

EXPLANATORY MEMORANDUM TO

THE WEIGHTS AND MEASURES ACT 1985 (AMENDMENT) AND UNITS OF MEASUREMENT REGULATIONS 1986 (AMENDMENT) REGULATIONS 2019

2019 No. 1211

1. Introduction

- 1.1 This explanatory memorandum has been prepared by The Department for Business, Energy and Industrial Strategy and is laid before Parliament by Command of Her Majesty.
- 1.2 This memorandum contains information for the Joint Committee on Statutory Instruments.

2. Purpose of the instrument

- 2.1 These Regulations amend the Weights and Measures Act 1985 and the Units of Measurement Regulations 1986. Their purpose is to implement Commission Directive 2019/1258 of 23rd July 2019 amending, for the purpose of its adaptation to technical progress, the Annex to Council Directive 80/181/EEC as regards the definitions of the SI (International System) base units. The Commission Directive was made to amend the definitions in European law of the seven SI (International System) base units, namely the second, metre, kilogram, ampere, kelvin, mole, and the candela so as to reflect the new definitions adopted by the General Conference on Weights and Measures at their 26th meeting which took place from 13th to 16th November 2018.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

- 3.1 These Regulations are made following the negative resolution procedure. They in part amend primary legislation, but the amendments are highly technical in nature, intended to provide for consistency with international scientific standards (explained in more detail in sections 6 and 7 of this Memorandum).

Matters relevant to Standing Orders Nos. 83P and 83T of the Standing Orders of the House of Commons relating to Public Business (English Votes for English Laws)

- 3.2 As the instrument is subject to negative resolution procedure there are no matters relevant to Standing Orders Nos. 83P and 83T of the Standing Orders of the House of Commons relating to Public Business at this stage.

4. Extent and Territorial Application

- 4.1 The territorial extent of this instrument is United Kingdom.
- 4.2 The territorial application of this instrument is United Kingdom.

5. European Convention on Human Rights

- 5.1 Kelly Tolhurst, the Minister for Small Businesses, Consumers and Corporate Responsibility, has made the following statement regarding Human Rights:

“In my view the provisions of the Weights and Measures Act 1985 (Amendment) and Units of Measurement Regulations 1986 (Amendment) Regulations 2019 are compatible with the Convention Rights.”

6. Legislative Context

- 6.1 These Regulations implement Commission Directive 2019/1258 (“the Commission Directive”). The Commission Directive amends Council Directive 80/181/EEC as regards the definitions of the SI base units, and is made under Article 16 of Directive 2009/24/EC. Article 16 allows the Commission to make certain amendments for the purposes of adapting legislation in light of technical progress.
- 6.2 Council Directive 80/181/EEC (“the Council Directive”) defines in European Union law the legal units of measurement relating to measuring instruments used, measurements made and indications of quantity expressed in units of measurement, with certain exceptions in respect of measurements used in the field of air and sea transport and rail traffic. Section 1.1 of Chapter 1 to the Annex of the Council Directive defines the seven SI base units as well as the SI derived unit, the degree Celsius. The Commission Directive provides for new definitions for the SI base units, by substituting a new section 1.1 in Chapter 1 to the Annex to the Council Directive.
- 6.3 The SI base units in European Union law derive from internationally agreed conventions as to weights and measures. At its 26th meeting, which took place from 13th to 16th November 2018, the General Conference on Weights and Measures, established by the Metre Convention on 20th May 1875 to represent States Parties to that Convention, adopted new definitions of the seven units of the International System (SI), namely the second, metre, kilogram, ampere, kelvin, mole, and the candela. (Paragraph 7.2 below explains more about the new definitions.)
- 6.4 In UK law, SI base units are defined in Schedule 1 to the Units of Measurement Regulations 1986, which contains definitions of all seven SI base units; and in Schedule 1 to the Weights and Measures Act 1985, which contains definitions of the metre, kilogram and the ampere.
- 6.5 Regulation 2 amends the definition of the ampere and the watt in the Weights and Measures Act 1985. The amendment of the definition of the watt is made to ensure consistency of interpretation.
- 6.6 Regulation 3 of these Regulations substitutes paragraph 1 of Schedule 1 to the Units of Measurement Regulations 1986 with a revised version of that paragraph, amending all seven SI base units and making a small amendment to the definition for “Celsius” so that the decimal point is denoted using a period or full stop, rather than a comma, in accordance with English usage.
- 6.7 The definitions of metre and kilogram in the Weights and Measures Act 1985 are intended to be amended by a separate draft affirmative statutory instrument under powers in section 1(3) of that Act, to be laid in draft before Parliament at the earliest opportunity, and also to come into force on 13th June 2020. (Those powers are not available for the amendment of the ampere and watt definitions effected by this instrument.)

7. Policy background

What is being done and why?

