Czech Metrology Institute
Okružní 31, 638 00 Brno

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

Personal sound exposure meters are placed on the market and put into use in the Czech Republic pursuant to Act No 505/1990 on metrology, as amended.

The subject of this notified regulation is to lay down metrological and technical requirements for these measuring instruments. This regulation also stipulates tests for type approval and verification.

(End of executive summary.)

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PUBLIC DECREE

As the authority with substantive and territorial jurisdiction for stipulating metrological and technical requirements for specified measuring instruments and stipulating test methods for type approval and verification of legally specified instruments pursuant to § 14(1) of Act No 505/1990, on metrology, as amended (hereinafter the 'Metrology Act'), and in accordance with the provisions of § 172 et seq. of Act No 500/2004, the Code of Administrative Procedure (hereinafter the 'CAP'), the Czech Metrology Institute (hereinafter the 'CMI') commenced ex officio proceedings on 2 March 2016 pursuant to § 46 of the CAP, and, based on supporting documents, issues the following:

I.

DRAFT GENERAL MEASURE

Ref.:0111-OOP-C059-16

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:

'personal sound exposure meters'

1 Basic definitions

For the purposes of this general measure, terms and definitions pursuant to VIM and VIML[1] and the following terms and definitions will apply:

1.1
sound exposure
the time integral of the square of the instantaneous value of sound pressure A for a stipulated event, for example a workday

NOTE Sound exposure (weighted by frequency function A) is expressed symbolically as:

$$E = \int_{t_1}^{t_2} p_A^2(t)dt \tag{1}$$

where $p_A^2(t)$ is the square of the instantaneous value of sound pressure A as a function of time t for an integration period from t_1 to t_2.

The unit of sound exposure E is the pascal squared hour if the acoustic pressure p_A is in pascals and time t is in hours.

1.2
personal sound exposure meter
a device (measuring instrument) for measuring sound exposure, frequency-weighted by the function A, caused by continuous, intermittent, variable, irregular or pulse sounds; the sound exposure value is usually given in pascal squared hours

1.3
equivalent sound pressure level A
10 times the decimal logarithm of the ration of the time-averaged square of the acoustic pressure, frequency-weighted by the function A during the averaging period T to the square of the standard reference acoustic pressure, expressed in decibels

NOTE The equivalent acoustic pressure level A L_{AeqT} is symbolically given by:

$$L_{Aeq,T} = 10\log\left\{\left[(1/T)\int_0^T p_A^2(t)dt\right]/\,p_0^2\right\} \tag{2}$$

where time t and the averaging period T are expressed in the same units, $p_A(t)$ is the instantaneous value of sound pressure A in pascals, and p_0 is a reference sound pressure of twenty micropascals (20 μPa), i.e. $20\cdot10^{-6}$ Pa.

The equivalent sound pressure level A, over the averaging period T, applies to the total sound exposure occurring during this time according to the relationship

$$E = p_0^2 \cdot T \cdot 10^{0,1\cdot L_{Aeq,T}} \tag{3}$$

where E is sound exposure in pascal squared hours, p_0 is the reference acoustic pressure of twenty micropascals, i.e. $20\cdot10^{-6}$ Pa, and T is the averaging period in hours.

[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 available at www.unmz.cz.

1.4
normalised 8 h average sound pressure level A

the time-averaged square of acoustic pressure level A during the normalised period T_n = 8 h is such that the sound exposure is the same as the sound exposure for variable sound in a location where the overall sound exposure occurs for a time that is not necessarily 8 h, expressed in decibels

1.5 Ranges

1.5.1
range of acoustic pressure levels A

the lower and upper, time-averaged, levels of acoustic pressure A determined without exponential time weighting, stipulated by the manufacturer, between which linear amplitude requirements, expressed in decibels, are fulfilled pursuant to this Measure

1.5.2
sound exposure range

the range between the upper and lower sound exposure, both of which must be stipulated by the manufacturer, within which the requirements of this Measure are met and which are displayed on the sound exposure indicator

1.6 References

1.6.1
reference direction

the direction of sound incidence stipulated by the manufacturer to determine absolute acoustic sensitivity and frequency characteristics

1.6.2
reference frequency

a frequency of 1 kHz for determination of absolute acoustic sensitivity

1.6.3
reference acoustic pressure level

the acoustic pressure level stipulated by the manufacturer for determining the absolute acoustic sensitivity

1.6.4
reference integration period

the integration period stipulated by the manufacturer for determining the absolute acoustic sensitivity

1.6.5
reference sound exposure

calculated sound exposure corresponding to the acoustic pressure level at the reference frequency, applicable to the reference integration period

1.7 Microphone

1.7.1
electret microphone

a microphone in which an electromagnetic field is induced by an internal permanent charge on one of the capacitor electrodes

1.7.2
condenser microphone
a microphone whose operation is based on changes in electrical capacity

1.7.3
piezoelectric microphone
a microphone whose operation is based on the piezoelectric properties of a material

2 Metrological requirements

Metrological requirements are based on the requirements of international standards.

