

DRAFT
RECOMMENDATION

TC 8/SC 7
(NL)

INFORMATION

Revision of R 137-1 and -2

Gas meters

Draft submitted for

direct CIML online approval on 2011.12.14.

Voting closes on 2012.03.14.



ORGANISATION INTERNATIONALE
DE MÉTROLOGIE LÉGALE

INTERNATIONAL ORGANIZATION
OF LEGAL METROLOGY



| Compiled Comments on Draft Recommendation | | | BIML /xxx/CC |
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| CIML Member comments on: OIML TC 8/SC 7/031/DR | Draft Recommendation: OIML R137-1 and -2 | Title: Gas meters | Project: p3 ; development of R 137-2 Gas meters - Part 2: Test methods |
| DR date: 20 May 2011 | Circulation date: 1 June 2011 | Closing date for comments: 1 September 2011 | |
| Prepared by: SC Secretariat: NL Mr. George Teunisse | Please list any comments in this <i>Template for comments</i> and attach them in Word format to your vote via the Members' page of the OIML Web Site → no later than the closing date ← | | |

| Country Code | Clause/ paragraph/ table | gen./ edit./ Techn. | COMMENTS | PROPOSED CHANGE | |
|--------------|--------------------------|---------------------|---|---|---|
| JP | | Gen | We deeply appreciate the dedicated efforts by the SC7 secretariat in revising the R137. We however consider it might be premature to proceed from CD to DR because it seems that many revisions have been made in the present DR. | If it is acceptable for CIML or BIML, we recommend the secretariat to assume the present DR as 3CD, and continue discussion by the TC8/SC7 members. | <i>In general the comments made are of an editorial character. Moreover, project p3 concerns the production of R 137-2. So a complete revision of R 137 was not intended.</i> |
| JP | | Gen | The structure of the present DR is complex since Annex I is inserted between the chapters 11 and 12. | We recommend separating the present DR into Part 1 and Part 2 as it is frequently seen in other Recommendations, and start the Part 2 from Chapter 1 (Chapter 11 in present). | <i>Suggest not to amend. The structure introduced in the present draft is in agreement with the draft format template for Recommendations</i> |
| JP | Contents | Edit | “Part 1 Metrological and technical requirements” is missing. | Please insert “Part 1 Metrological and technical requirements” between “Foreword” and “1 Introduction.” | <i>Suggest to amend - purely editorial (omission)</i> |
| JP | 3.2.5 & 3.2.6 | Edit | There is no need for separating 3.2.5 and 3.2.6. Merge the two clauses as “3.2.5 weighted mean error (WME)” | Please delete the clause number 3.2.6 . Also, because of this deletion, please change the numbering from 3.2.7 to 3.2.23 (e.g., 3.2.7 will be 3.2.6 , 3.2.8 will be 3.2.7 and so forth). | <i>Suggest to amend purely editorial mistake (caused by automatic numbering)</i> |

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| JP | 3.2.8 Notes | Edit | It is inconvenient as there are two notes without numbering. | Please put numbers as “ Note 1 ” and “ Note 2. ” | <i>Suggest to amend purely editorial (omission)</i> |
| JP | 3.3.7 | Techn. | <p>The meaning of “<i>centre temperature</i>” is not clear. We propose changing the definition as given on the right column.</p> <p>The phrase “<i>specified by the manufacturer</i>” shall be deleted since this is a technical requirement that is already mentioned in 5.3.5. Such expression is not appropriate in the part “<i>terminology.</i>”</p> | <p>We propose the definition as follows:</p> <p><i>3.3.7 temperature specified , t_{sp}</i> <i>Median temperature used as a reference to determine an effective value of maximum permissible error (MPE) applied to a gas meter. The effective value of MPE depends on the temperature of the gas meter and it is defined in 5.3.5 in reference to t_{sp}.</i></p> | <p>problematic <i>No problem in deleting “specified by the manufacturer” and changing to “median”</i> <i>The second sentence is more problematic while 5.3.5 is not a definition and it concerns gas temperature (so <u>not</u> gas meter temperature)</i></p> |
| UK | 3.3.7 | Edit | The term ‘centre’ does not make sense in this context | Suggest amending to ‘midpoint’ | <i>Suggest to amend to previous term: “median” - see also JP comment</i> |
| JP | 3.3.11 | Edit | The quantifier for “ <i>working density</i> ” is not “ <i>p</i> ” but “ <i>ρ (rho)</i> ”. | Please replace “ <i>p_w</i> ” with “ <i>ρ_w</i> ” | <i>Suggest to amend purely editorial mistake</i> |
| UK | 3.3.11 | Edit | Constant written as ‘ <i>p_w</i> ’, which is the same as that written under definition 3.3.8 for working pressure. | Amend to symbol ‘ <i>ρ_w</i> ’ | <i>Suggest to amend purely editorial mistake</i> |
| UK | 3.4.3 | General | The terms ‘damage’ and ‘extreme’ seem excessive when taking into consideration the definition of overload conditions. | Suggest rephrasing definition as follows: “Conditions outside the rated operating conditions (including flow rate, temperature, pressure, humidity and electromagnetic interference) that a gas meter is required to withstand for a short period of time without deterioration.” | <i>suggest to amend rather editorial; improved grammar</i> |
| UK | 5.3.2 | Edit | English grammar appears unclear in this paragraph | Suggest rephrasing as follows- ‘Gas meters are defined by three accuracy classes- 0.5, 1.0 and 1.5. Gas meters shall be classified accordingly by their accuracy into one of these classes. The value of the MPE is dependent on the applicable accuracy class listed in Table 2.’ | <p><i>suggest to amend rather editorial; but first part of rephrasing does not sound correct.</i> <i>Suggest to start clause “Gas meters may be divided in three...</i></p> |

