THE USE OF GAS FOR MOTOR VEHICLES

(Decision of the Director General of Land Transportation No. SK.852/AJ.302/DRJD/2004 dated June 1, 2004)

THE DIRECTOR GENERAL OF
LAND TRANSPORTATION,

Considering:

a. that Decree of the Minister of Transportation No. KM.64/1993 on Technical Requirements for the Use of Gas for Motor Vehicles contains provisions on the use of gas for motor vehicles;

b. that the provisions as meant in letter a need to be elaborated in a decision of the Director General of Land Transportation;

In view of:

1. Law No. 1/1970 on Occupational Safety (Statute Book of 1970 No. 1, Supplement to Statute Book No. 2918);

2. Law No. 14/1992 on Highway Traffic and Transportation (Statute Book of 1992 No. 49, Supplement to Statute Book No. 3480);

3. Government Regulation No. 44/1993 on Vehicles and Drivers (Statute Book of 1993 No. 64, Supplement to Statute Book No. 3530);

4. Presidential Decree No. 102/2001 on the Position, Tasks, Function, Authority, Organizational Structure and Work Mechanism of the Ministry as has been amended the latest by Presidential Decree No. 45/2002;

5. Regulation of the Minister of Manpower and Transmigration No. PER.01/MEN/1982 on Pressure Vessel;

6. Decree of the Minister of Transportation No. KM.64/1993 on Technical Requirements for the Use of Gas for Motor Vehicles;

7. Decree of the Minister of Transportation No. KM 71/1993 on Periodic Tests on Motor Vehicles;

8. Decree of the Minister of Transportation No. KM 24/2001 on the Organization and Work Mechanism of the Ministry of Transportation as has been amended by Decree of the Minister of Transportation No. KM 91/2002;

9. Decree of the Minister of Transportation No. KM 9/2004 on Tests on the Types of Motor Vehicles;

D E C I D E S :

To stipulate:

DECISION OF THE DIRECTOR GENERAL OF LAND TRANSPORTATION ON THE USE OF GAS FOR MOTOR VEHICLES.

CHAPTER I
GENERAL PROVISIONS
Article 1

Hereinafter referred to as

1. Gas means compressed natural gas (CNG).

2. Technician means a person who has expertise in the automotive field and the use of gas for motor vehicles as evidenced with a certificate.

3. Workshop means a workshop that meets technical requirements on the use of gas for motor vehicles and holds a certificate.

4. Cylinder means a pressure vessel for storing gas used as fuel for a motor vehicle.

5. Gas-fueled motor vehicle means a motor vehicle that uses gas.

6. The Director General is the Director General of Land Transportation.

CHAPTER II
REQUIREMENTS OF GAS USE SYSTEM FOR MOTOR VEHICLES
Article 2

(1) Any motor vehicle that meets technical requirements and is road-worthy can use gas.

(2) The . . . .

(2) The motor vehicle that uses gas as meant in paragraph (1) must be equipped with a gas use system for a motor vehicle as meant in Example 1 of Attachment I to this Decision.

(3) The types of gas use system as meant in paragraph (2) consist of:
a. BI-FUEL system, namely a motor vehicle that uses gas or gasoline by turns;
b. DUAL FUEL, means a motor vehicle that uses gas and diesel oil (for diesel engines) altogether;
c. FULL DEDICATED ENGINE system, namely a motor vehicle that fully uses gas.

(4) The gas use system as meant in paragraph (2) consists of:
a. gas cylinder;
b. distribution pipe;
c. regulator;
d. mixer;
e. cylinder valve;
f. isolation valve;
g. refueling non-return valve;
h. refueling connection;
i. safety cut off device (lock off);
j. gas pressure controller;
k. electrical gas volume indicator;
l. electrical wiring.

(5) The components as meant in paragraph (4) letter f, letter g and letter h can be a set of devices or separate devices.

(6) In the use of the bi-fuel system as meant in paragraph (3) letter a, the fuel shut off device as meant in paragraph (4) letter j must use a high pressure gas shut off device and a petrol shut off device.

