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9TH EDITION

STANDARD FOR MOBILE ACETYLENE TRAILER SYSTEMS

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Acetylene Committee

NOTE—Technical changes from the previous edition have been underlined.

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1 Scope

This publication contains the minimum requirements necessary for the design, construction, and operation of mobile acetylene trailer systems (MATS) consisting of trailers having acetylene cylinders manifolded for the purposes of charging, transporting, and discharging acetylene. It also covers ground-mounted auxiliary equipment used with the MATS such as piping, regulators, flash arrestors, and meters.

2 Definitions

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

2.1 Publication terminology

2.1.1 Shall

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

2.1.2 Should

Indicates that a procedure is recommended.

2.1.3 May

Indicates that the procedure is optional.

2.1.4 Will

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

2.1.5 Can

Indicates a possibility or ability.

2.2 Technical definitions

2.2.1 Acetylene trailer

Open transport vehicle designed to be towed that consists of a group or groups of acetylene cylinders secured in accordance with Title 49 of the U.S. *Code of Federal Regulations* (49 CFR) 393.102 or Part 1 of the National Safety Code (NSC) Standard 10, *Cargo Securement*, as adopted by provincial and territorial regulations in Canada, and manifolded together as a single unit, for filling, transporting, and delivering acetylene [1, 2].¹

2.2.2 Authority having jurisdiction (AHJ)

Organization, office, or individual responsible for enforcing the requirement of a code or standard or responsible for approving equipment, materials, installations, or procedures.

2.2.3 Charging

Process of filling containers to limits authorized by U.S. Department of Transportation (DOT)/Transport Canada (TC) for a specific product including mixtures.

2.2.4 Deluge sprinkler system

Sprinkler system employing open sprinklers attached to a piping system that is connected to a water supply through a valve opened by the operation of a detection system installed in the same areas as the sprinklers. The sprinkler systems shall also be able to be activated manually. When this valve opens, water flows into the piping system and discharges from all sprinklers attached thereto [3].

2.2.5 Discharging

Withdrawal of product from an acetylene trailer through the manifold discharge valve while the trailer is connected to ground-mounted auxiliary equipment used with MATS.

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

2.2.6 Fast-acting detection system

Detection system designed to detect a fire more rapidly than standard smoke or heat detectors.

NOTE— Examples for outdoor installations are optical (ultraviolet [UV]/Infrared [IR]) systems that detect visible flames and do not rely on products of combustion to be transported by the energy of the heat plume to the location of the detector. For indoor installations, examples include high sensitivity smoke detection (HSSD), optical (UV/IR), or other early detection systems.

2.2.7 Federal Motor Carrier Safety Regulations

Safety regulations set forth by DOT in 49 CFR 350-399 for the construction, operation, inspection, maintenance, repair, and testing of commercial motor vehicles on federal highways in interstate commerce [1].

2.2.8 Fill valve

Shutoff valve on the charging system for filling MATS where the acetylene supply first enters the charging connection.

2.2.9 Fire barrier

Fire-resistant rated assembly of materials designed to restrict the spread of fire.

2.2.10 Fire wall

Fire-resistant rated wall that restricts the spread of fire and extends continuously from the foundation to or through the roof with sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall.

2.2.11 Hazardous Materials Regulations

Federal regulations set forth by DOT in 49 CFR 171-180 for the preparation, acceptance, and transportation of hazardous materials within the United States [1].

2.2.12 Mobile acetylene trailer systems (MATS)

System that integrates an acetylene trailer with piping, controls, and protective equipment for delivering acetylene.

NOTE—The system includes the acetylene trailer, flash arrestors, interconnecting piping, pressure control device(s), protective devices, and meter (optional). The system terminates at the source valve.

2.2.13 Mobile acetylene trailer systems (MATS) building

Single-story building, without an attic, basement, crawl space, or false ceiling, used for acetylene trailer(s) or MATS operations located indoors and the balance of the building is used exclusively for acetylene operations including storage and use of hazardous materials.

2.2.14 Mobile acetylene trailer systems (MATS) fire area

Area or footprint occupied by the mobile acetylene trailer(s) to include the control system up to the point of the source valve for MATS being discharged or to the point of the fill valve for MATS being charged.

2.2.15 Outdoor installation

Uncovered area or an area provided with weather protection that is used for parking one or more acetylene trailers and which contains hoses, piping, and/or controls for charging or discharging acetylene.

2.2.16 Source valve

Shutoff valve on the piping system serving MATS where the acetylene supply, at service pressure, first enters the supply line.

2.2.17 Weather protection

Outdoor structure constructed of noncombustible materials that is constructed without sidewalls on 75% or more of the perimeter and a roof.