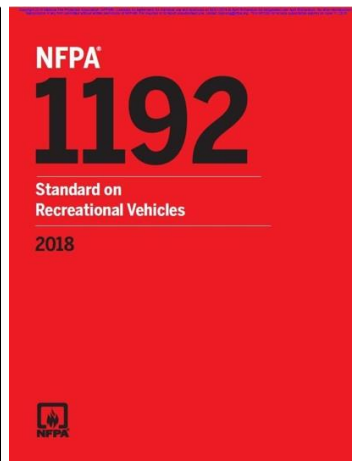
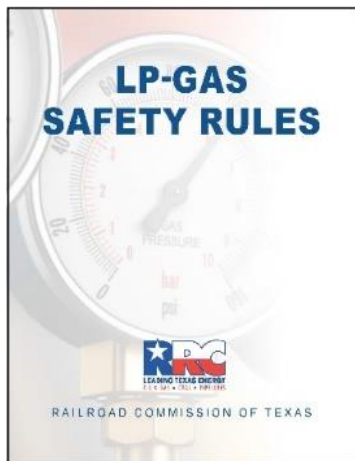
Who should use this guide?

You should use this guide to prepare for the Railroad Commission’s management-level qualifying examination to apply for:

Category M license, which qualifies an individual to sell, service, and install recreational vehicle containers, and to install, repair, and service recreational vehicle appliances, piping, and LP-gas systems, including recreational vehicle motor and mobile fuel systems and containers.

The Category M examination does NOT authorize you to fill LP-gas containers.

What books do I need?



This examination tests your knowledge of the laws and standards that apply to LP-gas general installation and service activities in Texas. These laws and standards are found in two books:

LP-Gas Safety Rules
(Texas Railroad Commission, 2020)

NFPA 1192 Standard on Recreational Vehicles
(National Fire Protection Association, 2018)

Where do I get these books?

You may download the current edition of the Railroad Commission’s *LP-Gas Safety Rules* in PDF format free online at www.rrc.texas.gov. If you need printed copies, they may be purchased for \$10.00, tax included, by calling the Railroad Commission’s publications office at (512) 463-7309.

Printed copies of NFPA 1192 are available for purchase from the Texas Propane Gas Association by calling (800) 392-0023. You may also order NFPA manuals online at www.nfpa.org; click on “Codes and Standards.”

Sections and Topics

Before you take this examination, you should know the definitions found in this study guide and the contents of the sections of the codes and standards listed below.

The actual examination questions may not cover all of the listed sections and topics.

NOTE: Section (§) 9.402(c) of the *LP-Gas Safety Rules* states, “The Commission does not adopt language in any NFPA rule, chart, figure, or table pertaining to any LP-gas container having a water capacity of one gallon (4.2 pounds LP-gas capacity) or less.”

Terms and Definitions

NOTE: Informal terms that are sometimes used in the propane industry instead of formal technical terms are given in brackets.

Railroad Commission LP-Gas Safety Rules

Alternative Fuel Safety (AFS). The RRC department responsible for LP-Gas training and inspection.
LP-Gas Safety Rules, §9.2(1)

Company Representative. The individual designated to the Commission by a license applicant or a licensee as the principal individual in authority.
LP-Gas Safety Rules, §9.2(12)

LP Gas Safety Rules. The rules adopted by the Railroad Commission in the Texas Administrative Code, Title 16, Part 1, Chapter 9, including any NFPA or other documents adopted by reference. The official text of the Commission’s rules is that which is on file with the Secretary of State’s office and available at www.sos.state.tx.us or through the Commission’s web site
LP-Gas Safety Rules, §9.2(22)

Mobile fuel container. An LP-gas container mounted on a vehicle to store LP-gas as the fuel supply to an auxiliary engine other than the engine to propel the vehicle or for other uses on the vehicle.
LP-Gas Safety Rules, §9.2(25)

Motor fuel container. An LP-gas container mounted on a vehicle to store LP-gas as the fuel supply to an engine used to propel the vehicle.
LP-Gas Safety Rules, §9.2(27)

Operations Supervisor. The individual who is certified by the Commission to actively supervise a licensee’s LP-gas operations and is authorized by the licensee to implement operational changes.
LP-Gas Safety Rules, §9.2(31)

Outlet. A site operated by an LP-gas licensee from which any regulated LP-gas activity is performed.
LP-Gas Safety Rules, §9.2(32)

Rules examination. The Commission’s written examination that measures an examinee’s working knowledge of Chapter 113 of the Texas Natural Resources Code and/or the current LP-Gas Safety Rules.