Measuring instrument types approved pursuant to the Metrology Act shall be subject to the metrological requirements applicable at the time they were put into circulation.

Unless specified otherwise, metrological requirements apply to ranges stipulated by the manufacturer if these are broader than the specified ranges, and to reference conditions.

2.1 Rated operating conditions

Sound exposure indicated in response to the reference acoustic pressure level at a frequency of 1 kHz for the reference integration period cannot change by more than -11 % to +12 % for changes:

- within ±10 % of the reference pressure; or
- over a temperature range of at least 0 °C to 40 °C; or
- a relative humidity range of at least 30 % to 90 %.

Reference operating conditions are as follows:

- atmospheric pressure 101.3 kPa;
- air temperature 20 °C;
- relative air humidity 65 %; and
- absence of any significant interference.

2.2 Measuring interval

The indicated sound exposure must be at least from 0.1 Pa^2h to 99.9 Pa^2h and the smallest sound exposure increment 0.1 Pa^2h.If the lower acoustic pressure limit is less than 80 dB, the lower limit of the sound exposure range must be less than 0.1 Pa^2h.

The frequency range must be 63 Hz to 8 kHz, with 31.5 Hz to 12.5 kHz recommended.

The acoustic pressure level range must be at least 80 dB to 130 dB.

2.3 Maximum permissible error

At the reference frequency of 1 kHz, under reference ambient conditions and for successive planar sound waves propagating toward the microphone in the reference direction, the indicated sound exposure must be in the range -21 % to +26 % of the reference sound exposure.

2.4 Frequency weighting

A complete personal sound exposure meter must have a relative frequency characteristic A. For each specific octave band frequency over a minimum range of 63 Hz to 8 kHz, the ratio of the measured sound exposure to the sound exposure at 1 kHz must meet sound exposure tolerances. Permissible values for the 'max sound exposure ratio' and 'min sound exposure ratio' are determined by the following formula (1):

$$\varepsilon + \Delta\varepsilon = 10^{0.1(A + \Delta A)} \quad (4)$$

where: ε ..... the value of the sound exposure ratio according to the relationship $\varepsilon = 10^{0.1A}$,

$\Delta\varepsilon$ ..... the value of the sound exposure tolerance applicable to the given specific octave band nominal frequency;

A ..... the value of the weighting function A in dB for the given octave band nominal frequency;

ΔA ..... the value of the tolerance (positive and negative) for the weighting function A in dB applied to the corresponding value of the weighting function A.

For intermediate frequencies, broader tolerance limits are used, determined from the tolerances for the values of the weighting function A for the two corresponding nominal adjacent octave band frequencies.

2.5 Amplitude linearity of the response to steady signals

For steady sinusoid signals with frequencies of 63 Hz, 1 kHz, and 8 kHz, and for changes in both the input acoustic pressure level and the integration duration, the indicated sound exposure must be within the range of -21 % to +26 % of the calculated sound exposure.

2.6 Response to signals of short duration

For a proposed resultant sound exposure value of 1 Pa^2h, the value shown by the personal sound exposure meter in response to a sequence of repeating tone pulses with a frequency of 4 kHz must meet tolerances for a corresponding sound exposure indicated in response to a steady reference signal at a frequency of 4 kHz with a nominal acoustic pressure level A of 95 dB.

The duration of individual pulses must be:

- 1 ms, with a 999 ms interval between individual pulses;
- 10 ms, with a 990 or 9 990 ms interval between individual tone pulses.

The sound exposure indicated for a sequence of these tone pulses must be:

- within -21 % to +26 % of the sound exposure indicated for a steady reference signal for levels with tone pulses up to 125 dB; and
- within -29 % to +41 % of the sound exposure indicated for a steady reference signal for levels with tone pulses up to the upper limit of the stipulated acoustic pressure level range.

