

Fuel Economy Standards and Regulations on Vehicle Inspection and Administration

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ARTICLE 1

These regulations are formulated in accordance with Article 15 of the Energy Management Act.

Any matters not provided for in these regulations herein shall be subject to the provisions of other applicable laws and regulations.

ARTICLE 2

The term "Competent Authority" referred herein denotes the Ministry of Economic Affairs, and the Bureau of Energy of the Ministry of Economic Affairs is authorized to be the executive agency under these regulations.

ARTICLE 3

The term "Transportation Management Authority" referred herein denotes the Ministry of Transportation and Communications.

ARTICLE 4

Any passenger car (including sedans and station wagons) with a gasoline or diesel engine, manufactured or imported by the entity shall comply with the following

Subparagraph 1 or Subparagraph 2 regarding the standards governing the fuel economy of vehicles (hereinafter referred to as the Fuel Economy Standards):

1. Fuel economy testing is conducted in accordance with the Federal Test Procedure (FTP-75) of the United States:

(1) Fuel Economy Standards

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (kilometers/liter)
Below 1200	16.2
Over 1200 to 1800	13.0
Over 1800 to 2400	11.4
Over 2400 to 3000	10.0
Over 3000 to 3600	9.2
Over 3600 to 4200	8.5
Over 4200 to 5400	7.2
Over 5400	6.5

Any vehicle, which has met the following Fuel Economy Standards in respect to the results of the type approval test specified in the following Article and has been issued a certificate of conformity by the Competent Authority before December 31, 2010, shall be allowed to be sold until December 31, 2011 and not restricted by the foregoing Paragraph.

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (kilometers/liter)
Below 1200	15.4
Over 1200 to 1800	11.6
Over 1800 to 2400	10.5
Over 2400 to 3000	9.4
Over 3000 to 3600	8.5
Over 3600 to 4200	7.8
Over 4200 to 5400	7.2
Over 5400	6.5

(2) The combined fuel economy value for passenger cars (including sedans and station wagons) is calculated by the following equation:

Combined fuel economy value (kilometers/liter, km/l) =

$$\frac{1}{\frac{0.55}{\quad} + \frac{0.45}{\quad}}$$

City fuel economy(km/l)

Highway fuel economy(km/l)

2. Fuel economy testing is conducted in accordance with Directive 1999/100/EC and subsequent amendments :

(1) Fuel Economy Standards

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (kilometers/liter)
Below 1200	14.1
Over 1200 to 1800	11.3
Over 1800 to 2400	9.9
Over 2400 to 3000	8.7
Over 3000 to 3600	8.0
Over 3600 to 4200	7.4
Over 4200 to 5400	6.3
Over 5400	5.7

Any vehicle, which has met the following Fuel Economy Standards in respect to the results of the type approval test specified in the following Article and has been issued a certificate of conformity by the Competent Authority before December 31, 2010, shall be allowed to be sold until December 31, 2011 and not restricted by the foregoing Paragraph.

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (kilometers/liter)
Below 1200	13.4
Over 1200 to 1800	10.1
Over 1800 to 2400	9.1
Over 2400 to 3000	8.2
Over 3000 to 3600	7.4
Over 3600 to 4200	6.8
Over 4200 to 5400	6.3
Over 5400	5.7

(2) The combined fuel economy value for passenger cars (including sedans and station wagons) is calculated by the following equation:

Combined fuel economy value (kilometers/liter, km/l) =

$$\frac{\text{Urban test mileage (km)}}{\text{Urban fuel economy (km/l)}} + \frac{\text{Extra urban test mileage (km)}}{\text{Extra urban fuel economy (km/l)}}$$

The fuel economy standards listed in Article 4-2 are applicable to vehicles with US certificate being classified as LDT model or with the EU certificate being classified as M1G model.

ARTICLE 4-1

Any motorcycle manufactured or imported by any entity shall comply with the following Fuel Economy Standards (Test procedure: “Method of test for fuel consumption for motorcycles” issued by the competent authority) :

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (Kilometer/liter)
Below 50	48.2
Over 50 to 100	40.6
Over 100 to 150	38.0
Over 150 to 250	28.0
Over 250 to 500	21.1
Over 500 to 750	16.6
Over 750 to 1000	15.8
Over 1000	14.7

Any motorcycle, which has met the following Fuel Economy Standards in respect to the results of the type approval test specified in the following Article and has been issued a certificate of conformity by the Competent Authority before **December 31, 2010**, shall be allowed to be sold until **December 31, 2011** and not restricted by the foregoing Paragraph.

