

1. -----IND- 2018 0294 CZ- EN- ----- 20180710 --- --- PROJET

Executive summary for the European Commission (*not part of this legislation*)

Instruments and systems measuring the flow volume of liquids other than water – dynamic measuring systems for liquids other than water, which are fitted to vehicles and tank-vehicles, are placed on the market and put into use in the Czech Republic in accordance with Directive 2014/32/EU (the Measuring Instruments Directive – MID). Once they have been put into use, they become subject to national metrology regulation – verification at specified intervals. This notified legislation only applies to the verification of measuring instruments that have already been put into use. It does not concern placing them on the market or putting them into use.

The requirements imposed on these measuring instruments when in use are fully compatible with the MID and are also based on OIML Recommendation 117.

Some parameters listed in this document are properties of the measuring instruments when they are new; they are listed herein only because the preservation of these properties when the instruments are in use is subject to visual or other checks during verification.

(End of executive summary.)

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PUBLIC NOTICE

As the authority with substantive and territorial jurisdiction in the matter of laying down metrological and technical requirements for legally controlled measuring instruments and stipulating the testing methods for type approval and verification of legally controlled measuring instruments pursuant to § 14(1) of Act No 505/1990 on metrology, as amended (hereinafter referred to as the ‘Metrology Act’), and in accordance with the provisions of § 172 et seq. of Act No 500/2004, the Administrative Procedure Code (hereinafter referred to as the ‘APC’), the Czech Metrology Institute (hereinafter referred to as the ‘CMI’) commenced ex officio proceedings on 26 February 2010 pursuant to § 46 APC, and, on the basis of supporting documents, issues the following:

I.

DRAFT GENERAL MEASURE

number: 0111-OOP-C069-16

laying down the metrological and technical requirements for legally controlled measuring instruments, including testing methods for type approval and verification of the following legally controlled measuring instruments:

instruments and systems measuring the flow volume of liquids other than water and of liquefied gas – dynamic measuring systems for liquids other than water, which are fitted to vehicles and tank-vehicles

This general measure stipulates the metrological and technical requirements for instruments and systems (fitted to vehicles) measuring the flow volume of liquids other than water and of liquefied gas, that are applied after they are placed on the market or put into use during their verification.

1 Basic definitions

For the purposes of this general measure, terms and definitions pursuant to VIM and VIML¹ as well as the terms and definitions stated below shall apply.

1.1

tank-vehicle

A self-propelled vehicle, trailer or semi-trailer, upon which a permanent or removable container that may be divided into multiple measuring chambers and is suitable for transporting liquids other than water is fitted.

1.2

dynamic measuring systems for liquids other than water (hereinafter referred to as a ‘measuring system’)

A system of devices for determining and recording the flow volume (weight or volume or volume under set conditions) of a given liquid other than water on the basis of measuring essential values during its flow through a completely filled pipe.

2 Metrological requirements

Metrological requirements are based on requirements of the Government Regulation on measuring instruments and on requirements of OIML R 117-1² and OIML R 81³.

¹ TNI 01 0115 International Vocabulary of Metrology – Basic and General Concepts and Associated Terms (VIM) and International Vocabulary of Legal Metrology (VIML) are part of the technical harmonisation compendium ‘Terminology in the field of metrology’, which is publicly accessible at www.unmz.cz.

² OIML R 117-1 ‘Dynamic measuring systems for liquids other than water. Part 1: Metrological and technical requirements’ – publicly accessible at www.oiml.org

³ OIML R 81 ‘Dynamic measuring devices and systems for cryogenic liquids’ – publicly accessible at www.oiml.org

During verification, measuring instruments are subject to the metrological requirements that were applicable when they were placed into circulation.

2.1 Rated operating conditions

2.1.1 Ambient temperature range

Measuring systems must work properly over a range of ambient temperatures specified by the manufacturer as the operating temperature range, which must be at least -25 °C to 55 °C .

2.1.2 Flow range

The flow range of a measuring system specified by the manufacturer must be within the limits of the flow range of each of its components, especially the measuring instrument.

The minimum required flow ratio $Q_{\max} : Q_{\min}$ of a measurement system for cryogenic liquids is 5:1 and for other liquids 4:1.

