

Template for comments and convener's observations

Date:2021-08-03

Document: TC2_P1_N002

Project: TC 2/p 1

Country Code ¹	Part	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment ²	Comments	Proposed change	Convener's responses
0001 IT				Te/ed	The order in which the base units are defined in the revised SI has been changed for very good reasons. The order in the document under discussion reflects that of the "old" SI	Consider altering the order of presentation by placing time first, length second, mass third and so on, in order to be consistent with the new SI Brochure.	Agree
0002 ZA				Ge	We have products being imported in the country(South Africa), that are marked in inches, TV and artificial hair extentions. The document does not cover inches. Are products still allowed to marked in inches?		Disagree It is not the responsibility of this document to define legal requirements in a country
0003 AU				Ge	This document does not mention a range of units used in current OIML Recommendations. These include the following (and there may be others): <ul style="list-style-type: none"> Degrees Z (°Z) used in OIML R 14 for polarimetric saccharimeters pH scale used in OIML R 54 for aqueous solutions Brix used in OIML R 142 for refractometer It is confusing for OIML to publish Recommendations that use units of measurement that are not recognised by OIML as legal units of measurement.	Update this document to reference all units used in current OIML recommendations.	Disagree °Z and Brix are strictly speaking no units of measurements For pH even more complicated, one might refer to IUPAC Recommendation 2002 However, a footnote referencing the SI Brochure has been included
0004 AU				Ge	There is no mention of the use of percentages. For example, in OIML R 59 Moisture meters for cereal grains and oilseeds, the unit of measurement is “% moisture by mass”. Many OIML Recommendations also specify relative humidity expressed in %.	Update this document to facilitate the drafting of national regulations which refer to units of measurements expressed as a percentage.	Disagree % is a submultiple of unit 1 and need not be addressed specifically
0005 IT		Intro	2 nd bullet	ed	<i>Extensively</i> seems unnecessary	Consider removing <i>extensively</i>	Agree
0006 IT		Intro	3 rd bullet	ed	<i>in this International Document</i> looks redundant (look at the start of the paragraph)	Consider removing <i>in this International Document</i>	Agree
0007 IT		Intro	Description of Part 5	ed	<i>List of units which continue to be used for practical reasons (although outside the scope of the International System of Units), but most of which are recognized by the CIPM</i> sounds logically strange	List of units outside the scope of the International System of Unit which continue to be used for practical reasons. The list is not standardized internationally, although most of these units are recognized by the CIPM. Nonetheless, it is desirable...	Agree
0008 IT		Introduction	1 st bullet	ed	General Conference <i>of</i> Weights and Measures is incorrect (see, e.g. the BIPM website	General Conference on Weights and Measures	Agree

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0009 NL		2.3		ed /	<p>In our opinion is because of the punctuation and the enumeration the article somewhat less clear:</p> <p>2.3 The obligation to use the legal units of measurement refers to:</p> <ul style="list-style-type: none"> • measuring instruments used; • results of measurements carried out; • indications of quantities which are expressed in units of measurement, <p>in the economic field, in the spheres of public health and safety, in education, in standardization as well as in operations of an administrative character.</p> <p>DEven because of the vocabulary OIML V002 (1.2 respectively. 1.19) : The definition of “quantity” and “quantity value”</p>	2.3 The obligation to use the legal units of measurement refers to measuring instruments, results of measurements and indications of quantity values where used in the economic field, in the area of public health and safety, in education, in standardization and in operations of an administrative character.	Agree (all clause numbers wrong from here on?)
0010 IR		3.1		Te	If the above comment is accepted, then clause 3.2 needs some changes in subclauses.	It is recommended to Change the order of definition of Length from sub clause 3.2.1 to 3.2.2 It is recommended to Change the order of definition 3.2.6 to 3.2.1	Agree
0011 JP1		3.1.2 The SI units are:	3 rd line	Ed	The word “coherent” in the 3 rd line may not be necessary because it is placed under the title “Set of <u>coherent</u> SI units”.	<p>We propose an amendment below.</p> <ul style="list-style-type: none"> ● <i>Set of coherent SI units</i> - base units; - coherent derived units. 	Disagree Derived units might be incoherent
0012 IT		3.1.3	First line	ed	"respectively" looks unnecessary	Consider removing "respectively"	Agree
0013 IR		3.2		Te	Definition of time unit (s) is absolutely independent to the other units. So it is better to define the time unit at first. Because for definition of the Length unit (m) one needs to know unit (s).	Time unit be defined first. Hz, which also does not depend on meter, can follow it, and the rest of definitions come in the order after.	Agree
0014 US		3.2	03.2.1	Ed	The definition uses the format “m/s” rather than “m s ⁻¹ ”. The latter is more consistent with the rest of the draft.	Use “m s ⁻¹ ” in the definition.	Agree