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| | | | | | <i>up to the BIML editor to decide</i> |
| UK | 5.10 | Edit | Not necessary to state sentence "...to a flow with a flow rate..." | Delete "...a flow with..." | <i>Suggest to amend for readability reasons</i> |
| JP | 5.13.3 | Edit | The term " <i>shift of the error</i> " is used here, although " <i>fault</i> " is used in 5.10, 5.11, 5.12, 5.13.4, and 5.13.6. Is the meaning of " <i>shift of the error</i> " different from " <i>fault</i> "? | According to 3.2.8, " <i>fault</i> " should be used here. | <i>Suggest not to amend. "fault" is reserved to where a phenomenon exceeds the rated operating conditions. In the draft D 11 this is explained</i> |
| UK | 5.13.7 | Edit | 1 st sentence reads '... and Table5apply.' | Amend with space between 'Table 5' and 'apply' | <i>Suggest to amend purely editorial mistake</i> |
| FR | Table 5 | Edit | The definition of the acronyms NSFa and NSFb should be added below the table in order to avoid any misunderstandings | | <i>Suggest to amend purely editorial</i> |
| UK | 6.3.3 | Technical | This may need to be reviewed so as to make reference to how this would apply for diaphragm metric gas meters (i.e. there are no fixed zeroes as stated in a) nor are the x10 markings as indicated in b)). | Include another point in the paragraph about the indication of a decimal point. | <i>Clause from existing R 137-1 seems misinterpreted. Suggest not to amend</i> |
| JP | 6.7.3 | Edit | Although the term " <i>superior calorific value</i> " still remains in this section (second dot), it should be deleted. We had already agreed in 2CD that an evaluation of calorific value should be excluded from the Scope. | Please delete " <i>superior calorific value.</i> " | <i>Suggest to amend as suggested. Omission</i> |
| JP | 9.1.4 | Edit | " 9.1.4.1 " is missing right after 9.1.4. | Please insert " 9.1.4.1 ." Also, because of this change, " 9.1.4.1 " of page 29 will be 9.1.4.2 . Additionally, " 9.1.4 " will be " 9.1.4.1 " in a). | <i>Suggest to amend as suggested. Purely editorial</i> |
| UK | I.2.1.2.d | Edit | Last sentence of 2 nd paragraph reads 'should' | Amend to 'shall' | <i>Suggest to amend as suggested, although text is exact copy from D 31 5.2.1.2b</i> |
| JP | 11.1.2 | Edit | The footnote for <i>expanded uncertainty</i> ⁸ is incomplete. | It might be better to delete this footnote as it does not seem | <i>Suggest to make</i> |