(7) In the use of dual fuel and fuel dedicated engine systems as meant in paragraph (3) letter b and letter c, a fuel shut off device as meant in paragraph (4) letter j must only use a high pressure gas shut off device.

Article 3

The gas use system as meant in Article 2 paragraph (2) must meet:
a. administrative requirements;
b. technical requirements.

Article 4

(1) The administrative requirements as meant in Article 3 letter a cover:
a. approval of the components of a gas use system for a motor vehicle;
b. certificate of a gas use system for a motor vehicle.

(2) The approval of the components of a gas use system for a motor vehicle as meant in paragraph (1) letter a must be issued by the agency responsible for occupational safety.

(3) Technical provisions on the components of a gas use system and procedures of issuing approval of the components of a gas use system as meant in paragraph (2) must follow the existing regulations in the field of occupational safety.

(4) The certificate of a gas use system for a motor vehicle as meant in paragraph (1) letter b must be issued by the Director General.

(5) The model of certificate of a gas use system as meant in paragraph (4) follows Example 2 of Attachment I to this Decision.

Article 5

(1) The certificate of a gas use system for a gas-fueled motor vehicle using a bi-fuel or dual fuel system as meant in Article 2 paragraph (3) letter a and letter b is given by fulfilling the requirements as follows:
a. any brand and type of a motor vehicle to be converted into a gas-fueled motor vehicle must be equipped with a certificate of test on the type of motor vehicle or a registration certificate of test on the type of motor vehicle issued by the Directorate General of Land Transportation;
b. the components of a gas use system to be installed to a motor vehicle must first be endorsed by the agency responsible for occupational safety;
c. passing a roadworthiness test conducted by the Directorate General of Land Transportation on the gas use system for a motor vehicle.

(2) The . . . . .

(2) The certificate of a gas use system for a gas-fueled motor vehicle using a full dedicated engine system as meant in Article 2 paragraph (3) letter c is an integral part of a certificate of test on the type of motor vehicle and must meet the requirements as follows:

a. the components of a gas use system to be installed to a motor vehicle must first be endorsed by the agency responsible for occupational safety;
b. the brand and type of a motor vehicle must pass a test conducted by the Directorate General of Land Transportation on the type of a motor vehicle.

Article 6

(1) The technical requirements of a gas use system as meant in Article 3 letter b cover:

a. installation;
b. maintenance.

(2) The installation and maintenance of a gas use system for a motor vehicle can only be done by a device agent or a general motor vehicle workshop authorized by a device agent.

Article 7

The installation of the cylinder as meant in Article 2 paragraph (4) letter a must meet the requirements as follows:

a. being installed on the indoor space of a motor vehicle or on the trunk (sub-compartment) of a motor vehicle having a ventilator to let outdoor air in by fulfilling the requirements as follows:
   1) having a longitudinal area of at least 2000 mm2;
   2) the distance between the point of the ventilator and the gas disposal pipe or other heat sources is at least 100 mm;
   3) the ventitalor and its pipe must be installed in such a way to minimize an accumulation of gas in the ventilation system.

b. the cylinder must firmly be installed to a gas-fueled motor vehicle to prevent it from slipping, shifting, rotating and shaking by fulfilling the requirements as follows:
   1) the process of installing the cylinder must not cause excessive tension to the cylinder;
   2) the device used to install the cylinder must not be welded to the cylinder;
   3) the process of installing the cylinder must not weaken the frame of a gas-fueled motor vehicle;
   4) using high torsion nuts and bolts which must be locked or use pins after being fastened;
   5) the device used to install the cylinder must be designed in such a way to resist static force at least 20 (twenty) times the weight of a full cylinder for a cylinder parallel to the longitudinal axle of a motor vehicle and 8 (eight) times the weight of a full cylinder for a cylinder crossing the longitudinal axle of a motor vehicle;
   6) details of the strength of the device used to install the cylinder as meant in paragraph (5) can be observed through the table of design factors as meant in Attachment II to this Decision;
   7) the cylinder must not touch any part of the motor vehicle, be it is a pipe or any other components so as to cause no friction or moistening;
   8) the number of fasteners used to install the cylinder must be at least 2 (two), made of steel whose size follows the table of fasteners as meant in Attachment II to this Decision;
   9) the cylinder installed below the floor of a motor vehicle must be equipped with a protector (shield) with the distance between the cylinder and land surface covering at least 300 mm;
   10) if the distance between the nearest outer wall of the cylinder and a heat source with a temperature exceeding 100°C does not exceed 150 mm, it must be equipped with a heat-resistant shield with the stipulation that:
      a) the distance between the cylinder wall and the shield must be at least 15 mm;
      b) the distance between the heat source and the shield must be at least 5 mm;
   11) it is not allowed to install a cylinder on the top of a motor vehicle;
   12) if the number of cylinders used in a gas use system is more than one (multi cylinders), they can be installed in a serial or parallel way;
   13) the cylinders as meant in point 12) must be designed in such a way to separate the cylinder or cylinders from the gas use system in a motor vehicle.

