National Measurement Office

TC9 / SC2 Comments on:

I CD R 50: Continuous Totalising weighing instruments - Part 3 Test Report Format

TC 9/SC 2 Comments Template Date to return comments: **1 June 2013**

TC9 / SC2 Secretariat

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Member / Liaison	Page number	Document clause	Member's Comments	Secretariat's Comments
Austria (AT)	5	Symbols	The Symbol e is defined as scale interval for testing. It only appears once on p.58 for the scale interval of the control instrument. May this lead to misunderstandings? We would suggest changing the symbol into "d_c for the scale interval of the control instrument". (see also comment on p.58)	Agreed. Scale interval of the control instrument is changed to "d_c". In line with other comments..
Austria (AT)	58	1.8.2 table	Format of the equal distanced lines to be filled in. Please made a consistent line height for all lines.	Table amended.
Austria (AT)	59	2.1	Scale interval of the control instrument e could be misunderstood as the scale interval of a verified instrument, which would prevent the use of higher resolution of the control instrument. Therefore we would suggest changing the abbreviation from "e" to "d_c"	Scale interval of the control instrument now "d_c".
Austria (AT)	60, 61	2.2 table	See comment p.58	Tables amended.

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China P.R	Page 23	1.4.2 zero-setting	sign error L3 = -50 % of negative zero-setting range should be modified:" L3 = 50 % of negative zero-setting" L4 = -100 % of negative zero-setting range should be modified: "L4 = 100 % of negative zero-setting"	Amended as proposed.
China P.R	Page 35	1.5.4.2 DC mains voltage variation	The reference voltage of test 2 and test 3 is wrong. Change" Test 2 at reference voltage +20 % U_{max}" to " Test 2 at 1.20 x U_{nom} or 1.20 x U_{max}" Change" Test 3 at minimum operating voltage +20 % U_{min}" to "Test 3 at minimum operating voltage"	Amended as proposed.
China P.R	Page 52	1.7.2 Discrimination of the totalization indicating device	formula error Change "T= pulse transmitted ×S/ pulse per weighlenhth " to "T= pulse transmitted ×L/ pulse per weighlenhth"	Formula amended to: $T = \frac{\text{Pulses transmitted} \times L}{\text{Pulses per weighlength}}$
China P.R	Page 52	1.7.2 Discrimination of the totalization indicating device	Remove subscript Change "equivalent pulses for Σ_{min} at L_1" to "equivalent pulses for Σ_{min} at L" Change "Static load (L_1)" to Static load (L)"	Amended as proposed.
China P.R	Page 58	1.8.2 Discrimination of the indicator used for zero-setting	Letter error change "S_D is discrimination load " to "L_D is discrimination load "	Amended.

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China P.R	Page 59	2 In-situ product tests	Formula error "500 ≤m≤2000"should be "500 < m≤2000" "2000≤m" should be"2000 < m" Change "$\frac{mpe\%}{100}$"to "$\frac{mpe}{100}$"	Amended as proposed.
China P.R	Page18	1 Simulation tests	Not consistent with the R50-5CD "Totalization scale interval d" should be "Totalization scale interval d_t"	Symbol "d" is used for all types of scale intervals as in R50-2 2007. This ensures consistency. "d_c" is used for the control instrument scale interval, as proposed by Austria. Similar changes will be made in R50-1 & -2.
China P.R	Page62	2.2.1 Maximum permissible errors for automatic weighing: 2.2.2 Maximum permissible errors for influence factor tests		
China P.R	Page81	5.1.6.4 lowest input signal,	Not consistent with the R50-5CD Added "μV/e"	Amended in accordance with the latest version of R50-1 & -2.
China P.R	Page78	5.1.1 Documentation	Not consistent with the front Change (3.8、3.9) to（3.9、3.10）	Amended.