2.1.3 Measured liquid

The measured liquid must be specified by a name or type whose physical properties are specified and generally known, or must be specified directly by stating the range of relevant physical properties with which manufacturers supply these liquids, e.g. example density or viscosity range, temperature range, pressure range or Reynolds number.

2.1.4 Minimum measured quantity (*mmq*)

The minimum measured quantity of liquid, which the dynamic measuring system is intended to measure, is expressed in the form 1×10^n , 2×10^n or 5×10^n units of volume or weight, where n is a positive or negative whole number, or zero.

A measuring system's minimum measured quantity must not be smaller than the largest of the minimum measured quantities of any of its components.

2.2 Accuracy of measuring systems

Measuring systems must meet requirements for the maximum permissible error over the entire flow measurement range specified by the manufacturer.

2.2.1 Accuracy class of measuring systems

The measuring system must be allocated to an accuracy class according to Table 1.

The manufacturer may specify a higher accuracy for certain types of measurement systems.

Table 1 – Accuracy classes

| Class | Usage area |
|-------|--|
| 0.5 | Measuring systems for liquids with low viscosity ($\leq 20\text{ mPa}\cdot\text{s}$). Measuring systems for milk, beer and other articles of consumption. Measuring systems for fuelling aircraft. |

| | |
|------------|--|
| 1.0 | Measuring systems for liquefied gases under pressure at temperatures of $-10\text{ }^{\circ}\text{C}$ or higher. Measuring systems of normal class 0.5, but used for liquids: a) whose temperature is lower than $-10\text{ }^{\circ}\text{C}$ or higher than $+50\text{ }^{\circ}\text{C}$, b) whose dynamic viscosity is higher than $1\ 000\ \text{mPa}\cdot\text{s}$. |
| 1.5 | Measuring systems for liquefied carbon dioxide. Measuring systems for liquefied gases under pressure at temperatures lower than $-10\text{ }^{\circ}\text{C}$ (with the exception of cryogenic liquids). |
| 2.5 | Measuring systems for cryogenic liquids (at temperatures lower than $-153\text{ }^{\circ}\text{C}$). |

2.2.2 Maximum permissible errors

The maximum permissible errors for measuring systems and the measuring instruments in said systems are specified in Table 2.

Table 2 – Maximum permissible errors

| --- | Maximum permissible errors | | | |
|---------------------------------------|----------------------------|-------|-------|-------|
| | 0.5 | 1.0 | 1.5 | 2.5 |
| Accuracy class | | | | |
| Measuring systems (A) (entire system) | 0.5 % | 1.0 % | 1.5 % | 2.5 % |
| Measuring instruments (B) | 0.3 % | 0.6 % | 1.0 % | 1.5 % |

Regardless of the measured amount, the size of the maximum permissible error is the larger of the following two values:

- the absolute value of the maximum permissible error listed in Table 2;
- the absolute value of the maximum permissible error for the smallest measured quantity E_{\min} .

For the smallest measurements equal to two litres or more, the following conditions shall apply:

Condition 1: E_{\min} must meet the following condition: $E_{\min} \leq 2R$, where R is the smallest increment value on the indicator.

Condition 2: E_{\min} is given by the following formula: $E_{\min} = (2 \cdot mmq) \times (A/100)$, where mmq is the smallest dispensed amount, and A is the numerical value for measuring systems (A) in Table 2.

The measuring system shall not exploit the maximum permissible error or systematically favour any party.

2.2.3 Converted indicated information

In the case of converted indicated information, the maximum permissible error for measuring systems (A) in Table 2 applies.

2.2.4 Converter

The maximum permissible error of converted indicated data caused by the conversion apparatus is equal to $\pm(A - B)$, where A and B are values listed in Table 2.

Parts of the converter that can be tested separately:

- Counter: the maximum permissible error of indicated values of characteristic values of liquid valid for calculation, positive or negative, is equal to one tenth of the maximum permissible error for measuring systems (A) in Table 2.
- Attached measuring instruments must have at least the same accuracy as given by the values in Table 3.