Article 8

The installation of the distribution pipes as meant

in Article 2 paragraph (4) letter b used for the gas use system in a motor vehicle must meet the requirements as follows:

a. the high pressure pipe of a refueling valve to the gas cylinder up to the regulator (exceeding 100 kPa) must meet the requirements as follows:
   1) being able to at least accommodate a working pressure of 27.5 MPa (275 Bar) and a test pressure at 70 MPa (700 Bar);
   2) using at least non-corrosive seamless steel pipes with an outer diameter of up to 6 mm covered by PVC;
   3) when using pipes with an outer diameter of more than 6 mm, standard pipes (at least stainless steel pipes) according to ASTM A269 must be used;
   4) the pipe network must not be placed inside a motor vehicle designed for a driver and/or passengers and must be made as short as possible by observing the existing rules to prevent fraction between the pipes and the body/base of the motor vehicle;
   5) the pipe network must be protected by the frame of the body or base against possible clash or collision and must not be lower than the lowest part of the motor vehicle;
   6) in case the pipe network passes through the fender, the pipes must be covered by steel shields with a thickness of at least 1.5 mm;
   7) being put in the reachable place and not passing through the mechanics of steering wheel and the suspension system;
   8) the pipes must be fastened firmly to the frame of the base or body using clamps made of metal with the distance among the clamps not exceeding 600 mm, and if the pipes passes through the metal panel, they must be covered by rubber or plastics;
   9) the clamps as meant in point 8) must use rubber protectors to avoid direct fraction between the clamps and the pipes;
   10) the pipes must be connected by fulfilling the requirements as follows:
      a) using at least olive lifting for seamless steel pipes and ferrule fitting for stainless steel pipes;
      b) the pipes must be able to accommodate a working pressure of at least 27.5 MPa (275 Bar) and a test pressure of 70 MPa (700 Bar);
      c) the number of connections needed to combine the components of a gas use system must be made as small as possible;
      d) all connections must be put in the protected and accessible places.

b. the low pressure pipe of the regulator to the mixer (not exceeding 10kPa) must meet the requirements as follows:
   1) the elastic pipes or rubber hoses must be equipped with protectors resistant to heat of up to 100oC and be able to resist five times as large as the maximum pressure when used;
   2) the elastic pipes or rubber hoses must have adequate length to adjust to the movement of engine;
   3) connections must be suitable for the use of gas and be able to resist five times as large as the maximum pressure when used;
   4) the pipe network must be protected adequately, either through separate placement or protection, to avoid damage due to articles thrown off from the road or other damages and the pipes placed less than 100 mm from the gas disposal system must be adequately protected against heat.

Article 9

The installation of the gas regulator as meant in Article 2 paragraph (4) letter c used for a gas use system must meet the requirements as follows:

a. a gas regulator covers a device needed to lower the high pressure of gas in the cylinder to the low pressure of gas to be supplied to the mixer;
b. the gas regulator must be certified and meet technical requirements issued by the country of origin;
c. the gas regulator must be installed by fulfilling the requirements as follows:
   1) being put in the place accessible for routine check, maintenance and tuning;
   2) being installed tightly and firmly and well protected against damage in a clash;
   3) being placed as close as possible to the point of mixing gas with air to the machine;
   4) not being placed in the machine;
   5) being installed close to or directly in the automatic shut off device or when using connecting pipes the maximum distance between the two must be 500 mm;

6) still . . . . .

