



Hydrogen Standards Update

Prepared for

2008 Hydrogen Fuel Cell Vehicle
Subgroup on Safety

Washington DC

13-16 May 2008

Making standards work

for people

and business



CSA AMERICA INC

Fuel Dispensers

- Compressed Hydrogen Dispensers (CSA America HGV 4.1)
- Hydrogen Gas Vehicle Fueling Station Compressor (CSA America HGV 4.8)

Fuel Station Components

- Hoses and Hose Assemblies (CSA America HGV 4.2)
- Temperature Compensation Systems (CSA America HGV 4.3)
- Breakaway Devices for Hoses (CSA America HGV 4.4)
- Priority and Sequencing Equipment (CSA America HGV 4.5)
- Manually Operated Valves (CSA America HGV 4.6)
- Standard for Automatic Pressure Operated Valves (CSA America HGV 4.7)

Temperature Compensation

- Temperature Compensation Systems (CSA America HGV 4.3/J2601)
- SAE J2600 “Compressed Hydrogen Surface Vehicle Refueling Connection Devices”
- SAE J2601, “Recommended Practice for Gaseous and Liquid Hydrogen Vehicle Fueling Methodologies, Temperature Compensation and Communication”, and
- SAE J2799, “70MPa Compressed Hydrogen Surface Vehicle Fueling Connection Device and Optional Vehicle to Station Communications.”

SAE International Fuel Cell Interface Working Group and CSA America have been working in tandem to arrive at common station and vehicle refueling protocols.

Fuel System

- Compressed Hydrogen Dispenser System (CSA America HGV 4.9)

Fittings

- Hydrogen Fittings, (CSA America HGV 4.10)

PRESSURE RELIEF DEVICES

- Pressure Relief Devices for Compressed Hydrogen Vehicle Fuel Containers (CSA America HPRD1)
- **Industry review and comment**
November 5, 2007 – January 15, 2008
- **Current issues: Effects of refueling temperature on thermal creep requirements;**

FUEL SYSTEM COMPONENTS

- Fuel System Components for Hydrogen Vehicles (CSA America HGV 3.1)
- Industry review and comment -Summer 2008

COMPRESSED HYDROGEN GAS VEHICLE FUEL CONTAINERS

- 2008-Coordination with SAE J2579

Timeline

Publication of TIR Summer 2008

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Publication of TIR December 2008

- Pressure Relief Devices for Compressed Hydrogen Vehicle Fuel Containers (CSA America HPRD1)

Publication of Industry Review - December 2008

- Temperature Compensation Systems (CSA America HGV 4.3)
- Hydrogen Gas Vehicle Fueling Station Compressor (CSA America HGV 4.8)
- Compressed Hydrogen Dispenser System (CSA America HGV 4.9)



Thank You

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