



Template for comments on Workspace Documentation				OIML TC 9/SC 2/ p 8/ R 61	
Comments on: OIML TC 9/SC 2/ p8/R 61-2			Workspace Document: OIML R 61	Title: <i>Automatic gravimetric filling instruments Part 2: Test Methods</i>	Project: p 8 : Revision of R 61: Automatic gravimetric filling instruments
2 WD date: 3 September 2015			Circulation date: 3 September 2015	Closing date for comments: 22 January 2016	
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Member /Liasion	Clause/ paragraph/ table	gen./ edit./ techn.	COMMENTS	PROPOSED CHANGE	OBSERVATIONS OF THE SECRETARIAT on each comment submitted
Austria	content	e	Chapter 8.2 is not correct; the information for the place of testing for type approval is in 7.8.	Please recheck the titles (especially chapter 8.2, 9.2)	Titles checked and corrected.
Austria	7.6.1 Note		NI-07: We support the comment		Note deleted as it seems to create more confusion than add value. There was no alternative proposal from the working group.
Austria	10.2.3	t	The picture (Figure 1) is not quite good readable. We suggest a better quality of the picture.	Please amend another figure quality.	Better quality picture inserted.
Austria	10.2.4	t	In the temperature test we have specified the reference temperature. It may be useful to do so also in the description for the humidity test.	We suggest implementing the reference temperature of 20 °C. Please amend “of 20 °C” after the term “reference temperature” in the description	Corrected as proposed.
Austria	10.2.4 And 10.3.1	t	For the reason of harmonisation and clarification we prefer a detailed description of the test points. As an influence test we are interested to	Please clarify the test loads and retain the previous wording. We suggest amending at least “with at least 5 different test loads”	Test points added.

			examine the whole weighing range. Therefore we suggest amending “with at least 5 different test loads” like it is done in the temperature test. The number of test loads (only two test loads) does not seem to cover the whole range, especially when the test loads are near the calibration points (like Min and Max).		
Austria			Also R76 refers in the humidity test to 5 different test loads over the whole weighing range. Please consider this also for the condensing humidity test.		Test points added.
Austria	10.2.9	e	The term “must” is not mentioned otherwise. We think the term “shall” shall be used instead.	Please change “must” to “shall” that the sentence is read “The mentioned requirement shall be tested.”	Corrected as proposed.
Austria	10.2.9.2 Table 9 3rd line	t	The maximum possible tilt should be given by the manufacturer. A possible higher value should be considered.	Please amend after 10 % “close to the maximum tilt”	Corrected as proposed.
Austria	10.3.1	g	For us it is unclear, why the test “condensing humidity test” is now considered as disturbance test. We would kindly ask you to provide information of the technical background for this rebranding of the test. Referring to the influence factors humidity should be threaten as an influence factor test like temperature and the steady humidity test. Within the test we consider the relevant parts for this influence. We strongly think that this is an influence test.	Please consider the condensing humidity test as an influence test like in the previous versions.	Damp heat, steady state and cyclic tests are now classified as influence factor test in 10.2.4 of R61-2.

Austria	10.3.1 table 10 4th line	t	The reference should be stated to R61-1 4.3.2 and R61-1 6.5.	Please correct the respective references. (4.2.2 should be OIML R61-1 4.3.2 and 7.5 should be OIML R61-1 6.5)	References corrected.
Austria	10.3.1 table 10 last line	t	Reference should be R61-1 4.3.2.	Please change the reference to "OIML R61-1 4.3.2"	Corrected. Now Table 4b in 10.2.4.2. Damp heat, steady state and cyclic tests are now classified as influence factor test in 10.2.4 of R61-2.
POLAND	page 31 (of 80) table bibliography		point 10.3.1. "tests inTable" missing space between words	suggestion: "tests in Table"	Corrected.
POLAND	page 77 (of 80) table bibliography		position [14] there is: IEC 61000-4-1 (2006-10) Ed. 3.0 position [20] there is: IEC 61000-4-11 (2004-03) Ed 2.0	suggestion: IEC 61000-4-1 Ed. 3.0 (2006-10) suggestion: IEC 61000-4-11 Ed 2.0 (2004-03)	Corrected.
PTB, Germany	7.6.2.2	edit.	It would be useful to add remark because the method as per 7.6.2.1 won't work unless zero-tracking is switched off.	Add: "(zero-tracking has to be switched off or procedure as per 9.2.3.28.2.3, "note" has to be followed)	Text inserted as proposed.
PTB, Germany	9.2.2.1 (a)	techn.	The wording suggests that you use the zero-setting device while performing this test. This, of course, would not be the correct way to do it because you would check the range of zero-setting, not the range of initial zero-	Add to the first sentence: "by switching it off and on."	Text inserted as proposed.

