



# CSA/ANSI HGV 4.9:20

National Standard of Canada  
American National Standard



## Hydrogen fuelling stations



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# Preface

This is the second edition of CSA/ANSI HGV 4.9, *Hydrogen fuelling stations*. It supersedes the previous edition published in 2016.

This edition of CSA/ANSI HGV 4.9 harmonizes with other North American requirements, including those referenced in the *Canadian Hydrogen Installation Code*. Additional changes to this edition include alignment with ANSI/CSA HGV 4.1.

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

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

This Standard was prepared by the Subcommittee on Fuelling Stations for Hydrogen Gas Vehicles, under the jurisdiction of the Technical Committee on Hydrogen Transportation and the Strategic Steering Committee on Transportation, and has been formally approved by the Technical Committee and 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 has been approved by the American National Standards Institute (ANSI) as an American National Standard.

**Interpretations:** The Strategic Steering Committee on Transportation has provided the following direction for the interpretation of standards under its jurisdiction: “The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant CSA committee interpretation has not already been published, CSA Group’s procedures for interpretation shall be followed to determine the intended safety principle.”

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  - c) *wording of the proposed change; and*
  - d) *rationale for the change.*

# CSA/ANSI HGV 4.9:20

## Hydrogen fuelling stations

### 1 Scope

#### 1.1

This Standard specifies the design, installation, operation, and maintenance of site-built and modular gaseous hydrogen fuelling stations (HFS) intended to fuel on-road vehicles.

#### 1.2

Unless otherwise stated, the standard conditions are as follows: temperature 15 °C and pressure 101 kPa.

#### 1.3

In case of conflict between this Standard and federal, provincial, state, or local regulations, governmental regulations take precedence.

#### 1.4

All references to pressure throughout this Standard are to be considered gauge pressure unless otherwise specified.

#### 1.5

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; “should” is used to express a recommendation or that which is advised but not required; “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text or explanatory informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

#### 1.6

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

### 2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.