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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