Republic of Latvia

Cabinet

Regulation No. 977

Adopted 20 December 2005

**Requirements for Measuring Instruments Used for Determining Alcohol Concentration in the Exhaled Air of a Person**

*Issued pursuant to*

*Section 43.5, Paragraph one of the Road Traffic Law, Section 7 of the law On Conformity Assessment, and*

*Section 6, Paragraph two of the law On Uniformity of Measurements*

1. The Regulation prescribes the requirements for the measuring instruments which are subject to the State metrological control and are used for determining alcohol concentration in the exhaled air of a person (hereinafter – the alcometers).

2. The alcometers which have been legally manufactured or put into circulation in a European Union Member State or Turkey or which have been legally manufactured in a country of the European Free Trade Association which is a contracting party to the Agreement on the European Economic Area may be offered in Latvia in conformity with the principle of mutual recognition.

3. The alcometers which have been manufactured in a country that is not referred to in Paragraph 2 of this Regulation may be offered in Latvia in conformity with the requirements laid down in this Regulation.

4. Such alcometers shall be used for determining alcohol concentration in the exhaled air of a person which have undergone the following procedures:

4.1. type approval and initial verification of the measuring instrument in accordance with the laws and regulations regarding the procedures for the metrological control of the measuring instruments subject to the State metrological control and the latter is attested by a type approval certificate, type approval sign, and initial verification mark;

4.2. periodic verification in accordance with the laws and regulations regarding the procedures for the metrological control of the measuring instruments subject to the State metrological control and the latter is attested by the certificate of verification and verification label.

5. The requirements brought forward to an alcometer are referred to in the Annex to this Regulation.

6. The metrological supervision of the alcometers shall be carried out by the State Metrological Inspection.

7. The alcometers which have been put into circulation and put into service in conformity with the requirements for metrological control laid down in laws and regulations until the day of coming into force of this Regulation shall be used for determining alcohol concentration in the exhaled air of a person until 31 December 2010.

8. The Regulation shall come into force on 1 January 2006.

**Informative Reference to European Union Directives**

The Regulation contains legal norms arising from:

1) Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations;

2) Directive 98/48/EC of the European Parliament and of the Council of 20 July 1998 amending Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations.

Prime Minister A. Kalvītis

Minister for Health G. Bērziņš

**Annex**

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1. The alcometer ensures the analysis of alveolar air exhaled through mouth.

2. The alcometer ensures consecutive taking and display of measurements. The alcometer displays whether it is ready for taking a measurement or not.

3. The alcometer displays exhalation continuity between the start and end of taking an air sample and gives a signal (indicate) if the exhaled air flow stops (for a moment or completely).

4. The alcometer gives a signal if the effect of interfering substances exceeds the maximum limit.

5. The alcometer determines alcohol concentration in exhaled air (unit of measurement: mg/l) and carries out recalculation determining blood alcohol content (concentration) (1/1000 or a percentage point – permil). The alcometer contains a microprocessor set ensuring the recalculation of alcohol concentration in the exhaled air into blood alcohol concentration in permil. The ratio of blood alcohol concentration against alcohol content in exhaled air is 2200:1. The result shall be equivalent to blood alcohol concentration.

6. The measuring range of the alcometer is from 0.00 mg/l up to at least 1.50 mg/l. If mass concentration is equal to 0.05 mg/l or less, the reading may be 0.00 mg/l.

7. The alcometer indicating device has:

7.1. sections with value 0.01 mg/l;

7.2. verification sections with value 0.001 mg/l;

7.3. a digital indicator display with a resolution of 0.001 mg/l which during the operation of the alcometer is rounded to 0.01 mg/l.

8. The height of digits for a fluorescent or a similar luminous recording device is at least 5 mm, for other devices – at least 10 mm.

9. Name of the unit of measurement or its symbol (the height of letters – at least 3 mm) is placed near the indication of results.

10. The maximum permissible error of the alcometer is:

10.1. ±0.020 mg/l if mass concentration is below 0.400 mg/l;

10.2. 5 % if mass concentration is equal to 0.400 mg/l or above and 2.000 mg/l or below;

10.3. 20 % if mass concentration is above 2.000 mg/l.

11. The maximum permissible error of the alcometer while in service is:

11.1. ±0.032 mg/l if mass concentration is below 0.400 mg/l;

11.2. 8 % if mass concentration is equal to 0.400 mg/l or above and 2.000 mg/l or below;

11.3. 30 % if mass concentration is above 2.000 mg/l.

12. The quantities influencing the operating performance of the alcometer:

12.1. the alcometers connected to the mains power supply conform to metrological requirements if electricity supply is within the limits of the determined variations;

12.2. the alcometers powered by a battery indicate a voltage reduction below the minimum determined value and under such circumstances either continue operating properly or switch off automatically;

12.3. as soon as alcometers are exposed to electromagnetic, magnetic, and other disturbances, their operation either does not cause significant errors or they switch off automatically.

13. The alcometer has been equipped with a compact printer which prints out the following information:

13.1. the alcometer number;

13.2. the last verification date of the alcometer;

13.3. testing time (date);

13.4. the self inspection result of the alcometer;

13.5. the result of the measurement taken;

13.6. area (line) for the entry of the testing place;

13.7. area (line) for the signature of the person conducting the test;

13.8. area (line) for the signature of the person to be tested;

13.9. the symbol of the unit of measurement in which the result is expressed;

13.10. only the final result of the measurement.

14. The printed out result may not be different from the reading on the alcometer display.

15. The print-outs are legible for at least a month (even after being exposed to daylight or similar illuminance).

16. Safety, protection, and hygiene requirements of the alcometer:

16.1. the alcometer is ensured with replaceable disposable mouthpieces (nozzles) which are placed in an individual packaging;

16.2. the alcometer complies with the specified electric safety standards;

16.3. the alcometer is technically adjusted to avoid the possibility of regulating its metrological parameters;

16.4. automatic switching to zero:

16.4.1. the alcometer is equipped with a device for automatic switching to zero;

16.4.2. after taking a measurement the alcometer performs self-cleaning by using a non-alcoholic gas (for example, ambient air);

16.5. the control of the correct operation of the alcometer includes:

16.5.1. checking whether all parameters of the alcometer operate correctly both before and after each measurement;

16.5.2. checking whether the measurement cycle is displayed correctly;

16.5.3. automatic signal given if an error or a defect is detected in the operation of the alcometer;

16.5.4. checking whether the alcometer has been adjusted correctly (with the standard gas mixture with a relative humidity level of at least 90 % and temperature 34°C ± 1°C).

17. The warm-up time of the alcometer:

17.1. the alcometer is ready for taking a measurement within 15 minutes after switching on;

17.2. the alcometer is ready for taking a measurement within 5 minutes after being in a stand-by mode;

17.3. if the warm-up time exceeds the time referred to in Sub-paragraphs 17.1 and 17.2 of this Annex, it shall be indicated on the alcometer.

18. The results of the alcometer measurements are legible on the alcometer display for at least 15 minutes after taking the measurement.

19. For the alcometer which does not indicate the maximum mass concentration during exhalation the measurement is taken by such exhalation volume that is not less than 1.5 l.

20. The alcometer operates within the temperature range of 0°C up to 40°C.

Minister for Health G. Bērziņš