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (Kilometer/liter)
Below 50	46.1
Over 50 to 100	38.7
Over 100 to 150	35.9
Over 150 to 400	26.9
Over 400 to 650	18.2
Over 650 to 1000	15.7
Over 1000	14.6

The combined fuel economy value for motorcycles is calculated by the following equation:

$$\text{Combined fuel economy value (kilometers/liter)} = \frac{1}{\frac{0.6}{\text{Urban fuel economy (km/l)}} + \frac{0.4}{\text{constant speed fuel economy (km/l)}}$$

Any motorcycle being tested in accordance with CNS3105 test procedure and has been issued a certificate of conformity by the Competent Authority after 2002, shall be allowed to be sold until December 31, 2011 and not restricted by the foregoing Paragraph

ARTICLE 4-2

Any light-duty truck of a gross weight less than 2,500 kilograms, commercial vehicle and passenger car (not sedans or station wagons) with gasoline or diesel engine manufactured or imported by the entity shall comply with Subparagraph 1 or Subparagraph 2 regarding the following standards governing fuel economy of vehicles:

1. Fuel economy testing is conducted in accordance with the Federal Test Procedure (FTP-75) of the United States:

(1) Fuel Economy Standards

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (kilometers/liter)
Below 1200	10.9
Over 1200 to 1800	9.9
Over 1800 to 2400	8.9
Over 2400 to 3000	8.6
Over 3000 to 3600	7.6
Over 3600 to 4200	7.0
Over 4200 to 5400	6.7
Over 5400	6.1

Any vehicle, which has met the following Fuel Economy Standards in respect to the results of the type approval test specified in the following Article and has been issued a certificate of conformity by the Competent Authority before December 31, 2010, shall be allowed to be sold until December 31, 2011 and not restricted by the foregoing Paragraph.

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (kilometers/liter)
Below 1200	10.6
Over 1200 to 1800	8.7
Over 1800 to 2400	8.1
Over 2400 to 3000	7.1
Over 3000 to 3600	6.4
Over 3600 to 4200	5.9
Over 4200 to 5400	5.4
Over 5400	5.0

(2) The combined fuel economy value for light-duty trucks of a gross weight less than 2,500 kilograms, commercial vehicles and passenger cars (not sedans or station wagons) is calculated by the following equation :

Combined fuel economy value (kilometers/liter, km/l) =

$$\frac{1}{\frac{0.55}{\text{City fuel economy (km/l)}} + \frac{0.45}{\text{Highway fuel economy (km/l)}}}$$

2. Fuel economy testing is conducted in accordance with Directive 1999/100/EC and subsequent amendments :

(1) Fuel Economy Standards

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (Kilometer/liter)
Below 1200	9.5
Over 1200 to 1800	8.6
Over 1800 to 2400	7.7
Over 2400 to 3000	7.5
Over 3000 to 3600	6.6
Over 3600 to 4200	6.1
Over 4200 to 5400	5.8
Over 5400	5.3

Any vehicle, which has met the following Fuel Economy Standards in respect to the results of the type approval test specified in the following Article and has been issued a certificate of conformity by the Competent Authority before December 31, 2010, shall be allowed to be sold until December 31, 2011 and not restricted by the foregoing Paragraph.

Class of Vehicles Engine Displacement (cubic centimeters)	Fuel Economy Standards (Kilometer/liter)
Below 1200	9.2
Over 1200 to 1800	7.6
Over 1800 to 2400	7.0
Over 2400 to 3000	6.2
Over 3000 to 3600	5.6
Over 3600 to 4200	5.1
Over 4200 to 5400	4.7
Over 5400	4.3

(2) The combined fuel economy value for light-duty trucks of a gross weight less than 2,500 kilograms, commercial vehicles and passenger cars (not sedans or station wagons) is calculated by the following equation:

$$\text{Combined fuel economy value (kilometers/liter, km/l)} = \frac{\text{Urban test mileage (km)}}{\text{Urban fuel economy (km/l)}} + \frac{\text{Extra urban test mileage (km)}}{\text{Extra urban fuel economy (km/l)}}$$

ARTICLE 5

Fuel economy testing and retesting should be performed by test agencies or vehicle manufacturers (hereinafter referred to as Accredited Agencies) authorized by the Competent Authority. Passenger cars, commercial vehicles, and light-duty trucks shall be tested in accordance with either the Federal Test Procedure (FTP 75) of the United States or Directive 1999/100/EC of the European Union and subsequent amendments; [motorcycles shall be tested in accordance with the competent authority published “Method of test for fuel consumption for motorcycles”](#).

The test procedures adopted for tests and retests mentioned in the foregoing Paragraph shall be in conformity.

ARTICLE 5-1

To apply for a certificate license and become an Accredited Agency as mentioned in the preceding article, a test agency or vehicle manufacturer should provide and submit the following application documents to the Competent Authority. The application procedure for certificate license renewal is the same.

1. The education and work experience papers for test personnel.
2. A quality control plan.
3. A test equipment layout.
4. The original drawings and specifications of the test equipment.
5. Correlated test results conducted within the past six months.