6) still allowing the free movement of pipes and water hoses;
7) the circulation of machine-cooling water is connected in such a way that the flow of cooling water is not obstructed by the valves of a cooling system, among them thermostat, heater control valve;
8) being far from the hot gas disposal system of the machine or being covered by heat protector steel or heat shield;
9) not being placed near an electrical device that may produce a spark.

Article 10

The installation of the components of a mixer in a gas-fueled motor vehicle as meant in Article 2 paragraph (4) letter d must meet the requirements as follows:

a. being able to prevent a mixture of air and gas outside the components of the mixer;
b. the components of the mixer must be firmly installed to prevent them from being struck against other parts;
c. in the bi-fuel system, the performance of components of the mixer must not lower the quality of vehicular gas emission set by the factory at the time of using gasoline.

Article 11

The installation of the components of a high pressure gas lock as meant in Article 2 paragraph (6) and paragraph (7) must meet the requirements as follows:

a. being installed in the safe place less than 500 mm before the regulator and not being stuck to the machine;
b. being able to prevent the flow of gas from the cylinder to the regulator, except if the ignition switch is on and the machine is working.

Article 12

(1) The installation of the components of a petrol lock off device as meant in Article 2 paragraph (6) for a motor vehicle using a carburetor must meet the requirements as follows:
   a. being installed in the safe place and stuck to the carburetor;
   b. if installed in the body panel, connections of the petrol lock off device to the carburetor must be flexible;

(2) The components of a petrol lock off device as meant in Article 2 paragraph (6) for a motor vehicle using an injector must be installed in the safe place and work electrically.

Article 13

The installation of the cylinder valve as meant in Article 2 paragraph (4) letter e must meet the requirements as follows:

a. the components of cylinder valve as a shut off valve must be approved by the agency responsible for occupational safety;
b. any cylinder must have a manual cylinder valve that must be installed in the reachable place;
c. when using more than one cylinders they must be equipped with a main shut off valve installed between the refueling connection and the cylinder and no other components are installed between the main shut off valve and the cylinder;
d. apart from the shut off valve, a valve must also be installed to prevent the refueling of cylinder with excessive pressure with the stipulation that:
   1) any gas use system in a motor vehicle must be equipped with a device to prevent the refueling of cylinder with higher pressure than the working pressure;
   2) the use of the device as meant in point 1) must be designed and placed in such a way to discharge part of the content of cylinder if its pressure exceeds the working pressure, and must be fixed to operate at 10% above the working pressure.

Article 14

The installation of the non-return valve as meant in Article 2 paragraph (4) letter g must meet the requirements as follows:

a. the non-return valve must be installed to prevent the return of gas from the cylinder to the refueling connection;
b. the non-return valve must be placed as close as possible to the refueling connection.

Article 15

The installation of the refueling connection as meant in Article 2 paragraph (4) letter h must meet the requirements as follows:

a. the refueling connection must be placed in such a

way to get the nozzle dispenser connected with the refueling connection well and ensure the supervision of refueling from outside the vehicle;

b. the refueling connection must be protected by placing it below the surface of the vehicle's body panel or in other place protected by the frame of the vehicle;
c. the refueling connection must be placed in such a way so that refueling can be done without requiring the operator to crawl or lay below the vehicle;
d. the refueling connection must be placed in such a way to minimize burden at the time of raffling.

Article 16

The installation of the safety cut off device as meant in Article 2 paragraph (2) letter i must meet the requirements as follows:

a. the safety cut off device must be installed before the regulator and must be able to prevent the flow of gas, except if the ignition switch is on and the machine is working;
b. the safety cut off device must be able to prevent the flow of gas even though the ignition switch is on and the machine is not working.

Article 17

The installation of the gas pressure controller as meant in Article 2 paragraph (4) letter j must meet the requirements as follows:

a. being installed firmly and safely;
b. not being installed in the cabin;
c. being installed between the gas lock off device and the regulator.

