

MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

NOTIFICATION

New Delhi, the 27th November, 2002

G.S.R. 788(E).— Whereas the draft of certain rules further to amend the Central Motor Vehicles Rules, 1989, was published as required by sub-section (1) of section 212 of the Motor Vehicles Act, 1988 (59 of 1988) in the Gazette of India, Extraordinary, Part-II, Section 3, Sub-section (i), dated the 22nd April, 2002 with the notification of Government of India in the Ministry of Road Transport and Highways, number G.S.R. 297 (E), dated the 22nd April, 2002, inviting objections and suggestions from all persons likely to be affected thereby within a period of sixty days from the date on which copies of the Gazette of India containing the notification were made available to the public;

And whereas copies of the said Gazette were made available to the public on 24th April, 2002.

And whereas the objections and suggestions received from the public have been considered by the Central Government.

Now, therefore, in exercise of the powers conferred by section 110 of the said Act, the Central Government hereby makes the following rules further to amend the Central Vehicles Rules, 1989, namely:-

1. (1) These rules may be called the Central Motor Vehicles (Fifth Amendment) Rules, 2002.

(2) They shall come into force after six months from the date of their final publication in the Official Gazette.

2. In the Central Motor Vehicles Rules, 1989 ,-

(A) in rule 115C, after sub-rule (5), the following sub-rules shall be inserted, namely:-

"(6) For Diesel Vehicles with Original Equipment Fitment - (i) Each model of O.E. fitment LPG dedicated vehicle, other than two-wheelers and three-wheelers, made by vehicle manufacturer shall be type approved as per the Bharat Stage-II type approval emission norms and shall comply with the provisions of these rules, and in case of two-wheelers and three wheelers, the model shall be type approved as per the India - 2000 (India Stage-I) type approval emission norms and shall comply with the provisions of these rules;

(ii) O.E. fitment LPG engine approved for specific appropriate engine capacity can be installed on the vehicle base model and its variants complying with the other requirements under these rules as applicable;

(iii) Tests for particulate matter and emission of visible pollutants (smoke) under these rules shall not be applicable; and

- (iv) Prevailing COP procedures shall also be applicable.
- (v) In case of limits for Hydrocarbons, the mass emission standards formula as specified in sub-rule(1) shall be applicable.

Explanation . - In the case of O.E. fitment vehicles :-

- (a) For the purpose of granting Type Approval to the vehicle manufactured by O.E., in addition to the tests as specified in Central Motor Vehicles Rules, 1989, following performance tests shall be carried out, as per the Table given below by the test agency, namely: -

TABLE

Sl. No.	Test	Reference Document (as amended from time to time)
(1)	(2)	(3)
1.	Mass emission tests	MOST/CMVR/TAP-115/116 and notification issued by the Government of India in this respect
2.	Engine performance tests	IS: 14599-1999
3.	Gradeability test	In accordance with notification issued under rule 124 of Central Motor Vehicles Rules, 1989
4.	Constant speed fuel consumption test	IS:11921 - 1986 (for four-wheelers) IS:10944 - 1983 (for mopeds) IS:10881 - 1984 (for motorcycles and Scooters) AIS 054 (for three-wheelers)
5.	Electro-Magnetic Interference (EMI)	In accordance with notification issued under rule 124 of Central Motor Vehicles Rules, 1989
6.	Range test of at least 250 km for buses. For other vehicle categories range test to be carried out and test results to be reported.	AIS 055
7.	Cooling performance	IS:14557 - 1998

Note : The mass emission tests shall be carried out either on engine dynamometer or chassis dynamometer, as applicable;

- (b) Test procedure and safety guidelines for LPG vehicles, kit components including installation thereof, shall be as per AIS 025, AIS 026, AIS 027 as amended from time to time, till such time as corresponding BIS specifications are notified and shall be as given in Annexure-VIII in addition to the detailed procedure of Safety Checks contained in AIS 025, AIS 026, AIS 027;
- (c) For O.E. fitment manufactured vehicles, the responsibility of Type Approval shall be that of the vehicle manufacturer;
- (d) The test agency shall complete the test and give necessary certificate within a period of three months from the date of receiving the kits.
- (7) **REPLACEMENT OF IN-USE DIESEL ENGINE BY NEW LPG ENGINE:-** For type approval of In-Use vehicles other than two-wheelers and three-wheelers having diesel engine replaced by new LPG engine, it shall meet Bharat Stage - II emission norms subject to the mass emission standards formula as specified in sub-rule (1) and in case of two-wheelers and three-wheelers the vehicle shall

meet India 2000 (India Stage-I) emission norms and the tests mentioned in the Table given below shall be applicable, namely :-

