



TC 5/SC 2/p 4:	Revision of D 31: General requirements for software controlled measuring instruments		
PG vote/comments on 1CD:	TC5 SC2 P5 N008		
Circulation date:	29 October 2025	Convener: Germany – Marko Esche	Closing date for voting and/or comments: 15 February 2026 at 17:00 CET
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1 MB = Member body (enter the ISO 3166 two-letter country code, e.g. CN for China)

2 Type of comment: ge = general te = technical ed = editorial

Country Code <sup>1</sup>	Part	Clause/ Sub clause	Paragraph / Figure/ Table/	Type of comment <sup>2</sup>	COMMENTS	PROPOSED CHANGE	OBSERVATIONS OF THE CONVENER/PG on each comment submitted
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CZ-18	Annex B		2 <sup>nd</sup> paragraph	ed	There is reference to OIML International Document D 31:2019. Below in the text is given YYYY instead of the year. I propose to write YYYY instead of a specific year here as well.	Change D 31:2019 to D 31:YYYY: “The evaluation was based on OIML International Document D 31:YYYY,...”	Agreed. This will be corrected.
CZ-25	Annex E		row 7.3.1	ed	Correct wrong spelling of a word “evaluaition”	Change “evaluaition” to “evaluation” (occurs in the second and in the forth column)	The spelling will be corrected.
CZ-26	Annex E		row “Annex B”	ed	Correct wrong spelling of “updatedto” into two words	Change “updatedto” to “updated to”	The missing space will be inserted.
PL-11	Annex A		Ref. [8]	ge		We propose to change reference to the newest WELMEC Guide 7.2.	All references will be updated accordingly.
PL-12	Annex B		Table with checklist, Clause 6.2.2.6	ed		We propose to change “In an audit trail is used, ...” to “If an audit is used, ...”	The typo will be corrected.
PL-13	Annex B		Table with checklist, Clause 6.2.2.7	ed	This sentence belongs to and is mentioned in clause 6.2.3.1 below.	We propose to delete sentence “Software protection means comprise appropriate sealing by mechanical, software and/or cryptographic means, making an intervention impossible or evident.” from this clause.	Agreed. This appears to be a copy&paste error.
PL-14	Annex B		Table with checklist, Clause “Durability protection”	ed		We propose to add numeration “6.3.3” to “Durability protection”.	The missing clause number will be added.
PL-15	Annex B		Table with checklist, Clause below clause “Durability protection”	ed		We propose to change numeration from “6.3.2.1” to “6.3.3.1”	Agreed. The cross-reference will be corrected.

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PL-16	Annex B		Table with checklist, Clause below clause “Durability protection”	ed		We propose to change “The required in case ...” to “The action required in case ...”.	The missing word will be reintroduced.
PL-17	Annex B		Table with checklist, Clause 6.3.6.3	ed		We propose to change “Intermediate measurement data arel” to “Intermediate measurement data are”.	Agreed.
PL-18	Annex E		Comparison table, Ref. 4, Column Remarks	ed		We propose to change “reflect tha addition” to “reflect the addition”.	The typo will be corrected.
PL-19	Annex E		Comparison table, Ref. 6, Column Remarks	ed		We propose to change “requiremens” to “requirements”.	Agreed.
PL-20	Annex E		Comparison table, Ref. 7.3.1, Columns Description	ed		We propose to change “evaluaition” to “evaluation”	The spelling will be corrected.
PL-21	Annex E		Comparison table, Ref. 7.3.1, Column Remarks	ed		We propose to change “througout” to “throughout”	The typo will be corrected.
PL-22	Annex E		Comparison table, Ref. Annex B, Column Remarks	ed		We propose to change “updatedto” to “updated to”	The missing space will be inserted.

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PL-23	Annex E		Comparison table, Ref. Annex D, Column Remarks	ed		We propose to change “hept” to “help”.	The typo will be corrected.
PL-24	Annex E		Comparison table, Ref. Annex F, Column Remarks	ed		We propose to change “througout” to “throughout”.	The typo will be corrected.
KR-21		-	-		Software identification and software identifier(s) are being used at the same time throughout the document. Since the result of the software identification is software identifier(s), it seems necessary to define it somewhere and apply throughout the document.		We should avoid defining common terms that are also used in other publications outside OIML. However, we can add a note to this effect.
AU-01	/	/	/	Ed	Data is treated as a singular noun and a plural noun throughout the document. For consistency, either use it as a singular noun OR a plural noun throughout the document, but not both.	Instead of having instances of “data is” and “data are” through the document, amend so that the third person singular verb is used for data OR the third person plural verb is used for data throughout. E.g. “relevant data is generated” and “relevant data are presented” need to be amended for consistency to “data is” OR “data are”. This comment will also affect the use of articles, pronouns, etc. e.g. “this data” or “these data”	Agreed. We should use plural throughout the document.
AU-02	/	/	/	Ed	Replace instances of “unambiguous(ly)” with “clear(ly)”.	E.g. In Clause 6.3.9.2, “...then all components that share another component shall be <del>unambiguously</del> <b>clearly</b> identified”.	The term “unambiguously” has been part of D31 requirements since 2008. If we want to use a different term now, this should be discussed at the PG meeting. <b>Rejected at the meeting</b>
AU-03	/	/	/	Ed	Throughout the document there are many references to ‘D31’. OIML publications usually reference themselves as ‘this Document’, and this is also widely used in the document.	Replace ‘D31’ with ‘this Document’ throughout. For instances of ‘D31 requirements’, replace with ‘requirements of this Document’.	Agreed. However, referring to D31 might be helpful where the document provides template text to be copied to draft recommendations. This will be checked.
AU-04	/	/	/	Ed	Multiple terms are used in the Guidance throughout the document, such as: ‘should decide’, ‘can require’, ‘have to’ and ‘need to’, as well as, ‘The PGs...’, ‘The PG...’ and ‘PGs...’. And ‘PG’s’!	Make all consistent using either ‘PGs shall...’, or ‘PGs may...’	Agreed. All mentioned terms will be checked and implemented consistently throughout the document.
KR-11		[107 page] ref. 4	Remarks	Ed	(typing error) tha	the	The typo will be corrected.
KR-12		[107 page] ref. 6	Remarks	Ed	(typing error) requiremens	requirements	The typo will be corrected.

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KR-15		[108 page] Annex B	Remarks	Ed	(word spacing) updatedto	updated to	The missing space will be inserted.
KR-16		[108 page] Annex D	Remarks	Ed	(typing error) hept	help	The typo will be corrected.
KR-13		[108 page] ref. 7.3.1		Ed	(typing error) evaluaion	evaluation	The spelling will be corrected.
KR-14		[108 page] ref. 7.3.1	Remarks	Ed	(typing error) througout	throughout	The typo will be corrected.
KR-17		[109 page] Annex F	Remarks	Ed	(typing error) througout	throughout	The typo will be corrected.
KR-19		[20 page] 6.1	requirement for specific configurations (0)		In terms of content, 6.3 Requirements specific for configurations still exist, so it's better to leave it at 6.3 as before. If there's another reason, it has to be revised later.	requirement for specific configurations (6.3)	Agreed. See also CA-07.
KR-01		[21 page] 6.2.2.1	Software identification	Ed	(word spacing) purpose.Regardless	purpose. Regardless	The missing space will be added.
KR-20		[23 page] 6.2.2.5	application kiosk mode		Since 'application kiosk mode' is an unfamiliar word, it seems that definition or additional explanation is needed somewhere.	<p>ex) google search Application kiosk mode is a feature that limits a device to running specific applications and settings. It's often used for devices that are publicly accessible, such as guest registration desks, library catalog stations, and point-of-sale systems.</p> <p>How it works Kiosk mode can be used on Windows, ChromeOS, and iOS devices Kiosk mode can run a single app or multiple apps Kiosk mode can be used to restrict users from exiting an app Kiosk mode can be used to provide automated interactions, such as payment, order placement, and photo printing</p> <p>or</p> <p>Assigned access single-app kiosk A single-app kiosk uses the assigned access feature to run a single app above the lock screen. When the kiosk account signs in, the app is launched automatically. The person using the kiosk can't do anything on the device outside of the kiosk app.</p>	We should refrain from defining commonly used IT terms in OIML documents. Nevertheless, an explanatory sentence will be added in the example.
KR-02		[24 page] 6.2.2.7	Note	Ed	(typing error) requiriments.	requirements.	The typo will be corrected.
KR-03		[27 page] 6.2.3.6	Measurement data	Ed	(typing error?) see 0	see 6.3 or delete content	The reference will be corrected.