			setting. Granted, the wording was already incorrect in the 2004 version of R61-1.		
PTB, Germany	9.2.2.1 (b)	techn.	The wording in paragraph 1) again suggests that you use the zero-setting device while performing this test. This, of course, would not be the correct way to do it because you would check the range of zero-setting, not the range of initial zero-setting.	Replace “” with the zero setting device” with “by switching the AGFI off and on”	Corrected as proposed.
PTB, Germany	9.2.2.1 (b)	techn.	In line with our comments paragraph 3) should be modified.	Add to the first sentence: “by switching the AGFI off and on”	Text inserted as proposed.
PTB, Germany	9.4 c)	techn.	Wrong wording in predecessor (R61/2004) as well: “Error is the corrected error at zero load”. The error is supposed to be the error of the loaded instrument at certain loads determined during the static weighing test. <u>This</u> error shall be corrected by the error at zero load.	Reword as follows: “Error is the <u>error</u> corrected <u>for the</u> error at zero load”	Corrected as proposed.
PTB, Germany	10.1.2	edit.	Using the word “simulator” for the test set-up is puzzling because in number 10.1.2.2 (“load cell”) simulator is used as a surrogate to “(load cell) simulator”. We propose to use a wording as in R50/2014, No. 7.7.2.	Replace “simulator” (within the meaning of a test set-up simulating a complete instrument) with “simulated set-up”.	Corrected as proposed.
PTB, Germany	10.1.2.4	edit.	Same problem as under 10.1.2.	Replace “simulator” (within the meaning of a test set-up simulating a complete instrument) with “simulated set-up”.	Corrected as proposed.
PTB, Germany	10.2	edit.	To make it more clear and to be in line with 10.3, the table should be named “summary of influence factor tests”	Replace the headline of the table “summary of tests” by “summary of influence factor tests”.	Corrected as proposed.

PTB, Germany	10.2	edit.	The damp heat test needs to be shifted from the table “summary of disturbance tests” (10.3) to the table in 10.2 (see also R50-2 No. 7.2).	The test according to 10.3.1 needs to be listed in the table “summary of influence factor tests” in 10.2.	Damp heat, steady state and cyclic tests are now classified as influence factor test in 10.2.4
PTB, Germany	10.3.1	edit.	<p>We do not know why the cyclic damp heat test has once been classified as a “disturbance” test. However, this is neither in line with D11 (it is not listed under 12.3 / 12.4 and 13) nor with IEC where it is not part of the list of EMC standards as per 61000-x-x but listed under 60068-x-x (environmental testing).</p> <p>Moreover the cyclic damp heat test must remain optional. We do not support to delete the sentence of 10.2.4. (“The tests in 10.2.4.1 or 10.2.4.2 may be performed alternatively in accordance with 61-1, 4..1, the option chosen being mentioned in the type approval certificate.”).</p> <p>The wording of the 1st WD was in line with OIML R50 (2014) No. 7.2.3 and should be kept.</p>	<p>Retain 10.2.4 as it was in the 1st WD</p> <p>Re-insert the sentence “The tests in 10.2.4.1 or 10.2.4.2 may be performed alternatively in accordance with 61-1, 4.8.1, the option chosen being mentioned in the type approval certificate.”</p> <p>Implement the structure as it was in the 1st WD with 10.2.4.1 (damp hat steady state test) and 10.2.4.2 (damp heat cyclic test). This means shifting 10.3.1 to 10.2.4.2 again.</p>	Damp heat, steady state and cyclic tests are now classified as influence factor test in 10.2.4
PTB, Germany	10.3.1	edit.	Table 10, last line should read “4.3.2” instead of “4.2.2”	Replace “4.2.2” by “4.3.2”	Corrected.
PTB, Germany	10.3.4	techn.	There should be an indication that in contrast to instruments as per R76 transient changes of indication are not acceptable. Since in automatic mode AGFIs are	Add a remark to “permitted maximum variation” such as: “Make sure that transient changes of indication of more than the	Text inserted as proposed.