- 7.1 The International Bureau of Weights and Measures is an international organisation established by the Metre Convention (signed in 1875), through which member countries act together on matters related to measurement science and measurement standards. As at 6th August last, the International Bureau of Weights and Measures, had sixty-one Member States (including the UK) and forty-one Associate States and Economies. The International Bureau of Weights and Measures plays a key role in securing international agreement on units of measurement. One of its key objectives is “to be the coordinator of the world-wide measurement system, ensuring it gives comparable and internationally accepted measurement results.”
- 7.2 The new definitions are based on a set of seven defining constants, drawn from the fundamental constants of physics and other constants of nature, from which the definitions of the seven SI base units are deduced. They reflect the aim of the International Bureau of Weights and Measures to ensure the International System of Units are uniform and accessible worldwide for the purposes of international trade, high technology manufacturing, human health and safety, protection of the environment, global climate studies and the basic science underpinning these. The new definitions ensure the SI base units are accurate, and stable in the long term for all parties worldwide.
- 7.3 The definitions were adopted at the 26th meeting by the General Conference on Weights and Measures, comprising delegates of States Parties to the Metre Convention. It was deemed the definitions came into effect on 20th May 2019, which is known as World Metrology Day.
- 7.4 The new definitions are being implemented in European Union law by Commission Directive 2019/1258 of 23rd July 2019 amending, for the purpose of its adaptation to technical progress, the Annex to Council Directive 80/181/EEC as regards the definitions of the SI base units. In order to ensure that the UK keeps pace with the European Union and the rest of the world, these Regulations are made to implement the Commission Directive in UK law by amendments to the Units of Measurement Regulations 1986 and the Weights and Measures Act 1985.

8. European Union (Withdrawal) Act/Withdrawal of the United Kingdom from the European Union

- 8.1 This instrument does not relate to withdrawal from the European Union / trigger the statement requirements under the European Union (Withdrawal) Act.

9. Consolidation

- 9.1 There are no plans at this time to consolidate the legislation amended by these Regulations.

10. Consultation outcome

- 10.1 No statutory consultation is required in connection with these Regulations. However, in conjunction with the statutory consultation required under section 86 of the Weights and Measures Act 1985 for the planned legislation mentioned in paragraph 6.7 above, the Office of Product Safety and Standards, an Office of the Department for Business, Energy and Industrial Strategy responsible for this policy area, wrote on

15th August to appropriate UK organisations or bodies to explain the legislative changes and invite comments. Consultees include the National Physical Laboratory, the British Standards Institution, the UK Accreditation Service, the Royal Society, the Royal Academy of Engineering, the Institute of Physics, and the Institute of Measurement and Control. No issues have arisen as a result of that exercise.

- 10.2 The Office of Product Safety and Standards has also written to the Devolved Administrations in Wales, Scotland and Northern Ireland to set out the approach the UK government is taking with respect to the implementation of Commission Directive 2019/1258.

11. Guidance

- 11.1 Officials from the Department for Business, Energy and Industrial Strategy have engaged with metrology stakeholders to explain how the new definitions in these Regulations are being implemented in UK legislation. The National Physical Laboratory (UK), a public corporation owned by the Department for Business, Energy and Industrial Strategy and which is the UK's National Metrology Institute, has changed its reference materials and provided information to its stakeholders and the public on its website on the changes.

12. Impact

- 12.1 Although the definitions of the seven SI base units have changed, their value has not changed. For example, under both the old and new definitions, a kilogram will still have the same mass. Business does not need to familiarise itself with the new definitions or change any measuring or weighing equipment. As a result, there is no, or no significant, impact on business, charities or voluntary bodies.
- 12.2 There is no, or no significant, impact on the public sector.
- 12.3 An Impact Assessment has not been prepared for this instrument as it does not impact on business or consumers.

13. Regulating small business

- 13.1 The amended definitions have no particular application to small businesses and for the reasons set out in paragraph 12.1, there are no anticipated regulatory impacts on small businesses.

14. Monitoring & review

- 14.1 The Department for Business, Energy and Industrial Strategy does not intend to monitor these Regulations. Since no, or no significant, impact on business is expected and since changes to the definitions of units of measurement are occasional and agreed at the international level rather than domestically, including a review clause in these Regulations would be inappropriate.

15. Contact

- 15.1 Maggie Slinger at the Department for Business, Energy and Industrial Strategy, email: Maggie.Slinger@beis.gov.uk with any queries regarding the instrument.
- 15.2 Sarah Smith, Deputy Director for the Policy and Briefing Unit, at the Department for Business, Energy and Industrial Strategy can confirm that this Explanatory Memorandum meets the required standard.

15.3 Kelly Tolhurst, Minister for Small Business, Consumers and Corporate Responsibility at the Department for Business, Energy and Industrial Strategy can confirm that this Explanatory Memorandum meets the required standard.