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0015 JP2		3.2 space and time 3.2.1 Length: metre 3.2.6 Time: second 3.2.7 Frequency: hertz	NA	Ed	The symbol, $\Delta \nu_{Cs}$, is not defined in (or before) 3.2.1. It is explained later in 3.2.6 (time).	We propose the following two options. Please choose either one of them. (1) Add an explanation to 3.2.1 as shown by an example below. <i>Where, $\Delta \nu_{Cs}$ is the unperturbed ground state hyperfine transition frequency of the caesium 133 atom.</i> (2) Change the order of subclauses under 3.2 and firstly explain "Time" and "Frequency".	Agree
0016 IT		3.2.1	definition	Te/ed	While understanding and supporting the intention of reproducing exactly the CGPM text, $\Delta \nu_{Cs}$ is undefined and might puzzle the reader.	Consider adding either as a footnote or in the main text a small explanation like " $\Delta \nu_{Cs}$ is the unperturbed ground state hyperfine transition frequency of the caesium 133 atom". As an alternative, give a reference. As an even more drastic alternative, see the next comment	Agree
0017 UK		3.2.5, 3.3.1, 3.4.1, 5.4.2, 5.5.1, etc.		ge	In several parts of the document, the multiplication is denoted by the cross symbol "×", or by a point "." "×" is clearly visible. "." is more discrete and is often left implicit.	For consistency, suggest harmonising multiplication sign.	Agree But will use "·"
0018 JP4		3.3.12 Volume flow rate	NA	te, ed	Correct a misprint of the index number (2) of metre (m).	Correct "1 m ³ /s = 1 m ² / 1 s" to "1 m ³ /s = 1 m ³ / 1 s".	Agree

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0019 JP3		3.3.6 Moment of force	NA	te	In other clauses of 3.3, the title is shown in a form “name of physical quantity: name of unit” and the main text starts with “name of unit”. In addition, other clauses define a derived unit with other associated units with a unity value. However, this clause does not follow these formats. Furthermore, “a” before “force” in the main text is not necessary.	We propose the amendments of expression as shown below. 3.3.6 <i>Moment of force: <u>newton metre</u> (symbol: $N \cdot m$)</i> <i>The <u>newton metre</u> is a moment of a force about a point which is equal to the vector product of any a radius vector with a length of 1 metre from this point to a point on the line of action of the force, and the force equivalent to 1 N.</i>	Agree
0020 ES		3.6/3.6.1.1	1st	te	Under paragraph 3.6.1.1, include a second paragraph, as also included in the Resolution 1, Appendix 3 of the 26 th CGPM, 2018, as follows: "The amount of substance, symbol n , of a system is a measure of the number of specified elementary entities. An elementary entity may be an atom, a molecule, an ion, an electron, any other particle or specified group of particles".	3.6.1.1 The mole, symbol mol, is the SI unit of amount of substance. One mole contains exactly 6.022 140 76 $\times 10^{23}$ elementary entities. This number is the fixed numerical value of the Avogadro constant, N_A , when expressed in the unit mol ⁻¹ and is called Avogadro number The amount of substance, symbol n , of a system is a measure of the number of specified elementary entities. An elementary entity may be an atom, a molecule, an ion, an electron, any other particle or specified group of particles (26th CGPM, 2018).	Agree
0021 IT		4.6		ed	The sentence sounds curiously incomplete	Consider keeping the first sentence of the corresponding part of the SI brochure, i.e. The kilogram is the only coherent SI unit, whose name and symbol, for historical reasons, include a prefix.	Agree
0022 JP5		4.7	the last line	ed	The hyphen in “pre-fixes” may not be necessary.	Change “pre-fixes” to “prefixes”.	Agree
0023 JP6		5.1.3 Footnote (3) of “day”.	NA	ed	The symbol “(a)” in “the year (a)” may not be necessary. If it is needed, please explain.	Delete “(a)” if it is not needed.	Disagree However change (a) to (symbol: a)

