

RULE OF THE CENTRAL BUREAU OF WEIGHTS AND MEASURES

ON RULES, PROCEDURE AND CRITERIA IN RESPECT OF INSPECTION OF A FUEL DISPENSER IN SERVICE STATION OF A LICENSE HOLDER TO BE AN INSPECTOR AND VERIFICATION OF A FUEL IN SERVICE STATION REPAIRED BY SUCH LICENSE HOLDER B.E. 2553 (2010)

In order to ensure that a license holder to be an inspector of a fuel dispenser in service station repaired by such license holder is able to inspect a fuel dispenser appropriately and systematically under the Ministerial Regulation prescribing the measurement gauge under the Weights and Measures Act B.E. 2542 the types, characteristics, details of the materials used for production, maximum permissible error, and verification of measurement gauge and rules and procedures for registration of private mark B.E. 2546;

By virtue of sections 6(5) and section 42 of the Weights and Measures Act B.E. 2542 which is the Act containing certain provisions in relation to the restriction of rights and liberties of a person, in respect of which section 29 in conjunction with section 32, section 33, section 41 and section 43 of the Constitution of the Kingdom of Thailand so permit by the virtue of law, the Director-General of the Department of Internal Trade shall hereby issues the rules as follows:

Clause 1. This Rule is called the “Rule of the Central Bureau of Weights and Measures on the prescription of the rules, procedure and conditions of inspection of a fuel oil dispenser in service station of a license holder to be an inspector of a fuel dispenser in service station repaired by such license holder B.E. 2553 (2010)”.

Clause 2. This Rule shall come into force as from the day following the date of its publication in the Government Gazette.

Clause 3. In this Rule:

“dispenser” means fuel dispenser in service station.

Clause 4. The Director-General of the Department of Internal Trade shall have change and control of the execution of this Rule.

CHAPTER I

INSPECTION OF CHARACTERISTICS OF DISPENSER

Clause 5. A license holder shall be an inspector of a dispenser for direct mass measurement produced by such license holder shall inspect the characteristics of a dispenser for direct mass measurement as follows:

- (1) a dispenser shall display the following details which shall be easily to be read, clear and difficult to be faded away;
 - (a) name or trademark of a producer, importer or seller;
 - (b) model which specifies the form of dispenser;
 - (c) serial number of as prescribed by a competent official;
- (2) capacity of dispenser which shall be displayed in Thai or Arabic number and Thai letter or letter or marks as prescribed by the Minister by displaying clearly and difficult to be faded away and may be in abbreviation;
- (3) display of a dispenser shall have the following characteristics:
 - (a) analog display:
 - 1) scale marks and value indicator shall be designed appropriately and corporately;
 - 2) scale marks, number, letters or other marks shall be easily read, clear and difficult to be faded away;
 - 3) in the case where there are various value displays, every place shall display the same value;
 - 4) in the case of the printing of value, the value printed shall be in accordance with the value displayed:
 - (b) digital display
 - 1) the display regardless of whether it is in number, letter or other symbols combining, it shall not cause confusion while reading the value;
 - 2) in the case where there are various displays, every display shall illustrate the correct and same value;
 - 3) in the case where the display is in both digital and analog, the digital display shall be in accordance with the analog display;
 - 4) in the case where there is a printing part, the value printed shall be the same as the value displayed;
 - (c) in the case of the display of mass with the calculated price, such price shall be in accordance with the value displayed;

(4) marks of all the controlling devices, display and other component parts including switches of a dispenser must be read easily, clear and difficult to be faded away;

(5) the display and printing of dispenser shall have the following characteristics:

(a) it must contain the main display of value;

(b) scale interval shall be displayed in 1×10^k , 2×10^k or 5×10^k by which k shall be a positive integral number, negative integral number or zero;

(c) Analog display:

1) Main scale mark:

a) the length of main scale marks and subsequent scale marks must be different to be easy to read the value. In this respect, the main scale marks must be longer than subsequent scale marks;

b) the length of correct and coordinate scale marks must equal and in straight line and the width shall not be less than 0.2 millimeter and must not exceed the lowest two consecutive interval scales;

c) the length of main scale mark must not exceed 1.5 times the subsequent scale mark;

d) the gap between scale mark shall not be less than 2 millimeter;

2) indicator:

a) the indicator must be horizontal to the scale mark;

b) if the indicator is not horizontal to the scale mark, the length of the tip of the indicator must be at the scale mark displaying the volume;

c) if the indicator is horizontal to the scale mark, the length of the tip of the indicator must be distant from the scale mark not exceeding 1 millimeter;

d) width:

1 the width of tip of the indicator shall not exceed the width of the largest of scale mark;