Table 3 – Maximum permissible errors of attached measuring instruments

| --- | Accuracy class of the measuring system | | | |
|--|---|------------------------|-----------------------------|----------------------------------|
| | 0.5 | 1.0 | 1.5 | 2.5 |
| Temperature | $\pm 0.5 \text{ }^\circ\text{C}$ | | | $\pm 1.0 \text{ }^\circ\text{C}$ |
| Pressure | less than 1 MPa: $\pm 50 \text{ kPa}$ | | from 1 to 4 MPa: $\pm 5 \%$ | |
| | greater than 4 MPa: $\pm 200 \text{ kPa}$ | | | |
| Density | $\pm 1 \text{ kg/m}^3$ | $\pm 2 \text{ kg/m}^3$ | | $\pm 5 \text{ kg/m}^3$ |
| NOTE These values apply to data for characteristic values of a liquid indicated by the converter. | | | | |

- Accuracy of calculation function: The maximum permissible calculation error for each characteristic value of the liquid, positive or negative, is equal to two fifths of the value listed under subparagraph (b) for attached measuring instruments.

3 Technical requirements

Technical requirements are based on requirements of the Government Regulation on measuring instruments and on requirements of OIML R 117-1² and OIML R 81³.

During verification, measuring instruments/measuring systems are subject to the metrological requirements that were applicable when they were placed into circulation.

3.1 Design of the measuring system

A measuring system shall consist of the following main components as a minimum:

- a measuring instrument;
- a dividing point;
- a hydraulic line with the given properties ensuring the correct functioning of the measuring system.

For proper operation, it may be necessary to connect further components to the measuring system, such as:

- a filter;
- a pump;
- a differential valve;
- a correction device;
- a device for removing the gaseous phase and/or a gas detector or anti-vortex device.

The measuring system may be equipped with other auxiliary and additional devices.

If multiple flow meters intended for separate transactions share common components (such as a counter, filter, device for removing the gaseous phase, converter for fluid quantity), each flowmeter with the aforementioned shared components will form a separate measuring system.

Each measuring system must be used for the specific product or specific group of products for which it was approved. The pipes of measuring systems must be designed so that it is not possible for the products to be mixed.

3.1.1 Specific requirements for measuring liquefied gases under pressure

Only measuring systems with a gas hose are permissible.

No connections between the gaseous phases of a tank and the receiving tank are allowed.

3.1.2 Specific requirements for measuring liquefied carbon dioxide

Only systems with an empty hose are allowed.

A connection between the gaseous phases of a tank vessel and the receiving tank is permissible if a device is installed for enabling the compensation of the quantity delivered by a quantity corresponding to the quantity of vapour returned in the gas pipe, or if compensation is conducted by an automatic calculation. However, in both cases, it must be possible to safely stop the flow of liquid from the dispensing tank to the receiving tank with a return gas pipe.

3.1.3 Specific requirements for measuring milk, beer and other foamy beverages

In the receiving application, the dividing point is given by the constant level in the venting system upstream of the measuring instrument. The venting device must use a vessel with a constant level, which is usually combined into a single device, but may be separate if the venting device is at the outlet of the vessel with a constant level and upstream of the measuring instrument. This constant level in the venting device must be possible to control before and after each measurement. The level must form automatically.

The venting device may be placed either at the input to the pump or between the pump and the measuring instrument. A venting device is essential if the measuring instrument is powered by gravity, by the emptying of churns, with the help of a pump, or by a vacuum system. If the milk is fed by a pump or by way of a vacuum system, the system must be equipped with a gas separator. This device may be combined with a vessel with a constant level.

The measuring system must be completely filled before measuring begins. In the case of receiving installations, if it is not practical to fill the measuring system before measuring, it is possible to determine the quantity required to fill the measuring system; this quantity must be indicated on the measuring system's information plate so that it can be factored into calculations during the initial measurement when receiving. The initial quantity measured when receiving must be equal to or greater than the quantity needed to fill the system completely.

3.1.4 Specific requirements for fuelling aircraft

The requirements also apply to fuelling helicopters.

Measuring systems for fuelling aircraft are systems with a full hose.

The function of the gas separator may be performed by a water separator with a microfilter.

