



**CSA  
Group**

**Z276-15**

# **Liquefied natural gas (LNG) — Production, storage, and handling**



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Production, storage, and handling***



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***In Memoriam***

***This edition of the Z276 Standard is dedicated to the life of our friend and colleague Richard Caesar.***

# Preface

This is the tenth edition of CSA Z276, *Liquefied natural gas (LNG) — Production, storage, and handling*. It supersedes the previous editions published in 2011, 2007, 2001, 1994, 1989, 1981, 1978, 1973, and 1972.

This Standard contains basic reference data relating to design, supplemented by specific requirements, where necessary, to establish a uniform interpretation of the design requirements.

The main difference from the previous edition is the:

- a) addition of requirements for membrane tanks; and
- b) addition of requirements for mobile LNG fuelling stations.

This Standard was prepared by the Technical Committee on Liquefied Natural Gas, under the jurisdiction of the Strategic Steering Committee on Petroleum and Natural Gas Industry Systems and has been formally approved by the Technical Committee.

## Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
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# Z276-15

## ***Liquefied natural gas (LNG) — Production, storage, and handling***

### **0 Introduction**

This Standard establishes essential requirements and minimum standards for the design, installation, and safe operation of liquefied natural gas (LNG) facilities. It is not a design handbook, and competent engineering judgment is necessary for its proper use.

### **1 Scope**

#### **1.1**

This Standard applies to the

- a) design;
- b) location;
- c) construction;
- d) operation; and
- e) maintenance

of facilities for the liquefaction of natural gas and facilities for the storage, vaporization, transfer, handling, and truck transport of LNG. It also contains requirements for the training of personnel.

#### **1.2**

For facilities that load or unload LNG from a marine vessel, this Standard contains requirements for the interconnecting piping between the loading/unloading arm flange and the storage tank(s), and other piping and appurtenances on the pier or jetty itself.

#### **1.3**

This Standard applies to all containers for the storage of LNG, including those with insulation systems applying a vacuum.

#### **1.4**

This Standard does not apply to frozen ground containers.

#### **1.5**

This Standard includes non-mandatory guidelines for

- a) small LNG facilities (see the definition of “small facility” in Clause 3 and see Annex B); and
- b) LNG vehicle fuelling stations employed for fleet and public LNG vehicle fuel dispensing operations (see the definition of “fuelling station” in Clause D.2 and see Annex D).

#### **1.6**

This Standard does not apply to the following:

- a) the transportation of refrigerants by any means;