If the application documentations stated in the preceding Paragraph do not conform to the rules or incur deficiencies in the contents, the Competent Authority shall notify the applicant to make corrections by a specified deadline; if the requested corrections are not made by the deadline, the application shall be rejected.

The Competent Authority shall issue certificate licenses with a valid period of no more than three years to those applicants who pass the review. Anyone who has obtained a certificate and applied for an extension needs to submit the documents required by Paragraph 1 180 days prior to the expiration date; the extension period is three years. The applicant must reapply for certification if he was not able to apply for

an extension by the time specified above.

To review the certificate application procedures stated in Paragraph 1 and the certificate extension procedures stated in Paragraph 3, the Competent Authority may invite relevant experts to form a review group. The review group may examine the testing equipment as well as the status of personnel allocation and operation on site, and request the applicant to conduct a vehicle fuel economy test on a chassis dynamometer if and when the review group deems necessary.

Before this regulation takes effect, Accredited Agencies that have obtained certificate licenses according to the "Regulations of the Certification and Administration of Vehicle Fuel Economy Examination Labs" promulgated by the Ministry of Economic Affairs are deemed as Accredited Agencies within the valid period of the certificate license.

ARTICLE 5-2

The Competent Authority may, on a regular or an unannounced basis, inspect an Accredited Agency. If there is any defect found during inspection, the Competent Authority shall order the Accredited Agency to make improvements before a specified deadline, and the Competent Authority shall conduct a re- inspection after the deadline has passed.

If there are any instances of falsification or untruthfulness in the contents of the application documents or related to the allocation of test personnel, the Competent Authority may revoke the certification license and order the Accredited Agency to surrender its certification license before the specified deadline.

IF the Accredited Agency incurs any one of the following events, the Competent Authority may annul its certification license and order the Accredited Agency to surrender its certificate license before the specified deadline.

1. The Accredited Agency issues an untruth inspection report, record or inspection result.
2. The data quality control plan is defective or the degree of precision and accuracy of the inspection does not conform to the required scope, and the defects mentioned above are not corrected by the specified deadline.

When the certificate license is revoked or annulled according to Paragraph 2 and Paragraph 3, the agency will not be allowed to reapply for a certificate within one year after the date of its license is being revoked or annulled.

ARTICLE 6

Vehicle fuel economy tests designated by the Competent Authority shall be conducted

as follows:

- (1) Type approval test, and
- (2) Conformity test

The test results for the previous mentioned tests, also required to comply with the EPA Vehicle Emissions Standards to be accepted as legitimate test results.

For the fuel economy tests, the Competent Authority, along with Transportation Management Authority, shall be entitled to assign the personnel or authorize an Accredited Agency to select the test vehicles randomly for the tests mentioned above. The conformity test for any new vehicle specified in this article shall be delivered to the Accredited Agency appointed by the Competent Authority.

If the vehicle is imported by a manufacturer with an original fuel economy test document (issued by a test agency or by the vehicle manufacturer approved by the local governments where the vehicle was manufactured) to verify this vehicle complies with the fuel economy standards in this Article, the type approval can be waived for the test. The application shall be filed to the Competent Authority for a fuel economy certificate.

ARTICLE 7

The type approval test provided in article 6 means the fuel economy test for any vehicle should follow the procedures listed below:

- (1) For each model of domestic vehicle manufactured by each entity, one vehicle shall be selected randomly for the test.
- (2) For each model of vehicle imported by each entity, one vehicle shall be selected randomly for the test.

ARTICLE 8

Any vehicle that meets the Fuel Economy Standards in respect to the results of the type approval test shall be deemed as undergoing a model change when any one of the following changes occurs, thus require a new certificate application.

- (1) Change in the body styling and model name of the vehicle,
- (2) Change in the weight class of the vehicle,
- (3) Change in the engine model, engine displacement, number of engine cylinders, engine fuel system (including fuel supply or feedback control system) or turbo-charging of the vehicle,
- (4) Change in the power train system of the vehicle,
- (5) Change in the vehicle's country of manufacture, or
- (6) Any other changes of the vehicle that will affect the results of the fuel economy test.

If the changing of vehicle's specifications or components will not affect the fuel economy test results, which shall be subject to the judgment and approval of the Competent Authority, then this vehicle shall be exempt from the requirement of a type approval test. Nevertheless, the vehicle conformity test specified in Article 6 shall still be conducted.

ARTICLE 9

The conformity test prescribed in Article 6 indicates the fuel economy test for any new vehicle that is being distributed into the market, meets the Fuel Economy Standards in respect to the results of the type approval test, and has obtained a fuel economy certificate. The Competent Authority shall perform the conformity test according to the following procedures:

(1) For domestically manufactured vehicles:

a. For each model of domestic vehicle (including passenger cars, light-duty trucks and commercial vehicles) manufactured by each entity, one sample for every one thousand new vehicles shall be selected randomly for testing.

b. For each model of domestic motorcycle manufactured by each entity, one sample for every two thousand new vehicles shall be selected randomly for testing.