The water separator may be fitted to the measuring instrument. The water drainage valve should not be lead-sealed.

3.2 Indicator

The measuring system must be equipped with an indicator which shows the liquid flow quantity under measurement conditions.

The volume is displayed in units of volume proportionate to the measuring range, such as m³, dm³ (in litres). The weight is displayed in units of weight proportionate to the measuring range, such as kg or t.

In the case of influencing variables, temperature is displayed in °C or K, density in kg/m³ and pressure in bar or Pa (kPa, Mpa).

If the measuring system is equipped with a device for converting the measured liquid flow quantity to the given reference conditions, it must also be equipped with a device to display this converted quantity. If the conversion function is active and the amount under basic conditions is displayed, the measurement result must be accompanied by this information, e.g. 'volume at 15 °C'.

The use of one indicator for multiple measuring systems is permitted on the condition that it is not possible to use two measuring systems at the same time and that it is clear which measuring system the information is displayed for.

3.3 Device for removing the gaseous phase

The possibility of undissolved air or gases appearing in the measured liquid upstream of the flow meter must be minimised, specifically by using a suitable arrangement of a hydraulic line including pump and pressure ratios, or by using a device for removing the gaseous phase for liquids with a dynamic viscosity of less than 20 mPa·s at a temperature of 20 °C, which is suitable for the given measurement conditions.

The influence of undissolved air and gases on the measurement result may not exceed:

- a) 1 % of the measured quantity for milk, beer and other beverages that tend to foam, as well as for liquids with a viscosity of over 1 mPa·s at 20 °C, or
- b) 0.5 % of the measured quantity for other liquids.

However, this influence need not be less than 1 % of the smallest graduation.

3.4 Protection against unauthorised tampering

Sufficient room shall be provided on the measuring system for the placement of the official mark and the main mark, thus allowing easy placement and visual inspection without the need for disassembly.

The measuring system is designed so that the measuring instrument, indicator, converter or other devices of the measuring system cannot be tampered with in a way that could affect the accuracy of measurement without visible damage to the official marks.

4 Markings

All of the information on the label of the measuring system must be indelible, irremovable and legible.

4.1 Marking of the measuring system

Each measuring system must have at least the following information on a special information plate:

- a) the manufacturer's name or trade mark;

- b) the measuring system's model name;
- c) the serial number and year of manufacture;
- d) the minimum flow Q_{\min} and maximum flow Q_{\max} ;
- e) the minimum and maximum operating pressure;
- f) the minimum measured quantity (*mmq*);
- g) the name or type of measured liquid, or the range of relevant characteristics;
- h) the minimum and maximum temperature of the measured liquid;
- i) climatic, mechanical and electrical class of the environment;
- j) the nominal AC voltage value and/or limit DC voltage value;
- k) the accuracy class;
- l) the number of the type approval certificate, if available, or indication of conformity;
- m) a conformity assessment mark including the number of the notified body (if placed on the market by way of conformity assessment).

This identification plate must be firmly affixed to the measuring system in a visible location and sealed.

4.2 Marking of metrologically relevant components

Each individual metrologically relevant component of a measuring system, such as the measuring instrument, measurement transducer, counter, gas separator, indicator and converter, must display at least (for example on another label) the following information:

- the serial number;
- the manufacturer's name or trade mark;
- the number of the type approval certificate, if available;
- other relevant characteristics for the specific device type.

5 Type approval of the measuring instrument

The measuring instruments and measuring systems in question are supplied on the market or put into use with a conformity assessment pursuant to separate legislation⁴, and are therefore not subject to type approval.

6 Initial verification

The measuring instruments and measuring systems in question are supplied on the market or put into use with a conformity assessment pursuant to separate legislation⁴, and are therefore not relevant for initial verification.

⁴ Government Regulation No 120/2016 on the conformity assessment of measuring instruments when being placed on the market

7 Subsequent verification

7.1 General

Measuring systems may be verified in one or more stages. If one or more stages come before the final verification of the entire measuring system, the results of the tests in the previous stages must be taken into account in the final stage.