LP-Gas Safety Rules, §9.2(41)

NFPA 1192 (2018)

Accessible. Having access to, but which first may require the removal of, a panel, door or similar covering of the item described.

NFPA 1192, §3.3.1

Axle Height. The distance of the lower connection of the axle spindle assembly and the outboard end of the lower control arm (lever ball joint or kingpin), excluding shock mounting, grease fitting, or similar component.

NFPA 1192, §3.3.4

Compartment. An enclosed volumetric space designed to provide for a separate area.

NFPA 1192, §3.3.12

Cylinder. A portable container in accordance with U.S. Department of Transportation *Specifications for LP-Gas Containers* (49 CFR).

NFPA 1192, §3.3.47.1

Frame. Chassis rail and any addition thereto of equal or greater strength.

NFPA, §3.3.26

Fuel System. Any arrangement of pipe, tubing, fittings, connectors, tanks, controls, valves and devices designed and intended to supply or control the flow of fuel.

NFPA 1192, §3.3.29

Heating Appliance. An Appliance for comfort heating for a recreational vehicle or for water heating.

NFPA 1192, §3.3.3.1

Heat-Producing Appliance. An appliance that produces heat by utilizing electric energy or by burning fuel.

NFPA 1192, §3.3.3.2

Pressure Relief Valve [“popoff valve”]. A type of pressure relief device designed to both open and closed to maintain internal fluid pressure.

NFPA 1192, §3.3.45

Propane [Liquified Petroleum Gas, LP-Gas, LPG]. Any material having a vapor pressure not exceeding that allowed from commercial propane composed predominantly of the following hydrocarbons, either by themselves or as mixtures: propane, propylene, butane (normal butane or isobutane), and butylene.

NFPA 1192, §3.3.46

Propane Supply Connector. Tubing or pipe connecting the recreational vehicle to the propane supply source.

NFPA 1192, §3.3.49

Readily Accessible. Able to be located, reached, serviced or removed without removing other components or parts of the apparatus without the need to use special tools to open enclosures.

NFPA 1192, §3.3.51

Recreational Vehicle [RV]. A vehicular type unit primarily designed as temporary living quarters for recreational, camping, travel, or seasonal use that either has its own motive power or is mounted on or towed by another vehicle.

NFPA 1192, §3.3.50

Tank. A container constructed in accordance with the Section VIII “Rules for the Construction of Unfired Pressure Vessels” of the Boiler and Pressure Vessel Code.

NFPA 1192, §3.3.45.2

Key Topics

NOTE: The list below is not exhaustive. You are responsible for knowing all the facts, rules, standards and procedures that apply to the LP-gas activities you will perform, as well as the rules and standards highlighted in this guide.

As you study the applicable codes and standards, pay special attention to the facts, rules and procedures related to the following key topics.

When you take the examination, read each question very carefully.

ADMINISTRATIVE RULES - GENERAL REQUIREMENTS

Company License

No person may engage in any LP-gas activity until that person has obtained a license from the Commission authorizing the LP-gas activities.

LP-Gas Safety Rules, §9.7(a)

Licensees, registered manufacturers, company representatives, and operations supervisors at each outlet shall have copies of all current licenses and/or manufacturer registrations and certificates for employees at that location available for inspection during regular business hours.

LP-Gas Safety Rules, §9.7(c)

Licenses and manufacturer registrations issued under this chapter expire one year after issuance at midnight on the last day of the month prior to the month in which they are issued.

LP-Gas Safety Rules, §9.7(d)

A properly completed LPG Form 1 listing all names under which LP-gas related activities requiring licensing are to be conducted and the applicant's properly qualified company representative and the following forms or documents as applicable:

- (A) LPG Form 1A for outlets
- (B) LPG Form 7 for delivery units
- (C) LPG Form 19 for transferring ownership

LP-Gas Safety Rules, §9.7(f)

Application for a New Certificate

An applicant for a new certificate shall:

- (1) file with AFS a properly completed LPG Form 16 and the applicable nonrefundable rules examination fee specified in §9.10 of this title (relating to Rules Examination); pass the applicable rules examination with a score of at least 75%.
- (2) pass the applicable rules examination with a score of at least 75%; and
- (3) complete any required training and/or AFT in §9.51 and §9.52 of this title.