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KR-04		[39 page] 6.3.7.4	Transmiss ion delay or interrupti on // Example 1)	Ed	(Spelling harmonized to be American English throughout the document) organised	organized	Agreed.
KR-05		[42 page] 6.3.10.1	General // Example	Ed	(Spelling harmonized to be American English throughout the document) realising	realizing	The spelling will be corrected.
KR-06		[45 page] 6.3.11.4.1	General	Ed	(typing error) traced update (6.3.11.4.2 and 6.3.11.4.3.	traced update (6.3.11.4.2. and 6.3.11.4.3.)	The closing bracket will be added.
KR-07		[45 page] 6.3.11.4.2	Guidance	Ed	(word spacing) push button.If	push button. If	Agreed. However, the formatting will be modified as proposed in CA-17.
KR-18		[46 page] 6.3.11.4.3	A traced update shall not influence the legally relevant parameter s.		In "6.2.3.4 Parameters", it is stated as "Note: The software identification is a legally independent parameter." However, after performing a traced update, a new software identification of the installed version occurs, which raises the question of whether there is a contradiction that influence the legally relevant parameter (software identification).	If the question is correct, how about modifying the phrase below.  6.2.3.4. Parameters Note: A traced update shall not influence the legally relevant parameters. (except for the software identification)	A note would probably be more helpful to explain that the software version will change even if it is legally relevant parameter.
KR-08		[56 page] Table 1	AD	Ed	(typing error) speification	specification	The typo will be corrected.
KR-09		[90 page] 6.3.6.3		Ed	(typing error) arel	are	The typo will be corrected.
KR-10		[96 page, 50 page] 6.3.12.2.3		Ed	(word spacing) at least,a unique ID	at least, a unique ID	The missing space will be added.
CZ-19	Annex B	“The following requirements were verified”	1 <sup>st</sup> item	ed	In the first item there is written: “software identification; 6.3.6, and 6.3.7”. But 6.3.6 is for data storage that is listed below as a separate item and 6.3.7 is for data transmission that is also listed as a separate item. So delete these two references.	Delete 6.3.6 and 6.3.7 from the 1 <sup>st</sup> item.	Agreed. See also response to CZ-20.

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CZ-20	Annex B	“The following requirements were verified”	3 <sup>rd</sup> and 7 <sup>th</sup> items	ed	In the 3 <sup>rd</sup> item there is written “software protection” and in the 7 <sup>th</sup> item there is “software”. I have compared it with the section “Result” (see below in the text of the Test report) where references for D31 requirements are listed and between them also 6.2.3.2. In accordance with 6.2.3.2 I propose to write “software – securing and protection” instead of these two points.	So items in “The following requirements were verified” will be: <ul style="list-style-type: none"> <li>• software identification; <del>6.3.6 and 6.3.7</del></li> <li>• correctness of algorithms and functions;</li> <li>• <del>software protection;</del></li> <li>• prevention of misuse;</li> <li>• indications;</li> <li>• information for verification;</li> <li>• software – <b>securing and protection</b>;</li> <li>• audit trails and event counters;</li> <li>• data storage;</li> </ul> data transmission	Agreed. This will be corrected.
CZ-02		3.2.16			At D31 the term “dynamic module of legally relevant software” is used. But reading requirements regarding dynamic modules, especially 6.3.4, I started to ask wheater it is correctly written. Could dynamic modules occur out of LR SW, but such that their results can influence legally relevant parameters or measurement data? I think dynamic modules in legally nonrelevant software influencing LR parameters or dat could occur.	This formulation would be better: “dynamic module influencing (or that can influence) legally relevant software“	Typically, if a software module can influence legally relevant software, it will also be considered legally relevant itself. Maybe, we should add a note to that effect. <u>The group decided to put a corresponding note at the first instance of the word in the text.</u> <u>Note: this includes modules that can have an influence on legally relevant software.</u>
CZ-03		3.2.17		ed	The term “electronic measuring instrument” is defined, but the term is used only in a note for 3.2.23. But in the text of OIML D31 more often is used term “electronic device”. I assume that these two terms mean the same.	Unify the usage of these words in the whole document.	A device does not have to be the same as a complete measuring instrument. All occurences of the term “device” will be checked and modified wherever necessary.
AU-08	/	3.2.53	1	Ed	The note refers to hardware and software seals. Then the document also uses different terms with seal, sealed or sealing, including: mechanical, electronic, physical and physically.	Use the terms hardware and software consistently for kinds of seals. Mechanical and physical seals are hardware seals. Electronic seals are software seals.	Agreed. However, we should discuss this with the entire PG before implementing the proposed changes. <u>The group agreed to adopt hardware and software seal.</u>
CA-01		3.2.53		ge	3.2.53 sealing means intended to protect the measuring instrument against any modification, readjustment, removal of parts or software, etc.  Clause is too wordy and unnecessary.	3.2.53 sealing means intended to protect the measuring instrument against any <b>unauthorized modification</b> .	Modification of a V1 definition should be discussed at the PG meeting. <u>Withdrawn at the meeting.</u>

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CECIP-05		3.2.55 & 6.3.2		Ed	When implemented into recommendations, “significant defect” does not read as software specific. Suggest the same change as currently proposed by R51.	Change to “Significant software defect” and “Software incident that has an undesirable...”	The current definition was intentionally not centered on software but covers hardware defects and faults, too.  <u>incident that has an undesirable impact on the compliance of the measuring instrument with D31 requirements.</u>  <u>We will remove faults from the definition of significant defects including example e).</u>
CA-02		3.2.59		ge	3.2.59 software identification sequence of readable characters (e.g., name, version number, checksum) that represents the software or software module under consideration  Suggest the following version.	3.2.59 software identification <b>Discrete set of characters that are inextricably linked to the software or software modules</b> (e.g. name, version number, checksum).	This was previously discussed in another D31 revision. Time permitting, we can open up the discussion again at the PG meeting. <u>Withdrawn at the meeting.</u>
CA-03		3.2.60		ge	3.2.60 software interface program code and dedicated data domain; receiving, filtering, or transmitting data between software modules  Note 1: A software interface is not necessarily legally relevant.  Note 2: A software interface is an interface between two or more software modules, used to exchange data and transmit commands. [OIML V 1:2022, 6.03]  Suggest to change to the following but if the current version is taken from OIMLV 1 then may be unmodifiable.	3.2.60 software interface Program code and a dedicated domain: <b>receives, filters, or transmits</b> data between software modules.  Note 1: A software interface <b>may or may not</b> be legally relevant.  Note 2: A software interface is an interface between two or more software modules, used to exchange data and transmit commands. [OIML V 1:2022, 6.03]	Modification of a V1 definition should be discussed at the PG meeting.  <u>The terminology is written in a way that it can be “dropped in” to replace the term.</u>  <u>The group decided on a compromise that is in line with the spirit of the terminology:</u>  <u>Program code and a dedicated domain that <b>receives, filters, or transmits</b> data between software modules</u>  <u>For simplicity and coherence with V1, the group decided to keep the definition of V1 and make a request to the TC1 to adapt the requested definition.</u>



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AU-07	/	3.2.61		Ge	Is a software module a kind of ‘module’ as defined by the VIML? If so, should a note be included to clarify this?	For consideration by the PG. If it is agreed that a software module is a kind of module (as per the VIML), suggest a note is included to that effect to provide consistency in the use of terminology across OIML publications.	Agreed. Nevertheless, this wording of the new note should be discussed at the PG meeting. <u>Proposal:</u> <u>The term “software-module” will be used instead of module to avoid conflicts with V1</u>  <u>Further Proposal:</u> <u>A new note will be added to the definition of (then) software module to explain that the definition of “module” in V1 is explicitly not related to this definition.</u>  <u>Dynamic modules can remain as they are (of legally relevant software).</u>
CA-04		3.2.63		ed	3.2.63 software separation separation of the software in measuring instruments, which can be divided into legally relevant module(s) and non-legally relevant module(s) Note: These module(s) communicate via a software interface. adapted from [OIML V 1:2022, 6.02]  Current version of D31 has multiple terms to convey that a module is not legally relevant.	Propose to use the term “ <b>non-legally relevant</b> ” throughout D31 . Propose to change to this in the OIML V 1 so that it can be used in all OIML R documents	The correct term for something that is not legally relevant should be discussed at the meeting. <u>V1 definition states legally non-relevant</u> <u>The group decided to stick with the V1 definition and take the term “legally non-relevant”</u> <u>We add a note in D31</u>
DE-05	1	3.2.63	1	Ed	In previous versions of D31 various ways of spelling non-legally relevant software were used. To avoid confusion, we would prefer to use “not legally relevant” which sounds like the proper negation of “legally relevant”.	Change “non-legally relevant” to “not legally relevant” throughout the document.	The correct term for something that is not legally relevant should be discussed at the meeting. <u>See CA-04</u>
AU-06	/	3.2.7		Ge	The definition of ‘component’ is a modified version of the definition of ‘module’ found in the VIML, OIML D 11, and many other OIML publications. We understand that the intent of this modification is to clarify the distinction between hardware and software modules within the context of OIML D 31. It is suggested that a NOTE is included to explain the rationale for the modification and provide a level of consistency with other OIML publications.	Include a Note: The definition of component is a modified form of the definition of module from OIML V 1:2022. This modification is intended to provide distinction and clarity between hardware components and software modules (see 3.2.61) for readers of OIML D 31. The term component should be considered consistent with the term module defined by the OIML V 1:2022, albeit limited with respect to hardware.	Agreed. Nevertheless, this wording of the new note should be discussed at the PG meeting. <u>Incorporated into AU-07.</u>