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China P.R	Page81	5.1.6.5 Minimum input voltage	Not consistent with the R50-5CD	Amended.
China P.R		R50-4CD Annex B	Why not check?	Requirements for data storage and software checking is specified under 4.7 and 4.8 with reference to the mandatory test procedure in Annex B.
China P.R	Page11	General information	For the Speed (v) , the V_{min} and V_{max} are recommend to be filled separately for variable speed and multi-speed belt weighers.	Box for V_{min} and V_{max} added.
China P.R	Page19	1.1 Warm-up time	The time column needs to be revised. According to A.6.1.2 in page 30 of R50-1, it usually takes about 6 min to carry out a totalization of □min with a load on the weigh table to equate to Q_{min}. Then it takes about 6 min to carry out a totalization at maximum capacity (Max). Finally, obtain not less than 3 pairs of totalizations in a total time as close as possible to 30 minutes. Usually it takes about no less than 36 min to finish the warm up test. We suggest that to leave the time column in blank, and let observer to fill in real time.	The stated indication in the time column is a guide for reference only. It is expected that the actual test time will be inserted as appropriate, overwriting the time indicated in the column.
China P.R	Page24	1.5.1 Static temperatures	The Static loads (L) for the Q_{min}, Q_{max} and $Q_{intermediate}$ usually are different according to the past experience. So the column of Static load (L) is recommended to be separate to 3 rows instead of 1 row.	Amended as proposed.

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China P.R	Page24 Page25	1.5.1 Static temperatures	The Q column is recommended to be revised. When doing this test, the Q for first 2 rows are both Q_{min}. Thus the first column of the first 2 rows should be merged in order to clarity the test condition. The situation for the Q_{max} and $Q_{intermediate}$ are the same.	Amended as proposed.
China P.R	Page24~ Page34	1.5 Influence quantities	In OIML R50-1&2 Final draft, page 65, A.7.1, "The deviation of the no-load indication due to any test condition shall be recorded, and any load indication shall be corrected accordingly to obtain the weighing result.", but in responding record sheets of OIML R50-3 1CD, there is no special place to record no-load indication. We suggest to add such place in record forms of related tests.	Note added under observations. "Remarks" changed to "Observations" as proposed by Netherlands.
FRANCE			The abbreviation of number is sometimes written No., sometimes No, et as well n°. It would be better to be consistent.	Amended. "No." is to be used for consistency.
FRANCE	18	1	Above the table, it is written "simulator resolution "d" is obtained by using one of the methods in the "note" in R 50-2 5.1.3.4." but there is no § 5.1.3.4 in the R 50-2.	Previous section 5.1.3.4 removed from R50-1 & -2 at the request of TC. Now referenced to A.7.1 and A.3.7.

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FRANCE	54	1.7.4	We could add 3 lines below the results with the three criteria : - "Difference between the highest and lowest indicated values obtained in the set of the six readings from 0 minute to 15 minutes = - Difference between the highest and lowest indicated values obtained in the set of the six readings from 195 minutes to 210 minutes = - Difference between the highest and lowest indicated values obtained in the set of the twelve readings from 0 minute to 210 minutes = And the associated tolerances listed at § 2.7.5.4.1 for the first two lines and the last line 2.7.5.4.2 that have to be respected	New row inserted. Please check and correct as appropriate.
Germany			No comments	Thank You.
Japan			No comments	Thank You.
NL	General		It is suggested to apply "observations" or "comments" instead of "remarks". The term "remarks" It is expected that this term origins from the translation of a Dutch term to English. The meaning is rather similar however not the same.	"Remarks" replaced with "observations" throughout the draft. Subject to SC2 approval.

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NL	1	French title	Change R 51-3 to R 50-3	Amended.
NL	3		Third paragraph last sentence "....of the requirements of R 50 parts 1 and 2." Change to: ".of the required performance criteria and associated tests in R 50 parts 1 and 2 respectively ..."	Text inserted as proposed.
NL	5	Symbols	There is no need for including the SI defined symbols and expressions of unity, so delete MHz; V/m and kV	The expressions serve a purpose. Provides clarity for translation purposes.
NL	13	Information ...	Delete "reference vehicles"	"test equipment" inserted
NL	15	Summary of the checklist	It is unclear what "Test report" in the column "Requirement "stands for. Suggest to replace by "Performance tests"	"performance test" inserted as proposed.
NL	16	Summary of the checklist	Just under the sentence "Use this page to detail remarks from the summary of the checklist" there is supposed to be a blank page for additional detailed comments	New box for "comments" inserted.
NL	16	Summary of the type evaluation	While the listing concerns the tests during type evaluation suggest to change title to: Summary of the type evaluation *tests*	Text "Tests" added.
NL	16	Summary of the type evaluation	The headings should be in line with the headings in R50-1&2 for example in R50-2 is applied: A.7.3.3 Surges on AC and DC mains power lines and on signal, data and control lines While in R50-3 1CD the heading reads: 1.6.3 Electrical surges on: 1.6.3.1 AC and DC mains power lines 1.6.3.2 signal, data and control lines	Amended.