Article 18

The electronic indicator of gas volume as meant in Article 2 paragraph (4) letter k must be installed in the dashboard panel and in the reachable location.

Article 19

The installation of electrical wiring as meant in Article 2 paragraph (4) letter l must meet the requirements as follows:

a. wiring must use cable specifically designed for a motor vehicle and installed perfectly, clamped or wrapped up with cellophane tape according to the length of cable;
b. the electrical circuit must be equipped with and protected by appropriate fuse;
c. in the use of bi-fuel system, the wiring must be equipped with switch selectors installed in the dashboard which can easily be reached.

Article 20

The maintenance of the gas use system in a motor vehicle as meant in Article 6 paragraph (1) letter b must meet the requirements as follows

a. the maintenance must be done periodically according to maintenance guidance issued by the workshop specializing in the installation of gas use systems;
b. the maintenance can only be done by the workshop owned by a device agent or the general motor vehicle workshop authorized by the workshop owned by a device agent;
c. the maintenance of a gas use system covers:
   1) the presence of a gas use system;
   2) the position of a gas use system;
   3) the function of the components of a gas use system;
   4) the wearing out of the components of a gas use system;
   5) leak test on a gas use system.

CHAPTER III

THE QUALIFICATIONS OF DISTRIBUTORS OF COMPONENTS OF GAS USE SYSTEMS FOR MOTOR VEHICLES

Article 21

(1) The distributors of components of gas use systems for motor vehicles are agents according to their respective business lines.

(2) The agents as meant in paragraph (1) must meet the qualifications as follows:
   a. in the form of corporate body;
   b. holding a certificate of appointment as an agent from the manufacturer (principal);
   c. being registered at the agency responsible for occupational safety;
   d. having a workshop specializing in the installation of gas use systems for motor vehicles.

Article 22

(1) The workshop as meant in Article 22 paragraph (2) letter d must meet the requirements as follows:

a. employing . . . . .

a. employing technicians having competence in the use of gas for motor vehicles, consisting of at least
   1) 1 (one) maintenance technician;
   2) 1 (one) installation technician;
b. having special tools to install gas devices to motor vehicles;
c. having hand tools and power tools;
d. having an engine analyzer;
e. having an exhaust gas analyzer;
f. having a gas leak detector;
g. having occupational security and safety facilities.

(2) The workshop that meets the qualifications as meant in paragraph (1) is given a certificate by the Director General as a workshop specializing in the installation of gas use systems for motor vehicles.

(3) The model of the certificate of workshop as meant in paragraph (2) follows Example 1 in Attachment III to this Decision.

Article 23

(1) A general motor vehicle workshop can install gas use systems by fulfilling the requirements as follows:
a. fulfilling provisions as meant in Article 22 paragraph (1);
b. being appointed and authorized by an agent of gas use devices;
c. securing a certificate from the Director General as a workshop specializing in the installation of gas use systems.

(2) The model of a letter of authority as meant in paragraph (1) letter b follows Example 2 in Attachment III to this Decision.

(3) The model of a certificate for the general workshop as meant in paragraph (1) letter c follows Example 1 in Attachment III to this Decision.

Article 24

(1) The maintenance technician as meant in Article 22 paragraph (1) letter a must meet the qualifications as follows:
a. having knowledge and capability in the field of automotive technology;
b. having experience for at least 2 (two) years as a motor vehicle technician;
c. taking a competence education course and passing an evaluation test on the method of repairing gas use systems organized by an agent of gas devices, securing a certificate as a maintenance technician for gas use systems and being registered at the Directorate General of Land Transportation.

(2) The installation technician as meant in Article 22 paragraph (1) letter a must meet the qualifications as follows:
a. having experience for at least 2 (two) years as a maintenance technician as meant in paragraph (1);
b. taking a competence education course and passing an evaluation test on the method of installing a gas use system organized by an agent of gas devices, securing a certificate as an installation technician for gas use systems and being registered at the Directorate General of Land Transportation.