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CECIP-04		3.2.8		Te	Definition of “component” is over-complete and too restrictive; it overlaps with what other recommendations call “modules”. Suggest simplifying in the same way currently proposed by R51. Also beware of V2 which uses “component” to mean any part of e.g. “components of the measurement uncertainty”.  Also, this may be important in the context of 6.3.8 Specification and separation of legally relevant components and modules.	Remove “and that can be separately evaluated according to specific metrological and technical performance requirements as specified in the relevant Recommendation”	The current definition has been part of D31 since 2017. We should discuss if there is a need to modify the definition now.  <u>3.2.8 component identifiable hardware part of an instrument that performs a specific function or functions.</u> <u>Note: components can be part of or identical to modules in V1.</u>
CECIP-01		4	4.3	ed	There seems to be some text remaining after deletion in “Guidance: PGs h decide which...”	Change to “Guidance: PGs decide which...”	The error is only present in the markup version of 1WD and was corrected prior to publication of the draft.
CECIP-06		4.3	Guidance #2	Ed	Guidance #2 is unclear to me Guidance: PGs shall decide which metrological characteristics (at least legally relevant software, parameters and measurement data) shall comply with the requirements laid out in the following clauses. This says PGs shall decide which LR SW, parameters and measurement data shall comply; but all LR stuff complies by definition. I think it meant to say PGs shall decide which SW, parameters and measurement data is considered legally relevant.	Guidance: PGs shall decide which metrological characteristics (software, parameters and measurement data) shall comply with the requirements laid out in the following clauses i.e. are considered legally relevant.	In fact, the guidance is intended to illustrate that other characteristics (apart from legally relevant software, parameters and measurement data) may be subject to D31 requirements. Therefore, no change is needed.
AU-05	/	4.4	Note	Ed	Better to use referenced rather than referred	Replace both instances of ‘referred documents’ with ‘referenced documents’.	Agreed.
CA-05		4.4		ge	4.4 Guidance: PGs should decide which parameters are relevant for a specific application.  All other Guidance’s here are “shall”s. Not sure why this is a “should”. It should also be a “shall”.	4.4 Guidance: PGs <b>shall</b> decide which parameters are relevant for a specific application.	Agreed. All guidance should follow the same pattern.  <u>A different descision was made at the meeting. See discussion results in CA-16.</u>
CECIP-07		4.4	Note	Ed	Note: All referred documents are subject... I think “referenced” is more conventional English.	“Note: All referenced documents are subject...”	Agreed.

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JP-01		4.4	1st para.	ed	There is an omission of the word “legally” that should precede the word “relevant”.	Prepend “legally” to the “relevant”. Present <i>Guidance:</i> PGs should decide which parameters are relevant for a specific application.  Revised <i>Guidance:</i> PGs should decide which parameters are <u>legally</u> relevant for a specific application.	Agreed. It is unclear what “relevant” would mean otherwise.
CA-06		5.2		ge	Last Paragraph: The level of examination and the risk level are linked. An in-depth analysis of the software shall be performed when a <b>higher risk level</b> is required to detect software deficiencies or security vulnerabilities, <b>unless in the latter case a mechanical seal is applied</b> , e.g., on communication interfaces or the housing, to mitigate vulnerabilities.  So is this saying that for high security vulnerabilities a physical seal may be the only solution. Is audit trail not suitable?	Clarification is requested or TBD with the PG group	This appears to be both a technical and a requirement discussion. The topic will be addressed at the PG meeting.  <u>New proposal:</u>  <u>If a raised risk level is applied and unless a mechanical seal is used, e.g., on open wired communication interfaces or the housing, an in-depth analysis of the software to detect deficiencies or security vulnerabilities shall be performed.</u>  <u>It will be checked that the terms normal and raised risk level are used consistently throughout the document.</u>
US-01		5.2	Second to the last	te	<i>“An in-depth analysis of the software shall be performed when a higher risk level is required to detect software deficiencies or security vulnerabilities, unless in the latter case a mechanical seal is applied, e.g., on communication interfaces or the housing, to <u>mitigate</u> vulnerabilities.”</i>  Mitigating means a reduction of vulnerabilities but not a prevention of all vulnerabilities.	<i>“An in-depth analysis of the software shall be performed when a higher risk level is required to detect software deficiencies or security vulnerabilities, unless in the latter case a mechanical seal is applied, e.g., on communication interfaces or the housing, to <del>mitigate</del> <b>avoid</b> vulnerabilities.”</i>	OK
CECIP-02		6	6.3.11	ed	There are some subsections without any content (e.g. 6.3.11.3) and some that only contain notes, but no requirements (e.g. 6.3.11.1, 6.3.11.2,...)	If there are no requirements for a respective heading, the section should be either removed or (if it shall be maintained for consistency of the numbering with previous versions) something like “void” should be written there.	The current usage of headings and subheadings was approved by BIML for previous revisions and we should not include “void” notices now.
AU-09	/	6.1	2 <sup>nd</sup> dot point	Ed	Reference to clause is broken / missing.	Replace 0 with 6.3.	The cross-reference will be corrected.

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CA-07		6.1		ge	<p>6.1 General</p> <p>The requirements are separated into:</p> <ul style="list-style-type: none"> <li>• general requirements (6.2). At the time of publishing this Document, the general requirements represent the state of the art in information technology (IT). In principle, they are applicable to all kinds of software-controlled measuring instruments and components of measuring instruments. They should be considered in all Recommendations.</li> <li>• requirements for specific configurations (0), which cover additional requirements for technical features that are only mandatory in certain areas of legal application or added as a feature by the manufacturer.</li> </ul> <p>Recommend changes to aid in flow and content</p>	<p>6.1 General</p> <p>The requirements are separated into:</p> <ul style="list-style-type: none"> <li>• general requirements (6.2). <b>The general requirements represent the state of the art in information technology (IT) at the time of publication.</b> In principle, they are applicable to all kinds of software-controlled measuring instruments and components of measuring instruments and should be considered in all Recommendations.</li> <li>• requirements for specific configurations (<b>6.3</b>), The specific configurations cover additional requirements for technical features that are only mandatory in <b>select Recommendations</b> or added as a feature by the manufacturer.</li> </ul>	The wording appears to be in line with the intention of 1WD.
CA-08		6.1		ed	<p>In the examples, where applicable, both normal and raised risk levels are shown. Notation in this Document is as follows:</p> <p>(I) Technical solution acceptable in case of normal risk level;</p> <p>(II) Technical solution acceptable in case of raised risk level (see 5).</p> <p>Needs to complete reference to section 5</p>	<p>In the examples, where applicable, both normal and raised risk levels are shown. Notation in this Document is as follows:</p> <p>(I) Technical solution acceptable in case of normal risk level;</p> <p>(II) Technical solution acceptable in case of raised risk level (see <b>Section 5</b>).</p>	Agreed. However, sections in OIML publications are called “clauses”.
PL-01	1	6.1	Bullet point 2	ed		We propose to change “legal application” to “legally relevant application”.	Thank you for the suggestion. The term will be corrected. <u>The term is no longer used because of changes resulting from CA-07.</u>
JP-02		6.1 General	2nd bullet line of 1st para.	ed	The cited clause number 0 is a typo for 6.3.	<p>Correct the clause number 0 to 6.3.</p> <p>Present:</p> <p>requirements for specific configurations (0),</p> <p>Revised:</p> <p>requirements for specific configurations (<b>6.3</b>),</p>	Agreed. See also CA-07.

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CA-09		6.2.1		ed	<p>6.2.1 Conformity of manufactured devices to the approved type The manufacturer shall produce measuring instruments, components and versions of the legally relevant software that conform to the approved type and the documentation submitted.</p> <p><b>Guidance: PGs may decide which forms of the software identification are permissible.</b></p> <p>Guidance sentence seems out of place here. Suggest to delete and move to 6.2.2.1 section.</p>	<p>6.2.1 Conformity of manufactured devices to the approved type The manufacturer shall produce measuring instruments, components and versions of the legally relevant software that conform to the approved type and the documentation submitted.</p>	Agreed. The guidance appears to fit better in 6.2.2.1.
CECIP-08		6.2.1 & 6.2.2.1	Guidance, Certificate	Ed	Suggest moving “Guidance” and “Certificate” clauses from 6.2.1 <i>Conformity to approved type</i> to 6.2.2.1 <i>Software identification</i> because they are specifically relevant to software identification.	Move “Guidance” and “Certificate” clauses from 6.2.1 to 6.2.2.1.	Agreed. Guidance and certificate information appear to relate to 6.2.2.1.
JP-03		6.2.1 Conformity of manufactured devices to the approved type	note 2	ed	<p>The content of Note 2 is a documentation requirement.</p> <p>(Related to JP24 below)</p>	Mark “Documentation” instead of “Note 2”.	The requested documentation guidance may be found in 6.3.4 and 7.1.2 as stated in the note. Therefore, note 2 should remain an explanatory note.
AU-10		6.2.2.1	3	Ed	<p>This sentence “Regardless of the form of the software identification...” is duplicated in the last paragraph (before the examples). Except this sentence includes ‘, see 6.2.1 and 6.2.2.7.’</p> <p>The sentence flows better at the end of the paragraph.</p>	Move this paragraph 3 to the end (replacing the last paragraph).	Agreed. The copy&paste error will be corrected.
AU-11		6.2.2.1	9	Ed	<p>The sentence after point c) appears to be another condition. Should it be: d) The software identification shall be correctly marked on the instrument or component concerned.</p>	Make the sentence item d).	Agreed. The sentence after c) also appears to address the exception covered by a), b) and c).

