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GUIDELINE FOR HANDLING ACETYLENE CYLINDERS AND ANCILLARY EQUIPMENT IN FIRES

FIRST EDITION

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Work Item 22-048
Acetylene Committee

NOTE—No technical information has been changed from the 2018 edition. This reaffirmed edition may include minor editorial changes.

NOTE—Technical changes from CGA SB-4—2012 are underlined.

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1 Introduction

This guideline is one of a series of publications written by the Compressed Gas Association, Inc. to satisfy the demand for information relative to the transportation, handling, and storage of compressed gases, cryogenic liquids, and related products.

As with any information of this nature, it is impossible to cover every situation that can arise, and it is for this reason that the following information is general and intended to give a basic understanding upon which one can build. Each situation requires careful consideration of the circumstances before an intelligent decision can be made on how to best handle a fire.

If acetylene leaking from a cylinder or ancillary equipment ignites, do not panic. Take precautions as outlined in this guideline, evacuate the area, and call the fire department.

Take every precaution to prevent fires that involve or could involve acetylene cylinders. For additional information on the prevention of fires, refer to:

- NFPA 51, *Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes* [1];¹
- NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work* [2];
- NFPA 55, *Compressed Gases and Cryogenic Fluids Code* [3];
- ANSI/AWS Z49.1, *Safety in Welding, Cutting, and Allied Processes* [4];
- *National Fire Code of Canada* [5].

2 Scope

This publication provides guidance on handling acetylene cylinders equipped with one or more thermally actuated pressure relief devices (PRD) (fusible plugs) in fires for individuals knowledgeable and experienced with the properties, safe handling, and use of acetylene and acetylene cylinders.

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 allow 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

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.