

Safety Regulations (guide line) excerpt	Announcement Prescribing Details of Safety Regulations (details of guide line)		Technical Standards excerpt	
Safety Regulation Article 1.pdf Safety Regulation Article 1-3.pdf Safety Regulation Article 17.pdf Safety Regulation Article 17-2.pdf	Chapter1 : General provisions		Attachment 17.pdf	
	Chapter 2 : DETAILS OF SAFETY REGULATIONS THAT APPLY TO MOTOR VEHICLES	Designated Motor Vehicles, etc. to Be Newly Used for Operation	APD Article 5 to Article 82.pdf	Attachment 38.pdf
		Motor Vehicles, etc. to Be Newly Used for Operation, Except for Designated Motor Vehicles,	APD Article 83 to Article 103.pdf APD Article 104 to Article 119.pdf APD Article 120 to Article 160.pdf	Attachment 84.pdf Attachment 86.pdf Attachment 100.pdf
		In-Use Motor Vehicles	APD Article 161 to Article 198.pdf APD Article 199 to Article 238.pdf	Attachment 101.pdf
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Hydrogen Safety for Designated Motor Vehicles, etc. to Be Newly Used for Operation

Safety Regulation Article 17 3 (excerpt)

The gas container, gas piping, or other devices on the hydrogen gas flow passage shall comply with the requirements prescribed in the Announcement.

→ Announcement Prescribing Details of Safety Regulation Article 20 3 (excerpt)

The requirements prescribed in the Announcement of Paragraph 1 of Article 17 of the Safety Regulations shall be the requirements prescribed in each of the following items:

(1) Gas containers shall have construction and performance prescribed in

→ **Articles 7 and 17 of the Safety Regulations for Containers.**

(2) Fuel systems shall comply with the requirements prescribed in

→ **Attachment 100 “Technical Standard for Fuel Systems of Motor Vehicles Fueled by Compressed Hydrogen Gas.”**

→ Announcement Prescribing Details of Safety Regulation Article 20 4 (excerpt)

The requirements prescribed in the Announcement of Paragraph 3 of Article 17 of the Safety Regulations shall be the requirements prescribed in

→ **Attachment 17.**

Hydrogen Safety for Motor Vehicles, etc. to Be Newly Used for Operation, Except for Designated Motor Vehicles

Safety Regulation Article 17

→ Announcement Prescribing Details of Safety Regulation Article 98 3 (excerpt)

- (1) Gas containers shall have construction and performance prescribed in **Articles 7 and 17 of the Safety Regulations for Containers.**
- (2) Fuel systems shall comply with the requirements prescribed in **Attachment 100 “Technical Standard for Fuel Systems of Motor Vehicles Fueled by Compressed Hydrogen Gas.”** In this case, the compliance with this Technical Standard shall be evident from a document describing the results of tests, etc. conducted by a public testing institute, etc. designated separately.

→ Announcement Prescribing Details of Safety Regulation Article 98 4 (excerpt)

The requirements prescribed in the Announcement of Paragraph 3 of Article 17 of the Safety Regulations shall be the requirements prescribed in **Attachment 17.** In this case, devices enumerated in each of the following items shall be regarded as complying with this requirement:

- (1) Devices having the same construction and provided at the same position as the gas container, piping and other devices on the hydrogen gas flow passage mounted on designated motor vehicles, etc., which exhibit no damage liable to hamper their functions; and
- (2) Devices for which the document proving compliance with the requirements prescribed in Attachment 17 has been submitted.

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↳ **Announcement Prescribing Details of Safety Regulation Article 98 5 (excerpt)**

Those devices enumerated in each of the following Items, for which the implementation of a destructive test is proved to be extremely difficult, shall be regarded as complying with the requirements of the preceding Paragraph, under the provision of the proviso of Article 1–3 of the Safety Regulations:

- (1) Gas containers, container main valves and container safety valves shall be installed at a position where the horizontal distance from the most forward edge thereof to the front edge of the motor vehicle, parallel to the longitudinal centre line of the motor vehicle, is 420 mm or more, and the horizontal distance from the most rearward edge thereof to the rear edge of the motor vehicle, parallel to the longitudinal centre line of the motor vehicle is 300 mm or more; and**
- (2) The installation section of a gas container shall not be broken by acceleration of $\pm 196 \text{ m/s}^2$ in the running direction under a condition that the gas container is filled with compressed hydrogen gas at the general-use pressure (referring to the general-use pressure of Paragraph 2–4 of Attachment 100). In this case, the compliance with the requirements concerning the acceleration shall be proven by a method of calculation or by the motor vehicle manufacturer.**

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Safety Regulation Article 17

→ Announcement Prescribing Details of Safety Regulation Article 176 3 (excerpt)

(1) Gas containers shall have construction and performance prescribed in **Articles 7 and 17 of the Safety Regulations for Containers.**