2.7 Response to unipolar pulses

For identical nominal integration durations, the indicated sound exposure in response to a sequence of positive unipolar pulses must be within –21 % to +26 % of the sound exposure indicated in response to a sequence of negative pulses of identical amplitude, duration and periodicity.

2.8 Microphone

The metrological properties of a microphone must be such that a complete sound exposure meter meets stipulated metrological requirements as a whole.

2.9 User calibration

The user must have means at their disposal to check and maintain the sensitivity of the personal sound exposure meter. If this means using an acoustic calibrator, it must be of a suitable type and be calibrated by a test laboratory.

3 Technical requirements

Technical requirements are based on the requirements of international standards.

Measuring instrument types approved prior to the entry into force of this regulation shall be subject to the technical requirements applicable at the time they were put into circulation.

3.1 In general

A personal sound exposure meter is a combination of a microphone, an amplifier with the requisite frequency weighting function A, an apparatus to square frequency-weighted acoustic pressure signal, a time integrator, a sound exposure indicator and an automatically blocking overload indicator.

A signal processor may be used to provide the functionality of an amplifier with the requisite frequency weighting function A, a squaring device and a time integrator. The sound exposure indicator can be replaced by a separable display unit or computer with the respective software. A personal sound exposure meter may optionally be equipped with a data transmission interface.

Sound exposures accumulated during the measurement period must be stored in memory until the device is zeroed, and must not be deleted by the automatically blocking overload indicator.

A complete personal sound exposure meter may consist of one or more parts. An exposure meter or part thereof used to measure and record data that is worn must be small and light. The microphone cable and similar items must have an appropriate length so that the microphone can be attached to the individual, a helmet, etc.

The manufacturer must provide a means of replacing the input electrical signal in the location of the microphone (by a test access point, an input adapter, etc.) for purposes of testing an otherwise complete personal sound exposure meter without its microphone. An output test point is also recommended.

The maximum acoustic pressure level in the location of the microphone and the maximum peak-to-peak voltage that can be connected to the electrical input without damaging the personal sound exposure meter must be stipulated in the user manual or in another suitable manner.

If the manufacturer recommends or assumes the use of a multi-frequency calibrator, its type must be specified in the user manual or in another suitable manner, as must be information for obtaining accurate responses during tests to verify the operation of the personal sound exposure meter.

3.2 Microphone

The microphone may be built based on various design principles, for example a condenser microphone, an electret microphone, etc.

It is recommended that the diameter of the microphone is 13.20 mm or 7.00 mm and that condenser microphones be equipped with a removable protective grille. If the microphone does not have the dimension specified above, the manufacturer must supply an adapter so that it will have this dimension.

3.3 Sound exposure indicator

The indicator primarily displays sound exposure, either directly or as a fraction or percentage of a sound exposure specified by the manufacturer.

Acoustic pressure levels that exceed the upper limit of the stipulated acoustic pressure level range must be indicated by an automatically blocking overload indicator.

3.4 Power supply

The type of power supply recommended by the manufacturer must ensure that this measuring instrument operates properly for at least 8 hours and in any temperature within a range specified by the manufacturer of the personal sound exposure meter. When batteries are used, the manufacturer must ensure that sufficient battery voltage is checked.

3.5 Software

Software must be identifiable and must be secured from accidental or intentional damage.

3.6 Data transmission

A personal sound exposure meter or a certain part thereof may be equipped with interfaces permitting connection of additional devices. If these interfaces are used, the measuring instrument's hardware and software must continue to operate properly and it must be impossible to influence its metrological properties.

3.7 Protection against unauthorised tampering

The measured data and measurement results must be protected from unauthorised tampering either physically, via software or another secure method.

4 Labelling the measuring instrument

4.1 Markings on the measuring instrument

Every part of a personal sound exposure meter, if feasible, must bear the following information:

a) manufacturer identification;
b) type designation;
c) the serial number;
d) a marking indicating that it complies with the requirements of a technical standard upon which the metrological and technical requirements of this Measure of a General Nature are based. The reference number of the standard and its year of issue are indicated. If this information cannot be indicated on the measuring instrument, it must at least be stated in the technical documentation, in information about the measuring instrument shown on the indicator (display), etc.;
e) the CE mark. If for any reason the CE mark cannot be placed on the measuring instrument, it must at least be shown in the technical documentation or on the package;
f) the name of the displayed quantity (sound exposure) and its units. This information may be shown on the indicator, or the user manual must describe how to determine sound exposure.

