On the basis of article 10 paragraph 2 of the Law on Metrology (,,Official Gazette of Montenegro'', No. 79/08), the Government of Montenegro at the sitting held on 26 February 2009, has adopted

DECREE
ON LEGAL MEASURING UNITS

(The Decree has been published in the ,,Official Gazette of Montenegro'', No. 22/2009, dated 25 March 2009, and No. 72/2015, dated on 21 December 2015)

Article 1

This Decree prescribes legal measuring units, which are in use in Montenegro and kind of their use.

Article 2

(1) Legal measuring units which are in use in Montenegro, beside the units of International System of Units (hereinafter referred to as: SI units), are:

1) units, defined on the basis of SI units, which are not their decimal multiplications or parts;

2) units, which are used with SI units, whose values at SI units are created experimentally;

3) units, which use is allowed only at specific areas;

4) combined measuring units;

5) measuring units for the special use.

(2) The names, symbols and definitions of SI units and their decimal multiplications and parts, are given in Annex 1, printed with this Decree as its integral parts.

(3) The names, symbols and definitions of SI units, which are in use beside the SI units, are given in Annex 2, printed with this Decree as its integral parts.

(4) Measuring units for the special use, are given in Annex 3, which is integral parts of this Decree.

Article 3

(1) The use of legal measuring units from Article 2 of this Decree is related to the measuring instruments which are in use, performance of measuring activities and indication of quantities expressed in legal measuring units.

(2) The provisions of this Decree shall not apply to the measuring units that are used in the area of air, maritime, river and railway traffic, those that are different from the units that shall always apply pursuant to this Decree, provided that the application of such units is in accordance with the international conventions and treaties that are binding for Montenegro.

Article 4

(1) The application of measuring units that are not legal measuring units shall be permitted for:

1) the products and equipment that had already existed in the market, i.e. had been in use before this Decree entered into force;
2) the components and parts of products and equipment that are necessary to supplement or replace the components or parts of the products and equipment from point 1 of this paragraph.

(2) The measuring units from paragraph 1 of this article shall not apply to indicators on measuring instruments, i.e. the results of measuring shall be expressed solely in valid measuring units.

Article 4a

(1) Under the supplementary indications, in the sense of this Decree, will be considered one or more symbols of the quantities expressed in the measuring units which are not nominated at the Annex 1 and Annex 2, which are integral parts of this Decree, and which are following the symbol of the quantity expressed in the measuring units which are nominated at the Annex 1 and Annex 2 of this Decree.

(2) The symbol of the quantity expressed in the measuring units which is nominated at the Annex 1 and Annex 2 of this Decree, has a priority related to the supplementary indication.

(3) The supplementary indications mentioned in paragraph 1 of this article muss be expressed by the symbols which are not bigger from the symbols of the appropriate measuring units nominated at the Annex 1 and Annex 2 of this Decree.

Article 5

The kind of recording of measuring units must be in accordance with the standards MEST ISO 80000 – 1:2009 Quantities and Units - Part 1: General Principles.

Article 6

On the day of entrance of this Decree into effect, the Decree on Legal Measuring Units (,,Official Gazette of Serbia and Montenegro'' No. 10/06) shall cease to apply.

Article 7

This Decree shall enter into force on the eight day following its publishing in the "Official Gazette of Montenegro".

Number: 03-2339
Podgorica, 26 February 2009

Prime Minister
Milo Đukanović

Annex 1

SI UNITS AND THEIR DECIMAL MULTIPLICATIONS AND PARTS

1.1 SI units

Table 1.1 Basic SI units

Quantity	Unit	
	Name	Symbol
length	meter	m
mass	kilogram	kg
time	second*	s
electric current	ampere	A
thermodynamic temperature	kelvin	K
amount of substance	mol	mol
luminous intensity	candela	cd
* permitted to use “sec”		

Definitions of basic SI units:

Unit of Length

The unit of length is the meter. One meter equals the length of trail traveled by the light in 1/299 792 458 seconds.

(17^{th} CGPM (1983) Resolution 1)

Unit of Mass

The unit of mass is the kilogram. One kilogram is equal to the mass of the international prototype of the kilogram.

(3^{rd} CGPM (1901) Resolution 1)

Unit of Time

The unit of time is the second. The second is the duration of 9 192 631 770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the cesium 133 atom.

(13^{th} CGPM (1967) Resolution 1)

Unit of Electric Current

The unit of electric current is the ampere. The ampere is that constant current which, if maintained in two straight parallel conductors of infinite length, of negligible circular cross section, and placed 1 meter apart in vacuum, would produce between these conductors a force equal to 2×10^{-7} newton per meter of length.

(CIPM (1946), Resolution 2 adopted at the 9^{th} CGPM (1948)).