Article 25

(1) The agent as meant in Article 21 paragraph (2) and the general workshop as meant in Article 23 paragraph (1) that install gas use systems to motor vehicles are required to:
a. issue monitoring cards;
b. issue master cards;
c. give conversion marks (installation) to motor vehicles using gas devices;
d. give identity cards to motor vehicles using gas devices;
e. give guidance for gas refueling.

(2) The monitoring card as meant in paragraph (1) letter a contains:
a. name and address of the owner of motor vehicle;
b. name and address of the new owner (in case of the transfer of motor vehicle's ownership);
c. brand and type of motor vehicle;
d. body number and machine number of motor vehicle;
e. brand and type of devices and gas cylinder;
f. certificate number of a test on the gas cylinder;
g. certificate number of the installation of gas devices;
h. registration number of regulator;
i. installation date of devices;

j. date . . . . .

j. date and validity period of check;
k. date and validity period of test;
l. name and registration number of the installation technician.

(3) The monitoring card as meant in paragraph (1) letter a must be attached to any motor vehicle equipped with a gas use system.

(4) The master card as meant in paragraph (1) letter b contains:
a. name and address of the owner of motor vehicle;
b. name and address of the new owner (in case of the transfer of the motor vehicle's ownership);
c. brand and type of motor vehicle;
d. body number and machine number of motor vehicle;
e. brand and type of gas devices;
f. certificate number of a test on the gas cylinder;
g. certificate number of the installation of gas devices;
h. registration number of regulator;
i. installation date of gas devices;
j. date and validity period of check;
k. date and validity period of test;
l. name and registration number of installation technician.

(5) The master card as meant in paragraph (1) letter b shall be kept as a file by the agent as meant in Article 21 paragraph (2) or the general workshop as meant in Article 23 paragraph (1).

(6) The models of the monitoring card and master card as meant in paragraph (1) follow Example 3 and Example 4 in Attachment III to this Decision.

(7) The conversion card as meant in paragraph (1) letter c takes the form of metal sheet containing information about:
a. name and address of the agent or general workshop;
b. brand and registration number of regulator;
c. number and date of certificate of gas use system;
d. number and date of certificate of endorsing the components of a gas use system;
e. name and registration number of the technician installing a gas use system;
f. installation date of the gas use system.

(8) The conversion card must be stuck to the engine compartment in the place easily visible to the public.

(9) The model of the conversion card as meant in paragraph (1) letter b follows Example 5 in Attachment III to this Decision.

(10) The identity card as meant in paragraph (1) letter d takes the form of sticker with the following specifications:
a. ink and adhesive tape;
b. basic color is white with a size of 80 mm x 80 mm;
c. in the center of the identity card there is an acronym of BBG with the model of universe letters 67 in black and the height not less than 20 mm;
d. the sideline is black, 1 mm in thickness, 5 mm from the outer side and parallel to the size of 80 mm measured from the outer side.

(11) The identity card as meant in paragraph (1) letter d is placed in the front of and on the back of motor vehicle to indicate that the motor vehicle uses gas.

(12) The model of the identity card as meant in paragraph (1) letter d follows Example 6 in Attachment III to this Decision.

(13) The guidance for gas refueling as meant in paragraph (1) letter e contains information about:
a. permissible maximum pressure;
b. the maximum capacity of cylinder;
c. cylinder number;
d. the period of next cylinder test.

(14) The model of the guidance for gas refueling as meant in paragraph (1) letter e follows Example 7 in Attachment III to this Decision.

CHAPTER IV
CONTROL
Article 26

(1) The agent as meant in Article 21 paragraph (2) and the general workshop as meant in Article 23 paragraph (1) are obliged to make a report on the management of information system and data base and

report . . . . .

report periodically the installation and/or transfer of gas use systems in motor vehicles to the Directorate General of Land Transportation.

(2) If an accident happens to gas use systems in motor vehicles, efforts must be made to look into the cause of the accident and investigate violations according to the existing law and regulation.

Article 27

(1) The owners of motor vehicles using gas must bring their motor vehicles to the agent as meant in Article 21 paragraph (2) or the general workshop as meant in Article 23 paragraph (1) once every 6 (six) months after gas devices have been installed to the motor vehicles, to get their gas use systems checked or tested.

