

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 1905
ANSWERED ON 28.07.2022

REGULATION OF HYDROGEN FUEL

1905. SHRI BALASHOWRY VALLABHANENI
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Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether the Government has enacted specific rules for the regulation of hydrogen fuel or fuel cells in the country;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether the Government has extended incentives to the manufacturers of electrolyzers used in the production of hydrogen under green hydrogen policy; and
- (d) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

(a)&(b) The following rules and regulations inter-alia govern the storage and use of hydrogen fuel in India:

- I. Gas Cylinders Rules, 2016
- II. Static and Mobile Pressure Vessels (Unfired) Rules, 1981
- III. Hydrogen Fuel Cell Vehicle Type Approval (AIS 157 Standard) – GSR 436

Further, a list of standards notified by the Bureau of Indian Standards for hydrogen and fuel cells is placed at **Annexure**.

(c)&(d) In the Independence Day speech on August 15, 2021, Hon'ble Prime Minister announced the launch of National Hydrogen Mission. The Ministry of New and Renewable Energy has accordingly developed a draft Mission document.

The draft Mission inter alia comprises a basket of measures to promote production of Green Hydrogen including support for indigenous manufacturing of electrolyzers.

Standards notified by the Bureau of Indian Standards for hydrogen and fuel cells

S.NO.	Code	Title
1.	IS 16253: 2016 (ISO 26142: 2010)	Hydrogen Detection Apparatus — Stationary Applications
2.	IS/ISO 13985: 2006	Liquid Hydrogen — Land Vehicle Fuel Tanks
3.	IS/ISO 12619-1: 2014	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blend Fuel System Components: Part 1 General Requirements and Definitions
4.	IS/ISO 12619-2: 2014	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blend Fuel System Components: Part 2 Performance and General Test Methods
5.	IS/ISO 12619-3: 2014	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blend Fuel System Components: Part 3 Pressure Regulator
6.	IS/ISO 12619-4: 2016	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 4 Check Valve
7.	IS/ISO 12619-5: 2016	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 5 Manual Cylinder Valve
8.	IS/ISO 12619-6: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen/Natural Gas Blend Fuel System Components: Part 6 Automatic Valve
9.	IS/ISO 12619-7: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 7 Gas Injector
10.	IS/ISO 12619-8: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 8 Pressure Indicator
11.	IS/ISO 12619-9: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen/Natural Gas Blends Fuel System Components: Part 9 Pressure Relief Valve (PRV)
12.	IS/ISO 12619-10: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 10 Pressure Relief Device (PRD)
13.	IS/ISO 12619-11: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 11 Excess Flow Valve
14.	IS/ ISO 12619-12: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 12 Gas-Tight Housing and Ventilation Hoses
15.	IS/ISO 12619-13: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 13 Rigid Fuel Line in Stainless Steel
16.	IS/ISO 12619-14: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 14 Flexible Fuel Line
17.	IS/ISO 12619-15: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen/Natural Gas Blends Fuel System Components: Part 15 Filter
18.	IS/ISO 12619-16: 2017	Road Vehicles — Compressed Gaseous Hydrogen (CGH2) and Hydrogen / Natural Gas Blends Fuel System Components: Part 16 Fittings
19.	IS/ISO 17268: 2020	Gaseous Hydrogen Land Vehicle Refueling Connection Devices
20.	IS 16509: 2020 (ISO 22734: 2019)	Hydrogen Generators Using Water Electrolysis — Industrial, Commercial And Residential Applications
21.	IS 16512 (Part 1): 2016 (ISO 16110-1: 2007)	Hydrogen Generators Using Fuel Processing Technologies: Part 1 Safety