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NL	19	1.1 and further	The terms "Indicated totalization I" and "calculated totalization T" in the tables are not in line with the explanatory notes.	The "Indicated totalization I" is the main primary indication of the instrument and as such does not need further clarification in the explanatory notes. The "calculated totalization T" is a secondary indication and as such needed clarification in the explanatory note.
NL	38	1.6.1	Third table: column headings do not agree with underneath contents in the columns Shift contents to one column to the left Moreover nothing seems to be specified in R 50-1 and -2 concerning repetition interval or the number of disturbances always being 10	Table amended. Repetition interval of 10 is mentioned in the note under Table 11, A.7.3.1, R50-1 & -2.
	47	The first 1.6.5.1	It is not important what kind of antenna is applied, but it may be useful to know what kind of facility is applied Change "antenna" to " test facility"	Changed as proposed.

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NL	49	The second 1.6.5.1	Third table, third column heading is not correct and not in the same way specified as table 16 of the R 50-1& -2 annex A.7.3.5.2. However the way as expressed in this table 16 is rather confusing and better could be amended. In fact the RF voltage specified is the open circuit voltage expressed as Vemf, which can be measured using a high (ideally infinitely high) impedance RF volt meter, so using infinitely high load impedance. The 50 ohm mentioned in the referred standard and stated in the heading of the column in table 16 concerns the internal impedance of the generator to be applied. In the way presented in table 16 one could misinterpret this 50 ohms to be the load impedance. If one would make such a mistake it would mean that the EUT would be exposed to exactly the double voltage level, which is not what is meant in the standard. Therefore it is important to delete the 50 ohm from table 16 in the DR 50-1 & -2. Mentioning this generator internal impedance has no additional value. To apply Vrms as mentioned in the table in 1CD R 50-3 is not correct. The Vrms of the modulated RF signal is higher than that of the unmodulated voltage to be used as reference level. Therefore change to refer to the unmodulated open-circuit voltage "V emf (unmodulated)" and change the (50 ohms) beneath the table to (Ri = 50 ohms) or simply delete the 50 ohm.	Amended. We plan to amend R50-1 & -2 when the DR is returned from the online ballot.

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NL	52	1.7.2	The term "weightable load" or "weightable" is not defined anywhere. Since reference is made to A.8.2 apply the terminology used in this clause of the annex. The applicable term is "load receptor" so L1 concerns the "load receptor weight" And why first??? Column header "Increased load L2 "should be "Additional load L2" "Existing load" does not exist. An adequate term in English would be "actual load"	"weightable" changed to "load receptor" Amended. "Load" used for simplicity.
NL	62	Checklist	The column "not applicable" is missing. Suggest an easy solution by using the commenting also column for this purpose. Integrating a dash in the column heading referring to a footnote saying : "Record "N/A" where the item of evaluation is not applicable"	Column for "N/A" inserted.
POLAND	38	1.6.1	content in the table should be moved one column to the left (amplitude, duration cycles, number of disturbances)	Table amended as proposed.
POLAND	49	1.6.5.2	there should be number 1.6.5.2 instead of 1.6.5.1 because it doubles the number from previous point	Header clause number corrected.
POLAND			d and d_t is used for interval sometimes page footer has OIML R 50-2 marking	Page footer amended.

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POLAND	5		Wrong formula Use E% = $(1-T)\,x\,100/T$ instead of $\frac{(I-T)\,x\,100}{T}$	Formula amended as proposed.
POLAND	40, 42 or 60-65 (depending of Ms Office versions and changes visible or not) 50		"live" word used instead of "line" word.	"live' change to "line"
POLAND	1.6.5	1.6.5	Immunity to conducted electromagnetic fields test contains wrong table (containing: antenna. interface") and number of paragraph is doubled, both paragraphs are numbered 1.6.5.1 (the same for radiated and conducted) Insert proper table (containing "cable interface") and correct number 1.6.5.2	Amended. Footer amended. Conducted immunity table and number inserted.
POLAND	83	2 In-situ products	Possible control instrument error formula contains less-equal or more or more symbol, closed intervals in all lines. What means that for 500 and 2000 there are 2 different values of mpe. Using open interval systems when applicable	Formula amended. See comments from P.R. China.

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POLAND	106 In R50-1 & -2	Ref 19	IEC 61000-4-2… Change to: IEC 61000-4-5…	To be amended in R50-1 & -2.
South Africa			No comments	
USA			The U.S. has no comments at this time	