LP-Gas Safety Rules, §9.8(c)

Certificate Renewal

Certificate holders shall remit the nonrefundable \$35 annual certificate renewal fee to AFS on or before May 31 of each year. Individuals who hold more than one certificate shall pay only one annual renewal fee.

- (1) Failure to pay the nonrefundable annual renewal fee by the deadline shall result in a lapsed certificate
 - (A) To renew a lapsed certification, the individual must pay the nonrefundable \$35 annual renewal fee plus a nonrefundable \$20 late-filing fee.
 - (B) If an individual's certificate lapses or expires, that individual shall immediately cease performance of any LP-gas activities authorized by the certificate.
 - (C) If an individual's certificate has been expired for more than two years from May 31 of the year in which the certificate lapsed, that individual shall comply with the requirements in §9.8 of this title (relating to Requirements and Application for a New Certificate) or §9.13 of this title.

LP-Gas Safety Rules, §9.9

Continuing education. A certificate holder shall complete at least eight hours of continuing education every four years as specified in this subsection.

(1) Upon fulfillment of this requirement, the certificate holder's next continuing education deadline shall be four years after the May 31 following the date of the most recent class the certificate holder has completed, unless the course was completed on May 31, in which case the deadline shall be four years from that date.

LP-Gas Safety Rules, §9.52(b)

Rules Examination

Failure of any exam shall immediately disqualify the individual from performing any LP-gas related activities covered by the exam which is failed, except for activities covered by a separate exam which the individual has passed.

LP-Gas Safety Rules, §9.10(f)

Individuals who pass an employee level rules examination between March 1 and May 31 of any year shall have until May 31 of the next year to complete any required training. Individuals who pass an employee level rules examination at other times shall have until the next May 31 to complete any required training.

LP-Gas Safety Rules, §9.52(a)(3)

Trainees

A licensee or ultimate consumer may employ an individual as a trainee for a period not to exceed 45 calendar days without that individual having successfully completed the rules examination.

(1) The trainee shall be directly and individually supervised at all times by an individual who has successfully completed the Commission's rules examination for the areas of work being performed by the trainee.

LP-Gas Safety Rules, §9.12

No person shall perform work, directly supervise LP-gas activities, or be employed in any capacity requiring contact with LP-gas unless:

- (1) that individual is a certificate holder
- (2) that individual is a trainee

LP-Gas Safety Rules, §9.8(a)

Sample Question 1

A licensee or ultimate consumer may employ an individual as a trainee for a period not to exceed ____ calendar days without that individual having successfully completed the rules examination

- A. 20
- B. 31
- C. 45
- D. 75

Answer on last page

Designation and Responsibilities of Company Representatives and Operations Supervisors

Each licensee shall have at least one company representative for the license and at least one operations supervisor for each outlet.

LP-Gas Safety Rules, §9.12

A licensee maintaining one or more outlets shall file LPG Form 1 with AFS listing the physical location of the first outlet and designating the company representative for the license and LPG Form 1A designating the physical location and operations supervisor for each additional outlet.

LP-Gas Safety Rules, §9.17(a)(1)

A licensee may have more than one company representative.

LP-Gas Safety Rules, §9.17(a)(2)

An individual may be operations supervisor at more than one outlet provided that:

- (A) each outlet has a designated LP-gas certified employee responsible for the LP-gas activities at that outlet;
- (B) the certified employee's and/or operations supervisor's telephone number is posted at the outlet on a sign with lettering at least 3/4-inch high, visible and legible during regular business hours; and
- (C) the certified employee and/or the operations supervisor monitors the telephone number and responds to calls during normal business hours.

LP-Gas Safety Rules, §9.17(a)(3)

The company representative may also serve as operations supervisor for one of the licensee's outlets provided that the individual meets both the company representative and the operations supervisor requirements in this section.