All marks and labels must be legible, permanent, unambiguous and indelible by ordinary means.

4.2 Official mark placement

A personal sound exposure meter must have a suitable place for the main official mark, which must be visible.

4.3 Information provided by the manufacturer

4.3.1 User manual

With every measuring instrument, the manufacturer must supply a user manual that must contain at least all necessary instructions and information for proper configuration (adjustment), use, testing, and verification of the personal sound exposure meter, including:

- If not specified in separate documentation, information on the microphone used and the applicability of a multi-frequency calibrator, if the manufacturer assumes this possibility.
- The user manual should specify a suitable type of multi-frequency acoustic calibrator or electrostatic calibrator that could be used for acoustic tests of the frequency weighting function A of a complete personal sound exposure meter. For the same purpose, if needed, relevant numerical correction values must be available, and if needed an adapter (inserted part) stipulated by the manufacturer of the personal sound exposure meter or the microphone

manufacturer, which will correctly make up for any difference in the diameter of the microphone and the opening for inserting the microphone into the calibrator chamber, as well as suitable and properly delimiting the functional chamber of the calibrator.

- The maximum acoustic pressure level in the location of the microphone and the maximum peak-to-peak voltage that can be connected to the electrical input without damaging the personal sound exposure meter must be stipulated in the user manual.

4.3.2 The manufacturer's declaration of conformity

The technical documentation supplied with a personal sound exposure meter must include a declaration of conformity or otherwise formulated but clear and reliable information from the manufacturer concerning compliance with electromagnetic and electrostatic compatibility requirements. This declaration may be a separate document, part of the user manual, or be contained in other technical information about the product. The document must contain information concerning compliance with relevant standards.

5 Type approval of the measuring instrument

These measuring instruments are not subject to type approval pursuant to the Metrology Act.

6 Initial verification

6.1 In general

During initial verification of personal sound exposure meters, the following are performed after a check of submitted technical documentation (not necessary if the test laboratory is already familiar with this exposure meter type):

a) a visual inspection;
b) acoustic tests in the laboratory or in an acoustic chamber;
c) electrical tests in the laboratory.

6.2 Visual inspection

The following is assessed during a visual inspection:

a) markings and labels;
b) that the measuring instrument is complete pursuant to prescribed technical documentation;
c) that the measuring instrument or its individual parts are not damaged, and that it is functional;
d) that the software matches accompanying technical documentation.

6.3 Test equipment requirements

The following measuring instruments and equipment are used for testing:

a) a multi-frequency acoustic calibrator;
b) a sine wave generator;
c) a shaping generator;
d) a voltage meter;
e) a frequency meter;
f) an amplifier;
g) a speaker;
h) a standard reference sound meter;
i) an acoustic calibrator;
j) a timepiece;

k) a printer;

l) a PC;

m) equipment specified in the user manual for connecting electrical signals equivalent to signals from the microphone. If required by the test laboratory, this equipment must be submitted together with the personal sound exposure meter being submitted for testing.

6.4 Measuring instruments tests

The manufacturer may recommend equivalent tests as alternatives to the tests described below.

If a reading increment of the personal sound exposure meter is smaller than the minimum stipulated resolution of 0.1 Pa^2h, test durations shorter than those specified below for basic versions of tests may be used.

All tests should be performed under reference conditions, or be related to them. If this requirement cannot be met, initial and subsequent verification tests can be performed under the following ambient conditions: atmospheric pressure 80 kPa to105 kPa, air temperature 20 °C to 26 °C and relative humidity 25 % to 70 %.

The personal sound exposure meter must be checked and configured, if necessary, in accordance with information from the manufacturer. In accordance with Articles 2.3 and 2.9, a check is performed and the instrument's absolute sensitivity is set if needed.

If the operation of the personal sound exposure meter is to be tested using acoustic signals, the personal sound exposure meter must be installed according to the manufacturer's recommendations and tested using the recommended type of test equipment and sound field. If electrical input signals are provided using input test equipment (input point, microphone equivalent, input adapter, or an equivalent device provided by the manufacturer), the microphone's acoustic properties are tested using a different suitable procedure (for example a test using a multi-frequency calibrator or in an acoustic chamber, etc.). Equivalence between the level of the input electrical signal and the level of the acoustic signal is proven using calibration.

6.5 Acoustic tests of the complete measuring instrument (with microphone)

The following measurements and tests are performed:

a) frequency weighting function A;

b) internally generated noise.