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| | | | | necessary. | <i>reference to OIML G 001-100 clause 2.3.5</i> |
| UK | 11.1.2 | General | Unclear what is stated in footnote 8 ‘.....covering etc.e’ | Delete and add ‘[2.3.5]’ | <i>Suggest to make reference to OIML G 001-100 clause 2.3.5</i> |
| JP | 12.2 | Edit | Whose “ <i>name</i> ” in the third line of “ <i>name or trademark</i> ” is it? | Please change as written below. Before: “name or trademark and type designation” After: “name or trademark of the manufacturer and type designation” | <i>Suggest to amend as proposed</i> |
| UK | 12.5.1 | Edit | 2 nd line of paragraph says “...validation methods and tests likes shown...” | Amend “likes” to “as” | <i>Suggest to amend as proposed (purely editorial)</i> |
| UK | 12.5.1 | Technical | Comment was raised in R46 (Electricity Meters) to remove DFA, CIWT and SMT, where it is believed that MID meters are classified as risk class C according to WELMEC software guide. Therefore, there isn’t a requirement for a source code check under this specific risk class. | Perhaps apply the same changes to reflect proposed and agreed software evaluation requirements detailed in R46 recently (i.e. delete DFA, CIWT and SMT). | <i>Problematic at this approval stage. Good to keep up with R 46 (from which this text was copied). However, as a consequence of their earlier response on the 2 CD, Japan could question this. Bilateral contact needed</i> |
| UK | 12.5.2.2 | Edit | Section under ‘Evaluation for the use of an alternative test gas during verification’ refers to incorrect numbering of references to 12.4.13 and 12.4.3. Even when those references changed in the other sections of the revised recommendation, the new numbers refer to 12.6.13 (Vibration and Shocks) and 12.6.3 (Repeatability). | Amend 12.4.13 to and 12.4.3 to 12.6 | <i>Amend as proposed (mistake in numbering since omitted to implement in automatic generated references)</i> |
| JP | 12.5.2.3 | Edit | In the eighth and tenth line, “ 12.4.13 ” is supposed to be “ 12.6.12. ” | Please make a correction from “ 12.4.13 ” to “ 12.6.12. ” | <i>See above</i> |
| UK | 12.6.9 | Edit | 4 th line reads- ‘I case...’ | Amend to “In case...” | <i>Amend as proposed</i> |
| UK | 12.6.9 | Edit | 2 nd Paragraph, line 2- “...options given in Table 5...” | Amend to “...options given in Table 6...” | <i>Amend (automatic link was not updated)</i> |

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| UK | 13.1 | Edit | 2 nd Paragraph seems unclear where it states ‘...or groups of meters could be statistically assessed like described in 13.2’ | Amend to “...or groups of meters, where the latter may be statistically assessed by the method described in 13.2.” | <i>Suggest to amend as proposed (purely editorial)</i> |
| UK | 13.1.2 | Edit | 1 st line ‘...when submitted to initial verification...’ | Amend to “...submitted <u>for</u> initial verification...” | <i>Suggest to amend as proposed (purely editorial)</i> |
| UK | 13.1.2 | Edit | 2 nd line states “...available on the meter to put on the verification...” | Amend to “...available on the meter for placing the verification...” | <i>Suggest to amend as proposed (purely editorial)</i> |
| UK | 13.1.3 | Edit | Referring back to the comment made previously by the US on 12.5.2.3 regarding the term ‘mutual difference’ which was causing confusion. | Delete the word ‘mutual’ | <i>Suggest to amend as proposed (purely editorial)</i> |
| FR | 13.1.4 | Edit/Techn | <p>The chapter 13.1.4 is dedicated to the flowrate values at which the meter has to be tested during initial verification. In the general case (case n°1), the flowrate points are the ones described in 12.5.2.2. In certain cases (case n°2), if the authority issuing the type approval certificate has given specific instructions for performing the initial verification, the number of flowrate test points can be different from the one described in 12.5.2.2. Last, the chapter 13.1.4 comprises 2 specific notes (notes 1 and 2) for diaphragm meters and rotary piston gas meter.</p> <p>As this notes are added after the item describing the case n°2, does it concern only this case, only to give an indication to the authority issuing the specific instructions for performing verifications ? Or does it concern the cases n°1 and 2 indifferently, what would mean that in any situation the diaphragm meters can be tested only on the 3 points Q_{min}, $0,2 \cdot Q_{max}$ and Q_{max} ?</p> | <p>Assuming that the possibility for applying this 2 notes is not dependant on a specific evaluation by the authority issuing the type approval certificate of the meter, and to avoid any misunderstandings, we suggest to delete the two notes in the end of the chapter 13.1.4 and to turn the first sentence of this chapter into :</p> <p><i>“Gas meter are to be tested at the flowrates specified in 12.5.2.2. Nevertheless, verification of diaphragm gas meters may be performed at Q_{min}, $0,2 \cdot Q_{max}$ and Q_{max} only. Concerning rotary piston gas meters, national authorities may also decide to use a reduced number of test points.”</i></p> | <i>Suggest to amend by changing “Notes: “ to “Verification of diaphragm gas meters may in all cases be restricted to performance of tests at the flow rates Q_{min}, $0,2 \cdot Q_{max}$ and Q_{max} only. Concerning rotary piston gas meters, national authorities may decide to reduce the number of test points”</i> |
| FR | 13.1.4 | Edit | In the second item, delete the word “verifications” and turn “of influence to” into “of influence on”. | <i>“The instructions for performing the initial verification (see 12.8) are to be taken into account, which may be of influence on the number of flowrate needed.”</i> | <i>See below suggested amendment</i> |
| JP | 13.1.4 | Edit | The second sentence in the 2CD was clear. However, that sentence had been changed significantly in DR and become very difficult to understand. | Please retrieve the sentence as written in 2CD, or rewrite the sentence that would be easier to understand grammatically. | <i>Editorial mistake. Suggest to amend to: “The initial verification</i> |