			optimized to work fast, transient influences could lead to finishing the filling before the preset fill is reached. A transient peak of the measured (and indicated) load may the instrument make decide that the pre-determined value has been attained.	significant fault are detected, e.g. by setting the preset value of the fill to a value corresponding to the indication without disturbance plus the significant fault.”	
JP 1	Contents (p. 2)	Edit.	The contents of Chapter 8 and Chapter 9 do not match the main text.	Please correct the contents.	Corrected.
JP 2	7.6.1 Accuracy of test system (p.8)	Edit.	Neither 8.2.4 nor 8.2.5 exists.	Correct the clause numbers to refer.	Corrected. Now R61-1, 4.3.2 and 4.3.3.
JP 3	Contents, 7.6.2.1, 7.7 and many other places	Edit.	Please correct a typo. Also, AGFI is expressed in singular and plural forms.	Correct “AFGI” to “AGFI” and use either “AGFI” or “AGFIs” for consistency. There are many places to correct including the following pages. CONTENTS (p.2) 7.6.2.1 General method to assess error of indication prior to rounding (p. 8) 7.7 Indication of a digit smaller than d (p. 9)	All corrected.
JP 4	8.2.1 Values of the mass of the fills b) (p. 10)	Edit.	Please make a correction.	Replace “associative weighers” with “selective combination weighers”. (See also our comment on R61-1: 3.2.2.1) In addition, correct “R61.1” to “R61-1” by replacing a period with a	Amended as proposed.

				hyphen.	
JP 5	9.1 General (p. 14)	Edit.	In the last line, the text reads "... determined (OIML R 61-1, <u>8.2.5</u>)". There is no 8.2.5 in R61-1, however.	Correct the clause numbers to refer.	Replaced with 8.2.4.
JP 6	9.2.3.2 Accuracy of taring (p. 16)	Edit.	A period is missing in the end of "Note".	Add a period in the end of "Note".	Period added.
JP 7	10.1.1 General requiremen ts Table 2 (p.17)	Tech.	The title of Table 2 is missing. In addition, it should be clarified that this table is prepared for analog load cells.	Add a title for Table 2 for clarification of application of analog load cell. Following is an example of title: <i>Fraction of pi applicable to each performance criteria of the three modules of AGFIs using analog load cell.</i>	Proposed title added.
JP 8	10.3.1 Damp heat, cyclic test Table 10 (p. 32)	Tech.	In the row of "upper temperature", two values of temperature (40 °C and 55 °C) are given. Standard upper temperature, however, is specified only at 40 °C in 4.8.2.1 in R61-1.	Delete "55 °C".	Damp heat, steady state and cyclic tests are now classified as influence factor test in 10.2.4 of R61-2.
JP 9	10.3.5.2 Table 14b Immunity to radiated electromag	Tech.	In the row of "Test Level", upper frequency range was extended from 2 GHz to 3 GHz. We consider this value is too high, however. This extension might intend to accommodate the electromagnetic wave at 2.4 GHz	Request to change the upper frequency range back to 2 GHz as specified in the present R 61-1 (2004).	The update is to accommodate the 2.4 GHz frequency to cover wireless, communications, etc.

