

CGA

Compressed Gas Association

The Standard For Safety Since 1913

CGA S-8—2018 GUIDELINE FOR THE SAFE HANDLING OF LIQUEFIED PETROLEUM GAS CYLINDERS

THIRD EDITION

Currently in preview, click buy full version

PLEASE NOTE:

The information contained in this document was obtained from sources believed to be reliable and is based on technical information and experience currently available from members of the Compressed Gas Association, Inc. and others. However, the Association or its members, jointly or severally, make no guarantee of the results and assume no liability or responsibility in connection with the information or suggestions herein contained. Moreover, it should not be assumed that every acceptable commodity grade, test or safety procedure or method, precaution, equipment or device is contained within, or that abnormal or unusual circumstances may not warrant or suggest further requirements or additional procedure.

This document is subject to periodic review, and users are cautioned to obtain the latest edition. The Association invites comments and suggestions for consideration. In connection with such review, any such comments or suggestions will be fully reviewed by the Association after giving the party, upon request, a reasonable opportunity to be heard. Proposed changes may be submitted via the Internet at our web site, www.cganet.com.

This document should not be confused with federal, state, provincial, or municipal specifications or regulations; insurance requirements; or national safety codes. While the Association recommends reference to or use of this document by government agencies and others, this document is purely voluntary and not binding unless adopted by reference in regulations.

A listing of all publications, audiovisual programs, safety and technical bulletins, and safety posters is available via the Internet at our website at www.cganet.com. For more information contact CGA. Phone: 703-788-2700, ext. 799. E-mail: customerservice@cganet.com.

Work Item 17-017
Liquefied Petroleum Gas Committee

NOTE—Technical changes from the previous edition are underlined

THIRD EDITION: 2018
SECOND EDITION: 2012
FIRST EDITION: 2007

© 2018 The Compressed Gas Association, Inc. All rights reserved.

All materials contained in this work are protected by United States and international copyright laws. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopying, recording, or any information storage and retrieval system without permission in writing from The Compressed Gas Association, Inc. All requests for permission to reproduce material from this work should be directed to The Compressed Gas Association, Inc., 8484 Westpark Drive, Suite 220, McLean, VA 22102. You may not alter or remove any trademark, copyright or other notice from this work.

Contents	Page
1 Introduction.....	1
2 Scope	1
3 Definitions.....	1
4 Training	2
5 Proper filling procedures	2
6 Liquefied petroleum gas product names	3
7 Cylinder valves and ancillary equipment.....	4
7.1 Cylinder valve types	4
7.2 Fixed maximum liquid level gauges.....	5
7.3 Overfilling prevention device	8
7.4 CG-7 pressure relief valves	8
7.5 Other valves and equipment.....	9
8 Cylinder storage, handling, and maintenance recommendations	10
8.1 Storage and handling	10
8.2 Maintenance	10
9 References	11
Table	
Table 1—Typical LPG product names and characteristics	4
Table 2— Typical DOT/TC cylinders.....	4
Table 3—Inspection intervals for testing LPG cylinders.....	10
Figures	
Figure 1—Cylinder valve with integral CG-7 pressure relief valve.....	5
Figure 2—Stand-alone CG-7 pressure relief valve	6
Figure 3—Stand-alone, fixed maximum liquid level gauge	6
Figure 4—Integral fixed maximum liquid level gauge in cylinder valve at 80% liquid level.....	7
Figure 5— Cylinder valve with integral CG-7 relief valve, OPD and fixed maximum liquid level gauge	7
Figure 6—Top view of OPD cylinder valve handwheel	8

This page is intentionally blank.

Currently in preview, click buy full version

1 Introduction

Millions of liquefied petroleum gas (LPG) cylinders are used worldwide to provide fuel for a wide range of consumer and industrial applications. In the United States and Canada, LPG cylinders are equipped with a CG-7 pressure relief valve (PRV) designed to discharge and reclose (reseal) after the excessive pressure in the cylinder is reduced to an acceptable level.

In recent years, incidents have occurred that have been attributed to the improper application and maintenance of the LPG cylinder and CG-7 PRV package.

The safe, proper function and use of an LPG cylinder with a CG-7 PRV is dependent upon several variables. These variables include but are not limited to items such as:

- adequate and proper training of all employees who handle cylinder gas products;
- proper filling procedures;
- proper handling, selection, maintenance, and replacement of the CG-7 PRV;
- proper storage and handling; and
- type and location of other devices on the cylinder or valve body.

2 Scope

The purpose of this publication is to provide:

- Reference material and guidelines to personnel who fill, store, distribute, inspect, maintain, or requalify LPG cylinders and to ensure compliance with applicable safety and regulatory requirements; and
- Information on proper selection, handling, and maintenance of cylinder valves and the CG-7 PRV. This information is limited to U.S. Department of Transportation (DOT) and Transport Canada (TC) refillable cylinder designs.

For the purposes of this publication, LPG includes but is not limited to butane, commercial propane, propylene, and mixtures of these products.

3 Definitions

For the purpose of this publication, the following definitions apply.

3.1 Publication terminology

3.1.1 **Shall**

Indicates that the procedure is mandatory. It is used wherever the criterion for conformance to specific recommendations allows no deviation.

3.1.2 **Should**

Indicates that a procedure is recommended.

3.1.3 **May**

Indicates that the procedure is optional.

3.1.4 **Will**

Is used only to indicate the future, not a degree of requirement.

3.1.5 **Can**

Indicates a possibility or ability.