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0024 JP7		5.4.2	NA	ge, te	New SI permits to use a symbol “Da” (dalton) for the unified atomic mass unit other than “u”.	Add a symbol “Da”.	Agree
0025 JP8		5.5.2 electronvolt	NA	ed	Correct a misprint of the clause number.	Correct “subclause 3.2” to “subclause 4.2”.	Agree (clause numbers will change considerably)
0026 JP9		5.6.1 Field level	NA	ed	In the last formula, “2 lg” (two lg) may be misread as “21g” (twenty-one gram).	Add more space between “2” and “lg”.	Agree
0027 JP10		5.6.2 Power level	NA	ed	In the first formula, an Arabic number (one) is misused to express common logarithm (lg).	Correct “ <u>1</u> g (P/P0) B” (one and g) to “ <u>lg</u> (P/P0) B” (lower-case of L and g).	Agree
0028 JP12	Anne x A	A.10 Area of farmland and estates	NA	ed	Correct a misprint, “acre”.	Correct “acre” to “are”.	Agree
0029 JP11	Anne x A	A.6 Exposure A.7 Pressure	NA	ed	Correct a misprint of the clause number.	Correct “subclause 3.2” to “subclause 4.2”.	Agree (clause numbers will change considerably)
0030 IR	Anne x B	B.1		Ed	1 Å is not equal to 10 ⁻¹⁰ nm.	1 Å = 0.1 nm = 10 ⁻¹⁰ m	Agree
0031 BIPM	Anne x B	B.1	Length	error	One angstrom corresponds to 10 ⁻¹⁰ metres, not nanometers	Replace nm by m	Agree
0032 BIPM	Bibli ogra phy				The 9 th SI Brochure is now official and not in draft mode anymore. The official release date is the 20 May 2019, see https://www.bipm.org/utis/common/pdf/si-brochure/SI-Brochure-9.pdf	Replace by “The International System of Units, 9 th Edition, 20 May 2019, BIPM”	Agree
0033 CAN	Bibli ogra phy			Editorial	The reference to SI should be updated	The International System of Units, 9th edition	See 0032

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0034 CU	Bibliography			ed	Update the reference to the SI brochure, it is official since May 20		See 0032
0035 DE	Bibliography			ed	The 9th edition of the SI Brochure (2019) has been published by now. It is no draft anymore.	9 th edition 2019	See 0032
0036 IN	Bibliography			ed	Reference to SI Brochure may be updated		See 0032
0037 IT	Bibliography				Of course, the 9 th edition of the SI brochure is now published	Amend the reference	See 0032
0038 SI	Bibliography			editorial	Reference to SI Brochure should be updated	The International System of Units (SI), 9th edition, 2019	See 0032
0039 ES	Bibliography			ed	Cite the last edition of the document used.	The International System of Units, 9 th edition (Draft), 6 th February 2019	See 0032

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