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CECIP-09		6.2.2.1	Para 7	Ed	“imprint” is not in common use in OIML, use “inscription”?	Change “imprint” to “inscription”	<p>“imprint” has been used in D31 since 2008. We should discuss if there is a need to modify the phrase now.</p> <p><u>The group decided to adopt the following sentence instead:</u>  <u>As an exception, the software identification may be marked on the instrument or component concerned if it satisfies all of the following conditions:</u></p> <p><u>We add “correctly” to the list in the first sentence of the clause:</u>  <u>Software modules of a measuring instrument or component shall be unambiguously, uniquely and correctly identified.</u></p>
CECIP-10		6.2.2.1	Para 9	Ed	“it shall be accessible to allow for it to be checked” is incomprehensible.	Change “it shall be accessible to allow for it to be checked when the instrument is in service” to “it shall be readily available when the instrument is in service to allow it to be verified”.	Agreed, but we should use “checked” at the end of the proposed sentence.
JP-04		6.2.2.1 Software identification	3rd para.	ed	Missing a space that separates two sentences.	<p>Add a space between ‘purpose.’ and ‘Regardless’.</p> <p>Present: dedicated to the legal purpose.Regardless of...</p> <p>Revised: dedicated to the legal purpose. Regardless of...</p>	The missing space will be added.
AU-12		6.2.2.3	Example 1	Te	<p>This example includes the following sentence: ‘If any measurement data might be lost by an action, the user is warned and requested to perform another action before the function is executed.’</p> <p>Should measurement data be able to be lost at all? I would normally think this requires the breaking of a seal. What is a real example of this?</p>	Review / clarify.	<p>At the PG meeting, it should be discussed under which circumstances losing measurement data may be acceptable.</p> <p><u>The group discussed that deletion of data might be intentional (for the user). The group proposed to rephrase the example:</u>  <u>The user is guided by menus. The legally relevant functions are combined into one branch in this menu. If legally relevant parameters are about to be changed by an action, the user is warned and requested to make a confirmation before the function is executed. See also 6.2.3.4.</u></p>

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JP-05		6.2.2.3  Also, the relevant part in Annex B	1 <sup>st</sup> and 2nd para.	ed	A proposal for arranging the order of adjectives (accidental, unintentional or intentional) that modify misuse in line with the order in 6.2.3.2.	In the first paragraph, correct “unintentional, accidental, or intentional misuse” to “accidental, unintentional, or intentional misuse”.  In the second paragraph, correct “unintentional or accidental misuse” to “accidental or unintentional misuse” in the first sentence. Correct “unintentional, accidental or intentional misuse” to “accidental, unintentional or intentional misuse”.	Agreed. The wording will be harmonized.
AU-13	/	6.2.2.4 and the checklist and the PG actions and decisions table	2	Ed	Improve clarity.	Replace instances of “all measurement result relevant data” with “all data relevant to the measurement result”. Also needs to be fixed in the checklist. The second item in the checklist should begin “the measurement result <del>are</del> is displayed...”.	The term “measurement result relevant data” was introduced in D31:2019, is defined in the terminology and explained in Annex C. Therefore, there does not appear to be a need for changing the term. The typo will be corrected.
AU-14		6.2.2.5	Guidance	Te	The guidance states that the PG shall specify the content and layout of the display and printout for legally relevant information. This seems unnecessarily prescriptive – especially for the layout – possibly restricting innovation.	Change shall to may, so that the PG doesn’t have to – but can if deemed appropriate.	At the PG meeting, we should discuss the topic together with the BIML. <u>The group discussed that “contents of the display/printout” are covered by the guidance in 6.2.2.4 and, therefore, remove that term from the guidance in 6.2.2.5. Further, the guidance from 6.2.2.5 will be moved into 6.2.2.4.</u>  <u>The group proposed the following additional guidance in 6.2.2.4: The PG may also specify the requirements for the display and/or printout of the legally relevant information.</u>

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AU-15		6.2.2.6	3	Te	Suggest to be less prescriptive about having an internal clock. Allow PGs to decide on this requirement as appropriate.	Suggest: "...the instrument shall be able to keep or read time accurately whether via an internal clock or an external clock synced with legal time." Suggest that "Guidance" is amended to: PGs may require an internal clock and define requirements and test methods for internal clocks where accurate time is required for a legally relevant purpose"	The current phrasing was developed during PG meetings in the course of the previous D31 revision. We should discuss if there is a need to amend the text. <u>The group accepts the proposal (synced → synchronized)</u>  <u>Proposal to extend the note:</u> <u>If setting the clock is legally relevant, especially in case of an external clock, see 6.2.3.5 (setting the clock).</u>  <u>Proposal to "Documentation" of 6.2.3.5:</u> <u>If a clock is synchronized with legal time, the synchronization method and traceability to legal time shall be described, see 7.1.2.</u>
AU-16		6.2.2.6	Example	Te	It is not clear what the example is an example of. That is, what is the requirement relevant to this example?	Clarify.	The example should be updated depending on the outcome of the discussion of AU-15.  <u>Proposal to move the example to the end of the clause (below the requirement on the format of the timestamp) because the example also addresses the timestamp format.</u>
JP-06		6.2.2.6 Timestamps	7th line of example	ed	Some typos in the beginning of the sentence "At the end of e.g., one day the software reads the quartz-controlled clock device ..."	Correct the beginning as "At the end of <u>a period</u> (e.g., one day) the software reads the quartz-controlled clock device..."  Present: At the end of e.g., one day the software reads the quartz-controlled clock device... Revised: At the end of <u>a period</u> (e.g., one day) the software reads the quartz-controlled clock device...	Agreed, but we should use "time period" instead of "period".
AU-17		6.2.2.7	2 and 4	Ed	The sentences are long and difficult to read, and both are largely the same – just about different data.	Replace paragraphs 2 and 4 with: If necessary for the purpose of verification of a measuring instrument, the following shall be displayed or printed, and, if applicable, transmitted to the verification software (see 6.3.12): <ul style="list-style-type: none"> <li>• software identification (see 6.2.2.1)</li> <li>• current relevant parameter settings.</li> </ul> data containing evidence of an intervention.	The intention behind the SG1 proposal was to have clearly separated and testable requirements. The PG should discuss if repetitions are acceptable or if summary requirements are preferred. <u>See CECIP-11.</u>



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CA-10		6.2.2.7		ed	6.2.2.7 Information for verification Note: This clause summarizes information to be made available for verification and related requiriements.  Spelling mistake in <b>requirements</b>	6.2.2.7 Information for verification Note: This clause summarizes information to be made available for verification and related <b>requirements</b> .	The typo will be corrected.
CECIP-11		6.2.2.7		Te/Ed	This clause is not clear and fails to give guidance to PGs.	“It shall be possible to display or print, and, if applicable, transmit to the verification software all necessary verification information, see 6.3.12.  Necessary verification information may include: a) The software identification b) Current relevant parameter settings c) Data containing evidence of intervention  Guidance: PGs may define what verification information is necessary for the instrument type.  Note: Audit trails or event counters are a means to provide evidence of an intervention, see 6.2.3.2.  Certificate: The certificate shall describe how this information can be displayed or printed and specify how it can be obtained by the remote verification procedure.”	The proposed modification would change the content of 6.2.2.7 significantly and should be discussed. <a href="#">The group agreed at the meeting.</a>
PL-02	1	6.2.2.7	First Note	ed		We propose to change “requiriements” to “requirements”.	The typo will be orrected.
US-02		6.2.2.7	Second note	ed	Reference to 6.2.3.2.	Shouldn’t this be 6.2.3.3?	Agreed. The reference will be corrected.
AU-18	/	6.2.2.7 in the checklist only	/	Ed	Improve clarity, reduce repetition of “means”.	Replace “software protection means comprise appropriate...” with “software protection comprises appropriate...”	Agreed. <a href="#">The sentence has been deleted, see PL-13.</a>
JP-07		6.2.2.7 Information for verification	1st Note	ed	“requiriements” is a typo.	Correct “requiriements” to “requirements”.	Agreed. The typo will be corrected.
JP-08		6.2.2.7 Information for verification	3rd line of 2nd para.	ed	There is an omission of the word “legally” that should precede the word “relevant”.	Prepend “legally” to the “relevant”.  Present: current relevant parameter settings to the verification software shall be possible,  Revised: current <u>legally</u> relevant parameter settings to the verification software shall be possible,	Agreed. We should use the same terminology throughout the document.

