



CSA/ANSI LNG 4.2:20
National Standard of Canada
American National Standard



Hoses for liquefied natural gas (LNG) dispensing systems for natural gas vehicles (NGV)



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*CSA/ANSI LNG 4.2:20
Hoses for liquefied natural gas
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natural gas vehicles (NGV)*



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Preface

This is the first edition of CSA/ANSI LNG 4.2, *Hoses for liquefied natural gas (LNG) dispensing systems for natural gas vehicles (NGV)*.

CSA Group acknowledges that the development of this Standard was made possible, in part, by the financial support of Natural Resources Canada.

This publication represents a Standard for safe operation, substantial and durable construction, and performance testing of hoses used for liquefied natural gas (LNG) dispensing systems for natural gas vehicles (NGV), within limitations given in the scope of this Standard.

This Standard is based on proven engineering principles, research, and the combined expertise of gas utilities, manufacturers, users, and others having specialized experience.

Nothing in this Standard is to be considered in any way as indicating a measure of quality beyond compliance with the provisions it contains. It is designed to allow compliance of products which might exceed that specified in the provisions herein. In its preparation, full recognition has been given to possibilities of improvement through ingenuity of design. This Standard is subject to revision as further experience and investigation might show it is necessary and desirable.

Users of this Standard are advised that the devices/products/activities within its scope might be subject to regulation at the federal, state, provincial, or local levels. Users are strongly urged to investigate this possibility through appropriate channels. In the event of a conflict with this Standard, the federal, state, provincial, or local regulations should be followed.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Subcommittee on Hoses for Liquefied Natural Gas Vehicle Dispensing Systems (LNG 4.2), under the jurisdiction of the Technical Committee on Natural Gas Transportation and the Strategic Steering Committee on Transportation. It has been formally approved by the Technical Committee and by the Interprovincial Gas Advisory Council.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group. This Standard was approved by the American National Standards Institute (ANSI) as an American National Standard on March 24, 2020.

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CSA/ANSI LNG 4.2:20

Hoses for liquefied natural gas (LNG) dispensing systems for natural gas vehicles (NGV)

0 Introduction

This Standard represents a standard for safe operation, substantial and durable construction, and performance testing of hose components for natural gas vehicle LNG dispensing systems, within limitations given below and in the scope of this Standard.

This Standard is based on proven engineering principles, research, and the combined expertise of gas utilities, manufacturers, users, and others having specialized experience.

Nothing in this Standard is to be considered in any way as indicating a measure of quality beyond compliance with the provisions it contains. It is designed to allow compliance of products which may exceed that specified in the provisions herein. In its preparation, full recognition has been given to possibilities of improvement through ingenuity of design. This Standard is subject to revision as further experience and investigation may show it is necessary and desirable.

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1 Scope

1.1

This Standard applies to liquefied natural gas metallic hose assemblies that are used on LNG dispensers to connect the dispenser to the refuelling nozzle and for gas lines that carry vented gas back to a safe location within the following service temperature range from $-196\text{ }^{\circ}\text{C}$ to $+65\text{ }^{\circ}\text{C}$ ($-320\text{ }^{\circ}\text{F}$ to $+149\text{ }^{\circ}\text{F}$) and nominal hose size range DN (NPS) from 10 to 50 (3/8 to 2).

1.2

Hose assemblies covered by this Standard are intended for use with liquefied natural gas, a fluid in the liquid state at cryogenic temperatures that is composed predominantly of methane and that can contain minor quantities of ethane, propane, nitrogen, or other components normally found in natural gas.

1.3

Length, installation, and inspection of hoses for LNG dispensing is subject to requirements in accordance with NFPA 52, CSA B108, Part 2, or other standards, as applicable, and the authority having jurisdiction (AHJ).