2 in the case where the indicator is a needle, the width of the tip of the indicator must be constant and adhere to the scale mark;

e) if the indicator and scale mark are in different level, the distance between the indicator and level of the scale mark shall not exceed 1.5 millimeter;

(d) the digital display must display the result continuously during the time of measurement of volume of fuel for sale;

(e) zero-setting for the display of volume:

1) the volume display may contain the zero-setting which can be manually or automatically adjusted;

2) upon the initial zero-setting, the display shall not be different from the previous result of the measurement appeared and shall display the value zero upon the completion of zero-setting;

3) the initial zero-setting shall not cause any changes to the result of the measurement except for changing to display zero;

4) during the measuring, there shall be no method which would be able to adjust the display of zero;

5) in the case of analog display, the display after the initial zero-setting may not deviate more than one half of the maximum permissible error for the minimum quantity measured;

6) in the case of digital display, the display after the initial zero-setting shall not deviate and display the value of zero only;

(f) dispenser for retail:

1) in respect of the display for dispensing volume, prior to dispensing, the display for volume must be zero and when the dispensing begins, the display of volume must display the dispensing volume at the time on the display;

2) the dispenser which can calculate the price must display the price per unit correctly in accordance with the type of product before each dispensing;

3) in respect of price calculation

a) the total price shall be correctly displayed per unit each time of measurement;

b) in respect of the display of selling price in accordance with any dispensing, it shall display the accuracy with the positive and negative deviation of not exceeding the product of 0.05 liter times price per unit;

4) in respect of the display of price per unit, in the case of each dispenser for volume measurement dispenser of each product is different but jointly uses the display part, before the measurement of dispensing volume of any product of each time, the display part must display price per unit of such product and during the time of measurement, no method shall be able to adjust the display of price per unit;

5) the display of total volume and total selling price, for each sale, upon the completion of the measuring of dispensing volume, the display shall the dispensing volume and total selling price for at least 5 minutes or until the next sale;

6) in the case where a printing part is assemble to an oil dispensing device, the printing of dispensing product shall have the following details:

a) total dispensing volume;

b) price per unit;

c) total selling price;

d) type of product, such as, name, symbol, abbreviation or code;

(6) a dispenser must contain component device and complementary device with the following characteristics:

(a) device for extracting vapour or air or other automatic method which prevent vapour or air from going into a dispenser during the time of measurement;

(b) valve preventing reversing flow or a method preventing any reversing flow into a dispenser;

(7) a dispenser may contain a component device or complementary device with the characteristics as follows:

(a) Interruptible and non-interruptible measuring system;

1) It must be able to accurately stop the dispensing and in the case where the dispenser is able to set up in advance, upon the stopping of dispensing, the display must illustrate the volume in accordance with the value set up in advance earlier;

2) The control part for stopping must render the system to adjust the stopping in order to ensure that the volume dispensing is within the specified scope;

(b) In respect of temperature, pressure device and density measuring devices working together with the system of fuel volume measurement, in the case of any impact on the measurement of the dispenser, it shall be in accordance with the rules as prescribed by the Minister;

(8) Delivery hose and valve shall have the following characteristics:

(a) It must not render the volume of fuel measured to deviate from the measurement room or delivery hose;

(b) In the case where there are two delivery hoses, an automatic mean must be installed to ensure that:

1) During the dispensing, fuel must flow, in one direction, out of the delivery hose;

2) Device used to control the flow direction must display the flow direction clearly;

(9) The dispenser must contain the following details:

(a) The fuel dispenser must display the following information clearly and difficult to be faded away:

1) Production year;

2) Minimum measured quantity;

3) Minimum and maximum flow rate;

4) Minimum and maximum pressured fuel;

5) Range of temperature;

6) Material of the product used;

(b) In the case where there is a temperature substituting device, the temperature and pressure at the basic condition must be displayed clearly and close to the volume display and the printing clearly that the volume displayed is the volume at the basic temperature;

(c) When the fuel dispenser is installed, the dispenser used for retail with the maximum flow rate exceeding 100 liters per minute shall display the minimum and maximum flow rate to be clearly seen on the dispenser and the minimum flow rate shall not exceed 20 percent of the maximum flow rate;

(d) In the case where several dispensers using joint components, each condition of the system shall be displayed and may display on the same database;

(10) the dispenser must contain the additional characteristics as follows:

(a) It must be designed to have the ratio of the maximum flow rate to the minimum flow rate of not less than 10 to 1;

(b) Before the delivery of fuel, the display for volume and total selling price must be zero;

(c) In the case where the fuel volume measurement has the flow rate of not exceeding 60 liter/ minute, the minimum volume dispensed must not exceed 5 liters;

(11) to affix or display a private mark of the repairer on the dispenser.