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CECIP-12		6.2.3.1	Para 2, Examples	Ed	Requirement para says “appropriate sealing by mechanical, <u>software</u> , and/or cryptographic means” but the examples detail mechanical, <u>electronic</u> , and cryptographic means.	<u>If</u> software and electronic means are the same thing, use consistent wording.	The topic will be discussed at the PG meeting, see also <a href="#">Proposal to delete electronic sealing and replace it with software seal in 6.3.11.3.3, see also comment AU-08.</a>
PL-03	1	6.2.3.1	Example 1 and 3	ge	We propose to distinguish this sealing method from purely hardware or electroic (in the meaning of special electronic circuits, tampers etc) solutions . What is more, earlier in this paragraph is mentioned “sealing by software means”.	We propose to change “electronic sealing to “software sealing” or “digital sealing” throughout whole document.	Agreed. However, we should discuss this with the entire PG, see AU-08. <a href="#">See AU-08</a>
US-03		6.2.3.1	Example (4)	Te	It could be argued that the cryptographic means presented in this example is only a way to verify the authenticity of the software. It does not protect it as such.		Agreed. The example will be extended to address potential modifications of the software etc.
AU-19	/	6.2.3.1 and the checklist	2	Ed	Improve clarity, reduce repetition of “means”.	Replace “software protection means shall comprise appropriate...” with “software protection comprises appropriate...” or “software protection shall comprise appropriate”.	Agreed.
CECIP-13		6.2.3.2	Example	Ed	Pluralise example -> examples.	Pluralise example -> examples.	The typo will be corrected.
CECIP-14		6.2.3.2	Example	Te	“...secured and protected against accidental, unintentional, or intentional changes. Example: Accidental changes... Intentional changes...” We are missing an example of unintentional changes.  Also, one cannot ‘secure’ against accidental changes (nobody is authorised to make accidental physical changes).	“Secured and protected against intentional or intentional changes and protected against accidental changes.”  Introduce “Unintentional changes include a user mistakenly deleting some necessary part of the software”. (Or a better example!)	Agreed, although “intentional or unintentional” was probably meant. An example for unintentional modification of parameters will be added.
CECIP-15		6.2.3.2	Examples (#2)	Te	I don’t think there is an example to secure and protect against accidental changes.	Introduce an example to secure and protect against accidental changes. Maybe a regular CRC?	Agreed. An example will be added.
US-04		6.2.3.2	Example (2)	Ed	The sentence reads, “The housing containing the memory devices with the software is sealed or the memory device is sealed on the printed circuit board to prevent swapping the memory device.”	Should the first instance of “memory devices” be singular? This would be consistent with other instances of the term in the same section.	Agreed. This will be corrected.
JP-09		6.2.3.2 Software	last sentence of example 1)	ed	A redundant right parenthesis at the tail “6.3.10.3).” of the paragraph.	Correct "6.3.10.3)." to "6.3.10.3."	The current version “(see also example 1) in 6.3.10.3)” is correct as the first closing bracket “)” is part of the numbering of examples, i.e., “1”.

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JP-10		6.2.3.2 Software	1st example	te	The contents of Example are not technical solutions but additional descriptions of changes.	<p>Mark “Note 1” instead of “Example” and stop both indenting and highlighting. Change the subsequent “Note” to “Note 2”.</p> <p>Present:</p> <p>Example:</p> <ul style="list-style-type: none"> <li>• Accidental changes include changes due to physical effects.</li> <li>• Intentional changes include modification of the software, loading different modules, or changing software by swapping the memory device that contains the software, or unauthorized updates.</li> </ul> <p>Note: Downloading...</p> <p>Revised:</p> <p><u>Note 1</u>: Accidental changes include changes due to physical effects. Intentional changes include modification of the software, loading different modules, or changing software by swapping the memory device that contains the software, or unauthorized updates.</p> <p><u>Note 2</u>: Downloading...</p>	Agreed. Both examples do sound like notes.
DE-01	1	6.2.3.2.1	Bullet point 4	Ed	In several locations of the document, “if applicable” is used without providing further context.	Discuss with the PG if the term should be replaced by a more specific expression of the conditions to be met.	This will be discussed at the PG meeting. <u>PTB will check the document and clarify “if applicable” and elaborate if necessary.</u>
CECIP-16		6.2.3.3	Heading	Te	Audit trails and event counters are specific examples of ‘means to provide evidence of intervention’ (see 6.2.2.7), maybe there are other means we haven’t considered, and the requirements should not presuppose the solutions.	<p>6.2.3.3 Means to provide evidence of intervention</p> <p>Note: Typical means to provide evidence of intervention are ‘event counters’ whereby any legally relevant changes cause a counter to increment and the value of the counter can be compared with a reference value, and ‘audit trails’ whereby any legally relevant change is recorded in detail for later interrogation.</p>	Agreed. However, such a change should be discussed with the entire PG. <u>The group accepted.</u>

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CZ-04		6.2.3.3		te	Information that „The audit trail or value of the event counter shall be displayed or printed on command and, if applicable, transmitted to the verification software“ is missing. And it is necessary to set that this information shall be displayed/printed using legally relevant software.	Add to the functional requirements following: „The audit trail or value of the event counter shall be displayed or printed on command and, if applicable, transmitted to the verification software.“	The proposed text may be found in clause 6.2.2.7, which also provides the necessary link by means of a note: “If necessary for the purpose of verification, data containing evidence of an intervention shall be displayed or printed on command and, if applicable, transmitted to the verification software.  <i>Note:</i> Audit trails or event counters are a means to provide evidence of an intervention, see 6.2.3.2.”  There does not appear to be the need for duplicating the requirement text.
AU-20	/	6.2.3.3.1 and the checklist and the PG actions and decisions table.	1	Ed	Improve clarity.	Include commas “The audit trail shall contain, at minimum,...” and “The audit trail contains, at minimum,...” in the checklist and “audit trails shall contain, at minimum,...” in the PG actions and decisions table.	The commas will be added.
AU-21	/	6.2.3.3.2	3	Ed	Improve clarity.	Paragraph 3 and 4 seem to be contradicting each other. Para 4 begins “any change to the data...”, but the previous para states it is not acceptable to change data.  Also “it shall not be possible to exchange...” should be changed to “it shall not be possible to change...” or “it shall not be possible to change or exchange...” if necessary to retain the ‘exchange’.  Then have a separate sentence on deletion of the data, e.g. It shall not be possible to delete the data of the event counter or audit trails, except to free up capacity where deletion of the oldest data entry is replaced by new data, i.e. the FIFO method.	Agreed. The text should be improved. The best wording will be discussed at the PG meeting.  <u>It shall not be possible to change or delete the data of the event counter or audit trails unless to add new entries or free up storage capacity, see below, and it shall not be possible to change the audit trails or the value of the event counter when the software is updated.</u>  <u>Any change to the recorded data in the event counter or audit trails, except those listed above, is a significant software defect and shall be handled accordingly (see detection of significant defects, 6.3.2).</u>

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CA-11		6.2.3.3.2		ed	Any change to the data in the event counter or audit trails is a significant software defect and shall be handled accordingly (see detection of significant defects, 6.3.2).  Disagree with the addition of the s on this version to the word trails.	Any change to the data in the event counter or audit trail is a significant software defect and shall be handled accordingly (see detection of significant defects, 6.3.2).	The PG should discuss if there may be more than one audit trail.  <u>The group decided to add an “s” in brackets to audit trails and event counters.</u>
CECIP-17		6.2.3.3.2	Para 2	Ed	“The reference number of the event counter shall be fixed and protected by appropriate hardware means at the time of (initial or subsequent) verification.” and “The reference number shall be marked on the instrument.” are the same requirement written twice.	Either “The reference number of the event counter shall be fixed and protected by appropriate hardware means at the time of (initial or subsequent) verification.” or “The reference number shall be marked on the instrument.”	In fact, these are two separate requirements. One addresses fixing and protecting the reference number. The other addresses marking on the instrument. The second sentence will be modified to explain this: “This reference number shall be visibly marked on the instrument.”