Unit of Thermodynamic Temperature

The unit of thermodynamic temperature is the Kelvin. The kelvin is the thermodynamic temperature which is equal 1/273,16 of the thermodynamic temperature of the triple point of water.

This definition refers to water having the isotopic composition defined by the following amount-of-substance ratios: 0,00015576 mole of ^{2}H per mole of ^{1}H, 0,0003799 mole of ^{17}O per mole of ^{16}O and 0,0020052 mole of ^{18}O per mole of ^{16}O.

(13^{th} CGPM (1967) Resolution 4, and 23th CGPM (2007), Resolution 10)

Unit of Amount of Quantity of Substance

The unit for the amount of the quantity of substance is the mol. The mol is the amount of substance of a system which contains as many elementary entities as there atoms in 0.012 kilogram of carbon 12.

When the mole is used, the elementary entities must be specified and may be atoms, molecules, ions, electrons, other particles, or specified groups of such particles.

(14^{th} CGPM (1971) Resolution 3)

Unit of Luminous Intensity

The units of luminous intensity is the candela. The candela is the luminous intensity, in a given direction, of a source that emits monochromatic radiation of frequency 540×10^{12} hertz and that has a radiant intensity in that direction of 1/683 watt per steradian.

(16^{th} CGPM (1979) Resolution 3)

Table 1.2 Special name and symbol of SI unit for temperature, measuring temperature in Celsius temperature

Quantity	Unit	
	Name	Symbol
Celsius temperature	degree Celsius	^{0}C

The Celsius temperature is defined as the difference between two thermodynamic temperatures T and To (t = T-To), where To = 273.15 K. The temperature interval, i.e. the difference in degrees, may be indicated in the kelvine of degrees Celsius. The units ,,degrees Celsius'' is the equal with the unit ,,kelvin''.

1.2 Other SI units

1.2.1 SI derived units

The units that are coherently derived from the basic SI units, are indicated as algebraic expressions in the form of a product of multiplication of SI base units with the coefficient 1.

1.2.2 SI derived units with special names and symbols

Table 1.3 SI derived units with special names and symbols

Quantity	Unit		Expressed in	
	Name	Symbol	Other SI units	SI base units
Plane angle	radian	rad		$m \cdot m^{-1}$
Solid angle	steradian	sr		$m^2 \cdot m^{-2}$
Frequency	hertz	Hz		s^{-1}
Force	newton	N		$m \cdot kg \cdot s^{-2}$
Pressure, stress	pascal	Pa	$N \cdot m^{-2}$	$m^{-1} \cdot kg \cdot s^{-2}$
Energy, work; quantity of heat	joule	J	$N \cdot m$	$m^2 \cdot kg \cdot s^{-2}$
Power (*), radiant flux	wat	W	$J \cdot s^{-1}$	$m^2 \cdot kg \cdot s^{-3}$
Quantity of electricity, electric charge	coulomb	C		$s \cdot A$
Electric potential, potential difference, electromotive force	volt	V	$W \cdot A^{-1}$	$m^2 \cdot kg \cdot s^{-3} \cdot A^{-1}$
Electric resistance	ohm	Ω	$V \cdot A^{-1}$	$m^2 \cdot kg \cdot s^{-3} \cdot A^{-2}$

Conductance	siemens	S	$A \cdot V^{-1}$	$m^{-2} \cdot kg^{-1} \cdot s^3 \cdot A^2$
Capacitance	farad	F	$c \cdot v^{-1}$	$m^{-2} \cdot kg^{-1} \cdot s^4 \cdot A^2$
Magnetic flux	weber	Wb	$V \cdot s$	$m^2 \cdot kg \cdot s^{-2} \cdot A^{-1}$
Magnetic flux density	tesla	T	$Wb \cdot m^{-2}$	$kg \cdot s^{-2} \cdot A^{-1}$
Inductance	henry	H	$Wb \cdot A^{-1}$	$m^2 \cdot kg \cdot s^{-2} \cdot A^{-2}$
Luminous flux	lumen	lm	$cd \cdot sr$	cd
Illuminance	lux	lx	$lm \cdot m^{-2}$	$m^{-2} \cdot cd$
Activity (of a radionuclide)	becquerel	Bq		s^{-1}
Absorbed dose, specific energy imparted, kerma, absorbed dose index	gray	Gy	$J \cdot kg^{-1}$	$m^2 \cdot s^{-2}$
Dose equivalent	sievert	Sv	$J \cdot kg^{-1}$	$m^2 \cdot s^{-2}$
Catalytic activity	katal	kat		$mol \cdot s^{-1}$

1.3 Prefixes and their symbols denoting particular products and parts of decimal multiplication

Table 1.4 SI prefixes

Factor	Name	Symbol	Factor	Name	Symbol
10^{24}	yotta	Y	10^{-24}	yocto	y
10^{21}	zetta	Z	10^{-21}	zepto	z
10^{18}	exa	E	10^{-18}	atto	a
10^{15}	peta	P	10^{-15}	femto	f
10^{12}	tera	T	10^{-12}	pico	p
10^{9}	giga	G	10^{-9}	nano	n
10^{6}	mega	M	10^{-6}	micro	μ

10^3	kilo	k	10^{-3}	mili	m
10^2	hecto	h	10^{-2}	centi	c
10^1	deca	da	10^{-1}	deci	d

The names and symbols of the decimal multiples and submultiples of the unit of mass are formed by attaching prefixes to the word ‘gram' and their symbols to the symbol ‘g'.

