

Hydrogen Codes and Standards Organizational Chart

National and international organizations involved in the development of hydrogen codes and standards



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- [American Gas Association \(AGA\)](#)
- [American National Standards Institute \(ANSI\)](#)
- [American Petroleum Institute \(API\)](#)
 - [Standards Committees](#)
 - [Committee on Petroleum Measurement](#)
- [American Society for Nondestructive Testing \(ASNT\)](#)
- [American Society of Mechanical Engineers \(ASME\)](#)
 - [Council on Codes and Standards](#)
 - [Board on Pressure Technology](#)
 - [Board on International Standards](#)
 - [Codes and Standards Technology Institute](#)
 - [Hydrogen Steering Committee](#)
- [California Air Resources Board \(CARB\)](#)
- [California Fuel Cell Partnership \(CaFCP\)](#)
- [CSA-America, Inc.](#)
 - [Fuel Cells and Hydrogen Standards](#)
 - [TC 105 & TC 197 Activities](#)
- [CSA-International](#)
- [Compressed Gas Association \(CGA\)](#)
- [European Committee for Electrotechnical Standardization](#)
- [European Committee for Standardization](#)
- [European Integrated Hydrogen Project-Phase II \(EIHP2\)](#)
 - [Work Packages](#)
 - WP1: Overall Coordination
 - WP2: Refuelling Station
 - WP3: Refuelling Interface

WP4: Vehicles
WP5: Safety
WP6: Links "EU-USA", Cluster Activities

- **Institute of Electrical and Electronics Engineers, Inc. (IEEE)**
IEEE Standards Association
Working Group: Communications
- **International Code Council (ICC)**
ICC Ad Hoc Committee for Hydrogen Gas (AHC-H2G)
- **International Electrotechnical Commission (IEC)**
IEC TC 105: Fuel Cell Technologies Working Groups:
 - WG 1: Terminology
 - WG 2: Fuel cell modules
 - WG 3: Stationary fuel cell power plants - Safety
 - WG 4: Performance of Fuel Cell Power Plants
 - WG 5: Stationary Fuel Cell Power Plants - Installation
 - WG 6: Fuel cell system for propulsion and auxiliary power units (APU)
 - WG 7: Portable fuel cell appliances - Safety and performance requirements
 - WG 8: Fuel cell technologies - Part 6-1: Micro fuel cell power systems - Safety
 - WG 9: Fuel cell technologies - Part 6-2: Micro fuel cell power systems - Performance
 - WG 10: Interchangeability
- **International Association of Plumbing and Mechanical Officials (IAPMO)**
Standards Department
- **ISO (International Organization for Standardization)** Technical Committees:
 - TC 11: Boilers and pressure vessels
 - TC 22: Road vehicles
 - SC 21: Electric road vehicles
 - WG1: Vehicle operation conditions, vehicle safety and energy storage installation
 - WG2: Terminology. Definitions and methods of measurement of vehicle performance and of energy consumption
 - TC 58: Gas Cylinders
 - TC 118: Compressors, pneumatic tools and pneumatic machines
 - TC 153: Valves
 - TC 197: Hydrogen technologies Working Groups:
 - WG1: Liquid hydrogen - Land vehicles fuel tanks
 - WG2: Tank containers for multimodal transportation of liquid hydrogen
 - WG4: Airport hydrogen fuelling facility

WG5: Gaseous hydrogen blends and hydrogen fuels - Service stations and filling connectors
WG6: Gaseous hydrogen and hydrogen blends - Land vehicle fuel tanks
WG7: Basic considerations for the safety of hydrogen systems
WG8: Hydrogen generators using water electrolysis process
WG9: Hydrogen generators using fuel processing technologies
WG10: Transportable gas storage devices - Hydrogen absorbed in reversible metal hydride
WG11: Gaseous hydrogen - Service stations
WG12: Hydrogen fuel - Product specification

[TC 220: Cryogenic Vessels](#)

- [Lincoln Composites](#)
- [National Evaluation Service, Inc. \(NES\)](#)
- [National Fire Protection Association \(NFPA\)](#)
[Hydrogen Coordinating Group \(HCG\)](#)

Task Groups:

Metal Hydride Storage and Generation (Including container requirements, pressure relief, and allowable amounts)

High Pressure Storage/Composite Material for Storage/High Pressure Handling and Utilization

Hydrogen Siting (including electrical classification, rooftop siting, and offset distances)

Sub Task Working Groups (STWGs):

- Rooftop Siting
- Electrical Classification
- Offset distances

Below Grade and Mounded Storage

Emergency Power generation

C³ Code Set

Methanol Usage/Methanol Reformation

Hydrogen Venting (Size and Location of Vents)

Hydrogen Piping and Utilization (including building ventilation)

Hydrogen Detection and Protection (Sensing and Control Devices which could include)

- [National Hydrogen Association](#)

[Codes and Standards Committee](#) Working Groups:

WG8: National and International Regulations for Hydrogen Storage

WG9: Analyze Impacts of Draft Global Technical Regulations

WG10: DER Road Show Support

WG12: Portable Power Coordination

WG13: Support NFPA Hydrogen Coordinating Group
WG14: Continue Ongoing Coordination Activities with SDOs,
Others

- [**National Institute of Standards and Technology**](#)
- [**National Renewable Energy Laboratory**](#)
[Hydrogen Technologies and Systems Group](#)
- [**Society of Automotive Engineers \(SAE\)**](#)
[Fuel Cell Initiative](#)
[Fuel Cell Standards Committee](#)
Working Groups:
 - [Performance](#)
 - [Emissions & Fuel Consumption](#)
 - [Interface](#)
 - [Hydrogen Quality Task Force](#)
 - [Recyclability](#)
 - [Safety](#)
 - [Terminology](#)
- [**Underwriters Laboratories \(UL\)**](#)
- [**U.N. Economic Commission for Europe**](#)
[WP 29: World Forum for Harmonization of Vehicle Regulations](#)
- [**U.S. Department of Energy \(DOE\)**](#)
[Office of Energy Efficiency and Renewable Energy \(EERE\)](#)
[Hydrogen, Fuel Cells & Infrastructure Technologies Program](#)
[Hydrogen Codes and Standards Coordinating Committee \(HCSCC\)](#)
- [**U.S. Department of Transportation**](#)
[National Highway Traffic Safety Administration \(NHTSA\)](#)
[Research and Special Programs Administration \(RSPA\)](#)
- [**U.S. Fuel Cell Council**](#)
[Codes and Standards Working Group](#)
- [**Western Fire Chiefs Association**](#)

Is your group involved in the development of hydrogen codes and standards and you're not listed here? [Click here](#)

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