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CECIP-18		6.2.3.3.2	Para 6(?)	Te	<p>“The audit trail and event counter shall have sufficient capacity. Guidance: PGs need to specify the capacity required...”</p> <p>Is vague and doesn’t help the PGs determine an appropriate capacity. For consistency, the same requirement should be used as for 6.3.11.4.3 Traced updates</p>	<p>“The audit trail and event counter shall have sufficient capacity.” --&gt;</p> <p>“The audit trail and/or event counter shall have sufficient capacity to ensure the traceability of events between at least two successive verifications or inspections of a measuring instrument in the field.”</p>	<p>Agreed. Audit trail capacity needs to be discussed anyway, see CZ-05.</p> <p><u>Additional modifications to 6.2.3.3.2 were made at the meeting:</u></p> <p>Audit trails and event counters are part of the legally relevant software and shall be secured and protected as such against accidental, unintentional or intentional changes.</p> <p>The reference number of <del>the-an</del> event counter shall be fixed and protected by appropriate hardware means at the time of (initial or subsequent) verification. <del>The-This</del> reference number shall be <u>visibly</u> marked on the instrument.</p> <p>It shall not be possible to change or delete the data of the event counter(s) or audit trail(s) unless to <u>add new entries or</u> free up <u>storage</u> capacity, see below, and it shall not be possible to <u>exchange</u> the audit trail(s) or the value of the event counter(s) when the software is updated.</p> <p>Any change to the <u>recorded</u> data in the event counter(s) or audit trail(s), <u>except those listed above,</u> is a significant software defect and shall be handled accordingly (see detection of significant defects, 6.3.2).</p> <p>Guidance: PGs should define for specific types of instruments which manual additions to an event in the audit trail are admissible, if any.</p> <p>Events shall be recorded automatically.</p> <p>The audit trail(s) and event counter(s) shall have sufficient capacity <u>to ensure the traceability of events between at least two successive verifications or inspections of a measuring instrument in the field.</u></p>

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							<p><del>Guidance: PGs need to specify the capacity required for the audit trails and event counters.</del></p> <p><del>Note: This requirement enables inspection authorities, which are responsible for the metrological surveillance of legally controlled instruments, to back-trace events over an adequate period of time (depending on national legislation).</del></p> <p>If <del>the-an</del> audit trail or event counter has no more capacity, an appropriate response is required.</p> <p><del>Guidance: PGs may specify what the appropriate responses are, i.e., either the oldest entry may be deleted, or no other change of a parameter shall be possible without breaking the seal, or the event counter may restart the numbering.</del></p> <p><del>Guidance: PGs need to specify a sufficient capacity for the audit trail or event counter and the response required, i.e., either the oldest entry may be deleted, or no other change of a parameter shall be possible without breaking the seal, or the event counter may restart the numbering.</del></p>
CZ-05		6.2.3.3.2		te	<p>Text marked in bold is new comparing with last version of D31:</p> <p>„It shall not be possible to change or delete the data of the event counter or audit trails <b>unless to free up capacity, see below....</b>“</p> <p>From my point of view any change or deletion in event counter or audit trail should be forbidden. Event counter and audit trail must be protected against data change or deletion. Such changes or deletions shall be considered as significant defects.</p>	<p>Delete this new part of the sentence, so the sentence will be:</p> <p>“It shall not be possible to change or delete the data of the event counter or audit trails and it shall not be possible to exchange the audit trails or the value of the event counter when the software is updated.”</p>	<p>Requirements regarding the audit trail should be discussed at the PG meeting.</p> <p><u>Withdrawn at the meeting.</u></p>

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JP-11		6.2.3.3.2 Securing and protection	1st guidance	te	Although we cannot present any concrete cases, we are concerned that the audit trail may be destroyed in function or meaning due to the “manual additions to an event in the audit trail”. The manual additions should not influence the audit trail. Besides, it is better to express that the guidance is exceptional in the beginning.	Change as follows.  Present: <i>Guidance:</i> PGs should define for specific types of instruments which manual additions to an event in the audit trail are admissible, if any.  Revised: Guidance: If applicable, PGs should define for specific types of instruments which manual additions to an event in the audit trail are admissible <u>as long as they do not destroy the audit trail as a means or evidence.</u>	Agreed. A more restrictive phrasing might be helpful. The following Guidance is proposed: “If applicable, PGs should define for specific types of instruments which manual additions to an event in the audit trail are admissible <u>as long as they do not affect the remaining contents of the audit trail.</u> ”
AU-22		6.2.3.4		Te	Is there a difference between ‘device-specific parameters’ and ‘parameters that require setting by the user’? And why does a PG have to specify the parameters? Is that overly prescriptive and could it restrict innovation?	Change second last paragraph to: There shall be an audit trail for all device-specific parameters. Delete the guidance: <del>PGs shall specify those parameters that have to be set by the user.</del>	It would appear that not all device-specific parameter can be set by the user. We should discuss however, which instructions PGs may need. <u>The group agreed to transform the guidance into a documentation note.</u>  <u>Documentation: The documentation shall list those parameters that have to be set by the user.</u>  <u>A link in clause 7 (list of documentation) to 6.2.3.4 will be added.</u>
CECIP-19		6.2.3.4		Ed	Should specify “ <u>legally relevant</u> parameters that require setting...” Especially important in juxtaposition to the first para that says “legally relevant parameters shall be secured...”	“Legally relevant parameters that require setting by the user shall be fitted with an audit trail, see 6.2.3.3.”	Agreed. Depending on the outcome of the discussions on AU-22 and US-05, the text might need to be amended.
US-05		6.2.3.4	Second to the last	te	“Parameters that require setting by the user shall be fitted with an audit trail, see 6.2.3.3.”  This is somewhat confusing. The audit trail may be interpreted as a seal instead of just a means of traceability.	“Parameters that require setting by the user <b>without breaking a seal</b> shall be fitted with an audit trail, see 6.2.3.3.”	Agreed, but we should not restrict this to physical seals only. We should discuss at the meeting, if other options exist as well.  <u>The group transformed the proposal: Parameters that require setting by the user without the need for reverification shall be fitted with an audit trail, see 6.2.3.3.</u>



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AU-23		6.2.3.5	3	Te	What is the meaning of ‘in an authenticated manner’ in this sentence? ‘Automatic setting of the time shall only be possible if legal time according to national regulations is used as a time base <u>in an authenticated manner.</u> ’	Clarify the meaning.	<p>The term was introduced during the previous revision to refer to authenticated time synchronization, e.g., by means of the NTS protocol. If needed, we can provide a separate sentence regarding time source authentication.</p> <p><u>The group decided to add an example after the respective requirement, detailing NTS.</u></p> <p><u>Also change the first sentence of 6.2.3.5 to “Setting the clock, see clause 6.2.2.6 on timestamps, shall be secured and protected against accidental, unintentional or intentional changes.”</u></p> <p><u>Harmonize the first guidance with the phrasing used in 6.3.9.3: “PGs may decide to exempt the certain types of measuring instruments from this requirement”</u></p> <p><u>Editorial changes:</u>  <u>Automatic setting of the time shall only be possible, if legal time according to national regulations is used as a time base, in an authenticated manner.</u></p>
AU-24		6.2.3.5	Note 2	Ed	This note doesn’t make sense. It says ‘National jurisdictions may establish more stringent accuracy requirements.’ More stringent than what? There are no specified accuracy requirements. (This came from TC 12/p 3, where it made sense because there are accuracy requirements.)	Replace note 2 with: ‘PGs may specify accuracy requirements for clocks.’	Thank you for pointing out the copy&paste error. The note will be replaced.

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DE-03	1	6.2.3.5	4	Ed	Currently, only some “Documentation:” guidance refers to clause 7.1.2, where all documentation requirements are collected in one clause. In a previous revision it was agreed to include such references throughout the document. This may not be needed anymore as all documentation requirements are now separately marked as such.	Either delete references to 7.1.2 or introduce it in all respective guidance clauses. The first option would be preferred.	This should be addressed as part of the structure discussion. <a href="#">Proposal to add to 7.1.2: The following list is a collection summary of all documentation requirements from clauses 6.2 to 6.3.</a>  <a href="#">Remove all references to 7.1.2 in the document and add a reference in Annex D.</a>
AU-25		6.2.3.6		Ed	Fix the missing cross-reference ‘see 0’	Change to ‘see 6.2.3.7’	The missing cross-reference <a href="#">to clause 6.3</a> will be added.
US-06		6.2.3.6	Note	Ed	The correct reference needs to be made. The text currently reads: Protection of the measurement data can be achieved by ensuring that only legally relevant software can process them, and all requirements for interfaces, see 6.2.3.7, and specifically for configurations, <a href="#">see 0</a> , are fulfilled		The cross-reference to 6.3 will be corrected.
US-07		6.2.3.7.1	2	ed	<i>“It shall not be possible to inadmissibly influence the legally relevant software, parameters or measurement data through these interfaces”</i>  Without further context, the term ‘these interfaces’ seems a bit vague.	<i>“It shall not be possible to inadmissibly influence the legally relevant software, parameters or measurement data through <del>these interfaces</del> a protective interface”</i>	Agreed. The proposed change will be implemented.