(2) For imported vehicles:

The selection procedure of the conformity test for imported vehicle shall be the same as the procedure mentioned above for domestic vehicles.

In the event that the number of vehicles for a particular model of passenger car, produced or imported, is less than one thousand units within six months, one sample shall be selected randomly for testing. In the event that the number of vehicles for a particular model of motorcycle, produced or imported, is less than two thousand units within six months, one sample shall be selected randomly for testing.

The selection ratio for the conformity test provided in this Article may be subject to adjustment as determined by the Administration Authority.

ARTICLE 10

By the twentieth day of each month, the entity that manufactured or imported the vehicles shall, in accordance with Articles 7 and 9, furnish its manufacturing and import plan for the following month and the actual manufacturing/sales or importing/sales data of the preceding month to the Competent Authority for fuel economy test purposes. Upon the selection of test vehicles, the entity that manufactured or imported the vehicles shall send the test vehicles to the Accredited Agency for the test within twenty-eight days.

In the event of any change in the manufacturing/sales or importing/sales plan or data

mentioned previously in this Article, a written notice should be given to the Competent Authority within three days upon the date of such change.

The Competent Authority, along with the Transportation Management Authority, shall be entitled to review the actual manufacturing/sales or importing/sales data raised by the above mentioned entity.

ARTICLE 11

For any manufactured or imported vehicle that meets the Fuel Economy Standards in respect to the results of the type approval test, the Competent Authority shall issue a certificate of conformity with respect to that vehicle model.

In no event shall the Transportation Management Authority issue a vehicle license to any vehicle without a certificate of conformity.

The Administration Authority may consign an approved authority to issue and approve the certificate of conformity mentioned in the first paragraph of this Article.

ARTICLE 11-1

The holder of the vehicle model or vehicle Fuel Economy Certificate will be allowed to transfer the Certificate to another specific entity, only if the original vehicle manufacturer guarantees to provide the specific entity with the same specifications and quality vehicles.

ARTICLE 12

For any vehicle which does not meet the Fuel Economy Standards in respect to the results of the conformity test provided in Article 6, the entity who applied for the type approval test may apply for a retest. The retest shall be performed according to the following procedures:

(1) The results of three retests for the original sample test vehicle shall be averaged to a single value (hereinafter referred to Y).

(2) Y and all of the one-time retest results for each vehicle requested for retesting by the application entity and selected by the Competent Authority shall be averaged to determine a single value (hereinafter referred to X).

(3) In the event that the difference of X and the product of statistical parameter times the standard deviation is not smaller than the Fuel Economy Standards, the vehicles covered by the application shall be regarded as meeting the Fuel Economy Standards. The standard deviation is calculated by the following equation:

$$\text{Standard Deviation} = \sqrt{\frac{\sum (\text{Fuel Economy Value} - X)^2}{(\text{Sample Number of Test Vehicles} - 1)}}$$

The statistical parameters are to be determined based on the number of sample test vehicles, as in the following table:

Number of Sample Vehicles	2	3	4	5	6	7	8	9	10
Statistical Parameter	0.973	0.613	0.489	0.421	0.376	0.342	0.317	0.296	0.279
Number of Sample Vehicles	11	12	13	14	15	16	17	18	19
Statistical Parameter	0.265	0.253	0.242	0.233	0.224	0.216	0.210	0.203	0.198

If the number of Sample Test Vehicles ≥ 20 ,

$$\text{Statistical Parameter} = \frac{0.860}{\sqrt{\text{Number of Sample Test Vehicles}}}$$

In the event that the entity does not apply for retesting, or the results of the retesting do not meet the Fuel Economy Standards under this Article, the certificate of conformity in respect to the vehicle or the model of vehicle covered by the certificate shall be annulled. The Competent Authority shall forthwith withhold from the entity the right to sell the vehicles and order the entity to take actions to improve the fuel economy of the vehicles. The Transportation Management Authority shall not issue vehicle licenses to the vehicles of the model concerned or to any entity who commits a breach of Article 10 as well.

The entity applying for a retest as described in paragraph 1 of this article shall deliver the vehicles to the Accredited Agency appointed by the Competent Authority.

ARTICLE 13

The Competent Authority shall periodically publish the city, highway and combined fuel economy data of every model of vehicle in accordance with the test results under these Regulations.

ARTICLE 14

(Deleted)

ARTICLE 15

These Regulations shall become effective upon promulgation.

(This English version is provided for reference only. In case of any discrepancy, the original version in Chinese should prevail).