	netic fields (p.40)		<p>emitted from some electronic instruments. However, output power of such instruments at 2.4 GHz is usually limited to a small level and it does not interfere AGFIs. We therefore consider that the extension of the frequency range is not necessary.</p> <p>In addition, neither R 60 (2000) nor R 76 (2006) requires a test at the frequency over 2 GHz. Requirements in R 61 should therefore be compliant with these Recommendations.</p>		
JP 10	<p>10.3.7.2 Table 16b: Electrical transient...(p. 44)</p> <p>B.1 Selection of EUTs (p. 57)</p>	Edit.	Both of two expressions “analog” and “analogue” are used in the documents.	<p>Use only one of the two expressions in the same document. “Analogue” is used in the following places.</p> <p>10.3.7.2 Table 16b <i>Applicability</i> (p. 44)</p> <p>B.1: 5th line (p. 57)</p>	“Analogue” will be used.
JP 11	<p>10.3.9 Battery voltage ...</p> <p>10.3.10 Load dump test (p. 46,47)</p>	Tech.	There are tests regarding the instruments powered by a battery in 10.3.9 and 10.3.10. We wonder if these tests are necessary for AGFI.	If such tests are necessary, we will not request any changes.	There are examples of such instruments, e.g., gravimetric Dust sampler which operated from batteries.
JP 12	<p>11 Table 21: Test procedure</p>	Tech.	The expression of “the measuring instrument” in the 6 th line from the bottom should conform to other expressions with “AGFI”.	Replace “the measuring instrument” with “the AFGI”.	Corrected.

	in brief: (p. 49)				
JP 13	B.1 Selection of EUTs (p. 64)	Edit.	In the 15 th line, the word “casefrom” is a typo.	Insert a space between “case” and “from” in the 15 th line.	Space inserted between words.
JP 14	Annex D Considerati ons on rated minimum fill (p.60)	Tech./ Edit.	If an example of selective combination weigher (R61-1: 3.2.2.1) is added, it would facilitate understanding of the specification.	We propose to add an example of selective combination weigher as Example 3.	Explanatory paragraph inserted as example 3.
JP 15	Annex E Conversion of NAWI (Indicator) . ..(p. 61)	Gen.	Using parentheses is preferred when mentioning specific region’s regulations in OIML documents.	In the 3 rd line, please correct as shown below. Present: ...given in this Annex <u>and available in the WELMEC Guide 2.8[33]</u> Suggested: ...given in this Annex <u>(available in the WELMEC Guide 2.8[33])</u> .	Amended as proposed.
JP 16	E.3.1 (p. 69)	Edit.	Please make a correction.	Delete “is” in the first line as shown below. <i>The following table-is-shows the absolute ...</i>	Corrected.
NL-1	3	edit.	There is a double reference to clause 3 of R 61-1	Change to: “...clause 3 of OIML R 61-1 apply”	Corrected.
NL-2	5.4	edit.	There should be a reference to the test program and the complete report in R 61-3	Change to: “...using the report format for type evaluation OIML R 61-3 and in accordance with the test	Amended as proposed.

				program in 5.6.	
NL-3	7.6.2.1, example	edit.	Propose to improve readability by using symbol	Change to: "An AFGI with a scale interval $d = 5 \text{ g}$ is loaded..."	Amended as proposed.
NL-4	8.2	edit.	Conduct of material test Means "behaviour" of material tests	Change to: "Conducting material test" or "material test conduction"	Amended as proposed. "Conducting material test"
NL-5	8.2.1 a)	edit.	The tests shall be carried out on fills with loads..	The tests shall be carried out using fills representing loads at	Amended as proposed.
NL-6	8.2.1 a)	techn.	Propose to include fills representing loads near Min if not equal to Minfill. Loads at Min may deviate from loads at Max	Change to: "... loads at, or near to Max and also at, or near to Minfill and if Min is different from Minfill fills with loads at, or near to Min."	Amended as proposed.
NL-7	8.2.1 c)	techn.	Maxfill is undefined and should not be defined	Replace "Maxfill" by "Max"	Corrected.
NL-8	8.7 .. 8.8	techn.	It should be made clear that average and deviation are for each preset value of the fill	Add "for each preset value" at the end of the clauses or make this clear in a general statement e.g. as part of 8.6	8.6 amended.
NL-9	9.2.3.2	edit.	The note should better be part of 9.2.3.1	Move the note to 9.2.3.1	Moved as proposed.
NL-10	9.4 b)	edit.	It is not allowed in OIML to use a comma as thousands separator	Use a space instead so change to: " $mpe_{(1)} = p_i \times 0.25 \times 1.5 \times 10^{-2} \times 10 \text{ kg} = p_i \times 37.5 \text{ g}$ "	Amended as proposed.
NL-11	10.2.2 Notes	edit.	The Note is in contradiction with "Condition of EUT"	Delete: "to ensure that the test result is unaffected by the automatic zero-setting function and therefore shall be made operational during the test"	Deleted.
NL-12	10.2.3 Test procedure in brief	edit.	Last sentence is not needed	Delete: "After the first time setting at reference temperature and stabilization the EUT is set to zero."	Deleted.

