

Appendix L

Active Propane

Safety Information

OPD Valves

What are OPD Valves?

Overflow Prevention Device fitted valves are the result of extensive research into improving gas safety for you and your gas tanks. The new OPD valves (shown below) prevent overfilling of gas cylinders, making filling and using gas cylinders safer than ever before. They are also compatible with your current gas appliances so it is easy to upgrade.

Older style valves were more susceptible to overfilling which leaves no room for the liquid propane to expand. As a result gas may escape, creating a potentially hazardous situation. OPD valves solve this problem by using a special float (shown left) which rises during refilling to block the filling process when the tank is 80% full.

OPD valves will be required on all cylinders 4# to 40# by April 2002. Active propane can help you upgrade your cylinder to OPD for a minimal charge by exchanging it at over 1000 Active locations.

Identifying Your Valves

How the OPD Valve Works

1. Liquid propane (dark blue) fills the cylinder through the OPD Valve.
2. At a safe level, the float cam (yellow) triggers the pin (orange) to fall into the recess of the cam, sealing this path off and preventing any more liquid propane from entering the cylinder.
3. The propane builds up pressure in the chamber (center spring) and pushes the piston arm up to form a seal, effectively stopping the filling process.
4. Using propane from the cylinder resets the OPD for the next fill.

For more information, please feel free to email or call us.

Requalifying DOT Cylinders

Description:

U.S. DOT specification cylinders used to transport LP-gas in commerce must be requalified 12 years after their original test date, and every 5, 7, or 12 years thereafter, depending on the method used for the last requalification.

Regulatory Reference

49 CFR § 107.805	Approval of cylinder requalifiers
49 CFR § 173.301	General requirements for shipment of compressed gases in cylinders...
49 CFR § 180.203	Definitions
49 CFR § 180.205	General requirements for requalification of cylinders
49 CFR § 180.209	Requirements for requalification of specification cylinders
49 CFR § 180.209	Requalification markings
49 CFR § 180.215	Requirements for requalification of specification cylinders

NOTE: The regulations listed become effective October 1, 2002. It is recommended that you retain the previous Compliance Guide No DOT 31 in your reference manual until October 1, 2002. After that date you may want to retain it for future reference in another file.

Applies to:

The regulations apply to all cylinders used to transport LP-gas in commerce and persons who fill cylinders or who must be registered with U.S. Department of Transportation to requalify specification cylinders.

General Requirements:

- (1) 49 CFR § 173.301 (a)(1) requires, "Compressed gases [includes LP-gases] must be in metal cylinders and containers built in accordance with DOT and ICC specifications... in effect at the time of manufacture, and requalified and marked as required by the specification and the regulation for requalification...."

(a)(2) states, "... Before each filling of a cylinder, the person filling the cylinder must visually inspect the outside of the cylinder. A cylinder that has a crack or leak, is bulged, has a defective valve or a leaking or defective pressure relief device, or bears evidence of physical abuse, fire or heat damage, or detrimental rusting or corrosion, may not be filled and offered for transportation. A cylinder may be repaired and requalified only as prescribed in subpart C of part 180 of this subchapter."

Paragraph (a)(2) states, "Pressure relief devices must be tested for leaks before the charged [filled] cylinder is shipped from the cylinder filling plant."

Paragraph (a)(6) requires, "No person may fill a cylinder overdue for periodic requalification with a hazardous material and then offer it for transportation. The prohibition against offering a cylinder for transportation does not apply to a cylinder filled prior to the requalification due date."

Paragraph (b) requires, "Required markings on a cylinder must be legible and must meet the applicable requirements of subpart C of part 180...."

Paragraph (f) requires, "...a cylinder filled with a gas and offered for transportation must be equipped with one or more pressure relief devices sized and selected as to type, location and quantity, and tested in accordance with CGA Pamphlet[s] 5-1.1 (compliance with paragraph 9.1.1.1 of CGA Pamphlet S-1 is not required)...."

