

Ind 9.002 Definitions. (1) "Alterations" means changes affecting the strength and/or safety of the installations.

(2) "API-ASME" means the editions of the "Unfired Pressure Vessel Code of the American Petroleum Institute and the American Society of Mechanical Engineers," and the Wisconsin Boiler and Unfired Pressure Vessel Code.

(3) "Approved" means approval granted by the department.

Note: The department will ordinarily approve items approved by a nationally recognized testing laboratory.

(4) "Artificial heat" means heat obtained from any other source than solar, atmospheric or ground.

(5) "ASME" means the edition of the "Unfired Pressure Vessel Code of the American Society of Mechanical Engineers."

(6) "Column type gauge glass" (See section Ind 9.16 (8).)

(7) "Container" means all vessels such as tanks, cylinders, bottles or drums used for transporting or storing of liquefied petroleum gas.

(8) "Department" means the department of industry, labor and human relations.

(9) "Filling density" (See section Ind 9.11.)

(10) "Gas" means liquefied petroleum gas in either liquid or gaseous state.

(11) "Gas mixing device" means a device to mix gas and air.

(12) "ICC" means the Interstate Commerce Commission (currently the U.S. Department of Transportation).

(a) "ICC container" means a container as defined in subsection (7) bearing the ICC or U.S. Department of Transportation stamping.

(13) "Mobile fuel tank" means a tank used to supply fuel to the motor of a mobile vehicle. (See section Ind 9.70.)

(14) "Mobile vehicle" means any vehicle which comes under section Ind 9.50 of these orders.

(15) "Saddle" means that part of supporting structure upon which the tank rests.

(16) "Skid tank" (See section Ind 9.36 (6) and section Ind 9.66.)

(17) "Systems" means an assembly of equipment consisting essentially of the container or containers, major devices such as vaporizers, carburetors, relief valves, excess flow valves, regulators, etc., and interconnecting piping.

(18) "Truck tank" means a tank securely fastened to a truck frame and used to transport liquefied petroleum gases. (See section Ind 9.50.)

(19) "Utility gas manufacturing plant" means a plant supplying gas (not liquid gas) to various consumers through pipe lines.

(20) "Vapor pressure" means the pressure of saturated vapor in equilibrium over liquefied petroleum gas confined within a container.

History: Cr. Register, May, 1961, No. 65, eff. 6-1-61; r. and rec., Register, May 1972, No. 197, eff. 6-1-72.

Ind 9.01 Basic rules. (1) Every person, firm, association or corporation actually performing the work of installing equipment utilizing liquefied petroleum gas for fuel purposes shall furnish the customer or user of said equipment, at time of installation, a statement, a form which is acceptable to the department, showing that the design, construction, location and installation of said equipment conforms with the rules and regulations adopted by the department.

(a) The written statement shall cover installations of 20 pound gas rated containers and larger.

(2) Persons installing containers of 125 gallon water capacity up to and including 2,000 gallon water capacity for permanent* installations shall submit a written report at time of such installations to the chief of the fire department, if there is one, otherwise to the department.

* **Note:** The term "permanent" is intended to designate installations at a fixed geographic location.

(3) Temporary installations at construction sites. (a) A written notification for use of liquefied petroleum gas deliveries of 100 pound gas rated containers or larger shall be made to the chief of the fire department, if there is one, otherwise to the department, by the responsible receiving contractor at the time of initial delivery.

(4) Three sets of plans for all installations using containers over 2,000 gallon water capacity shall be submitted and approval granted by the department before such installations are made.

(5) Odorizing Gases. (a) All liquefied petroleum gases shall be effectively odorized by an approved agent of such character as to indicate positively, by distinct odor, the presence of gas down to concentration in air of not over 1/5 the lower limit of flammability. Odorization, however, is not required if harmful in the use of further processing of the liquefied petroleum gas, or if odorization will serve no useful purpose as a warning agent in such use or further processing.

Note: The lower flammable limits of the more commonly used LP-gases are: propane, 2.15%; butane, 1.55%. These figures represent volumetric percentages of gas in gas-air mixtures.

(b) The odorization requirements of section Ind 9.01 shall be considered to be met by the use of 1.0 pounds of ethyl mercaptan, 1.0 pounds of thiophane or 1.4 pounds of amyl mercaptan per 10,000 gallons of LP-gas. However, this listing of odorants and quantities shall not exclude the use of other odorants that meet the odorization requirements of section Ind 9.01.

History: Cr. Register, May, 1961, No. 65, eff. 6-1-61; r. and recr. Register, May, 1972, No. 197, eff. 6-1-72.

Ind 9.02 Approval of equipment and systems. (1) Each system utilizing ICC containers shall have their container valves, connectors, manifold valve assemblies and regulators (bases, hoods, or cabinets if desired):

- (a) Listed by Underwriters' Laboratories, Inc., or,
- (b) Listed by a nationally recognized testing laboratory, or,
- (c) Inspected and approved by the department.

Note: Where necessary to alter, or to repair such listed systems in the field in order to provide for different operating pressures, change from vapor to liquid withdrawal, and the like, such changes may be made by use of component parts which have been individually listed by one of the above for use with LP-gas.

(2) Each system for domestic and/or commercial use utilizing containers of 2,000 gallons or less water capacity, other than those bearing the ICC stamping, shall be:

- (a) Listed by Underwriters' Laboratories, Inc., or,
- (b) Listed by a nationally recognized testing laboratory, or,
- (c) Inspected and approved by the department.