(2) For the first, third, fifth, etc. (uneven) 6 (six) months, the gas devices and gas use systems installed to motor vehicles must be checked.

(3) For the second, fourth, sixth, etc. (even) 6 (six) months, the gas devices and gas use systems installed to motor vehicles must be tested.

(4) The owners of motor vehicles using gas must conduct a repeat hydrostatic test on gas cylinders made of steel in no more than 5 (five) years and on gas cylinders made of composite in no more than 3 (three) years starting from the last date of test at the agency responsible for occupational safety.

(5) Technical provisions on and procedures of conducting a hydrostatic test on the gas cylinders as meant in paragraph (4) follow the existing law and regulation on occupational safety.

(6) The checks on motor vehicles as meant in paragraph (2) are conducted by maintenance technicians working for the agent as meant in Article 21 paragraph (2) or the general workshop as meant in Article 23 paragraph (1).

(7) The checks on gas use systems cover :

a. administrative documents inherent to motor vehicles in the form of monitoring cards and test certificates of gas cylinders;
b. conversion (installation) cards, identity cards and guidance for gas refueling;
c. cylinders, piping system and all components related to strength, corrosion, damages and changes affecting the fulfillment of requirements;
d. leak with a soap bubble method and/or other methods that can technically be accounted for and conducted at the time of refueling at upstream controller pressure not exceeding 20 MPa;
e. leak must be conducted in a room equipped with a ventilator at least 5 m from a source of fire;
f. the performance of gas use systems must be checked at a normal working pressure of gas.

(8) If the result of checks as meant in paragraph (7) does not meet technical requirements, the workshop must fill the monitoring card with the date of check, the name of technician and the date of next check as well as a recommendation for the owner of motor vehicle to use gas.

(9) If the result of checks as meant in paragraph (7) does not meet technical requirements, the workshop must fill the monitoring card with the date of check, the name of technician and a statement that the relevant motor vehicle is not allowed to use gas and accordingly:

a. the gas cylinder is emptied;
b. gas refueling connection is sealed.

(10) The periodic (uneven) tests on the gas devices as meant in paragraph (1) are conducted by installation technicians at workshops, covering:

a. a check on the certificate attached to the motor vehicle in the form of monitoring card and test certificate of gas cylinder;
b. a check on the conversion (installation) card and the identity card;
c. cylinder, piping system, and all components must be checked and tested carefully by technicians in relation with the placement, strength, corrosion, damage and changes affecting the fulfillment of requirements;
d. the performance of devices and controllers must be tested at the normal working pressure of gas, to prove the achievement of the system as a whole;

e. in . . . .

e. in the gas use system as a whole, leak must be thoroughly checked using a soap bubble method and/or other methods that can be accounted for;
f. the test as meant in letter e is conducted at the time of refueling gas at an upstream controller pressure not exceeding 20 MPa;
g. the test on leak must be conducted in a room equipped with a ventilator at least 5 m from open fire or other sources of fire;
h. test on vehicular gas emission;
i. test on the performance of motor vehicle's engines.

(11) If the result of tests as meant in paragraph (10) meets technical requirements, the workshop must fill the monitoring card with the date of test, the name of technician and the date of next test as well as a recommendation for the owner of motor vehicle to use gas.

(12) If the result of tests as meant in paragraph (10) does not meet technical requirements, the workshop must fill the monitoring card with the date of test, the name of technician, and a recommendation for the owner of motor vehicle not to use gas and accordingly:
a. the gas cylinder is emptied;
b. the gas refueling connection is sealed.

Article 28

(1) The owners of gas-fueled motor vehicles that are subject to a test must have their gas-fueled motor vehicles tested within a period of time according to provisions on a periodic test of motor vehicles.

(2) The test of gas-fueled motor vehicles by the unit in charge of testing motor vehicles periodically covers:
a. a gas use system by examining administrative requirements including:
1) a certificate of hydrostatic test along with the validity period of test;
2) a monitoring card particularly those related to check result, recommendation, check period, test result, recommendation and a period of testing fuel conversion device;
3) a check of conversion card and identity card of gas devices.
b. the fulfillment of motor vehicle's road worthiness according to the law and regulation applicable to a periodic check of motor vehicles.