Where a derived unit is expressed as a fraction, its decimal multiples and submultiples may be designated by attaching a prefix to units in the numerator or the denominator, or in both these parts.

Compound prefixes, that is to say prefixes formed by the juxtaposition of several of the above prefixes, may not be used.

1.4 Special authorized names and symbols of decimal multiples and submultiples of SI units

Table 1.5

Quantity	Unit		
	Name	Symbol	Value
Volume	liter	l or L*	$1l = 1\ dm^3 = 10^{-3}m^3$
Mass	tonne	t	$1t = 1\ Mg = 10^3\ kg$
Pressure, stress	bar	bar	$1\ bar = 10^5\ Pa$
* The two symbols “l” and “L” can be equally uses to denote the liter unit (16^{th} CGPM (1979) Resolution 6)			

The prefixes and their symbols, listed in table 1.4 may be used in conjunction with the units contained in Table 1.5.

Annex 2

THE UNITS THAT ARE USED IN MONTENGRO, AND NOT INCLUDED INTO THE INTERNATIONAL UNIT SYSTEM

2.1 Units derived from SI units, not being either the products of their multiplication or their parts

Table 2.1

Quantity	Unit		
	Name	Symbol	Value
Plane angle	rotation*		1 rotation = 2_{TT} rad
	grad, gon	gon	1 gon = ($_{TT}$/200) rad
	degree (angular)	^{0}	1 = ($_{TT}$/180) rad
	minute (angular)	‘	1 = ($_{TT}$/10800) rad
	second (angular)	‘’	1 = ($_{TT}$/648000) rad
Time	minute	min	1 min = 60 s
	hour	h	1h = 3600 s
	day	d	1d = 86400 s
* there is no international symbol			

The prefixes listed in Table 2.1 can be added solely in front of the names “grad” and “gon” and the symbol “gon”.

2.2 Units that are used with SI units, and whose values in SI units are experiment-based

Table 2.2

Quantity	Unit		
	Name	Symbol	Definition
energy	electron volt	eV	The electron volt is a unit of energy equal to the amount of kinetic energy gained by a single unbounded electron when it accelerates through an electric potential difference of 1 V in vacuum.
mass	unified atomic mass unit	u	The unified atomic mass unit is 1/12 of the mass of an isolated atom of carbon-12 (^{12}C).

The prefixes and their symbols listed in Table 1.4 can be combined with these two units and the symbols from Table 2.2.

2.3 Units and names whose application is permitted solely in particular areas

Table 2.3

Quantity	Unit		
	Name	Symbol	Value
optical power strength	dioptre		1 dioptre = $1m^{-1}$
mass of precious stones	carat		1 carat = 2×10^{-4} kg
rand surface area	acre hectare	a ha	1 a = 100 m^2 1 ha = 10^4 m^2
A units of fiber fineness assessed by the weight in grams of 1000 meters of yarn	tex	tex	1 tex = 10^{-6} kg · m^{-1}
blood pressure and the pressure of other bodily fluids	millimeter of mercury	mm Hg	1 mm Hg = 133.322 Pa
effective surface area	barn	b	1 b = 10^{-28} m^2

The prefixes and their symbols listed in Table 1.4 can be combined with the units and symbols from the Table 2.3, except the units of millimeter of mercury and its symbol.

2.4 Combined Units of Measurement

Combined units of measurement are derived from the units of measurement specified under this Annex.

Annex 3

THE MEASURING UNITS ALLOWED ONLY FOR THE SPECIAL USE

Table 3.1

The area of application	Unit		
	Name	Approximate value	Symbol
Traffic marks, measurements of distance and speed	mile yard foot inch	1 mile = 1609 m 1 yd = 0,9144 m 1 ft = 0,3048 m 1 in = 2,54 x 10^{-2} m	mile yd ft in
Brewed beer and apple brandy, milk filled into to recycled package	pint	1 pt = 0,5683 x $10^{-3}m^3$	pt
Trade of precious metals	troy ounce	1 oz tr = 31,10 x 10^{-3} kg	oz tr

The units, treated in this Annex can be combined with each other or with those listed in Annex 1 to form compound units.