LP-Gas Safety Rules, §9.17(a)(4)

A licensee shall immediately notify AFS in writing upon conclusion of employment, for whatever reason, of its company representative or any operations supervisor and shall at the same time designate a replacement.

LP-Gas Safety Rules, §9.17(a)(5)

A licensee shall cease all LP-gas activities if it no longer employs a qualified company representative who complies with the Commission's requirements. A licensee shall not resume LP-gas activities until such time as it has a properly qualified company representative.

LP-Gas Safety Rules, §9.17(a)(6)

A licensee shall cease LP-gas activities at an outlet if it no longer employs a qualified operations supervisor at that outlet who complies with the Commission's requirements. A licensee shall not resume LP-gas activities at that outlet until such time as it has a properly qualified operations supervisor.

LP-Gas Safety Rules, §9.17(a)(7)

Report of LP-Gas Incident/Accident

At the earliest practical moment or within two hours following discovery, a licensee owning, operating, or servicing equipment or an installation shall notify AFS by telephone of any event involving LP-gas which:

- (1) caused a death or any personal injury requiring hospitalization;
- (2) required taking an operating facility out of service;
- (3) resulted in unintentional gas ignition requiring an emergency response;
- (4) involved the LP-gas installation on any vehicle propelled by or transporting LP-gas;
- (5) caused an estimated damage to the property of the operator, others, or both totaling \$5,000 or more, including gas loss;
- (6) could reasonably be judged as significant because of rerouting of traffic, evacuation of buildings, or media interest even though it does not meet paragraphs (1) - (5) of this subsection; or
- (7) is required to be reported to any other state or federal agency (such as the Texas Department of Public Safety or the United States Department of Transportation).

LP-Gas Safety Rules, §9.36(a)

Containers: Capacity, Construction, Location and Installation

Where propane utilization equipment is installed by the recreational vehicle manufacturer, the recreational vehicle shall be provided with one of the following:

- (1) One but not more than three cylinders having individual water capacities of 105 lb. maximum [approximately 45 lb. propane capacity]
- (2) One or more tanks having a maximum aggregate water capacity of 200 gallons.

NFPA 1192, §5.2.1

Cylinders shall be constructed and marked in accordance with the specifications for propane cylinders of the U.S. Department of Transportation (DOT).

NFPA 1192, §.2.2.1

Tanks utilizing vapor withdrawal must be constructed and marked in accordance with the Rules for Construction of Pressure Vessels, Section VIII, Division I, ASME *Boiler and Pressure Vessel Code*, and shall have design gauge pressure of at least 312 psi.

NFPA 1192, §5.2.2.2

New propane cylinders that have never contained propane and are supplied as original equipment shall be permitted to be transported inside the vehicle.

NFPA 1192, §5.2.3.2

Propane containers with their control valves shall be installed in compliance with one of the following:

- (1) Mounted in a recess or compartment, other than on the roof, that is vapor resistant to the inside of the recreational vehicle.
- (2) Mounted on the tongue or A-frame of a travel or camping trailer or forward of the front bulkhead below the overhang of a fifth-wheel trailer and not lower than the bottom of the trailer frame.
- (3) Mounted on the chassis or to the floor of a motorhome or chassis-mount camper, provided neither the tank nor its support is located in front of the front axle, as follows:
 - (a) Tanks mounted between the front and rear axles shall be installed not lower than the front axle height.
 - (b) Tanks mounted behind the rear axle of a motor home or chassis-mount camper shall be installed in such a manner that the bottom of the tank and any connection thereto shall not be lower than either the rear axle height (excluding the differential) or any section of the frame immediately to the rear of the tank, whichever is higher.
 - (c) All clearances shall be determined from the bottom of the tank or from the lowest fitting, support, or attachment on the tank or tank housing, whichever is lower when all axles are loaded to their gross axle weight rating.

NFPA 1192, §5.2.3.3

Containers shall not be mounted on the exterior of the rear wall or the rear bumper of a recreational vehicle.

NFPA 1192, §5.2.3.4

Tanks mounted behind the rear axle of a travel trailer or a fifth wheel trailer must be installed so that the bottom of the tank and any connection thereto is not lower than either the rear axle(s) height or the lowest section of the frame to the rear of the tank, whichever is higher.

