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| 0001  BR | 1 |  |  | ge | The Brazilian Legal Metrology Directorate congratulates the TC8/SC3 for the improvements done on the new version of this document. We support the approval of this document with the following minor comments: |  | Thank you to Brazil for your support and valuable contributions to the R117 project! |
| 0002  CH | 1 | Terminology | T.b.2 | Ed/Te | Relies to Comment 3, The definition of bunker fuel is not the same as for 2.10.4.2 | Add "dynamic" before the word viscosity | Accepted (see change on page 6 of this doc) |
| 0003  FR | 1 | Terminology | T.b.3 | ed | This precision should not be included inside the terminology (see others recommendations). | Include this explanation in §5.10.1 (bunkering) and add a note in § 5.10.4 with examples of satisfying solutions to quantify air/gas | The word-by-word definitions for T.b.2 “Bunker fuel” and T.b.3 “Measuring systems for bunker fuel” have been heavily and thoroughly discussed in the PG previously.  No change at this time. |
| 0004  VN | 1 | 2.4 Accuracy classes | Table 3 | Ed | Remove spaces in percent values, ex: 0.3 % => 0.3%; 0.5 % => 0.5%,… | Towards a uniform notation | Formatting issue, BIML will resolve. |
| 0005  VN | 1 | 2.7 Provisions for converted indications | Table 5.1 | Ed | Remove spaces in percent values, ex: ± 3 % => ± 3% | Towards a uniform notation | Formatting issue, BIML will resolve. |
| 0006  CH | 1 | 2.9.2 | Para 3 | Ge | Keep the last part of sentence | Do not delete the sentence: " and that these indications are available on request" | Not accepted.  This change (deleting the last part of the sentence) was specifically approved by the PG in Cape Town. |
| 0007  FR | 1 | 2.10.1 |  | ed | In the first sentence, the exception indicated about the measuring system for bunkering is ambiguous. This item is covered in 5.10. | Delete “(measuring systems for bunkering are an exception to this requirement, see 5.10)”  Add a note after the first sentence : “for bunkering, see 5.10” | Comment understood, but this is considered an editorial suggestion.  Team Bunker worked very hard to gain 100% consensus of the PG on this section in Cape Town. No change at this time. |
| 0008  CH | 1 | 2.10.4.2 | Para 1 | Ed/Te | Relies to Comment 1, The definition of bunker fuel is not the same as for T.b.2 | Replace "at 20°C" with "at metering conditions" | Comment understood, but it is decided to leave the requirement of 2.10.4.2 exactly as written and approved. |
| 0009  CH | 1 | 2.16 | Para 4 | Ge | Keep the last sentence. Since it could be that a part of the measured quantity is drained through this valve. | Do not delete the sentence: "In such an installation, it is required that indications make clear when the relief valve is in operation." | Not accepted.  This change (deletion of the indicated sentence in 2.16) was specifically discussed and approved by the PG in Cape Town. |
| 0010  CH | 1 | 2.20.2.1.5 | Bullets | Ge | Keep the last bullet point. It is important for market surveillance that the person who made the last change can be identified. | Do not delete the bullet point: " an identification of the person that implemented the intervention." | No change.  This particular issue was highly discussed and the deletion was approved by the entire PG in Cape Town. |
| 0011  FR | 1 | 5.10.4 |  | te | Taking the MPE value of line C (Table 3) seems very high only for the tolerance related to the air / gas intrusion effect. | It would be better to reduce this tolerance | Comment understood, but no change.  Section 5.10.4 was highly discussed in Cape Town by both Team Bunker and then by the entire PG. The current text received 100% approval. |
| 0012  BR | 1 | 6.1.2.2.4 |  | ed | We recommend numbering tables |  | Comment understood, but believe the Tables in Chapter 6 are OK without unique numbers.  The Chapter 6 tables can simply be referenced with their Title and/or the Clause number. |
| 0013  BR | 1 | 6.1.2.2.4 | 2nd table, row 3 | te/ed | Severity level for AC voltage dips, short interruptions and voltage variations is wrong in this table. For environment E1 the specified severity level is class 1 while for environment E2 it was specified class 2. Actually, standard IEC 61000-4-11 establish that class 1 is applicable “Case-by-case according to the equipment requirements”, while class 2 establish that three disturbances shall be applied and class 3 recommends applying five disturbances. On the other hand, according with section 8.4.2.4 of OIML D11:2013, “level 2 is considered the minimum test level required”.  This issue is probably an editorial mistake. | Correct the severity level for AC voltage dips, short interruptions and voltage variations as follows:  E1 – class 2  E2 – class 3 | Comment and the proposed change have been researched.  This is not an editorial mistake.  With regard to “AC voltage dips, short interruptions and voltage variations,” the severity levels/test levels specified (in both R117-1and R117-2) are in full compliance with both Table 4 and Table 23 of OIML D11.  Also these levels have received full consensus n all previous drafts.  No text change. |
| 0014  VN | 1 | Other Clauses/ Sub clauses |  | Ed | As above |  | Formatting issue, BIML will resolve. |
| 0015  VN | 2 |  |  |  | No comment |  | Formatting issue, BIML will resolve. |
| 0016  BR | 2 | 4.9 |  | ed | We recommend numbering tables in this section too. |  | Comment understood, but believe the Tables in R117-2, Chapter 4 are OK without unique numbers.  These tables can simply be referenced with their Title and/or the Clause number. |
| 0017  BR | 2 | 4.9 | 2nd table | te/ed | Correct the severity level for AC voltage dips, short interruptions and voltage variations according with previous comment. | Correct the severity level for AC voltage dips, short interruptions and voltage variations as follows:  E1 – class 2  E2 – class 3 | See response to Comment 0013 from BR.  No text change. |
| 0018  BR | 2 | 4.9 | Table 4.9.3 | te/ed | Correct the severity class specified in this table. Observe that the tests are correctly specified for class 2 and 3! | Correct severity levels on the table’s label | See response to Comment 0013 from BR.  No text change. |
| 0019  FR | 2 | Annex X.K |  | te | The checking of the air / gas intrusion measuring device seems very difficult to carry out on site. |  | Noted. Informative Annex. |
| 0020  FR | 2 | Annex X.L |  | te | The checking for the measurement of the return line seems very difficult to carry out on site. |  | Noted. Informative Annex. |
| 0021  FR | 2 | Annex X.L | X.L.3 | ed | The references to OIML R 117-1 given are wrong (5.14.5; 5.14.6; 5.14.7 and 5.14.9 doesn’t exist) | Replace wrong references with 5.11.5, 5.11.6, 5.11.7 and 5.11.9 | Agree.  See change on page 6 of this document. |
| 0022  VN | 3 | Annex F | Performance tests  All forms | Ed | Adding "rh" symbol: % => %rh (Relative humidity) | Towards a uniform notation | Formatting issue, BIML will resolve. |

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CCT - Version 4.0/2015

**R117-1, T.b.2 bunker fuel**

fuel with a dynamic viscosity of over 20 mPa.s at metering conditions, used for the propulsion of vessels

**R117-2, Annex X.L**

**(Reference OIML R 117-1, 5.11.6 )**

**Special considerations for various recirculation systems (ref. OIML R 117-1, 5.11.5 ):**

**Special considerations for various vapor return systems (ref. OIML R 117-1, 5.11.7 and 5.11.9 ):**