- (2) 49 CFR § 180.209 (a) *Periodic qualification of cylinders (1)* requires, “Each specification cylinder that becomes due for periodic requalification as specified in the following table, must be requalified and marked in conformance with the requirements of this subpart. Requalification records must be maintained in accordance with § 180.215.

Table 1—Requalification of Cylinders

Specification under which cylinder was made:	Minimum test pressure (psig) ²	Test Period (years)
DOT 3A, 3AA	5/3 times service pressure, except non-corrosive service (see § 180.209 (g))	5, 10, or 12 (see § 180.209 (b), (f), (h), and (j))
3B, 3BN	2 times service pressure (see § 180.209 (g))	5 or 10 (see § 180.209 (f))
4B, 4BA, 4BW, 4B—240ET	2 times service pressure, except non-corrosive service (see § 180.209 (g))	5, 10, or 12 (see § 180.209 (e), (f), and (j))
DOT 4E	2 times service pressure, except non-corrosive service (see § 180.209 (g))	5

Paragraph (g), *Visual inspections*, permits requalification of specification cylinders used exclusively in LP-gas service by complete external visual inspection in accordance with CGA Pamphlet C-6 or C-6.3 at the time periodic requalification comes due. After September 30, 2003, inspections for cylinder requalification must be made only by persons holding a current U.S. DOT requalifier identification number (RIN) and the results must be recorded and maintained in accordance with § 180.215. Cylinders requalified by external visual inspection must be marked as required in § 180.213.

- (3) DOT and ICC specification cylinders used to transport LP-gas in commerce may also be requalified by one of two alternative tests:
- (a) The (water jacket-type hydrostatic) volumetric expansion test at twice the marked service pressure, valid for a 12-year requalification period, and designated with the test month and year stamped on the cylinder (along with the RIN as illustrated in (d) of § 180.213); and
 - (b) The proof pressure test at twice the marked service pressure, valid for a 7-year requalification period, and designated with the test month and year, followed by the letter “S” (along with the RIN as illustrated in (d) of § 180.213).
- (4) Cylinder rejection and condemnation. The meaning of the words “rejected cylinder” and “condemn” are defined in § 180.213. A condemned cylinder is one that cannot be repaired or rebuilt and subsequently requalified for continued service. Paragraph (h)(1) requires, “When a cylinder must be condemned, the requalifier must stamp a series of X’s over the DOT specification number and the marked [service] pressure or stamp “CONDEMNED” on the shoulder, top head, or neck using a steel stamp. Alternatively, at the direction of the owner, the requalifier may render the cylinder incapable of holding pressure. In addition, the requalifier shall notify the cylinder owner, in writing, that the cylinder is condemned and may not be filled with hazardous material for transportation in commerce where use of a specification packaging is required.” No person may remove or obliterate the “condemned” marking.

- (5) Record keeping. 49 CFR § 180.215 (b) requires, “Daily records of visual inspection, pressure test... must be maintained by the person who performs the requalification until either the expiration of the requalification period or until the cylinder is again requalified, whichever occurs first.”

Other specific record keeping requirements, including records for all cylinders requalified, RIN issuance letters and renewals, copies of CGA standards used for requalification, any notifications to the Associate Administrator [of U.S. DOT] required by the regulations, are found in §§ 180.215 and 107.803-805.

Training Requirements:

When applying for a U.S. DOT requalifier identification number (RIN) the training and qualifications of persons who perform requalifying external visual inspection must be stated in the application. All persons who perform requalifying tasks must be trained so that they are familiar with the standards that apply; requalifiers using the external visual inspection method must be competent to use the Compressed Gas Association (CGA) external visual inspection methods and thoroughly familiar with the requirements of CGA Pamphlets C-6 and C-6.3.

Maintenance and Review

Operating companies that offer cylinder requalification should periodically review the record keeping requirements of the regulation, and the performance of persons authorized to perform requalification. Documentation of requalification registration must be kept current. Means to document compliance on the part of all persons who inspect, fill, or transport cylinders should also be implemented and reviewed on a continuing basis.