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AU-26	/	6.2.3.7.1 and in the checklist	2	Ed	Avoid confusion about each command being assigned to ALL functions/data changes.	Amend to “There shall be clear assignment of commands to all initiated functions or data changes in the legally relevant software.”	A better wording would likely help avoid confusion. The proposed wording, however, lacks the notion that the requirement applies to all commands. Suggestion to use the following, instead: “There shall be a clear assignment of each command to the triggered functions or data changes in the legally relevant software.” <u>New proposal:</u> <u>There shall be an unambiguous assignment of each command to all functions and/or data changes initiated by that command in the legally relevant software.</u>  <u>Cproposed change to the note:</u> <u>The term “type evaluation authority” will be replaced with “type approval authority” or another appropriate term (see V1/B18).</u>  <u>All instances of “or” have been checked to see if they are consistent with the logical or (including and).</u> <u>The document has been harmonized accordingly.</u>
DE-02	1	<del>6.23.23.23.</del> <u>2</u>	10	Te	The option to restart the numbering of the event counter opens up the possibility of hiding changes by performing sufficiently many modifications.	Delete the option of restarting the numbering.	The modification would result in a more stringent requirement. This should be discussed. <u>Change the wording:</u> <u>PGs may specify what the appropriate responses are, e.g., no other change of a parameter shall be possible without breaking the seal.</u>
CECIP-34		6.3.10.1	Note, bullet 2	Ed/Te	6.3.7 is for transmission of data, so is only for communication between multiple <u>legally relevant</u> components.	“For communication between components, see 6.3.7.” -> “For communication between multiple legally relevant components, see 6.3.7.”	Agreed. The clarification could be helpful.
JP-19		6.3.10.1 General	4th line of Example	ed	A lack of harmonization into American English.	Correct "realising" to "realizing".	The spelling will be corrected.
AU-45	/	6.3.10.3	Example box #2	Ed	Improve clarity.	Change “priority using” to “priority use of resources”	Actually, the example was intended to illustrate that the legally relevant software shall have priority <b>when</b> using resources. The example will be amended accordingly.

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CECIP-35		6.3.10.3		Te	Requirement to make measurement data available to primary indications before non-LR modules is too technically prescriptive, other solutions may be possible. The examples actually show solutions other than forcing primary indications first. Use the same technologically neutral requirement as in 6.3.9.3. Then maybe include an extra example: primary indications first.	<p>“Measurement data shall not be made available to non-legally relevant modules prior to primary indication.” -&gt;</p> <p>“Non-legally relevant components or devices shall be prevented from calculating/presenting/spoofing the measurement result.</p> <p>Example x: Measurement data is not made available to non-legally relevant modules prior to primary indication.“</p>	<p>If there is sufficient time at the PG meeting, we should discuss the comment.</p> <p><u>Proposal adapted to software modules: Legally non-relevant software modules shall be prevented from calculating/presenting/spoofing the measurement result.</u></p> <p><u>Beware spelling regarding software modules and not legally relevant!</u></p>
AU-44	/	6.3.10.3 only in the checklist	1	Ed	Improve clarity.	Please see comment in first row.	Please see response to AU-01.
AU-46		6.3.11.3.3	2	Ed	Replace should with shall	‘...the measuring instrument <del>should</del> <u>shall</u> not be employed...’	<p>During a previous revision, it was concluded that D31 cannot impose requirements on the usage of an instrument. Subsequently, “should” was used. We should discuss if a note would be more helpful: “”</p> <p><u>Note:</u>  <u>After the update of the legally relevant software of a measuring instrument (exchange with another approved software version or re-installation), the securing and the protection means should be renewed or reactivated and the measuring instrument should be verified.</u></p> <p><u>Guidance → PGs may also specify other procedures following a verified update.</u></p>
CA-15		6.3.11.3.3		ed	<p>Certificate : The means of how the protection means are renewed or reactivated, if different from the normal securing or protection activation method, shall be stated in the certificate.</p> <p>Spelling mistake in “certificate “ and the font is not consistent w paragraph above.</p>	<p>Certificate : The means of how the protection means are renewed or reactivated, if different from the normal securing or protection activation method, shall be stated in the <b>certificate</b>.</p>	<p>The typo and formatting will be corrected.</p> <p><u>Since the relevant text was modified by other comments a new separate Guidance has been added.</u></p>

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JP-20		6.3.11.3.3 Securing and protection	1 <sup>st</sup> paragraph	ed	The use of ‘id est’ (i.e.) is not appropriate here, since the subsequent part does not explain the previous.	Delete the “i.e.”.  Present: Access to the verified update shall be protected, <u>i.e.</u> , by a physical or ...  Revised: Access to the verified update shall be protected by a physical or ...	Agreed. The revised sentence appears to be more concise.
JP-21		6.3.11.4.1 General	last para.	ed	A missing right parenthesis in “ (6.3.11.4.2 and 6.3.11.4.3.”	Add a right parenthesis. Present: (6.3.11.4.2 and 6.3.11.4.3. Revised: (6.3.11.4.2 and 6.3.11.4.3.).	The closing bracket will be added.
CA-16		6.3.11.4.2		ed	Note: National legislation might require a feature for the user or owner to express their consent prior to an update .  Should not use might even in a Note.	Note: National legislation <b>may</b> require a feature for the user or owner to express their consent prior to an update .	Agreed. However, we should discuss usage of normative vocabulary in notes in general. <u>Consensus at the meeting:</u> <u>The guidance will use the normative language of “may” and “should” and we will add an explanation in clause 4 and the annex D to explain that: “may” → The guidance is optional and the requirement can stand on its own</u> <u>“should” → PGs have to follow the guidance because the requirement is otherwise incomplete</u> <u>“shall” will be avoided.</u>

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CZ-09		6.3.11.4.2		te	<p>When it is possible to update software by the procedure traced update, it is not obvious that this functionality is incorporated in the instrument. And trace update is perceived as potentially dangerous functionality.</p> <p>There is also a worry that once this feature is approved, software that has not yet been approved could be installed in the meter and nobody would have known about it for a long time. And we have not reached a situation where control of the meters placed in the field is lost.</p> <p>Unless a subsequent verification is carried out immediately after the update, any error caused by the update would not be detected immediately after the update and could therefore potentially be a major problem, especially if a large number of meters are being updated. But this feature is not of interest to manufacturers if a subsequent verification must be performed immediately after the update.</p> <p>So I propose to establish a specific designation for meters with the trace update functionality. Such designation allows to distinguish between meters with and without this feature.</p> <p>Such designation and differentiation of meters would also contribute to greater confidence in the traced update.</p> <p>So it would be obvious from looking at the meter whether this function is applied in the meter or not. And wheather the meter must be handled adequately during verification, inspection or metrological supervision – to check audit trails and find out wheather the software update was done and when or not.</p>	<p>Add to the paragraph this functional requirement:</p> <p>“When software may be changed by the trace update procedure, this functionality shall be indicated by the instrument. This may be achieved by the use of a short statement, clearly understood markings, symbols or other indications.</p> <p>If the instrument facilitates remote verification, that information shall also be sent to the verification software and indicated by it.”</p>	<p>Thank you for the proposal. This topic should be discussed at the PG meeting.</p> <p><a href="#">Availability of certificates is beyond the scope of D31</a></p> <p><a href="#">We will add a note in 6.3.11.4.1referencing certificate guidance on audit trails as it is stated in 6.2.2.7 (the Certificate note)</a></p>
CZ-10		6.3.11.4.2	Guidance	ge	<p>This clause was reorganized according to a new guidance for PG. But the text “If a feature is required for the user or owner to express their consent prior to an update, it shall be possible to...” should be written as a main text, not in the Guidance.</p> <p>Because the requirement must be valid also for a case when national legislations require a feature to express the consent prior to an update.</p>	<p>Write the sentences starting with “If a feature is required for the user or owner to express their consent prior to an update, it shall be possible to...” up to and including two items describing actions when the consent is not done or is not necessary as a main text of the clause 6.3.11.4.2, not as a Guidance for PG.</p>	<p>You are correct. At the end of the guidance, there should have been a linebreak to separate requirement and guidance text. This will be corrected.</p>

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CZ-11		6.3.11.4.2		ed	The expression “owner” is used in the clause. But it is not obvious who is the owner. Please add “owner of the certificate” as it is at 6.3.11.4.3 to be clear who is the owner.	Add “of the certificate” to the first occurrence of a word “owner” at the clause.  It is sufficient to add “of the certificate” to the first occurrence of a word “owner” at the clause. It is not necessary to write it everywhere.	Actually, the owner of the device is meant here. The text will be amended to reflect this.
JP-22		6.3.11.4.2 Functional requirements	Guidance	ed	Missing a space that separates first two sentences.	Add a space between ‘button.’ and ‘If’.	Agreed. However, the formatting will be modified as proposed in CA-17.
CA-17		6.3.11.4.2.		ed	Guidance: PGs shall decide if it is necessary for the user or owner to express their consent prior to an update, e.g., by means of a push button.If a feature is required for the user or owner to express their consent prior to an update, it shall be possible to enable and disable the feature, e.g., by a switch that can be sealed or by a secured and protected parameter. If the feature is enabled, each traced update needs to be initiated by the user or owner. <ul style="list-style-type: none"> <li>If the user or owner denies consent, the update procedure should not start at all.</li> <li>If the feature is disabled, no activity by the user or owner is necessary to perform a traced update.</li> </ul> The formatting with all the “if” statements needs to be cleaned. Possible solution.	Guidance: PGs shall decide if it is necessary for the user or owner to express their consent prior to an update, e.g., by means of a push button.  If a feature is required for the user or owner to express their consent prior to an update, it shall be possible to enable and disable the feature, e.g., by a switch that can be sealed or by a secured and protected parameter.  <ul style="list-style-type: none"> <li>If the feature is enabled, each traced update needs to be initiated by the user or owner.</li> <li>If the user or owner denies consent, the update procedure should not start at all.</li> <li>If the feature is disabled, no activity by the user or owner is necessary to perform a traced update.</li> </ul>	Agreed. The formatting will be corrected as suggested.
DE-06	1	6.3.11.4.3	11	Ed	The audit trail is frequently mentioned in the document, but only some instances of the term are accompanied by a reference to the definition in 3.2.1.	Delete the references to 3.2.1.	Agreed.
AU-48	/	6.3.11.4.3 (and in the checklist for 6.2.3.3.1s and 6.3.11.4.3)	Dot pt # 5	Te	In what circumstance would the id of the uploading party/source of the update not be available?	Delete “..., if available”	Agreed. However, we should consult with the PG before implementing the change. <u>Rejected, but new examples will be added regarding the identity of the uploading party: operator, service engineer, manufacturer</u>
AU-47	/	6.3.11.4.3 and the checklist	10	Ed	Improve clarity	Include commas “contain, at minimum,”	Agreed. Commas will be included as suggested.