NL-13	10.2.4 Test procedure in brief	edit.	Be consistent in the relative humidity presentations	Add “relative” at step 2. And 3.	Amended.
NL-14	10.2.4 Test procedure in brief	edit.	Between step 3 and 4 the time to reach the specified high temperature at 85 % humidity is missing	Change step 4 to read: “After reaching high temperature at 85 % relative humidity maintain during 48 hours this high temperature and humidity,”	Amended.
NL-15	10.2.4 EUT performance	edit.	It should be clearly described that at the end of 48 hours period a test is performed before any change in temperature and humidity is made .	Introduce after step 2, after step 4 and after step 6 and before the next step that the static test loads (or simulated loads) shall be applied and the data recorded”	Text added.
NL-16	10.2.4 Permitted maximum deviation	edit.	The error should only be determined at the specified steps, not every day.	Change to: “The error of the EUT is determined at the specified steps once per day under test conditions and at the end of the test after a recovery period of one hour. ”	Amended as proposed.
NL-17	10.2.5 Notes	edit./ techn.	Note about 3-phase power supply is missing (see D 11) and the notes are not numbered correctly.	Change to: ¹⁾ The values of U_{nom} are those as marked on the AFGI. If a range is specified U_{nom1} concerns the highest and U_{nom2} concerns the lowest value. If only one nominal mains voltage value (U_{nom}) is specified then $U_{nom1} = U_{nom2} = U_{nom}$. For three phase mains power supplies, the voltage variation is applicable for each of the phases successively. ²⁾ The reference voltage level is equal to $(U_{nom1} + U_{nom2}) / 2$.	Amended as proposed.

NL-18	10.2.6	techn.	The table is based on AC mains voltage variation and is not correctly implemented according to D 11, especially the voltage levels.	Adjust table in accordance with D 11 (2013)	Amended accordingly.
NL-19	10.2.7 Test procedure in brief a)	edit.	Text needs to be adjusted to R 61 (is now copy of D 11)	Change to: “a) Let the power supply stabilize at a voltage as defined within the rated operating conditions and apply the test load.”	Amended as proposed.
NL-20	10.3	techn.	(see next comment)	Delete line starting with 10.3.1	Line deleted. Please see comments to 10.3.1 below.
NL-21	10.3.1	techn.	This test should be an influence factor test. Wording to be equivalent to 10.2.4, upper temperature should be 40 °C, references also to be updated.	Move 10.3.1 to 10.2.5 (renumber 10.2.5 and following clauses) and change wording and references.	Damp heat, steady state and cyclic tests are now classified as influence factor test in 10.2.4 of R61-2. Upper temperature changed to 40 °C, and references updated.
NL-22	10.3.2 .. 10.3.11 EUT performance	techn.	The test load is not defined. Define in tables or in clause 10.3	Add: “The EUT shall be applied and tested with a test load close to zero (10 d)”	Text inserted as proposed.
NL-23	10.3.5.1 Note, 2 nd sentence	edit.	The text refers to itself.	Change to “ Above the selected transition frequency tests will be carried out according to Table 14 b . In the event of a dispute, the result of the test according to this table prevails.”	Amended as proposed.
NL-24	10.3.9	techn.	One of the Test profiles should be chosen?	Choose profile III	Amended.
NL-25	10.3.10	techn.	The table is copied from D 11 2013 and D 11 provides an overview of test pulses for all occasions	Rename “I” to “test B” Delete columns with “II” Insert following values:	Amended as proposed.