(3) To prove that a motor vehicle has passed a test, the validity period of the motor vehicle's road worthiness in using gas must be contained in the motor vehicle's test book.

(4) Private gas-fueled motor vehicles that are not subject to a test only undergo the check of administrative requirements as meant in paragraph (2) letter a by an agent or a general workshop authorized by an agent.

Article 29

The repair of gas use systems on motor vehicles is done as follows:
a. the repair must be done at the agent as meant in Article 21 paragraph (2) or the general workshop as meant in Article 23 paragraph (1);
b. the repair related to heat must be done by observing the danger of fire to safety;
c. before the repair is done in or near the gas use system the lock off valve must be in a state of being closed, except if fuel is needed to operate the machine;
d. the damage to fuel distributors must not be repaired and all valves must be replaced;
e. welding, coating and heating must not be done to the cylinder;
f. it is forbidden to change and/or modify wholly and/or partially the gas use system by violating the technical standard specified by the manufacturer.

Article 30

The repeated use of components of a gas use system on a motor vehicle is done by fulfilling the requirements as follows:
a. second-hand gas devices can be used again or transferred to other motor vehicles if
1) the devices are still in good condition and meet the standard;
2) the validity period of the cylinder's test has not expired;
3) double ferrule fittings can be used again only if

their . . . .

their condition still matches the manufacturer's catalog.

b. the following components can not be used again:
   1) all pipes and hoses passed through by cylinder pressure;
   2) all fittings used to connect pipes or hoses already separated from the components;
   3) all grommets and fittings used to partition off bulkheads.

Article 31

Gas cylinders are discharged because

a. they no longer meet road worthiness requirements and that they must first be removed from the gas use system before being discharged;
b. gas cylinders must be discharged separately by observing the existing law and regulation in the field of occupational safety

CHAPTER V

THE CIRCULATION OF GAS DEVICES

Article 32

(1) Gas devices can only be sold and circulated by agents holding certain brands of gas devices.

(2) The sales of gas devices must give guarantee that all gas devices sold have the same quality as that of gas devices already tested, approved and validated by the authorized official and can ensure the availability of spare parts.

(3) It is forbidden to sell and use gas devices that have not been approved and endorsed for motor vehicles.

CHAPTER VI

S A N C T I O N

Article 33

Violators of this Decision are liable to sanction according to the existing law and regulation.

CHAPTER VII

TRANSITIONAL PROVISIONS

Article 34

(1) When this Decision begins to take effect, the companies that have held certificates to install gas conversion devices must adjust to this Decision in no more than 1 (one) year after this Decision comes into force.

(2) If after the period of 1 (one) year as meant in paragraph (1) has passed the relevant companies have not adjusted to this Decision, the certificates to install gas conversion devices must be revoked and declared invalid and accordingly, they are banned from selling and/or circulating a gas use system.

(3) Based on the regulation on occupational safety, the companies as meant in paragraph (2) must withdraw gas conversion devices from circulation in the public.

Article 35

(1) The owners of gas-fueled motor vehicles must have their gas use systems on the vehicles tested and adjust to this Decision in no more than 6 (six) months after the stipulation date of this Decision.

(2) If within the period of 6 (six) months as meant in paragraph (1) the owners of gas-fueled motor vehicles have not had their vehicles tested and adjusted to this Decision, they must remove the gas devices from the relevant motor vehicles and accordingly, they are banned from using gas for their vehicles.

CHAPTER VIII

C O N C L U S I O N

Article 36

When this Decision begins to take effect, Decision of the Director General of Land Transportation on the endorsement of gas use systems which has come into force is declared null and void.

Article 37

This Decision begins to take effect on the date of stipulation.

Stipulated in Jakarta
on June 1, 2004
THE DIRECTOR GENERAL OF
LAND TRANSPORTATION,
sgd.
Ir. ISKANDAR ABUBAKAR, MSc.

The Editor's Note :
The attachments are not available.

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