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| | | | | | <i>may be performed at a reduced number of flow rates, provided this option is supported by instructions for performing the verifications (see 12.8)</i> |
| UK | 13.1.5 | Edit | Paragraph states "...independent on the meter orientation..." | Amend to "...independent from the meter orientation..." | <i>Suggest to amend as proposed (purely editorial)</i> |
| JP | 13.1.6 Notes | Techn. | The notes mention that a test at single flow rate is sufficient after an adjustment. We however consider it might not be sufficient to assure accuracy for the entire range of flow rate. | This is a comment. We do not request any changes because this requirement is mentioned in " <i>notes</i> " with an expression " <i>it is sufficient</i> ". | <i>No change required</i> |
| UK | 13.2 | Edit | Grammar in sentence "...may decide whether the use of statistical methods is allowed or not" | Amend to "... may decide whether or not the use of statistical method is allowed" | <i>Suggest to amend as proposed (purely editorial)</i> |
| JP | A.2 | Techn. | The actual content of A.2 does not match the title " <i>Test Level</i> " but it explains limits of use for a gas meter in conformity with the test conditions. We consider requirements for " limits of use " should not be included in the Annex A. | Recommend deleting the requirements on limits of use . Or delete the entire A.2 if it is not necessary for Annex A. | <i>Suggest to delete, although the text was copied from R 137-1:2007 this text is not correct. It concerns documentation which is covered by 8.1</i> |
| UK | A.4.2 | Edit | Object of test states- "Verification of compliance ubder..." | Correct "ubder" to "under" | <i>Editorial mistake. Suggest to amend</i> |
| JP | A.4.2.1 | Edit | " 24 h " in the last line of <i>Test procedure in brief</i> is better to be written as " 24 hours. " | Before: 24 h After: 24 hours | <i>Suggest to amend</i> |
| JP | A.4.2.2 | Edit | " 4 h " in the last line of <i>Test procedure in brief</i> is better to be written as " 4 hours. " | Before: 4 h After: 4 hours | <i>Suggest to amend</i> |
| JP | A.6.1.1. Note 4) | Techn. | Note 4 in 2CD recommended to use A.6.1.2 (conducted field) in the case of dispute. However, A.6.1.1 (radiated field) is recommended in Note 4 in the present DR . This statement contradicts the requirement | Request changing a statement in Note 4 of A.6.1.1 from " A.6.1.11 shall prevail " to " A.6.1.12 shall prevail ". | <i>Agree this is a mistake. To be changed to ...A.6.1.2 shall prevail</i> |

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| | | | in Note 2 of A.6.1.1 as well as the requirement in D11 (<i>General requirements for electronic measuring instruments</i>). | | |
| JP | A.6.1.2 | Techn. | Same comments with A.6.1.1 Note 4. | Same requirement with A.6.1.1 Note 4. | <i>Agree this is a mistake. To be changed to ...A.6.1.2 shall prevail</i> |
| JP | A.6.1.2 Note 1) | Techn. | We do not consider this test item is applicable to the EUT without any copper wired lines including power line, input port and output port . “ Output port ” shall therefore be added to the sentence. | Change the sentence of Note 1 as shown below. “ <i>This test is not applicable for when the EUT without has no mains power supply or other copper wired input / output port.</i> ” | <i>Suggest to amend</i> |
| UK | B.2.1 | Edit | 1 st line reads – “...executed using each of the applicable the piping configuration...” | Delete “the” after “applicable” | <i>Editorial mistake was made. Suggest to amend</i> |
| JP | B.2.2 | Edit | The first sentence states that all tests conditions mentioned in B.2.1 and Table B.1 apply to gas meters used in residential and non-residential environments. The second sentence however mentions that some test conditions do not apply residential areas . These statements contradict each other. | Change entire clause as shown below. “ <i>The test conditions e, f and g in Table B.1 do not apply to gas meters that are meant to be used in residential areas. All other test conditions in Table B.1 apply regardless the environment (both residential and non-residential).</i> ” | <i>Suggest to amend as proposed</i> |
| UK | Annex E | Technical | This goes back to the comment made on 12.5.1. | Remove description on DFA, CIWT and SMT | <i>See 12.5.1 (Same topic)</i> |