The measuring system may be verified in one stage if the entire measuring system was built by a single manufacturer and if it can either be transported without being disassembled and verified under the conditions in which it is supposed to work, or if the entire verification can be performed at the installation site.

In all other cases, the verification shall be performed in two stages.

- The first stage only applies to measuring instruments in their capacity as a component of a measuring system, or, as the case may be, of additional devices. First-stage tests may be carried out with a liquid other than that for which the system is intended. First-stage tests may be carried out on test equipment.
- The second stage must be carried out at the installation site and under operation conditions with the liquid for which the system is intended.

Regardless of the number of times and the site where the stages were carried out, and regardless of the environment of the test, it must be possible to make a conclusion that the measuring system installed at the place of use fulfils all applied requirements under the specified working conditions.

Verification with a liquid other than the one intended for measurement may only be conducted on the condition that it is approved in the documents of the measuring instrument's type approval or conformity assessment. Measuring systems for milk and other beverages or liquid foodstuffs may be tested with water.

The following tasks and tests are conducted during subsequent verification in the final stage:

- a) visual inspection;
- b) functional test of the device for separating the gaseous phase;
- c) accuracy test;
- d) tests of auxiliary and additional devices.

7.2 Test equipment

Test equipment used to perform accuracy tests must have an extended uncertainty of measurement less than 1/3 of the maximum permissible error pursuant to Article 2.2.2, Table 2.

7.3 Visual inspection

The purpose of the visual inspection of the measuring system shall be to check:

- whether the measuring instrument submitted for verification and its components conform to the approved type or with the design of a measuring instrument for which conformity has been declared as part of its placement on the market; attention must be paid when checking markings pursuant to Chapter 4;
- whether the measuring instrument and its components, including rubber hoses, are physically damaged or whether metal parts show signs of corrosion;
- whether the content and implementation of markings and inscriptions correspond to the data and requirements specified in the type approval of type-examination certificate for the measuring instrument.

If the measuring instrument fails to meet visual inspection requirements, no further tests are performed.

7.4 Functional test of the device for separating the gaseous phase

If possible or feasible, the functioning of the device for separating the gaseous phase shall be tested, although it is not necessary to verify compliance with the maximum permissible error applicable to the device in question.

7.5 Measuring system accuracy test

An accuracy test of a measuring system is performed either using the volume method, by dispensing a specified amount of liquid into a standard graduated container, or by using the weight method, by dispensing a specified amount of liquid into a container on standard scales, or with a reference flow meter at the specified flow.

The measuring system has passed the accuracy test if the errors do not exceed the maximum permissible error listed in Article 2.2.2, Table 2.

If all true measuring instrument errors have the same sign, at least one of them must have a value lower than half of the maximum permissible error listed in Article 2.2.2, Table 2.

The test is to be conducted, as a minimum, at the characteristic flow rate within the measuring system's flow range. Other flows and tests may be specified, depending on the type of measuring system.

7.5.1 Measuring systems for liquids with low viscosity (≤ 20 mPa·s)

Directly prepared liquid is to be used as the test liquid.

- Test of the complete emptying of the chamber.
- Test of the empty chamber's connectivity during the dispensing process.
- Test of the complete emptying of the hose for the minimum measured quantity (*mmq*).

7.5.2 Measuring systems for liquids whose temperature is lower than -10 °C or higher than $+50$ °C, or whose dynamic viscosity is greater than 1 000 mPa·s

Directly prepared liquid is to be used as the test liquid.

Accuracy test for the minimum measured quantity (*mmq*).

7.5.3 Measuring systems on tank-vehicles for AUS32 (AdBlue)

Test liquid: AdBlue.

Accuracy test for the minimum measured quantity (*mmq*).

7.5.4 Measuring systems for fuelling aircraft

Directly prepared liquid is to be used as the test liquid.

Test flows:

- Q_{\max} ;
- $0.75 \cdot Q_{\max}$;
- $0.5 \cdot Q_{\max}$;
- $0.2 \cdot Q_{\max}$.

Accuracy test for the minimum measured quantity (*mmq*) if less than 500 L.

The average error value between the flow $0.2 \cdot Q_{\max}$ and the flow Q_{\max} may not exceed 0.2 %. Repeatability may not exceed ± 0.05 %.

