
DRAFT STATUTORY INSTRUMENTS

2020 No.

WEIGHTS AND MEASURES

The Weights and Measures Act 1985 (Definitions of “Metre” and “Kilogram”) (Amendment) Order 2020

Made - - - -

Coming into force - -

13th June 2020

The Secretary of State makes the following Order in exercise of the powers conferred by section 1(3) of the Weights and Measures Act 1985(a).

In accordance with section 86(2) of that Act, the Secretary of State has consulted such organisations as appear to him to be representative of interests substantially affected by the Order.

In accordance with section 86(5) of that Act, a draft of the instrument was laid before Parliament and approved by a resolution of each House of Parliament.

Citation and commencement

1. This Order—

- (a) may be cited as the Weights and Measures Act 1985 (Definitions of “Metre” and “Kilogram”) (Amendment) Order 2020; and
- (b) comes into force on 13th June 2020.

Amendment of the Weights and Measures Act 1985

2.—(1) Schedule 1 to the Weights and Measures Act 1985 (definitions of units of measurement) is amended as follows.

(2) In Part 1 (measurement of length), in the second column of the table headed “metric units”, for the definition of “METRE” substitute—

“for which the symbol “m” is used, is the SI(b) unit of length, defined by taking the fixed numerical value of the speed of light in vacuum c to be 299 792 458 when expressed in the unit m/s, where the second is defined by taking the fixed numerical value of the caesium frequency $\Delta\nu_{\text{Cs}}$, the unperturbed ground-state hyperfine transition

(a) 1985 c.72.

(b) The term “SI” refers to the International System of Units (“the SI”) adopted by the eleventh meeting of the General Conference on Weights and Measures in 1960 which is updated and amended from time to time. *See* The International System of Units (9th edition (2019)) edited by the International Bureau of Weights and Measures, Pavillon de Breteuil, F-92312 Sèvres Cedex France, ISBN 978-92-822-2272-0.

frequency of the caesium 133 atom, to be 9 192 631 770 when expressed in the unit Hz, which is equal to s⁻¹.”.

(3) In Part 5 (measurement of mass or weight), in the second column of the table headed “metric units”, for the definition of “KILOGRAM” substitute—

“for which the symbol “kg” is used, is the SI unit of mass, defined by taking the fixed numerical value of the Planck constant h to be 6.626 070 15 x 10⁻³⁴ when expressed in the unit J s, which is equal to kg m² s⁻¹, where the second is defined by taking the fixed numerical value of the caesium frequency $\Delta\nu_{\text{Cs}}$, the unperturbed ground-state hyperfine transition frequency of the caesium 133 atom, to be 9 192 631 770 when expressed in the unit Hz, which is equal to s⁻¹.”.

Date Name
Parliamentary Under Secretary of State
Department for Business, Energy and Industrial Strategy

EXPLANATORY NOTE

(This note is not part of the Order)

This Order amends the Weights and Measures Act 1985 (“the Act”). It partly implements Commission Directive 2019/1258 amending, for the purpose of its adaptation to technical progress, the Annex to Council Directive 80/181/EEC as regards the definitions of SI base units (OJ L 196, 24.7.2019, p. 6). Other aspects of the Commission Directive are implemented in the Weights and Measures Act 1985 (Amendment) and Units of Measurement Regulations 1986 (Amendment) Regulations 2019 (S.I. 2019/1211). The amendments in the Commission Directive update European law to reflect certain new definitions of expressions of measurement and indications of quantity of the International System of Units (SI) adopted by the General Conference on Weights and Measures at its 26th meeting which took place from 13th to 16th November 2018 (see *The International System of Units (9th edition (2019))* edited by the International Bureau of Weights and Measures, Pavillon de Breteuil, F-92312 Sèvres Cedex France, ISBN 978-92-822-2272-0). The amendments do not alter the value of those units of measurement, but substitute new definitions expressed in terms of natural constants.

Article 2 amends the definition of the metre in Part 1 of Schedule 1 to the Act, and the definition of the kilogram in Part 5 of that Schedule.

An impact assessment has not been produced for this instrument as no, or no significant, impact on the private, voluntary or public sector is foreseen.

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