Compressed Gas Association
The Standard For Safety Since 1913

CGA G-6.3—2021
CARBON DIOXIDE CYLINDER FILLING AND HANDLING PROCEDURES

FIFTH EDITION

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Work Item 14-038
Carbon Dioxide Committee

NOTE—Technical changes from the previous edition are underlined.

FIFTH EDITION: 2021
FOURTH EDITION: 2013
THIRD EDITION: 2002
SECOND EDITION: 1995

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1 Introduction

This publication is one of a series compiled by the Compressed Gas Association, Inc., to satisfy the demand for information on the production, handling, storage, transportation, and use of carbon dioxide in gaseous liquid and solid states. There are other CGA publications that provide similar information on other products.

2 Scope and purpose

2.1 Scope

The scope of this publication includes the inspection, filling, handling, labeling, and shipping of uninsulated carbon dioxide cylinders, and the preparation of shipping papers.

In addition to the cylinder filling procedures in this publication, filling carbon dioxide cylinders for medical, food, or beverage use requires the use of product that meets appropriate CGA quality verification levels (QVL) as listed in CGA G-6.2, *Commodity Specification for Carbon Dioxide*, and requires additional procedures per regulatory requirements [1].[1]

CGA G-6, *Carbon Dioxide*, contains information critical to safe storage and handling of carbon dioxide [2]. To ensure personnel safety and proper system design, reference to CGA G-6 is highly recommended [2]. Without obtaining CGA G-6, the reader will not be provided with significant information related to the physical properties and common hazards associated with storage, production, transportation, and handling of carbon dioxide [2]. This publication does address the hazards specifically associated with insulated liquid carbon dioxide systems at consumer sites.

This publication does not cover stationary, in place, high pressure cylinder filling systems and processes where individual cylinder fill capacity is not measured by weight. These systems shall have an engineered safety risk-analysis before installation and use.

2.2 Purpose

The primary purpose of this publication is to provide information to personnel engaged in handling, filling, and transporting carbon dioxide cylinders.

3 Definitions

For the purposes of this publication, the 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.

[1] References are shown by bracketed numbers and are listed in order of appearance in the reference section.