7.5.5 Measuring systems for the delivery of freshly collected milk

Test liquid: milk or water.

In the test with water, the flow meter for measuring milk is set in a permissible error range from -0.45% to $+0.15\%$.

If an error is suspected in the volume of the measuring system, which is credited automatically or manually to the initial supplier on the collection line, a test to determine the volume of the measuring system shall be carried out.

7.5.6 Measuring systems for the distribution of beer or other foamy beverages

Test liquid: beer or water.

In the test with water, the instrument for measuring beer is set in a permissible error range from 0.0% to -0.6% .

Test flows:

- Q_{\max} ;
- $0.5 \cdot Q_{\max}$;
- Q_{\min} .

Accuracy test for the minimum measured quantity (*mmq*).

The source chamber/tank filled with the test volume is emptied entirely until the dispensing process is ended by the separator. This test is repeated twice.

7.5.7 Measuring systems for gases liquefied under pressure (LPG)

Directly prepared liquid is to be used as the test liquid.

7.5.8 Measuring systems for liquefied compressed gases measured at temperatures below $-10\text{ }^{\circ}\text{C}$, liquefied carbon dioxide and liquids measured at temperatures below $-153\text{ }^{\circ}\text{C}$

Directly prepared liquefied gas is to be used as the test liquid. Systems for liquefied oxygen, argon or natural gas may be tested with liquid nitrogen.

7.6 Tests of auxiliary and additional devices

The correct functioning of auxiliary and additional devices is checked, if the measuring system is equipped with them. The relevant test is to be conducted only once; tests of auxiliary and additional devices may be combined with the accuracy test.

7.6.1 Zeroing test

The values of the volume/weight indicator are deducted after the measuring system is zeroed.

The residual indication after zeroing shall not be greater than half the minimum specified volume deviation E_{\min} for counters with continuous display.

Counters with discontinuous display shall indicate zero after having been zeroed, without any ambiguity.

7.6.2 Aggregate counter test

The difference between the figure on the aggregate counter and the figure on the indicator that applies to the same measurement is specified. The indication of the aggregate counter is determined as the difference between the initial and final values.

The difference between these figures must not be more than one increment of the aggregate counter.

7.6.3 Printer test

Figures from the printer are compared with figures on the indicator that apply to the same measurement.

These figures may not differ from each other by more than one increment of the indicator in the case of counters with continuous display; in the case of counters with discontinuous display, they may not differ from one another at all.

7.6.4 Attached thermometer test

During the test, the deviation of the attached thermometer at three temperatures is determined:

- T_{\min} ;
- 15 °C;
- T_{\max} .

The difference between the temperature figure T_i (°C) indicated on the dispenser and the figure T_n indicated by the benchmark temperature is determined in T_n (°C).

Any deviations in the connected thermometer may not exceed the value of the maximum permissible error specified in Table 3.

7.6.5 Conversion device test

This test is to ascertain the accuracy of the conversion device at the current temperature of the test liquid.

The relative deviation of the indicated volume determined at base temperature E_{bv} may not exceed the value of the maximum permissible error specified in Chapter 2.2.4.

7.6.6 Software version check

This check is to ascertain whether the software version in the metrologically relevant components corresponds to the software version specified in the type approval certificate or the type-examination certificate.

7.6.7 Price counter test

For measuring systems with a mechanical counter, the test must be performed for at least two unit prices at maximum and minimum counter rotation rates.

For measuring systems with an electronic counter, the test is performed for a maximum unit price. The price indicated is compared to the price calculated as the product of the indicated volume and the unit price.

During the verification of measuring systems, the test is performed only for the unit price currently in use.

The difference between the price displayed and the price calculated from the unit price and the indicated amount must not be greater than the price corresponding to E_{\min} .

7.6.8 Test of system with a velocity flow meter in a discharge pipe

This is only applied for dynamic measuring systems on tank-vehicles for low-viscosity liquids (≤ 20 mPa·s) stored at atmospheric pressure, with the exception of beverages.

For systems with a velocity flow meter in a discharge pipe at an inclination of less than 5° from the horizontal plane, another complete emptying test is carried out at a longitudinal and transverse gradient.

