TC17/SC1 Project Work Group on OIML R 59 – Participating country comments	
Comments on: **TC17/SC1 OIML R59 6CD "Moisture Meters for Cereal Grain and Oilseeds"**	
TC17/SC1 conveners: China and United States	Date of circulation: March 6, 2013 Comments due date: June 6, 2013 Revisions per July 2013 TC17/SC1 Meeting
Organization:	United States
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Number	Country Code	Page	Clause	Gen/Tech/Edit	Comment	Secretariat's response
1.	AU	11	1	Edit	Revise "An on-going calibration program will be the responsibility of the national measurement authority" to "On-going calibration programs may be subject to metrological controls specified by the national responsible body".	Accepted ~~with discussion~~
2.	Austria	11	General and Scope, 2.1		In Austria Moisture Meters for cereal Grain and Oilseeds always measure the water content of maize. Maize is not in the scope of this document. Austria suggests also to include Maize as a measuring product in this recommendation All instruments in Austria also measure maize, not only Cereal Grain	See 6.1 and B.11 each country will specify grains. Also see "Corn" for "Maize"
3.	US	12	3.1	Gen	Should the following terms and definitions found in the Protein Recommendation clause 2.1 be included? VIM 2.13 accuracy; measurement accuracy, VIM 4.9 rated operating condition, VIM 4.11 reference condition, and VIM 5.18 reference quantity value	Accepted.
4.	US	12	3.1.1	Edit	The references in the Note should be to 5.4.2 and 5.4.1.	Accepted.
5.	US	12	3.1.4	Tech	The Protein Recommendation has an additional note for VIM 2.25 that introduces the term standard deviation of differences SDD_1. This note should be copied to the Moisture Recommendation to align the two documents and to clarify the reproducibility measurement.	Accepted
6.	US	12	3.1.5	Gen	The definition doesn't match what is being used in the Protein document (VIM 4.9). Should the definition be changed to VIM 4.9?	Accepted. ~~Need to review the VIM for correct reference. VIM 4.9 or 5.5~~
7.	AU	12	3.1.5	Edit	Consider changing the reference to "VIM 5.5 (1993)" OR revise the definition to match that in the 3rd edition VIM 4.9 (2010). It needs to be clarified this definition is from the 2nd (previous) edition of the VIM – unlike the other definitions in Terminology.	Accepted
8.	US	13	3.2.3	Edit	The second D11 Note is missing the closing " after fault.	Accepted
9.	US	13	3.1.7	Edit	Font size for this clause (including the 2 Notes) is 11. It should be 12.	Accepted

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10.	Austria	13	Terminology 3.2		The title "Organization of Legal Metrology (OIML) D 31" is not correct. In 3.2 terms from different OIML documents are given (e.g. D 11, D31) We suggest as title: " Terms according to OIML (Organization of Legal Metrology) Documents" In 3.2 terms from different OIML documents are given (e.g. D 11, D31) – in the title of 3.2 only D 31 is listed	Accepted
11.	US	14	3.2.8	Gen	The Protein Recommendation added (software) to the term. Should this be changed to match Protein and to clarify this definition is for software instead of validation of the calibration equation?	Accepted
12.	US	14	3.3	Gen	Should the following terms and definitions found in the Protein Recommendation clause 2.2 be included? 2.2.1 accuracy of a grain protein calibration; calibration accuracy, 2.2.2 calibration equation; calibration, 2.2.7 integrity of programs, and 2.2.15 sample temperature sensitivity (STS)	Accepted,
13.	US	14	3.3.2	Gen	The Protein Recommendation uses the VIM 3.11 definition. For consistency, use the VIM 3.11 definition and change the current sentence to a Note.	Accepted
14.	US	14	3.3.3	Gen	There is already a definition for Audit Trail (3.2.1). It would be easier to combine the two definitions or make the 3.3.3 definition a note under 3.2.1.	Accepted. ~~Exception accuracy of a grain protein calibraton~~ removed 3.3.3 definition
15.	AU	14	3.3.3	Edit	Remove this extra definition for "audit trail". Remove repetition – 6CD R59 3.2.1 already contains the D 31 definition.	Accepted, removed 3.3.3 definition
16.	Austria	14	Terminology 3.3.3		In 3.3.3 the term of "Audit Trail" is explained; but in 3.2.1 (page 13) also the term "Audit Trail" is given. The wording is different. This can be confusing. We suggest only one Terminology Different explanations for the same term can be confusing – summarize the explanations to one statement	Accepted, removed 3.3.3 defnition
17.	AU	14,	3.3.1, 3.3.2, 3.3.7, 3.3.25	Tech	The definitions introduced in the 6CD seem to overlap with the meaning of existing concepts/terms in VIM or D 31. To avoid ambiguity, VIM and D 31 terms and definitions should be adopted where possible. ~Proposed definitions for "Adjustment" and "Adjustment mode" do not seem to have the same intention as the definition in VIM 3.11, i.e. 6CD definitions highlight the security of parameter adjustment mechanism(s) whereas the VIM focusses on aligning the instrument displayed values to measurement standards. ~"Configuration parameter" seems akin to the "accessible (settable) parameters" mentioned in D 31 5.1.3.2.(c). ~"Sealable parameter" may be covered by the "secured (unalterable) parameters" also mentioned in D 31 5.1.3.2.(c) or "Legally relevant parameter" defined in D 31 3.1.30.	Accepted. ~~Need to view current definitions with VIM and D31 to include or change appropriate definitions. removed these definitions from this section.~~ These definitions are now addressed in Annex C, Informative.
18.	US	15	3.3.8	Edit	There needs to be a paragraph break between 3.3.7 and 3.3.8.	Accepted

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19.	US	15	3.3.10	Tech	At the 2010 meeting, it was agreed to use the Protein definition at that time. Suggest using the following from the current Protein definition (2.2.4): Difference between the mean error of indication while one or more influence quantities are varied within the rated operating conditions and the mean intrinsic error of a measuring instrument. See Section 5.4.1 for the error shifts associated with grain moisture meter testing. Note: The error shift is either the difference from the known reference value of that grain sample under test or the mean indication at reference conditions prior to test.	Accepted
20.	US	15	3.3.6 & 3.3.7	Edit	Main Text of these clauses is in bold face type. Remove bolding.	Accepted
21.	US	15	3.3.8	Edit	This clause needs to be physically separated from the proceeding clause. (Hit "Enter" key twice).	Accepted
22.	AU	15	3.3.10, 5.4.1, A.2.2, A.2.6.1/ A.2.6.2	Tech	To prevent ambiguity in the processing of tests results, we recommend that references to "error" in the definition of "error shift" is substituted by "pooled error". Alternatively, replace the term "error shift" with "pooled error shift". OR Revise the test procedure (e.g. A.2.2) so that changes in the means of individual samples (i.e. error shifts) are assessed. Also, revise the A.2.6 test procedure so that changes in the means at individual orientations (i.e. the error shift due to tilt in one orientation) are assessed. We need to ensure that the value calculated for assessment is congruent with the pass/fail criterion. According to the current definition, the calculated value to be assessed against the limit for Error Shift in 5.4.1 is the error on a grain sample (i.e. difference in the measured and reference values of the grain sample). In several 6CD R 59 influence tests, the calculated value is actually the average of errors observed on a number of different samples (or the average of errors at various influence factor settings).	~~Discussion of test procedure needed.~~ Agreed to use Average Error Shift per discussion at the July 2013 meeting.
23.	AU	15-17, 74-79	3.3.6, 3.3.9, 3.3.11, 3.3.12, 3.3.13, 3.3.17, 3.3.19, 3.3.20, 3.3.21, 3.3.24, 3.3.27 Annex C	Tech	In order to reach consensus on the 6CD R 59 Parts 1-3 expeditiously, we suggest that Annex C and related definitions introduced in the 6CD is developed separately from the rest of the document (e.g. developed as an OIML D document). TC17/SC1 should have more time to consider and discuss the contents of Annex C. This information is quite interesting and perhaps applicable to other types of measuring instruments. It might be useful having the examples of electronic sealing solutions in an OIML D document.	~~Discussion needed.~~ Accepted. Included in Annex C. Agreed at the meeting to make Annex C Informative.
24.	US	16	3.3.18	Edit	Delete this clause since it is a duplicate of 3.1.5.	Accepted
25.	US	16	3.3.22	Edit	Delete this clause since it is a duplicate of 3.1.6.	Accepted
26.	JP	16	3.3.18 Rated operating conditions	Edit	Move this definition under the clause 3.1 because this is a term defined in VIM.	Accepted

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27.	JP	16	3.3.21 Remotely Configurable Device	Edit	This clause may not be necessary because this term is used only in 3.3.9.	~~The definition clarifies the meaning of the term in 3.3.9 which may be a term that is not familiar to all.~~ Accepted. Removed from this section. It is included an Annex C. Informative
28.	JP	16	3.3.22 and 3.3.23	Edit	Delete these clauses because **'Repeatability / reproducibility conditions of measurement'** are already defined in 3.1.6 and 3.1.7.	Accepted
29.	DE	16	3.3.18	Edit	To be deleted, because this clause is the same like 3.1.5	Accepted
30.	DE	16	3.3.22	Edit	To be deleted, because this clause is the same like 3.1.6	Accepted
31.	France	16 and 17	3.2.1 and 3.3.3	Gen	Both sub clauses have the same title. We propose to put all the information under an unique sub clause	Accepted
32.	US	17	3.3.23	Edit	Delete this clause since it is a duplicate of 3.1.7.	Accepted
33.	JP	17	3.3.27 Unrestricted Access to Sealable Parameters	Edit	This clause may not be necessary because this term is not used directly in this document although a similar expression is found in the item 1 of C.1.4.3.	~~Section C was added to address audit trails and terms used in this section may not be familiar to all.~~ Accepted. Removed the definitions in this section. The definition is addressed in Annex C, Informative
34.	DE	17	3.3.23	Edit	To be deleted, because this clause is the same like 3.1.7	Accepted
35.	US	18	3.4	Gen	Should the following Abbreviations and acronyms from the Protein Recommendation clause 2.3 be added? STS sample temperature sensitivity, T_{ref}, ΔT, ΔT_{max}, $\Delta T_{C, max}$, $\Delta T_{H, max}$, ΔT_C, ΔT_H, $T_{C,sample}$, $T_{H,sample}$, and $\bar{y}$	Accepted.
36.	US	18	3.4	Gen	Should clause 2.4 in the Protein Recommendation (additional symbols and subscripts used in equations) be included?	Accepted. Added a note that additional symbols are defined in Section A.1 Test Procedures.
37.	US	18	5.1.1 b)	Edit	At the 2010 meeting, ± 10% was added to the Relative Humidity conditions. An alternate would be to copy the language from the Protein Recommendation in C.3.1 on page 31 including the last sentence.	Accepted. Added note to Section 5.1.1
38.	US	18	5.1.1 d)	Edit	The range of voltage listed is used for the disturbance test. An alternate would be to copy the Protein Recommendation, C.3.1 on page 28, language "level at 0° ± 0.1°."	Accepted
39.	US	18	5.1.1 f)	Edit	The instrument tilt listed is used for the disturbance test. An alternate would be to copy the Protein Recommendation, C.3.1 on page 28, language "nominal mains or test voltage, V_{nom} or U_{nom}."	Accepted
40.	AU	18	5.1.1(d) 5.1.1(f)	Tech	We recommend "nominal mains or test voltage" for the reference voltage and "level at 0° ± 0.1°" for the reference tilt setting. "-15% to + 10% of mains of test voltage" and "5% or maximum allowable..." are likely to be the rated operating ranges.	~~Discussion of test procedures needed~~ Accepted
41.	Austria	18	Metrological requirements 5.1.1 Reference conditions		5.1.1 a) Ambient temperature 20 °C to 27 °C ± 2 °C is confusing; give here a range: "20 °C to 27 °C" or " 18 °C to 29 °C" ; or 23°C ± 4 °C If really a range is given, than give here the minimum and maximum value for the temperature e.g. "20 °C to 27 °C"	~~This was intended to give a range for the ambient temperature to accommodate most laboratory environments. The laboratory states their temperature and that temperature should be no more than + or – 2 °C . Discussion may be needed for clarity.~~ ± 2 °C removed and added a note to address limits.

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42.	US	19	5.2 g)	Gen	The language for grain sample temperature is different between the Protein and Moisture Recommendations. The language should be the same for both.	~~Discussion on harmonizing language.~~See changes to 5.2 g and changes made in protein Doc 4.3.1.2
43.	US	19	5.4	Edit	At the 2010 meeting, the first sentence was changed to "grain type and moisture content" instead of "moisture content".	Accepted
44.	US	19	5.1.2 Note (2)	Edit	"Refer to clause C.6.4 ..." should read, "Refer to clause A.4.4 ..."	Accepted
45.	JP	19	5.2 Rated operating conditions	Tech	b): The range of relative humidity (85-90%) is too narrow and high. It may be the 'maximum operating condition' and not a 'rated operating condition'. d) and e) : We presume that these conditions do not apply fully battery-powered instruments. It might be better to add a new item for the instruments powered only by batteries or add a reference such as "*(see 6.15.1 for fully battery-powered instruments)*".	~~Discussion needed~~ Accepted. 5.2 b) was changed to "up to 85 % , no condensation."
46.	JP	19	5.4 Maximum permissible errors	Edit	The sentence below is not clear. What do the underlined expressions practically mean? *The maximum value for a given 2 % moisture interval shall be used for all requirements. For consistency of application in the OIML certificate system, it is recommended that each 2 % moisture intervals should begin and end with an even number.*	~~Discussion needed~~ The moisture content of the grains used to test instruments will be within a 2% moisture interval but for purposes of calculating the allowable error you need a fix point. So if the range of grains used to test the instrument are 8 % to 10 % moisture then the calculated MPE will be based 10% moisture per table 5.4.1 For consistency laboratories will use grains in ranges that begin and end with even numbers 8% to 10%, 12 % to 14%, 16% to 18%
47.	AU	19	5.2(b)	Tech	We recommend revising the humidity rated range to "up to 85% RH" to align with D 11 severity 1 setting for the IEC Damp heat test. To reduce ambiguity, "Rated operating conditions – Relative humidity", may be revised to "Rated operating conditions – Maximum relative humidity (at maximum ambient temperature): 85% RH" TC17/SC8/p1 4CD has been revised back to 85% RH as it is more challenging for a testing facility to prevent condensation at 90% RH and the max rated ambient temp (T_H). The **absolute humidity** at 85% RH and T_H, (e.g. 30 – 50 °C) already exceeds that at 90% RH and reference laboratory temperature (e.g. 20 – 27 °C).	~~Discussion needed~~ Accepted
48.	AU	19	5.3	Tech	We recommend adding a requirement: "Laboratories performing the reference method shall hold internationally recognised third-party accreditation". To ensure compliance with method, method validation, minimisation of systematic errors, etc.	~~Discussion needed~~ Not include. This may be covered in a mutual acceptance agreement.