TABLE

Sl. No.	Test	Reference Document (as amended from time to time)
(1)	(2)	(3)
1.	Mass emission tests	MOST/CMVR/TAP-115/116 and notification issued by the Government of India in this respect
2.	Engine performance tests	IS: 14599-1999
3.	Gradeability test	In accordance with notification issued under rule 124 of Central Motor Vehicles Rules, 1989
4.	Constant speed fuel consumption test	IS:11921 - 1986 (for four-wheelers) IS:10944 - 1983 (for mopeds) IS:10881 - 1984 (for motorcycles and scooters) AIS 054 (for three-wheelers)
5.	Electro-Magnetic Interference (EMI)	In accordance with notification issued under rule 124 of Central Motor Vehicles Rules, 1989
6.	Range test of at least 250 km for buses. For other vehicle categories range test to be carried out and test results to be reported.	AIS 055
7.	Cooling performance	IS:14557 - 1998

Explanation. - (a) In case of In-Use vehicles offered for Type Approval to the test agency referred to in rule 126, it shall have to comply with fitness requirement, as applicable under these rules and the said test agency may, if it thinks so, verify the same.

(b) In case of non-transport vehicles offered for retrofitment as per the tests mentioned in the Table, it shall be the responsibility of the retrofitter to make necessary inspection/checks regarding fitness of the such vehicles as applicable under these rules: In the case of retro fitment of in-use transport vehicles offered for the tests mentioned in the Table, the certificate of fitness granted under section 56 of the Act, shall be essential before the vehicle is accepted for retrofitment/conversion.

(c) Test procedure and safety guidelines for such LPG vehicles, kit components including installation thereof shall be as per AIS 025, as amended from time to time, till such time as corresponding BIS specifications are notified and shall be as given in Annexure VIII in addition to the detailed procedure or Safety checks contained in AIS 025;

(d) The test agency shall complete the test and give necessary certificate within a period of three months from the date of the vehicle being submitted for tests; and

(e) The Test agency shall be required to indicate specifically, the models and their variants on which the replacement of new engine shall be valid.

- (8) **APPLICABLE EMISSION NORMS**-- The emission norms as mentioned in column (3) of the Table below excluding particulate matter shall be applicable to the corresponding categories of engines as mentioned against them in column (2) of the said Table.

TABLE

Sl. No.	Category of Engines	Applicable Emission Norms
(1)	(2)	(3)
1.	Fitted in vehicles with GWV equal to or less than 3.5 ton	<ul style="list-style-type: none"> • For gasoline vehicles converted to LPG, prevailing gasoline engine norms for chassis dynamometer test • For diesel vehicles converted to LPG, prevailing diesel engine norms for chassis dynamometer test
2.	Fitted in vehicles with GWV greater than 3.5 ton	<ul style="list-style-type: none"> • Prevailing diesel engine emission norms based on 13-mode steady-state engine dynamometer test

- (9) LPG vehicle/kit components including installation shall comply with the Safety Checks as given in Annexure VIII.
- (10) The test agency shall, in addition to the Type Approval certificate, issue Safety and Procedural Requirements for Type Approval certificate containing the Safety and Procedural Requirements for Type Approval of CNG and LPG Operated Vehicles, for LPG vehicles and conversion kits, as mentioned in Annexure X.

Note: - For the purposes of these rules, -

- (1) "OE fitment" means the vehicles engines which are manufactured for LPG operation by the vehicle manufacturer prior to their first registration;
 - (2) "Conversion of "In-use gasoline vehicle" means a vehicle already registered as a gasoline vehicle and subsequently converted for operation on LPG by fitting the conversion kit and carrying out the other necessary changes;
 - (3) "O.E. fitment LPG dedicated vehicle" means a vehicle which is manufactured for LPG operation by the vehicle manufacturer prior to their first registration;
 - (4) "Type approval of In-Use vehicle having diesel engine replaced by new LPG engine" means a vehicle already registered as a diesel vehicle and is subsequently converted for operation on LPG by fitting a new engine adapted for operation on LPG;
 - (5) The AIS or IS specifications may be as amended and notified from time to time.;"
- (B) for Annexure VIII, the following Annexure shall be substituted, namely:-

"ANNEXURE VIII

(see clause (c) of sub-rule (4) and sub-rule (9) of rule 115C)

SAFETY CHECKS FOR USE OF LPG FUEL IN FOUR-WHEELED VEHICLES AND ABOVE (AS PER AIS 026) AND TWO-WHEELED AND THREE-WHEELED VEHICLES (AS PER AIS 027) AND INDIAN GAS CYLINDER RULES, 1981

(as amended from time to time)