The tank-vehicle is tilted against the downgrade of the discharge pipe at an angle of up to 5° and dispensing is tested by the usual procedure. This process is to determine whether the measuring system is capable of stopping the dispensing or reporting an error state.

7.7 Evaluation of the tests

If the measuring instrument meets all requirements of the test, the measuring instrument will be fitted with an official mark at the place specified in the type approval or type-examination certificate.

Some converters have a non-resettable counter of interventions in the measuring instrument's configuration (possibly including date and time) which may influence the metrological parameters; in some cases, a unique number is generated after the intervention in the configuration. This information is specified in the verification record in the measuring instrument's record/master data sheet. The measuring instrument's type approval certificate may require a current printout of the configuration after the test, or a specification of a number generated outside the measuring instrument (such as on the measuring system's information plate).

8 Examination of the measuring instrument

When verifying measuring instruments pursuant to § 11a of the Metrology Act at the request of a person who could be affected by its incorrect measurement, please proceed according to Chapter 7; the final sentence of Article 7.2 shall not apply. 1.25 times the maximum permissible errors pursuant to Article 2.2.2 shall be applied as the maximum permissible error.

9 Notified standards

For the purposes of specifying the metrological and technical requirements for measuring instruments and specifying the testing methods for their type approval and verification stemming from this general measure, the CMI shall notify Czech technical standards, other technical standards or technical documents of international or foreign organisations, or other technical documents containing more detailed technical requirements (hereinafter referred to as 'notified standards'). The CMI shall publish a list of these notified standards attached to the relevant measures, together with the general measure, in a manner accessible to the public (on www.cmi.cz).

Compliance with notified standards or parts thereof is considered, to the extent and under the conditions stipulated by a general measure, to be compliance with the requirements stipulated by this measure to which these standards or parts thereof apply.

Compliance with notified standards is one way of demonstrating compliance with the requirements. These requirements may also be met by using another technical solution guaranteeing an equivalent or higher level of protection of legitimate interests.

II.

G R O U N D S

The CMI issues, pursuant to § 14(1)(j) of the Metrology Act, for the implementation §§ 6(2), 9(1) and (9) as well as 11a(3) of the Metrology Act, this general measure laying down the metrological and technical requirements for legally controlled and testing methods for verification of the following legally controlled measuring instruments: instruments and systems measuring the flow volume of liquids other than water and of liquefied gas (dynamic measuring systems for liquids other than water, which are fitted to vehicles and tank-vehicles).

Implementing Decree No 345/2002 specifying measuring instruments for mandatory verification and measuring instruments subject to type approval, as amended, classifies the measuring instruments under items 1.3.12 and 1.3.13 in the annex entitled 'List of legally controlled measuring instruments' as measuring instruments subject to type approval and mandatory verification.

This legislation (general measure) will be notified in accordance with Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the

provision of information in the field of technical regulations and of rules on Information Society services.

III. I N S T R U C T I O N S

In accordance with § 172(1), in conjunction with § 39(1) APC, the CMI has stipulated a time limit for comments of 30 days as of the date of posting on the official notice board. Comments submitted after this time limit will not be considered.

The persons concerned are hereby invited to comment on this draft general measure. With a view to the provisions of § 172(4) APC, the comments shall be submitted in writing and meet the requirements for submissions in accordance with § 37 APC.

The comments shall include the particulars referred to in § 37(2) APC and clearly state the following: who is making the comments; which general measure they concern; to what extent the comments challenge the measure; how the general measure runs contrary to legislation or how the general measure or the procedure that preceded it is inaccurate; which matters the comments concern and what is being proposed. Said comments must also identify the administrative authority to which they are addressed and be signed by the person making them.

The supporting documents for this draft general measure may be consulted at the Czech Metrology Institute, Legal Metrology Department, Okružní 31, 638 00 Brno, after making arrangements by telephone.

This general measure shall be posted for 15 days.

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Pavel Klenovský
Director-General

Person responsible for accuracy: Tomáš Hendrych

Posted on: 12 April 2018

Signature of the authorised person confirming posting:

Removed on:

Signature of the authorised person confirming removal: