CSA/ANSI HGV 4.3:19

National Standard of Canada
American National Standard

Test methods for hydrogen fueling parameter evaluation

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CSA/ANSI HGV 4.3:19
July 2019

Title: *Test methods for hydrogen fueling parameter evaluation*

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National Standard of Canada
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CSA/ANSI HGV 4.3:19

Test methods for hydrogen fueling parameter evaluation

American National Standards Institute, Inc.

Interprovincial Gas Advisory Council

Approved on June 28, 2019 by ANSI
Approved on June 4, 2019 by IGAC
Effective February 1, 2021
Published in July 2019 by CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3

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ICS 27.075
ISBN 978-1-4883-2547-2

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Preface

This is the third edition of CSA/ANSI HGV 4.3, *Test methods for hydrogen fueling parameter evaluation*. It supersedes the previous editions published in 2016 and 2012.

This edition includes a new Clause 10 on MC formula-based fueling protocol.

This Standard was prepared by the Subcommittee on Test Methods for Hydrogen Fueling Parameter Evaluation, 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.

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CSA/ANSI HGV 4.3:19
Test methods for hydrogen fueling parameter evaluation

1 Scope

1.1
This Standard establishes the test method, criteria, and device to evaluate a hydrogen fueling station dispensing system (hereinafter referred to as a "dispenser") as it relates to achieving the protocols specified in SAE J2601 and SAE J2799 with light duty vehicle hydrogen storage systems less than 248.6 L (10 kg H70). The testing evaluation applies to dispensers designed to fill vehicle storage systems following the prescribed protocols defined in SAE J2601 that target rapid fills, while respecting temperature, pressure, and fuel density safety limits.

Note: *This Standard is a minimum requirement. Manufacturers may take additional safety precautions.*

1.2
This Standard was developed for and is intended to be used with the specific version of SAE J2601 and SAE J2799 documents as referenced in Clause 2.

1.3
For fueling dispensers with the capability for communications with the vehicle, these test methods include the approach to confirm the requirements specified in SAE J2799 and SAE J2601.

1.4
It is recommended that newly manufactured hydrogen fueling dispensers be tested according to this Standard prior to initial operation of the dispenser for fueling vehicles. This Standard is also intended to provide test methods for validation of existing hydrogen fueling dispensers.

1.5
Unless otherwise specified, the requirements in this Standard apply to the verification of SAE J2601 compliant hydrogen fueling stations (HFS).

1.6
In the case of conflict between this Standard and federal, provincial, state, or local requirements, the governmental requirements take precedence.

1.7
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.

1.8
All references to pressure throughout this Standard are to be considered gauge pressure unless otherwise specified.