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49.	AU	19	5.3	Tech	We recommend adding: "Systematic errors in the execution of the reference method may be reduced by having traceability to the results of a collaborative survey of several reference method laboratories." It was noted that slightly different measurements can be obtained using the ISO oven method – particularly for corn. --- For e.g. a reference lab can take part in a collaborative survey and obtain grain samples with values based on the results of multiple labs (including theirs), which can be used to calibrate and validate their method. Or the lab can obtain reference grain samples characterised by a collaborative survey that did not involve their lab, and use that to calibrate and validate their method.	~~In the first meeting of TC17/SC1 it was agreed that the refereene methods would not be included in the document and that the national responsible body would specify the reference method.~~ Added a note to 5.3 reference method
50.	AU	19	5.3	Gen	Consider whether the third paragraph (minus the final sentence) of the Introduction (pp.10) of 6CD R 59 would be more relevant if transferred to the Reference Method clause. General information on air oven methods (e.g. assumptions and characteristics of the "ideal" method) mentioned the Introduction is more likely to be considered under this heading.	~~This paragrph is referencing grain moisture meter measurements not the reference method.~~ Agreed, added to 5.3. Original response was in reference to incorrect paragraph.
51.	Austria	19	Metrological requirements 5.2 Rated operating conditions		General : Space between value and unit: 10 °C instead of 10°C – see also other lines or chapters 5.2.b, , 5.2 d), 5.2 g), 5.2 h) …… General : Space between value and unit	Accepted
52.	Austria	19	Metrological requirements 5.2 Rated operating conditions		"5.2 b) Relative humidity: the range 85 % to 90 % no condensation" - the range is very high and small – the operating conditions can be from 20 % to 90 % no condensation misprint	~~Discussion needed~~ Per discussion at the July 2013 meeting the range was changed to: "up to 85 %"
53.	Austria	19	Metrological requirements 5.2 Rated operating conditions		"5.2 g) Grain sample temperature: 0 °C to 40 °C" in Note 2 this is the minimum rage – for our opinion this range as a minimum range is too large. Austria suggests : range 10 °C to 40 °C as minimum range, the manufacturer can specify also a wider range if necessary Austria think this range is too large for the **minimum** range – this range is not corresponding to the test according A 3- Sample temperature sensitivity : $\Delta T = \pm 10$ °C; if T_{ref} is 20 °C the range for the test is 10 °C to 30 °C !	~~Discussion needed~~ see changes to 5.2 g per discussion at the July 2013 mtg.
54.	US	20	5.4.1	Edit	At the 2010 meeting, M_R was changed to M in the header of column 2.	Accepted

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55.	JP	20	5.4.1 MPEs for type evaluation	Edit	We propose to change the mathematical expression in the column (2) as shown below for the easy understanding by the readers. Before: If 0.025 x M < 0.4 then MPEs= 0.4; else MPEs = 0.025 x M If 0.02 x M < 0.35 then MPEs= 0.35; else MPEs = 0.02 x M After change: If M < 16 then MPEs= 0.4; else MPEs = 0.025 x M If M < 17.5 then MPEs= 0.35; else MPEs = 0.02 x M In addition, **'(M_R)'** in the title of the column (2) is not necessary since this parameter is not used in this document.	Accepted ~~with discussion~~ Added the change as an example an "e.g." after the current language. Also, corrected the symbol for moisture.
56.	Austria	20	5.4.1 MPEs for type evaluation		The MPE for maize is missing See also comment to scope 2.1 – Austria suggest to include Maize in the scope of these instruments	For Maize, see MPE's for Corn
57.	Austria	20	5.4.2 MPEs at verification (in field inspection		The MPE for maize is missing See also comment to scope 2.1 – Austria suggest to include Maize in the scope of these instruments	For Maize, see MPE's for Corn
58.	US	21	5.6	Edit	Shouldn't the sentence "If the manufacturer specifies a temperature range, the range shall at least cover 20 °C." be deleted? The first sentence already specifies a minimum range of 20 °C. The Protein Recommendation includes language to address the manufacturer specified temperature range. An alternate to the above would be to copy clause 4.2.3 on page 10 from the Protein Recommendation.	Accepted Added language to this section
59.	US	21	5.6	Edit	At the 2010 meeting, the following sentence was added: "The national authority can require a wider range."	Accepted Added language to this section
60.	US	21	6.1	Edit	The reference should be to 5.1.1.	Accepted
61.	US	21	6.3	Edit	At the 2010 meeting, the first sentence was deleted.	Accepted
62.	AU	21	6.1	Tech	Remove the requirement for a minimum of three grain types to be tested (e.g. large grains, small grains and oilseeds) OR Paraphrase to limit the requirement to the appropriate instruments: "Due to climatic and crop variability, the national responsible body shall specify a list of grains and commercially important moisture content ranges (at least 6 % moisture) for the grain types for which a manufacturer may seek national approval. For meters designed to be used on a number of different grain types, at least three calibrations shall be submitted for national moisture meter examination. The grains specified..." The requirement will disqualify meters designed for one type grain only (even if they perform well for that single grain type).	~~Discussion needed~~ Corrections made to this section.

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63.	AU	21	6.3	Edit	We propose revision to: "The minimum allowable sample size for the measurement of moisture content shall be 100 g or 400 kernels or seeds, whichever is smaller, except where the national responsible body determines otherwise". Seeking clarification as we recall agreement on the removal of reference to "representative size sample" at the last combined meeting.	~~Need clarification on this comment, reference is not included in this paragraph.~~ Accepted. Removed the first sentence in the paragraph
64.	France	21	5.1.1	Tech	Relative humidity at 30% seems to be a little too low with the risk to test a dried sample. For example ISO 712 requires 40% to 70%.	~~Discussion needed~~ Per discussion during the July 2013 meeting many laboratories may have difficulties with tighter environmental controls
65.	US	22	6.6	Edit	At the 2010 meeting, Sample ID was added to the sixth sentence. The Protein Recommendation, 6.2.1, includes time, unique identification of instrument, error messages and constituent labels (on multi-constituent meters).	Accepted
66.	JP	22	6.6 Digital display and recording elements	Edit	In the first dot point begins with "*The data shall be ...*", change "***a higher severity level according to D 31***" in the sixth line to "***severity level II according to OIML D 31***" to provide more explicit citation.	This is software information that was added based on previous comments and suggestions. ~~Additional discussion needed to which severity level testing should be conducted.~~See changes.
67.	AU	22	6.5	Tech	We propose that operational procedures (e.g. user training, signage) is removed as appropriate means of ensuring the manufacturer specified warm-up time is observed. Seeking clarification as we recall this was agreed at the last combined meeting. The equivalent requirement in TC17/SC8/p1 4CD is: "When a protein measuring instrument is turned on, it shall not display or record any measured values until the operating temperature necessary for accurate measurement has been attained. This requirement may not be necessary for instruments which do not require any warm-up time".	~~This statement provides guidance on where the warm-up time is specified by the manufacturer. The laboratory would test the manufacturer's specified warm-up time.~~Accepted.
68.	AU	22	6.6	Tech	Add "test sample identifier" in the list of inclusions for the measurement record. Important measurement information.	Accepted
69.	Austria	22	6.6 Digital display and recording elements		6.6 should read: Meters shall be equipped with a digital indicating element **and a printer** or a recording element" Grain moisture meters should not only display the moisture content, there should be also an automatic printout ore storage of the results Ad also : "The minimum height for the digits used to display the results shall be 10 mm, the minimum height for the characters of the printout shall be 4 mm" In many cases the caterer of the grain (farmer) is not able to see the results of the moisture meter, because he is outside of the lab or room, where the moisture is analyzed. This is why it is very important that the results are printed out or stored (results, date, time, sample,..); a Print-out or a storage is very important for legal transaction, see also Non Automatic Weighing Instruments NAWI etc	See Section 6.6, paragraph 5 and 6 that addresses internal and external recording device and measurement records.

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70.	France	22	5.2 g and h	Tech	Do the proposal ensures that the samples of grains keep their physical properties? In France, before performing tests, we put the moisture meter and the samples in the same room (temperature : 20 °C ± 2 °C) during at least 2 hours to equilibrate the temperature between the instrument and the samples	In Appendix B, the temperature of the grain and instrument are specified for each test.
71.	DE	22	6.6	Tech	Add in the 6. paragraph: : The measurement records shall include at least the date ***and time***, grain type, grain moisture results....	If the manufacturer choses to include time it can be added but the current requirements are stated "at least" date, grain type, grain moisture….
72.	France	23	5.4.1	Tech	MPEs are too restricitive mainly for the capacitive instruments.	Many test have been conducted using these MPE's that shows that meters can meet the MPEs.
73.	US	24	6.9	Edit	Wasn't the header name changed to **Ambient temperature operating ranges** at the 2010 meeting?	will verify but looking at the heading 6.9 is the heading and specific operating ranges are addressed under the heading.
74.	US	24	6.10	Tech	Should the following from the Protein Recommendation, 6.4.1 Sealing, be used in place of the current language? Provision shall be made for appropriate sealing by mechanical, electronic and/or cryptographic means, making any change that affects the metrological intregrity of the instrument impossitble or evident. Calibrations, zero-setting and test point adjustments are considered to affect metrological charaacteristics and must be sealed. Examples for appropriate sealing means are: mechanical sealing, event counter, audit trail, and access only via interfaces protected by cryptographic means. NOTE: An audit trail is a contiuous data file containing a time stamped information record of events that are legally relevant and which may influence the metrolocical characteristics e.g changes in the values of parameters of a device or software updates. After securing and/or verification, the software of an instrument shall not be modifiable or uploadable via any interface or by other means without breaking the seal.	~~Discussion needed~~ Agreed
75.	JP	24	6.8.3 Marking operational controls, indications, and features	Edit	The sentence below is not clear (underlined). *Keys visible only to the operator need only be marked to the extent that a trained operator can understand the function of each key.*	~~Will develop language for clarity~~ Language is the same as the protein document. Will keep the same wording for consistency. This provides instructions on what keys are to be marked and to what extent the keys are to be marked.
76.	JP	24	6.10 Provision for sealing and calibration security	Edit	The sentence below is not clear (underlined). *Provision shall be made for applying a security seal in a manner that requires the security seal to be broken, or for using an audit trail, or other approved means of providing security, before any change that affects the metrological integrity of the device can be made to any mechanism.*	See comment 79. ~~for suggested changes to the paragraph.~~made changes to document per comments in No. 74.

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77.	AU	24	6.8.3	Edit	Given the user manual (described in 6CD R 59 6.11) is supplied in the official language of the country and adequate operating instructions are included, this requirement may be unnecessary. This can be onerous for manufacturers as physical labels in one language/dialect (e.g. in English - On/Off, Start, Main menu) may not be appropriate for instruments intended for international distribution.	~~Further discussion needed~~ Although provided in a manual, an instrument's operational controls, indications and features should be properly identified.
78.	AU	24	6.9.1, 6.9.2	Tech	TC17/SC1 and SC8 discussion is required for harmonisation of checking facility requirements between the two documents. --- 6CD R 59 is allowing for moisture content measurements that are outside the type approved range, provided the *displayed result is accompanied by an error message*. Yet *an error message and no moisture content results shall displayed* if the approved ranges for ambient temperature or sample temperature or sample and instrument ΔT are exceeded. In comparison, TC17/SC8/p1 4CD 5.1 requires an error message, unambiguous warning OR a blank display if any of the operating ranges or the measuring range is exceeded. However, "further measurements shall be automatically prevented" in the event of a fault, or if influence factor/ sample characteristics remain outside type-approved ranges.	~~Discussion needed~~ No change. - From discussions with users of grain moisture instruments, a concern was not being able to use the instrument to get a moisture reading when a variety of moisture may be received at an elevator that are outside the moisture ranges specified by a meter. The compromise was that the moisture reading had to have a clear error indication and recording if the moisture range of the grain exceeded the specified moisture range of the instrument.. For all other temperature ranges it shall not display or record moisture content and have an appropriate error message
79.	AU	24	6.10	Edit	Consider paraphrasing the first part of this clause to: "Provision shall be made to indicate changes and/or access to mechanisms that affect the metrological integrity of the device, for example: ~application of a security seal in a manner that requires destruction of the seal, ~using an audit trail, and ~other approved means of providing security... Note:..." Ambiguity in current wording.	~~Accepted with addition of ..before any change that effects the metrologieval integrity of the device can be made to any mechanism.~~See changes per comment No. 24
80.	France	24	5.7	Tech	Is the minimum range 0°C-40°C possible for all type of grain or seed. Do we need to define a minimum range for the grain or seed? If yes, it implies that the type evaluation for an instrument will have to be done for each type of seed or grain and be specified on the general marking (cf. French comments on 6.8.1).	~~Discussion needed~~ See Section 6.11d,e Manufacturer's Manual. The information on types of grain and limitations. Also in some countries certificates of conformance for instruments are issues annually with this information..
81.	France	24	5.7	Tech	At 0°C the sample will probably be frozen and difficult to test. 5°C to 40°C seems to be more appropriate.	~~Discussion needed~~ per discussion at TC17/SC1 2014 meeting the range was changed to: 2 °C to 40 °C
82.	France	24	5.7	Tech	"The moisture meter shall be able to take into account a temperature difference of at least 10°C" : we think the word "at least" is not appropriate and would lead to excessive requirements. We suggest "up to" (cf. 6.9.2)	~~Discussion needed~~A temperature difference of "at least" 10 °C is required. The temperature difference can be larger
83.	US	25	6.12	Edit	At the 2010 meeting, wasn't this section deleted?	Accepted
84.	US	25	6.14	Edit	"...when tested in accordance with Section A.2.2" should read "...when tested in accordance with Section A.2.4.1"	Accepted

Number	Country Code	Page	Clause	Gen/Tech/Edit	Comment	Secretariat's response
85.	JP	25	6.15.1 Non-rechargeable batteries	Edit	Add references to the test items into the second paragraph as shown below. *For these instruments, no special tests for disturbances associated with the "mains" power (A.4.1 and A.4.2) have to be carried out.*	Accepted
86.	US	26	6.17	Tech	The Protein Recommendation, clause 6, does not include open networks. Do we want the Moisture Recommendation to also omit them? This item may need to be discussed jointly.	~~Discussion needed~~Accepted
87.	US	26	6.17.1	Tech	Should the following from the Protein Recommendation, 6.1.3, be included? Legally relevant measuring algorithms and functions shall be appropriate and functionally correct as evidenced by the instrument correctly displaying and recording the measurement result and the required accompanying information. It shall be possible to examine algorithms and functions where required.	~~Discussion needed~~ See corrections to text
88.	US	26	6.17.1	Tech	Should the following from the Protein Recommendation, 6.1.8 after being corrected, be included? ~~If measured values are likely to be used at another place or later time, other than the place or time of measurement,~~ the national responsible body may require instruments to be equipped with an internal recording element and/or a communication interface that permits interfacing with an external recording element,	~~Discussion needed~~Accepted and added language to Section 6.6 paragraph 5
89.	JP	26	6.16 Level indicating means	Edit	The expression "*applicable tolerance*" is ambiguous. What tolerance is applied? The expression "*a position that is out of level in any upright direction up to 5%*" is also ambiguous in practical meaning.	Accepted
90.	JP	26	6.17.1 Specifications of the software requirements (1)	Tech	The first dot point requires that both software version and a checksum shall be identified. However, we consider this requirement is too much. It is mentioned in 5.1.1 of D31 (2008) that "*Legally relevant software ..... shall be clearly identified with the software version **or** another token*". In this statement, 'token' can be understood as a 'checksum'. Therefore, we request to change the first item as shown below in compliance to D31. *- relevant software shall be clearly identifiable via an unique software version **or** a checksum*".	~~Discussion needed~~Accepted
91.	JP	26	6.17.1 Specifications of the software requirements (2)	Edit Tech	Nine items of dot points include requirements belong to both severity levels I and II defined in OIML D31 (2008). We recommend to divide these items into the levels I and II definitely for easy understanding.	Accepted See text to align with Protein Recommendation
92.	JP	26	6.17.1 Specifications of the software requirements (3)	Edit	Change '**level B**' of second item to '**level (b)**' in compliance with 5.2.5 of D31.	Accepted
93.	France	26	6.8.1	Tech	The operating temperature and humidity ranges and the kind or varieties of grain for which the meter is designed to be used, should be permanently marked on the moisture meter as it is a metrological charasteristics of that kind of instrument and necessary to ensure appropriate use.	For some countries the kind and grains for which a meter is approved can change. The current grains approved for the meter are listed on a current type evaluation report.

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Number	Country Code	Page	Clause	Gen/Tech/Edit	Comment	Secretariat's response
94.	US	27	6.17.3	Edit	Items 5, 6 and 7 should be combined into one sentence.	Accepted
95.	US	27	6.17.3	Edit	Items 8 and 9 should be combined into one sentence.	Accepted
96.	US	27	6.17.3	Edit	Sugggested corrected list of Software documentation. **6.17.3 Software documentation** In addition to the documentation required in 8.2, the manufacturer shall submit the following documentation. 1. description of the legally relevant software and how the requirements of clause 6.17.1 are met. 2. description of suitable system configuration and minimal required resources; 3. description of security means of the operating system (password, etc. if applicable); 4. description of the (software) sealing method(s); 5. overview of the system hardware, e.g. topology block diagram, type of computer(s), type of network, etc. Where a hardware component is deemed legally relevant or where it performs legally relevant functions, this should also be identified; 6. description of the accuracy of the algorithms (e.g. filtering of A/D conversion results, price calculation, rounding algorithms, etc.); 7. description of the user interface, menus and dialogues; 8. description of the software identification which has to be clearly assigned to the legally relevant functions including the description of all encryption means (if any); 9. clear instructions on how to check the actual software identification against the reference number as listed in the type approval certificate. This reference may be additionally marked on or displayed by the instrument. 10. list of commands of each hardware interface of the measuring instrument / electronic device / sub-assembly including a statement of completeness; 11. list of durability errors that are detected by the software and if necessary for understanding, 12. description of the detecting algorithms; 13. description of data sets stored or transmitted; 14. if fault detection is realized in the software, a list of faults that are detected and a description of the detecting algorithm; and a operating manual.	Accepted

Comment [O1]: What is a statement of completeness?