LPG Kit Component	Certifying / Verifying Authority	Clause of AIS 026/ AIS 027 / Other Rules, Standards, etc.
1.a) Cylinder for four wheeler and above* - Fitment of cylinder on vehicle b) Cylinder for two wheelers and three wheelers wheeler* - Fitment of cylinder on vehicle	<ul style="list-style-type: none"> Department of Explosives, Nagpur to certify/endorse in case of foreign make Test agency to verify as per safety code of practice for use of LPG fuels in IC engined vehicles, under Central Motor Vehicles Rules, 1989 Department of Explosives, Nagpur to certify/endorse in case of foreign make Test agency to verify as per safety code of practice for use of LPG fuels in IC engines to power two-wheelers and three-wheelers, under Central Motor Vehicles Rules, 1989 	<ul style="list-style-type: none"> IS : 14899 - 2000 Clause 8 of AIS 026 IS : 14899 - 2000 Clause 8 of AIS 027
2. Cylinder Valves / Multi Function Valve*	<ul style="list-style-type: none"> Department of Explosives, Nagpur to certify / endorse in case of foreign make 	IS : 15100 - 2001 and Gas Cylinder Rules, 1981 as amended from time to time.
3. Regulator / Vaporizer*	Testing or verification of certificate with test report by Test Agency as per United Nations, Economic Commission for Europe Regulation No. 67 Rev. 1	United Nations, Economic Commission for Europe Regulation No. 67 Rev. 1 Note: Regulator/ vaporizer is to be tested, as per Economic Commission for Europe Regulation No. 67 (Rev. 1), including endurance test for 6,000 number of cycles
4. Gas-Air Mixer*	Testing / verification of certificate with test report by Test Agency as per United Nations, Economic Commission for Europe Regulation No. 67 Rev. 1	United Nations, Economic Commission for Europe Regulation No. 67 Rev. 1
5. Petrol and Gas Solenoid Valves*	Testing / verification of certificate with test report by Test Agency as per United Nations, Economic Commission for Europe Regulation No. 67 Rev. 1	United Nations, Economic Commission for Europe Regulation No. 67 Rev. 1 or equivalent standard. Note: Petrol solenoid valve is to be tested, as per Economic Commission for Europe Regulation No. 67 (Rev. 1), for endurance only at a pressure 1.5 times the working pressure for 6,000 number of cycles

<p>6. Inspection, Testing and Commissioning Certificate</p> <p>a) Leak testing</p> <p>b) Excess flow valve test*</p> <p>c) Automatic fill limiter*</p> <p>d) Compartment/ sub-compartment</p>	To be tested by Test Agency	Clause 14 of AIS 026 / AIS 027
7. Filling Connection	Installation on vehicle to be checked by Test Agency	As per Appendix A, Clause (d) of AIS 026 / AIS 027
8. Ventilation	Test agency to verify	Clause 8 (E) of AIS 026 / AIS 027
9. Testing of Conduit*	Testing/Verification of Certificate with Test Report by Test Agency as per equivalent standard.	Clause 8 (F) (iii) of AIS 026 / AIS 027
<p>10. a) LPG fuel line exceeding 4.5 kg/cm²*</p> <ul style="list-style-type: none"> • Pressure testing • Size of tube as per engine capacity • Fitment on vehicle <p>b) Flexible Hose / fuel line not exceeding* 4.5 kg/cm²</p> <ul style="list-style-type: none"> • Material • Fitment on vehicle • Pressure <p>c) Joints and connections to withstand Pressure without any leakage</p>	<p>Testing/Verification of Certificate with Test Report by Test Agency as per equivalent standard.</p> <p>Manufacturer's declaration to be verified by Test Agency</p> <p>Verification by Test Agency as per Safety Code of Practice</p> <p>Testing/Verification of Certificate with Test Report by Test Agency as per equivalent standard.</p> <p>Verification by Test Agency as per Safety Code of Practice.</p> <p>Testing/Verification of Certificate with Test Report by Test Agency as per equivalent standard.</p> <p>Verification by Test Agency</p>	<p>Clause 9 of AIS 026 / AIS 027</p> <p>Clause 9 (i) of AIS 026 / AIS 027</p> <p>Clause 9 (ii) of AIS 026 / AIS 027</p> <p>Clause 9 (v) of AIS 026 / AIS 027</p> <p>Clause 10 of AIS 026 / AIS 027</p> <p>Clause 9 (ii) (a) of AIS 026 / AIS 027</p> <p>Clause 10 (B), 9(v) of AIS 026 / AIS 027</p> <p>Clause 10 (A) (i) of AIS 026 / AIS 027</p> <p>Clause 9(iv) and 10 (A) of AIS 026 / AIS 027</p>
11. Compartment / Sub-compartment*	Test to be carried out by test agency as per Safety Code of Practice	Clause 8D of AIS 026 / AIS 027
12. Safety check for installation of LPG system	Safety checks to be carried out by test agency as per Safety Code of Practice	Relevant clauses of AIS 026 / AIS 027

*Certificate issued conforming to equivalent prescribed standards by accredited testing agency of the country of origin or a report issued by internationally accredited test laboratory may also be accepted.

Note: Only the latest version of all the standards, as mentioned, shall be referred for compliance*:

- (C) In the Annexure X, for the brackets, words, letters and figures "(see Item F of rule 115B)", the brackets, words, letters and figures "(see Item F of rule 115B and sub-rule (10) of rule 115(C))" shall be substituted.

[F. No. RT-11011/11/2001-MVL]

ALOK RAWAT, Jt. Secy.

Note.—The principal rules were notified vide G.S.R. 590(E) dated the 2nd June 1989 and last amended vide G.S.R. 699 (E) dated 10th October, 2002.