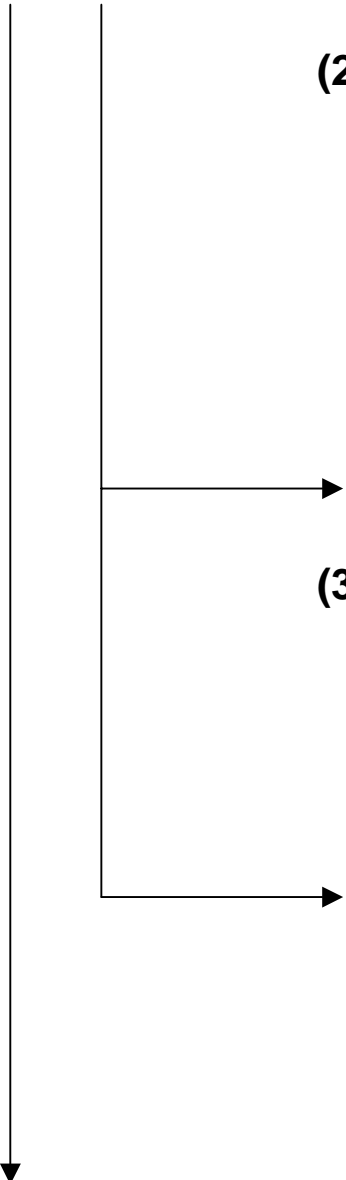
(2) Fuel systems shall comply with each of the following Items:

A. The following requirements enumerated in Items (1) through (3) shall be complied with: In this case, the compliance with these requirements shall be evident from a document describing the results of tests, etc. conducted by a public testing institute, etc. designated separately.

(1) In the case of motor vehicles equipped with a housing of Paragraph

3-5-2 of Attachment 100 “Technical Standard for Fuel Systems of Motor Vehicles Fueled by Compressed Hydrogen Gas,” the housing shall exhibit no damage liable to hamper the airtightness of the housing, or there shall be no gas leakage when the airtightness test is conducted for the housing according to the method prescribed in **Paragraph 1 of Attached Sheet 1 “Airtightness and Ventilation Test” of Attachment 100;**

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- (2) The piping, etc. (referring to components on the hydrogen gas flow passage, except the fuel cell stack, engine, gas container and container attachments. Hereinafter the same applies in this Item.) shall be durable and sturdy, with airtightness from the outside under the general-use pressure (referring to the general-use pressure of Paragraph 2–4 of Attachment 100), and there shall be no gas leakage when the airtightness test is conducted for the piping, etc. according to the method prescribed in **Paragraph 3 of Attached Sheet 1 “Airtightness and Ventilation Test” of Attachment 100**; and
- (3) Devices for detecting hydrogen gas leakage (hereinafter referred to as the “hydrogen gas leakage detector” in this Item), alarm devices and devices for shutting off the supply of hydrogen gas shall be such that hydrogen gas can be detected, the alarm device will operate, and the supply of hydrogen gas can be shut off, when the test is conducted according to the method prescribed in **Attached Sheet 3 “Test for Hydrogen Gas Leakage Detector, etc.” of Attachment 100**. Moreover, in the case of motor vehicles equipped with plural hydrogen systems, it shall be acceptable if the device shuts off the supply of hydrogen gas from the hydrogen system that is leaking hydrogen gas.

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- B. Mountings of the gas container and piping, etc. shall exhibit no looseness or damage;**
- C. Any part of the gas container and piping, etc. which is likely to be damaged shall be protected by suitable covering. Moreover, the said covering shall exhibit no damage or malfunction liable to hamper its function;**
- E. Gas that has been purged (referring to discharging of the gas containing hydrogen within the fuel cell system to the outside) by the control of the fuel cell system shall be directed positively to the exhaust section. Moreover, those in which mountings of the piping for directing the gas are not secure, or piping is damaged, shall be regarded as not complying with this requirement;**
- F. The hydrogen gas leakage detector shall exhibit no open wire or short circuit, and no hydrogen gas leakage shall be detected from the device concerned; and**
- G. The pressure gauge or residual amount meter shall function normally.**

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↳ **Announcement Prescribing Details of Safety Regulation Article 176 4 (excerpt)**

The requirements prescribed in the Announcement of Paragraph 3 of Article 17 of the Safety Regulations in connection with the performance of preventing fuel leakage, etc. of the gas container, piping, or other devices on the hydrogen gas flow passage of motor vehicles fueled by compressed hydrogen gas shall be that it is unlikely to leak fuel to a significant degree when the motor vehicle concerned is subjected to impacts due to collision, rear-end collision by other motor vehicles, and so forth. In this case, devices enumerated in each of the following Items, which exhibit no damage liable to hamper their functions, shall be regarded as complying with this requirement:

- (1) Those having the same construction and provided at the same position as the gas container, piping and other devices on the hydrogen gas flow passage mounted on designated motor vehicles, etc.;**
- (2) Those having the same construction and provided at the same position as the gas container, piping and other devices on the hydrogen gas flow passage which have been presented at the time of the initial inspection, preliminary inspection or modification inspection; and**
- (3) Those devices for which the implementation of a destructive test is proved to be extremely difficult under the provision of the proviso of Article 1–3 of the Safety Regulations, which are provided for in Paragraph 5 of Article 98.**