Number	Country Code	Page	Clause	Gen/Tech/Edit	Comment	Secretariat's response
97.	AU	27	6.17.1	Tech	We propose that the national responsible bodies are given discretion in application of the following requirements: ~instrument to be equipped with a recording element (if measured values are likely to be used at another place or time, other than the place or time of measurement), ~permission to store and transmit legally relevant measurement data in an insecure environment (in which case, the requirements in 6.2 apply), ~ cryptographic data protection (in addition to 6.2 requirements), ~application of Procedure B to validate cryptographic protection at type examination. TC17/SC8 was advised to remove a requirement in the 3CD for cryptographic protection of data transmitted in an open network, which in turn, required Procedure B validation methods at type evaluation (in accordance with OIML D 31 recommendations). TC17/SC1 and SC8 discussion is required for harmonisation of any requirements regarding cryptographic protection of stored/ transmitted measurement data and other security requirements.	~~Discussion needed~~See corrections to this section to harmonize moisture & protein Recommendations.
98.	AU	27	6.17.3	Edit	Consolidate bullets 6 and 7 to a single bullet. Error in the numbering.	Accepted
99.	DE	27	6.17.3	Edit	the number 9. in the list is placed erroneously, the half-sentence belongs to number 8.	Accepted
100.	US	27-28	6.17.3	Edit	Numbering of documentation items is messed up. This needs major revision/corrections. Item 1 calls for "description of the legally relevant software and how the requirements are met" ... suggest inserting "of clause 6.17.1" after the word "requirements" to clarify what requirements are applicable.	Accepted
101.	US	28	6.17.3	Edit	Items 13 and 14 should be combined into one sentence.	Accepted
102.	US	28	6.17.3	Edit	Items 15 and 16 should be combined into one sentence.	Accepted
103.	US	28	6.17.4	Edit	At the 2010 meeting, "an RS232 port" was changed to "a communication interface".	Accepted
104.	AU	28	6.17.4	Tech	Change the reference to "RS232 port" to "communication interfaces". Accommodate for other modes of data transfer e.g. disc drive, USB, etc.	Accepted
105.	AU	28	6.17.4	Tech	At the last meeting, participants were involved in some paraphrasing to reflect access control to adjustment facilities. i.e. "There shall be provision to only allow authorised persons to change calibrations. The security level for updating calibrations shall fulfil the same security level as for software installation…" TC17/SC1 and SC8 discussion is required for harmonisation of calibration adjustment requirements between the two documents.	~~Discussion needed~~Added clarity for authority
106.	US	29	6.17.4.2	Edit	At the 2010 meeting, wasn't "and no further measurement shall be possible" added to the last sentence?	Accepted
107.	US	29	6.17.5	Tech	At the 2010 meeting during the Protein Recommendation discussion, it was decided to delete the first sentence. It should also be deleted in the Moisture Recommendation.	Accepted
108.	US	29	6.17.6.1	Edit	Correct the spelling of "intential". It should be "intentional".	Accepted

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Number	Country Code	Page	Clause	Gen/Tech/Edit	Comment	Secretariat's response
109.	AU	29	6.17.4.2	Tech	Consider whether "electronically altered" should be replaced by "electronically corrupted". --- We propose revision to: "If calibration constants are digitally stored in an electronically alterable form, the instrument shall be designed to make automatic checks to detect corruption. An error message must be displayed if calibration constants have been electronically corrupted and no further measurements shall be possible." Alteration of calibration constants will be inevitable if authorised personnel are permitted to perform calibration updates as indicated in clause 6.17.4. It would be impossible to differentiate between a legitimate adjustment (alteration) and a fraudulent adjustment, however if the calibration constants file is corrupted it is important for the instrument to detect this. TC17/SC1 and SC8 discussion is required for harmonisation of calibration security requirements between the two documents.	~~Discussion needed~~Accepted
110.	AU	29	6.17.3	Tech	Calibration transfer requirements were removed from TC17/SC8/p1 4CD. Owners should be able to exercise discretion regarding the adjustment/ modification/ repair processes (e.g. meter-to-meter alignment operations) their instruments are subjected to, provided national metrological controls are observed before it is returned to service.	Prototypes are tested in the evaluation laboratory. A manufacturers then must be able to transfer these calibrations to other meters they manufacturer and sell.
111.	Austria	29	Technical requirements 6.17.6.1		6.17.5.1 prevention misuse, A measuring instrument- especially the software-shall be constructed in such a way **that any unintentional accidental misuse is not possible.** Austria would prefer a stronger requirement to avoid misuse, the manufacturer has to show in his documentation (software) how this requirement is fulfilled	~~Discussion needed~~ may not be realistic to expect that any unintentional misuse is impossible.
112.	US	30	New 6.17.7	Tech	The Protein Recommendation includes language in 6.4.1 for sealing the software and calibrations.	See Section 6.12 in the moisture Recommendation
113.	AU	30	6.17.6	Edit	Consider consolidation with the third bullet under clause 6.7.1. into a single clause or bullet point. The content of the third bullet of this clause seem to repeat the third bullet in clause 6.7.1.	Not clear to which paragraph the comment is referencing.
114.	US	31	7.1	Edit	At the 2010 meeting, the first sentence was changed from "should" to "shall".	Accepted
115.	US	31	7.5	Edit	Wasn't this section deleted at the 2010 meeting?	Accepted

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Number	Country Code	Page	Clause	Gen/Tech/Edit	Comment	Secretariat's response
116.	AU	31	7.1	Tech	Where applicable to grain moisture test samples, we propose revision of 7.1 into two clauses akin to TC17/SC8/p1 4CD: "#Source. The characteristics of the standards (reference materials) shall be representative of the grain being traded in the region. This is particularly important for the assessment of calibrations. Foreign produce, i.e. samples based on grain harvested in another country or region, may not be suitable for the assessment of calibrations due to climatic and crop variability. #Moisture content. Unless dried, or moistened grain is commonly traded, all test samples shall be naturally occurring grain, i.e. the moisture should not be adjusted by soaking or spraying the sample with water or by extended exposure to high humidity air. The moisture level must not make the sample susceptible to mould, which can occur at relatively low levels for certain types of grain, e.g. over 13% moisture for wheat." Harmonisation with TC17/SC8/p1 4CD B.2.1 – B.2.2 (where possible) which has been revised as agreed at the last meeting.	~~Discussion needed~~Accepted
117.	AU	31	7.1	Tech	Consider adding: "It may be beneficial to communicate with potential submittors any lead time or the notice period for collection of appropriate grain samples to test the measurement range of the meter. Alternatively, the national responsible body may give submittors responsibility for procurement of grains that meet the test sample requirements, to ensure that pattern evaluation or calibration assessment is not delayed for this reason." The labs assigned to perform accuracy and precision tests may not have immediate access to appropriate grain samples (due to the seasonality of harvest characteristics e.g. high/low moisture). In some years it might be quite difficult to obtain samples for the full range of moisture contents. Particularly samples outside typical moisture in receival acceptance ranges (e.g. high moisture grain) as these do not store very well.	~~Discussion needed~~Per discussion at our last meeting no changes are needed per this comment
118.	AU	31	7.3 7.4	Tech	Consider whether TC17/SC8/p1 4CD content is also applicable to grain moisture test samples: "#Sample handling and storage. Upon receipt the integrity of the moisture-tight sample enclosure should be checked and a new enclosure used if necessary. Most grain samples are to be stored at 2 °C to 8 °C prior to use. Prior to testing, samples are removed from cold storage and equilibrated to room temperature. #Sample cleaning. The sample must be free from insects, foreign seeds and any other foreign material. The condition of the sample (odour, appearance, damage, remaining foreign material, etc.) is recorded on the sample record. Spatial inhomogeneity in a bulk sample is minimised as much as possible by mixing." Seeking clarification as we recall agreement that specification of equilibration times may be too prescriptive for labs. TC17/SC1 and SC8 discussion is required for harmonisation of sample handling, storage and cleaning requirements for grain used to test moisture meters and protein analysers.	~~Discussion needed~~Accepted. See changes for harmonization