In the case where the dispenser does not contain the correct and complete characteristics, the next step of inspection shall not be proceeded.

CHAPTER II

INSPECTION OF THE ACCURACY OF DISPENSER

Clause 6. In regard to the inspection of accuracy of a dispenser installed with the fuel measurement system under the specific flow rate, the accuracy tested in comparison to measuring tank under the capacity of 5 liters, 20 liters and 50 liters, the deviation shall not exceed the prescribed maximum permissible error as follows and it shall pass the test:

Tested quantity	Flow rate	maximum permissible error
5 liters	Approximately 5 liter per minute or minimum flow rate	+/- 15 milliliter
20 liters	Approximately 20 liter per minute	+/- 60 milliliter
50 liters	Approximately 50 liter per minute	+/- 150 milliliter

Clause 7. In regard to inspection of the accuracy of a dispenser installed with the fuel measurement system under the specific flow rate, the accuracy of the minimum measured quantity when compared to a measuring tank with scale marks, capacity shall equal the minimum measured quantity of fuel dispenser and the deviation shall not exceed the maximum permissible error as follows, in such case it shall pass the test:

Tested quantity (V)	Flow rate	Maximum permissible error
0.02 to 0.1 liter	Minimum flow rate	+/- 2 millimeter
0.1 to 0.2 liter	Minimum flow rate	+/- 0.02 V
0.2 to 0.4 liter	Minimum flow rate	+/- 4 millimeter
0.4 to 1 liter	Minimum flow rate	+/- 0.01 V
1 to 2 liter	Minimum flow rate	+/- 10 millimeter
From 2 liter onwards	Minimum flow rate	+/- 0.005 V

Clause 8. In regard to inspection of dispenser under clause 6, the deviation of dispenser at every flow rate at the same side shall at least contain one value not exceeding the maximum permissible error as follows and it shall pass the test:

Flow rate	Tested quantity	Maximum permissible error	
Approximately 5 liters per minute or minimum flow rate	5 liters	+ 7.5 milliliter	-7.5 milliliter
Approximately 20 liters per minute	20 liters	+ 30 milliliter	- 30 milliliter
Approximately 50 liters per minute	50 liters	+ 75 milliliter	- 75 milliliter

Clause 9. In regard to inspection of a dispenser under clause 6, the deviation of the fuel measurement system shall not exceed one half of the maximum permissible error in accordance with the following table and it shall pass the test:

Tested quantity (V)	Flow rate	Maximum permissible error
5 liters	Approximately 5 liters per minute or minimum flow rate	+/- 0.3 % (+/- 15 milliliters)
20 liters	Approximately 20 liters per minute	+/- 0.3 % (+/- 60 milliliters)
50 liters	Approximately 50 liters per minute	+/- 0.3% (+/- 150 milliliters)
Span of error must equal the maximum deviation minus percentage of minimum deviation not exceeding 0.3 percent		

CHAPTER III

VERIFICATION

Clause 10. In regard to a dispenser which has passed the inspection of characteristics of dispenser under chapter 1 and the accuracy of dispenser under chapter 2, a license holder to be an inspector of a dispenser repaired by such person shall carry out the followings:

(1) affixing a verification mark under the form Chor Wor 104 on the right corner of the sign displaying its serial number and at the position which prevents any correction or modification of the accuracy of such dispenser;

(2) issuing a certificate verifying a measurement gauge under the form Chor Wor 106 by which the certificate verifying a measurement gauge must display the details, inspection date and providing the verification including the expiration date of the verification of 60 days and shall be signed completely and correctly everywhere and in every issue;

(3) displaying the inspection date and verification including the expiration date of the verification of 60 days on the sign displaying its serial number.

Clause 11. Any of a fuel dispenser which fails the test shall be corrected and shall be submitted for re-inspection and verification.

Clause 12. The report of inspection and verification of dispenser repaired station be submitted, by a license holder to be an inspector, in accordance with the form *Chor Wor Dtor Ror Mor Por Sor 1* and *Chor Wor Dtor Ror Mor Por Sor 2* annexed to this Rule and the Central Bureau or Subsidiary Office shall be notified including the report of the work performance of a license holder as an inspector of a measurement gauge under the Rule of the Central Bureau of Weights and Measures on the report of the work performance of a license holder as an inspector of a measurement gauge B.E. 2549 dated the 27th of January B.E. 2549.

Given on the 1st of September B.E. 2553

Mrs. Watcharee Wimuktanont
Director-General of the Department of Internal Trade