6.5.1 Test of the frequency weighting function A

A test using a multi-frequency calibrator, if feasible. This is a test of the frequency weighting function A by measuring relative sound exposure at octave band nominal frequencies within a minimum range of 63 Hz to 8 kHz. If this test cannot be performed acoustically, it is performed using electrical signals (see below) and a simplified acoustic test of the frequency weighting function A is performed.

NOTE If during this test, while using a multi-frequency acoustic calibrator, the acoustic pressure level requirement cannot be met, the acoustic pressure level generated by the multi-frequency acoustic calibrator can be set at a value as close as possible to the required one, but in any case no less than 110 dB. In this case it is recommended that such a test be supplemented with electrical tests pursuant to Article 6.6.2 at 63 Hz, 1 kHz, and 8 kHz.

The provisions of this article can also be applied to acoustic tests that can be performed in another manner, depending on the test laboratory's facilities, for example in an acoustic chamber, etc.

6.5.2 Test of internally generated noise

Internally generated noise is measured with the microphone attached. The personal sound exposure meter is set to the most sensitive measurement range, if it has multiple measurement ranges. The

acoustic pressure level A of ambient sound in the microphone location must be sufficiently less than the measured level of internally generated noise. The indicated equivalent acoustic pressure level A is recorded (or the sound exposure indication, which is converted to the equivalent level for the averaging period), averaged for 30 seconds or longer, if so stipulated in the user manual, etc.

NOTE In the case of an exposure meter with one measurement range that covers only the minimum stipulated measurement range, the internally generated noise level must be below the measurement range.

6.6 Electrical tests (with a microphone replacement, etc.)

The microphone is replaced by the microphone adapter, or the test input point is used. The following measurements and tests are performed:

a) amplitude linearity of the response to steady signals;
b) if it was not possible to perform a test of the frequency weighting function A by measuring relative sound exposure acoustically, a test using an electrical signal is performed in a similar manner;
c) response to signals of short duration;
d) response to unipolar pulses;
e) automatically blocking overload indicator.

6.6.1 Test of the amplitude linearity of the response to steady signals

6.6.1.1 Test of the amplitude linearity of the response to steady signals, basic version

The amplitude linearity of the response to steady signals of 1 kHz must be tested for various combinations of signal levels and integration periods of up to 8 hours. Amplitude linearity must be measured for exposure values from approximately triple the lower limit of the exposure range to approximately 80 % of the upper limit of the sound exposure range and at sound exposure intervals that are no greater than a five-fold increase or decrease in sound exposure.

Using equation (3) sound exposure is calculated, which should be indicated for the measured level of the respective input signal and the measured integration period. For all combinations, the indicated sound exposure should match the calculated sound exposure and should be within the limits of maximum permissible error pursuant to Article 2.3.

At 63 Hz and 8 kHz the amplitude linearity of the response to steady signals can be tested over a more limited range

6.6.1.2 Test of the amplitude linearity of the response to steady signals, basic version

In a number of cases, a limited version of the amplitude linearity test of the response to steady signals is sufficient if the smallest sound exposure increment is 0.01 Pa^2h and the lower sound exposure range limit is 0.01 Pa^2h or very close to this value. During testing using a 1 kHz input signal, it is then sufficient for at least one test to be performed for a one-hour integration period, and other tests can be shorter to a reasonable degree.

Even in the case of a shorter test, tolerances of -21 % and +26 % apply to all indicated exposures.

6.6.2 Test of the frequency weighting function

The frequency weighting function is tested using sine wave signals of constant amplitude. The acoustic pressure level of the 1 kHz input signal must be approximately 3 dB below the upper limit of the stipulated acoustic pressure range.

Tests must be performed at eight nominal octave band frequencies, from 63 Hz to 8 kHz. The signal duration must be chosen so that the indicated sound exposure is greater than 20x the sound exposure resolution.

For individual stipulated frequencies, the sound exposure ratio is determined, which is the measured sound exposure at some frequency divided by the measured exposure at 1 kHz. At all test frequencies

the measured sound exposure ratios must match corresponding proposed sound exposure ratio results and must meet tolerances stipulated as per Article 2.4.

6.6.3 Test of response to signals of short duration

The response of a personal sound exposure meter to signals of short duration is determined by comparing the sound exposure indicated in response to a sequence of repeating tone pulses with a frequency of 4 kHz and a duration of 1 ms or 10 ms to the sound exposure, E_{4k}, indicated in response to a reference steady signal at a frequency of 4 kHz.