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Number	Country Code	Page	Clause	Gen/Tech/Edit	Comment	Secretariat's response
119.	AU	31	7.3	Tech	Could add: "Except during analysis, a test sample shall be returned to its enclosure." Some of the tests are quite lengthy so equilibration of sample mc with the ambient RH can result in an error (relative to the mean MC value for a sample at the beginning of tests).	Not clear as to what is meant by equilibrium of MC. This paragraph is referring to temperature equilibrium of sample and ambient temperature.
120.	Austria	31	Practical instructions 7.1		Type approval is done at the BEV during the whole year, that is why we also use not natural moisture grain for testing,, In R 59 there must be also the possibility to adjust moisture by soaking a sample, or spraying the sample with water (according to the reference method and the ISO standard) It is clear, that natural grain with natural moisture is the best test sample. But it is not possible to have natural moisture grain during the whole year	~~Discussion needed~~There are issues with adding water to grain which affects only the outside moisture of the grain.
121.	Austria	31	Practical instructions 7.4 and 7.5		7.4 Sampling cleaning 7.5 Representative sampling size Give here a reference to the ISO standard (ISO 712, ISO 13690, ISO 6540) ISO Standard (ISO 712, ISO 13690, ISO 6540)	~~Discussion needed on ISO standards for sample cleaning and representative samples~~Added a general statement for use of ISO standards for cleaning
122.	US	32	8.3.1	Edit	The third sentence is missing the period.	Accepted
123.	US	32	8.3.2	Edit	The section reference should be to 5.1.1.	Accepted
124.	US	32	8.2 (j)	Edit	**(j)** is in bold face type. Remove bolding (the other items in the list are in normal face type).	Accepted
125.	US	33	8.3.3	Edit	The section reference should be to 3.3.~~26~~18.	Accepted
126.	US	33	8.3.4	Edit	The section reference should be to 5.7 instead of 5.9.	Accepted
127.	Austria	34	Bibliography 9		Some references/standards are missing in the Bibliography table Please add: ISO 13690 ISO 6540 ISO 712 Some references/standards are missing	~~Accepted~~ These references were not research when preparing this Recommendation.
128.	JP	36	9. Bibliography	Edit	Reference numbers after [19] are missing.	Accepted
129.	AU	38	A.2 and A.4	Tech	We agree with this recommendation to monitor the stability of grain samples using either a spare moisture meter or the reference method. Some instruments may have a higher tendency to heat samples, leading to moisture losses during replicated analyses.	~~Discussion on difference between a spare moisture meter and master meter (instrument)~~ok
130.	US	39	A.1.2	Edit	Replace "test" with "tests" in the first sentence.	Accepted

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131.	AU	41	A.2.4.1	Tech	We recommend addition of a recovery cycle (at V_{nom}) after application of variations. Harmonisation with TC17/SC8/p1 4CD C.5.6. Recording the error after recovery (i.e. mean mc after recovery – mean mc at ref) ensures that the voltage variations had no adverse effect on the instrument.	Discussion on clarification of test procedures needed
132.	US	42	A.2.5	Edit	The reference should be to 5.1.1 instead of 5.1.	Accepted
133.	US	42	A.2.6.1	Edit	Add "or master instrument" after reference procedure in the last sentence to match what is stated in A.2.1.	Accepted
134.	AU	42	A.2.5	Tech	We recommend the max temperature to be revised to 50 °C. Maximum temp that Australian type evaluation facility is set to.	Accepted ~~Discussion needed~~
135.	AU	42	A.2.5	Tech	Consider whether the errors and defects identified by the Instrument storage (extreme shipping conditions) test cannot be detected at verification. Main purpose of pattern evaluation tests is to identify faults and errors caused by influence factor settings (possible in-service conditions) that are unlikely to be observed at the time/moment of verification.	~~Discussion on clarification of test procedures needed~~Test could not be performed during field inspection and testing.. At point of use this provides some assurance that the instrument is appropriate for use.
136.	AU	43	A.4.2.6.7	Tech	The humidity test should be based on the Damp Heat (no condensation) test, i.e. IEC 60068-2-78 and IEC 60068-3-4. Decision at last TC17/SC1 and SC8 meetings to apply OIML D 11 endorsed test standards. Also, the damaging effect of high humidity is a concern at high temperatures – not usually at low or moderate temperatures.	~~Discussion needed~~ Per discussion at July 2013 meeting dual instruments with protein and moisture measurement capability will likely be tested for the humidity and damp heat test.
137.	AU	43	A.4.2.6.8	Tech	The instrument temperature sensitivity test should be based on Cold and Dry Heat and tests, i.e. IEC 60068-2-1, IEC 60068-2-2, IEC 60068-3-1. Decision at last TC17/SC1 and SC8 meetings to apply OIML D 11 endorsed test standards. The main difference between IEC Dry Heat test and NTEP high temp test settings seems to be about +10% RH at each temperature.	~~Discussion on clarification of test procedures needed~~ per discussion at meeting test are similar.
138.	DE	43	A.2.8	Tech	Comment to the Note: Why should the instrument feature for suppressing results be disabled for test purposes? When the temperature range is exceeded, and the instrument suppresses the results, everything is within the requirements. I do not see any sense in checking results which are never displayed under normal conditions.	~~Discussion needed~~ per discussion at the 2013 meeting, it is for testing purposes. Submitter stated to disregard comment
139.	US	44	A.3	Edit	The reference in the second paragraph should be 5.1.1.	Accepted
140.	US	44	A.3	Edit	Remove the italics in the third paragraph.	Accepted
141.	US	44	A.3	Edit	The reference in the fourth paragraph should be 5.1.1. Delete the $T_{ref.}$ after the second sentence in the fourth paragraph.	Accepted
142.	US	44	A.4	Edit	In the first paragraph, replace "test" with "tests".	Accepted

<table>
<tr><th>Number</th><th>Country Code</th><th>Page</th><th>Clause</th><th>Gen/Tech/Edit</th><th>Comment</th><th>Secretariat's response</th></tr>
<tr><td>143.</td><td>AU</td><td>44</td><td>A.4 and Report</td><td>Tech</td><td>For the total number of repeated measurements on samples with stable moisture content, we recommend the following:
<table>
<tr><th rowspan="2">Type evaluation test</th><th colspan="2"># replicated measurements</th></tr>
<tr><th>Ref mean</th><th>Under influence variations and/or recovery</th></tr>
<tr><td>Instrument stability/ warm-up/ levelling / temp sensitivy / humidity</td><td>6</td><td>6</td></tr>
<tr><td>Mains voltage variation</td><td>10</td><td>10</td></tr>
<tr><td>Sample temp sensitivity</td><td>3*</td><td>3*</td></tr>
<tr><td>Disturbance tests (various)</td><td>6</td><td>10 or
as many required by sweep</td></tr>
<tr><td>Instrument storage temp</td><td>10*</td><td>10*</td></tr>
</table>
*Note: These numbers were set to harmonise with 5CD R 59.

Harmonisation with the test procedures in TC17/SC8/p1 4CD.