NFPA 1192, §5.2.3.3(4)(a)

When the recreational vehicle is supplied with cylinders not secured in place, the recreational vehicle manufacturer shall provide mounting instructions and required materials with the vehicle.

NFPA 1192, §5.2.4.2

Propane containers located less than 18 inches from the exhaust system, the transmission, or a heat-producing component of the internal combustion engine shall be shielded by the vehicle frame member or by a noncombustible baffle, with an air space on both sides of the frame member or baffle.

NFPA 1192, §5.2.5.1

The compartment shall be ventilated with at least two vents, each having an aggregate free area equal to at least 0.5 square inches for each 7 lb. of the total propane fuel capacity of the maximum number of the largest cylinders the compartment can hold.

NFPA 1192, §5.2.6.2

Containers shall be equipped with a listed overfilling prevention device.

NFPA 1192, §5.2.13.1

Cylinders shall be equipped with an overfilling prevention device that complies with ANSI/UL 2227, *Standard for Overfilling Prevention Devices*.

NFPA 1192, §5.2.13.2

LP-gas containers shall be located so that the discharge from the pressure relief valve is not less than 3 feet measured horizontally along the surface of the vehicle from any opening into the recreational vehicle, fuel-burning appliance intake and exhaust vents, and all internal combustion engine exhaust terminations located below the level of discharge.

NFPA 1192, §5.2.19.1

Sample Question 2

An LP-gas regulator must be installed with the pressure relief vent opening pointing downward within 50 degrees of vertical to vertical to allow for drainage of any moisture collected on the diaphragm of the regulator.

- A. True
- B. False

Answer on last page

Propane Systems

Compartments shall be ventilated at or near the top and at the extreme bottom to facilitate diffusion of vapors.

NFPA 1192, §5.2.6.1

Hoods or housings covering cylinder valves shall not be equipped with locks or special tools to open.

NFPA 1192, §5.2.7.2

Propane containers shall not be installed in compartments or under hoods or housings that contain flame or spark-producing equipment.

NFPA 1192, §5.2.9

Where a remotely controlled shutoff valve is not used as permitted in 5.2.11.1, the manual control of the tank shutoff valve, the propane fill connection and the fixed maximum liquid level gauge shall be located no more than 18 inches from the vehicle's outside wall when the vehicle is in the travel mode.

NFPA 1192, §5.2.10.2

The regulator(s) shall have a capacity of not less than the total input of all propane appliances installed in the recreational vehicle.

NFPA 1192, §5.2.15.3

The regulator(s) shall be installed with the pressure relief vent opening pointing downward within 45 degrees of vertical to allow for drainage of any moisture collected on the diaphragm of the regulator.

NFPA 1192, §5.2.15.4

A regulator installed below floor level shall be installed in a compartment that provides protection against the weather and wheel spray.

NFPA 1192, §5.2.15.5

Cylinders shall require a manual shutoff valve for vapor service that does not allow propane to flow until a positive seal is achieved between that valve and its mating connection.

NFPA 1192, §5.2.16.2

In multiple cylinder systems, a backflow check valve shall be provided anywhere from the cylinder outlet to the automatic changeover regulator inlet.

NFPA 1192, §5.2.16.3

Where the pressure relief valve discharge must be piped away, the pipeaway system shall consist of a breakaway adapter recommended by the pressure relief valve manufacturer, and at the terminal discharge end of the pipeaway system, a protective cover shall be installed to minimize the possibility of the entrance of water or dirt into either the pressure relief valve or its pipeaway discharge system.

NFPA 1192, §5.2.19.3.2

The pipeaway (piping) system connections shall be mechanically fastened and must not depend on adhesives or sealing compounds.

NFPA 1192, §5.2.19.3.12

Vapor, at a pressure not over 14 inches water column, shall be delivered from the system into the propane appliance supply connection.

NFPA 1192, §5.2.21.1

The appliance must be listed for recreational vehicle use at the specified operating pressure.

NFPA 1192, §5.2.21.2 (4)

Sample Question 3

Vapor, at a pressure not over _____ inches water column, must be delivered from the system into the propane appliance supply connection.