Measured sound exposure, E_{4k}, is the sound exposure indicated by the tested instrument in response to a steady sine wave of a frequency of 4 kHz and an equivalent input sound pressure level of 94.0 dB (i.e. sound pressure level A of 95 dB) for 47 minutes and 26 seconds, in order to elicit a rated sound exposure of 1 Pa^2h with tolerance from 0.71 Pa^2h to 1.41 Pa^2h. In justified cases, a different guideline rated sound exposure can be chosen for purposes of this test.

The input signal level, the duration between tone pulses, and the overall sound exposure period for a series of tone pulses must be selected to give a rated sound exposure of 1 Pa^2h, or a modified guideline rated sound exposure (see above). The acoustic pressure level of 4 kHz sine signals from which tone pulses are derived must have a range of at least 114.0 dB to 129.0 dB or greater, i.e. up to the upper acoustic pressure limit.

In order to prove compliance with requirements for response to signals of short duration, any suitable combination of tone pulses with a frequency of 4 kHz, a duration of 1 ms or 10 ms, and a fill factor of 1:100 and 1:1 000. The sound exposure indicated for a sequence of these tone pulses must comply with the tolerance stipulated pursuant to Article 2.6.

6.6.4 Test of response to unipolar pulses

The test of response to unipolar pulses uses a series of rectangular pulses. The same integration period must be chosen for both positive and negative pulses; it is usually such that a sequence of positive pulses elicits an indicated sound exposure greater than 10 Pa^2h. In justified cases a different value may be chosen. The indicated sound exposure in response to a sequence of positive pulses must match the sound exposure indicated in response to negative impulses, within tolerances pursuant to Article 2.7.

6.6.5 Test of the automatically blocking overload indicator

A suitable test signal for testing the response of the automatically blocking overload indicator is a single tone pulse comprising a sequence of four 1 kHz sine wave periods. The overload indicator must switch on and remain blocked when the test signal reaches a level where the equivalent acoustic pressure level A elicited by a steady signal of a frequency of 1 kHz from which the tone pulses were derived reaches a level 3 dB greater than the upper limit of the stipulated acoustic pressure level range. The overload indicator must not switch on if this equivalent level is equal to the upper acoustic pressure limit. In justified cases, a different procedure many be used.

6.7 Microphone tests

Separate tests of a personal sound exposure meter microphone are usually not performed. Usually a microphone is tested using a test of the acoustic weighted frequency function A of the complete sound exposure meter using a multi-frequency calibrator pursuant to Article 6.5.1 or a different test of the acoustic weighted frequency function A. If the test shows that the complete personal sound exposure meter complies with stipulated requirements, this is simultaneously considered proof that the microphone is capable of functioning properly.

7 Subsequent verification

Tests pursuant to Chapter 6 are performed during subsequent verification of the personal sound exposure meter.

8 Notified standards

To specify metrological and technical requirements for measuring devices and to specify verification and type-approval test methods stemming from this Measure of a General Nature, the CMI notifies Czech technical standards, other technical standards or technical documents of international or foreign organisations or other technical documents containing detailed technical requirements (hereinafter '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

Pursuant to § 14(1)(j) of the Metrology Act, the CMI has issued this Measure of a General Nature toward the implementation of § 6(2), § 9(1) and (9), and § 11a(3) of the Metrology Act, laying down metrological and technical requirements for specified measuring instruments and tests for type approval and verification of specified measuring instruments—personal sound exposure meters.

Decree No 345/2002 stipulating measuring instruments for mandatory verification and measuring instruments subject to type approval, as amended, classifies this type of measuring instrument as a measuring instrument subject to verification under item 6.1.5 in the Annex's 'List of Specified Measuring Device Types'.

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(l), in conjunction with § 39(l) CAP, 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 Measure of a General Nature. With a view to the provisions of § 172(4) CAP, the comments shall be submitted in writing.

In accordance with § 174(l) CAP in conjunction with § 37(l) CAP, it must be clear who is making the comments, which measure of a general nature they concern, how it contradicts legislation or how the measure of a general nature is inaccurate, and they must 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.

...…….....

RN Dr Pavel Klenovský

Director-General

Person responsible for accuracy: Mgr. Tomáš Hendrych

Posted on:

Signature of the authorised person confirming posting:.....

Removed on:.....

Signature of the authorised person confirming removal:.....