			<p>Since this Recommendation will be used for vehicles produced after 2004 it would be better to go back to the contents of the ISO standard where there is made a distinction between a test A and a test B. Practically all vehicles produced after 2004 have an alternator with load dump suppression. meaning that Test B would be sufficient Therefore it is proposed to select on this basis the fixed two combinations of R_i, t_r and t_d</p> <p>And the pulse shape as mentioned for Test B</p>	<p>For 12 V system: $U_s = 79 \text{ V}$, $R_i = 0,5 \Omega$, $t_i = 10 \text{ ms}$, $t_d = 40 \text{ ms}$ and $U_s = 101 \text{ V}$, $R_i = 4 \Omega$, $t_d = 400 \text{ ms}$. For 24 V system: $U_s = 151 \text{ V}$, $R_i = 1 \Omega$, $t_i = 10 \text{ ms}$, $t_d = 100 \text{ ms}$ and $U_s = 202 \text{ V}$, $R_i = 8 \Omega$, $t_d = 350 \text{ ms}$</p>	
NL-26	Annex C	gen.	<p>The durability issue needs discussion. As it is written now it will be not valid for EU</p>	<p>Please organize a meeting (may be a web meeting)</p>	<p>A Workspace consultation was undertaken. Comments received from Austria, Germany and Japan. The general opinion is that an informative statement regarding durability is useful. The wording is similar to that in R50 but it could be clearer.</p> <p>In accordance with Germany's comments, a simple statement is given:</p> <p><i>"Where measures to ensure durability are taken in accordance with 8.1, R 61-1, this shall be recorded in the report format for type evaluation OIML R 61-3"</i></p> <p>See attached documents.</p>
NL-27	E.2.2 B)	edit.	<p>Comma should not be used as thousand</p>	<p>Change to: "...however for fills</p>	<p>Amended as proposed.</p>

			separator	between 1000 g (or 1 kg) and 10 000 g (or 10 kg) a deviation..."	
CECIP-01	9.2.3.2	edit	9.2.3.2 Accuracy of taring	Replace 9.2.3.2 Accuracy of zero-setting at tare	Amended
CECIP-02	9.2.3.2	techn	<p>Since the net load on a subtractive tare AGFI is equal "0", there is no use to examine at Max.</p> <p>It is preferable to select e.g $2/3 * \text{Max}$ (EN45501:2015)</p>	The weighing tests should be performed on instruments with subtractive tare: with one tare value at $2/3$ of maximum tare.	Amended as proposed.
CECIP-03	E.3	techn	<p>Following the example in E.3.1, then several calculations are not correct because of the iterations.</p> <p>The following numbers need to be recalculated (partial fill = 4): $X(0.5)/2 \rightarrow 88$ (176) $X(0.2)/20 \rightarrow 13340$ (20 000) $X(0.5)/50 \rightarrow 13350$ (20 000) $X(2)/50 \rightarrow 1650$ (3300)</p> <p>In accordance with the rules for rounding in E.2.3, several numbers are not rounded correctly: $X(0.2)/2 \rightarrow 1332$ (1332) $X(0.2)/5 \rightarrow 3335$ (3330), 1335 (1330) and 335 (330) $X(0.5)/20 \rightarrow 5330$ (5320) and 1340 (1320)</p>		The calculations now corrected. Workspace consultation undertaken on this and comments received from Germany ref 1a and Netherlands ref 1a.

CECIP-04	page 75	edit	Annex A.1 is deleted	Delete Annex A.1	Annex A.1 exist titled “Fault limit for multi-load AGFIs”
CECIP-05	page 75/76/77	edit	Annex A.2 is deleted.	Delete Annex A.2	Annex A.2 exists titled “Influence factor tests mpes for multi-load AGFIs”