- A. 10
- B. 12
- C. 13
- D. 14

Answer on last page

Propane Piping Systems

Materials for the installation, extension, alteration, or repair of LP-gas piping systems in a recreational vehicle shall be new and free of defects or internal obstructions.

NFPA 1192, §5.3.2.1

Brass flare nuts shall be stress relieved or of the forged type.

NFPA 1192, §5.3.2.5(6)

Where tubing passes through walls, floors, partitions or roofs, or similar installations, such tubing shall be protected by the use of weather resistant grommets that fit snugly both the tubing and the hole through which the tubing passes.

NFPA 1192, §5.3.8.2

Propane piping systems shall be sized so that the pressure drop to any appliance inlet connection from the LP-gas supply connection or connections, when all appliances are in operation at maximum capacity, is not more than 0.5 inches water column.

NFPA 1192, §5.3.4.1

Threaded joints shall be made up tight with the approved joint material that is insoluble in propane.
NFPA 1192, §5.3.7.1

Threaded pipe joint material shall be applied to only male threads.
NFPA 1192, §5.3.7.2

Pipe or tubing joints shall not be located in any floor, wall, partition, or concealed construction space.
NFPA 1192, §5.3.9.1

All propane piping shall be secured and supported at intervals of not more than 4 feet.
NFPA 1192, §5.3.18.1

The piping systems shall be proven by test to be leak-free by maintaining an air pressure of at least 3 psi for a period of at least 10 minutes.
NFPA 1192, §5.3.19.1

After appliance are connected to the piping system, the entire piping system shall be proven leak free by maintaining an air pressure of not less than 8 inches water column or more than 14 inches water column.
NFPA 1192, §5.3.20.1

If during the 3-minute period, a drop in pressure occurs, the system shall be deemed to have failed the test.
NFPA 1192, §5.3.20.6(4)

Before the test is begun, the temperature of both the air and piping must be approximately the same, and a uniform temperature shall be maintained throughout the test period.
NFPA 1192, §5.3.20.2

Fuel-Burning Appliances

Propane appliances shall be listed for use with propane only or for use with both natural gas and propane where convertible from natural gas to propane and vice versa.
NFPA 1192, §5.4.3

All fuel-burning appliances, except ranges and ovens, shall be designed and installed to provide complete separation of the combustion system from a recreational vehicle's interior atmosphere.
NFPA 1192, §5.4.6.1

Fuel-burning appliances must not be converted from one fuel to another unless in accordance with the terms of its listing and the appliance manufacturer's instructions.
NFPA 1192, §5.4.4

The installation of each fuel-burning appliance shall conform to the terms of its listing and the manufacturer's instructions.
NFPA 1192, §5.4.5.1

Floor-mounted fuel-burning appliances shall not be installed on carpeting unless the appliance is listed for such installation.

NFPA 1192, §5.4.5.2

Every appliance shall be mounted in place to avoid displacement.

NFPA 1192, §5.4.5.3

Venting, Ventilation and Combustion

In a recreational vehicle, venting and combustion air systems shall be installed in accordance with the following:

- (1) Components shall be assembled and properly aligned using the methods shown in the appliance manufacturer's instructions.
- (2) Vent connectors shall be firmly attached to the flue collars by sheet metal screws, their equivalent, or as specified in the manufacturer's instructions.
- (3) Every joint of a vent, vent connector, exhaust duct and combustion air intake shall be secured and in alignment.

NFPA 1192, §5.5.1

Flue gas outlets from fuel-burning appliances shall not be less than 3 feet from any motor-driven air intake discharging into habitable areas of a recreational vehicle.

NFPA 1192, §5.5.2.1

Flue gas outlets must not terminate under a recreational vehicle.

NFPA 1192, §5.5.2.2

Sample Question 4

All recreational vehicle LP-gas piping must be supported at intervals of not more than feet, except where adequate support and protection is provided by structural members.

- A. 3
- B. 4
- C. 5
- D. 6

Answer on last page

Any portion of a combustion air inlet or flue gas outlet of a fuel-burning heating appliance shall be located at least 3 feet from any gasoline filler spout on the vehicle if the inlet or outlet is located above or at the same level.

NFPA 1192, §5.5.3.1

The space where any fuel-burning cooking appliance is located shall be ventilated by gravity or mechanical vent extending through the roof to the outside.