The moisture content of grain is less stable than the protein content.
When using samples with very high or very low moisture content, fewer repeat measurements on the same sample ("replicated measurements") might be specified in order to limit moisture gain or loss during testing.</td><td>~~Discussion needed~~Per discussion during the July 2013 meeting # of replicate measurments revised to harmonize with moisture document.</td></tr>
<tr><td>144.</td><td>Austria</td><td>44</td><td>ANNEX A – Test procedures A3</td><td></td><td>The value for $\Delta t \pm 10$ °C is not consistent with the minimum values for the Grain sample temperature: 0 °C to 40 °C in chapter 5.2

Austria think this range 0 °C to 40 °C for the Grain sample temperature is too large as for the minimum range – this range is not corresponding to the test according A 3- Sample temperature sensitivity : $\Delta T = \pm 10$ °C; if T_{ref} is 20 °C the range for the test is 10 °C to 30 °C !</td><td>~~Discussion needed~~ See Section 5.7. This section references two different requirements one is the temperature range for each grain or seed. The other is minimal difference in temperature between the grain sample and instrument. See corrections to 5.2 note 2.</td></tr>
<tr><td>145.</td><td>DE</td><td>44</td><td>A.3</td><td>Edit</td><td>Comment on the last sentence of this clause:
This sentence is rather complicated to read and understand. Please delete the references to table 5.4.2, because the grain types are already described in table 5.4.1:
…..at reference sample temperature is 2.25 x column 3 of table 5.4.1. for grain types ~~in table 5.4.2~~ of Row I, otherwise it is 2 x column 3 of table 5.4.1. for grain types ~~in table 5.4.2~~ of Row II.</td><td>Agreed it may be stated differently for clarity but also need to add the location of row I and II since it it not in table 5.4.1.</td></tr>
<tr><td>146.</td><td>US</td><td>45</td><td>A.4.1</td><td>Edit</td><td>In Requirements, replace P_{MB} with moisture.</td><td>Accepted</td></tr>
<tr><td>147.</td><td>US</td><td>46</td><td>A.4.2</td><td>Edit</td><td>In Requirements, replace P_{MB} with moisture.</td><td>Accepted</td></tr>
<tr><td>148.</td><td>JP</td><td>47</td><td>Annex A A.4.3</td><td>Tech</td><td>The item 'sample' in the table requires consecutive measurements using real samples. However, a test using (or replacing) real samples in the anechoic chamber for electromagnetic field is not realistic and efficient. It could be hazardous for the operator. We request a test method without using a real sample or without replacing the sample.</td><td>~~Discussion of test needed. The instrument is subjected to the test and the operator measures results outside the chamber.~~see revision to "sample"</td></tr>
<tr><td>149.</td><td>AU</td><td>47</td><td>A.4.3</td><td>Tech</td><td>Add: "For the frequency range 26 – 80 MHz, the testing laboratory may carry out the test according to clause A.4.4 Conducted RF fields."

To achieve 10 V/ m, testing laboratories may prefer this option.</td><td>Accepted</td></tr>
</table>

Number	Country Code	Page	Clause	Gen/Tech/Edit	Comment	Secretariat's response
150.	AU	47, 65-70	A.4.3, B.13.1-B13.17.2	Tech	The test instructions and test report 6CD R 59 suggests that only one unit is subjected for the Disturbance tests under A.4. It is explicit in the test report that two units are required influence factor tests. --- TC17/SC1 and SC8 discussion is required to confirm the number of units to be subjected to the disturbance tests. Australia would be in support of just one unit being subjected to disturbance tests for type approval of moisture meters and grain protein measuring instruments. If a national responsible body or a manufacturer wants additional units to be tested, perhaps these manufacturers can be subscribed to a conformity to type (CTT) scheme where a unit is periodically sampled from a production run of an approved type and then subjected to one, some or all the disturbance tests.	~~Discussion needed~~Accepted
151.	US	48	A.4.3	Edit	In Requirements, replace P_{MB} with moisture.	Accepted
152.	US	48	A.4.4	Edit	The clauses referred to in the two sentences: "*For the frequency range 26-80 MHz, the testing laboratory may carry out the test according to clause 8.4.3. However, in case of dispute, the result from the test according to clause 8.4.4 shall prevail" should be "clause A.4.3" and "clause A.4.4" respectively.	Accepted
153.	US	49	A.4.4	Edit	In Requirements, replace P_{MB} with moisture.	Accepted
154.	US	50	A.4.5	Edit	In Requirements, replace P_{MB} with moisture.	Accepted
155.	US	51	B.1	Edit	In the third paragraph, replace R59(2009) with R59(2013).	Accepted
156.	JP	51	Annex B 1 Introduction	Gen	This is a follow-up of our comment to 5CD regarding OIML Basic Certificate System. As far as we know, there are no OIML issuing authorities for R59 at present. However, we do not oppose adding R59 into the basic certificate system regardless the current situation. We understand that the basic certificate system is based on a policy of 'self-declaration' which is different from the MAA. Therefore, inclusion of R59 into the basic certificate system would be realized when an issuing authority declares to start testing for type approval based on this recommendation. We propose to confirm BIML about this basic policy.	~~Further discussion may be needed as to the OIML Basic Certificate System.~~Accepted
157.	Austria	51	ANNEX B B 11		Austria suggests also to include Maize as a measuring product in this recommendation All instruments in Austria also measure maize, not only Cereal Grain	Maize (corn) is one of the grains listed in the recommendation. Tolerances are included for Maize (corn). Also see 6.1 (C) "Grains and minimum moisture ranges". …are variable and are typically grown in regions of the national responsible body.
158.	US	52	B.3	Edit	Delete the " in the first sentence.	Accepted
159.	DE	52	B.3	Edit	The sign used to mark „Not able to conduct the test" is rather special. Not everybody may know how to write it in his text programm. Could you provide an ASCII-Code or something like that for this sign?	Accepted
160.	US	53	Page numbers	Edit	Page numbers after page 53 need to be corrected (starting with the page containing B.6.2).	Accepted

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161.	US	77-78	C.1.4.2	Edit/Tech?	Delete "remotely" from the second paragraph of Category 3 requirements that begins, "When accessed remotely …" to make it clear that the requirements of Category 3 apply whether accessed manually using the keyboard or accessed by remote means. Add the modified second paragraph of Category 3 requirements to Categories 3a and 3b to make it clear that these requirements apply to all the subcategories of Category 3. Change the table text style to "Normal" and the font size to 11 to make the table fit on a single page.	Accepted
162.	US	Actual 64	B.13.8	Edit	At the 2010 meeting, "separator" was replaced with "divider".	Accepted
163.	Austria	General, page 36 in CD 5	ANNEX A – Test procedures		The Sand and dust test in CD 5 is not included in the CD 6. Austria is strongly interested to have this test in the test procedures, because Moisture meters are used in very dusty environment at the field (on side) It is strongly recommended to include Dust tests according to OSHA limits¸ Moisture meters are used in very dusty environment at the field (on side)	~~Discussion is needed~~other countries have noted that this test is too severe and that moisture meters are not subjected to this type of environment. There may be tests that are specific to national responsible authorities.

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