NFPA 1192, §5.5.4.1

Marking Appliances (Installation and Operational Features)

Information on clearance, input rating, lighting, and shutdown shall be attached to the appliance.

NFPA 1192, §5.6.1.1

Each fuel-burning appliance shall bear the appliance manufacturer's permanent marking designating the type(s) of fuel for which it is listed.

NFPA 1192, §5.6.2.1

Every appliance must be accessible for inspection, service, repair and replacement.

NFPA 1192, §5.6.3.1

All propane clothes dryers shall be exhausted to the outside by a moisture-lint exhaust duct and termination fitting.

NFPA 1192, §5.6.7.1

Fuel-burning clothes dryers shall receive their combustion air and drying air from outside the vehicle and shall exhaust the combustions products and drying air from inside the vehicle.

NFPA 1192, §5.6.7.4

Each recreational vehicle must be provided with an owner's manual that must contain, as a minimum, the information contained in 5.9.1.2(A) through 5.9.1.2(G).

NFPA 1192, §5.8.1.2

Sample Question 5

All fuel-burning appliances, except _____, must be designed and installed to provide for complete separation of the combustion system from a recreational vehicle's interior atmosphere.

- A. Floor-mounted appliances
- B. Ranges
- C. Ovens
- D. Both B and C

Answer on last page

Fire and Life Safety Provisions

All recreational vehicles equipped with a propane appliance and electrical system must be equipped with a listed propane detector, listed as suitable for use in recreational vehicles under requirements of UL 1484, and installed according to the terms of its listing.

NFPA 1192, §6.3.3.1

Sample Question 6

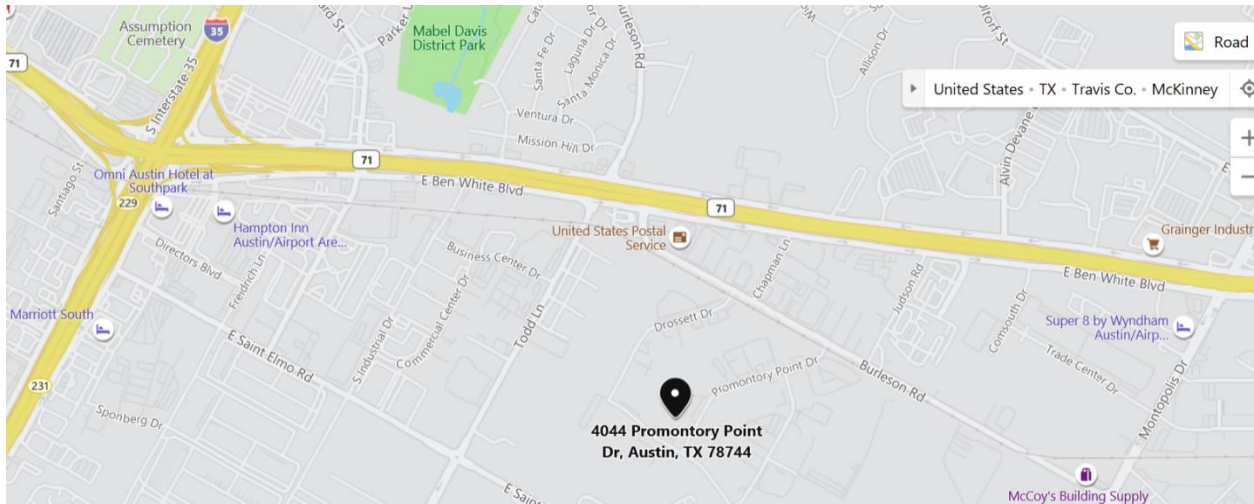
In a recreational vehicle, venting and combustion air systems must be installed in accordance with which of the following?

- A. Components must be assembled and properly aligned as shown in the manufacturer's instructions.
- B. Vent connectors must be firmly attached to the flue collars by sheet metal screws or as specified in the manufacturer's instructions.
- C. Every joint of a vent, vent connector, exhaust duct and combustion air intake must be secured and in alignment.
- D. All of the above

Answer on last page

ALTERNATIVE FUELS TRAINING CENTER

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Sample Question Answers

1. C
2. B
3. D
4. B
5. D
6. D