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CECIP-36		6.3.12.2.1		Te	"It shall always be possible to establish and ensure the integrity of the instrument to be verified." The use of "always" could be problematic (when powered down? When mid-measurement?) The following paragraph clarifies anyway with "...immediately before transmitting...".	Delete "always"	Agreed.
CZ-12		6.3.12.2.2	Guidance	ed	There is a list of relevant test items and among them "software version identification". But a term "software identification" is used through D31. So change it accordingly.	Write "software identification" instead of "software version identification".	Agreed, see also CZ-23, CZ-16.
CECIP-37		6.3.12.2.3	Note 2	Te	Even if some national authorities do not accept remote verifications, they can just not use the remote verification functionality – there is no need for the manufacturer to disable it.	Delete Note 2. Move the first sentence to 6.3.12.2.1 General: Note 2: National regulations may allow or disallow remote verification.	This was discussed at length during the previous revision. We should keep the current wording.
JP-23		6.3.12.3 Securing and protection	1st para.	te	The clause 6.2.3.7 is more appropriate as a reference in here than 6.3.9.3 that ultimately refer 6.2.3.7.	Correct "6.3.9.3" to "6.2.3.7".	Agreed.
AU-27		6.3.2.1		Ed	The first sentence is too long and much of the content is repeated in 6.3.2.2	Change to: Guidance: PGs may require detection functions for significant defects noting that in case of a software implemented seal a checking facility is required to check for changes, see 6.3.2.1.	Agreed. The omitted text does appear to be covered by 6.3.2.2.
CECIP-20		6.3.2.1		Ed	"Significant fault" is described where "significant (software) defect" is meant.	Replace "significant fault" with "significant (software) defect".	We should keep the current term, see response to <a href="#">The term fault was deleted, see responses to CECIP-22 and AU-27.</a>
CZ-06		6.3.2.1		ed	At this paragraph a reference to 6.3.2.1 is written. But it should probably be a reference to 6.2.3.1 instead.	Correct reference: write 6.2.3.1 instead of 6.3.2.1. <a href="#">The reference has been changed to 6.3.2.2, see response to AU-27.</a>	Agreed. <a href="#">The reference has been changed to 6.3.2.2, see response to AU-27.</a>
DE-04	1	6.3.2.1	1	Te	The first paragraph mentions significant fault although the clause appears to address significant defects.	Change "fault" to "defect".	The title will be amended. Defect would be the more general term, anyway. <a href="#">The term has been deleted, see response to AU-27.</a>
PL-04	1	6.3.2.1		ed		We propose to change "see 6.3.2.1" to "see 6.2.3.1". <a href="#">The reference has been changed to 6.3.2.2, see response to AU-27.</a>	Agreed. The reference will be corrected.
JP-12		6.3.2.1 General	1st sentence	ed	The cited clause number 6.3.2.1 is typo for 6.2.3.1.	Correct the clause number "6.3.2.1" to "6.2.3.1".	Agreed. The reference will be corrected. <a href="#">The reference has been changed to 6.3.2.2, see response to AU-27.</a>
CZ-07		6.3.2.2	Note	ed	At the note there is a reference to 6.3.11.4.3 – this clause speaks about protection and securing in case of Trace update. I should better put a reference to 6.2.3.3 that is about Audit trails and event counters.	Add reference to 6.2.3.3 instead of 6.3.11.4.3.	Agreed. This is probably a copy&paste error from restructuring D31.



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AU-28	/	6.3.2.2 and the checklist	3	Ed	Improve clarity.	Replace “it shall appropriately respond to any detected defect” to “it shall respond appropriately to any defect detected”. Wording in the checklist to be amended to be consistent with wording in the text of the clause.	Agreed.
CECIP-22		6.3.3		Te	Significant faults are not covered here but should have the same status as durability protection.	Recommend rewrite 6.3.3, 6.3.3.1, and 6.3.3.2, including the heading, to include “detection of significant durability errors and/or significant faults”	6.3.2 (detection of significant defects) is mandatory, whereas 6.3.3 (durability protection) is optional. Therefore, the clauses should not be combined.  <u>Agreed to expand durability protection to also include significant faults.</u>  <u>6.3.2 will be detection of significant defects.</u>
AU-29		6.3.3.1		Ed	Some of the guidance here is repeated in the guidance in 6.3.3.2. Suggest to remove repetition.	Change to: PGs may require detection functions for durability errors. In this case, the instrument manufacturer would be required to design detection functions into the software modules or hardware components or provide means by which the hardware components can be supported by the software modules of the instrument.	Agreed. The omitted text does appear to be covered by 6.3.3.2.
CA-12		6.3.3.1		ge	6.3.3.1 Note : It is the manufacturer’s choice to realize durability protection facilities addressed in OIML D 11:2013 [2] (5.1.3 (b) and 5.4) in software or hardware, or to allow hardware facilities to be supported by software.  Spelling mistake in “realize” and this whole section is currently Notes, Example or guidance. Can we delete the word “Note” If not having “Note” is required to prevent this from being a requirement then it can be left alone.	6.3.3.1 It is the manufacturer’s choice to <b>realize</b> durability protection facilities addressed in OIML D 11:2013 [2] (5.1.3 (b) and 5.4) in software or hardware, or to allow hardware facilities to be supported by software.	It was the intention to phrase all explanatory clauses as notes. The spelling will be corrected. <u>The typo was already corrected in the clean version of IWD.</u>
CECIP-21		6.3.3.1	Guidance	Ed		Delete “However”	Agreed.
AU-30	/	6.3.3.2 and the checklist	3	Ed	Improve clarity.	Replace “it shall appropriately respond to any detected durability error” to “it shall respond appropriately to any durability error detected”. Wording in the checklist to be amended to be consistent with wording in the text of the clause.	Agreed. The wording will be amended as suggested.

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AU-31		6.3.4.1		Te	Amend to give clear guidance to PGs and to focus on the general principle.	Make it “Guidance: PGs should consider the role of dynamic modules, in particular those that incorporate machine learning or artificial intelligence.”  Amend text to focus on the general principle: e.g. “It shall be clear to both users and customers that dynamic modules were used. Acceptable solutions include: short statement, clearly understood markings, symbols or other indications.”	The current phrasing was the result of lengthy discussions in SG1 during the previous revision of D31. At the PG meeting, we should discuss if and how the text should be updated. <u>New proposal:</u> <u>PGs may decide not to implement this requirement in their recommendation.</u>  <u>Further proposal:</u> <u>Remove the word “may” in the note of definition 3.2.16 (dynamic module of legally relevant software:</u> <u>Such dynamic modules incorporate or utilize machine learning or artificial intelligence characteristics and processes.</u>
AU-32	/	6.3.4.1	1	Ed	Improve clarity.	Include commas “, or is dependent upon,”.	Agreed. The text will be modified as suggested.
CECIP-23		6.3.4.1		Te	Either we are sure dynamic modules work properly, or not. Therefore it should not matter whether a measurement result was achieved with dynamic modules or not. Every indication must be within the MPE and how it is calculated should not matter.	Delete the requirement completely.	The current requirements are the result of lengthy discussions in TC5/SC2/p4 and should be kept.
JP-13		6.3.5.1 General	example	ed	The content seems to be an informative description rather than technical solution.	Describe this part as a <i>Note</i> . Otherwise write this part as sentences. Mark “Note’ instead of “Example”.	Since the example only mentions the protective interface. This should remain an example.
CECIP-24		6.3.5.2.2		Te	Repeat of the general requirement (which applies for OS and non-OS systems) 6.2.2.5 Shared Indications. The examples all exhibit OS level protections anyway.	Delete 6.3.5.2.2	Agreed.
US-08		6.3.5.3.1	2	ed	“ <i>This implies that legally relevant operating system parts can <b>only</b> be changed by means of a verified update (see 6.3.11.3) <b>or</b> by means of a traced update (see 6.3.11.4) <b>if</b> under the condition that an audit trail is used for protection of the legally relevant configuration settings</i> ”  The construction of the sentence, ‘ <i>only A or B if C</i> ’, may be ambiguous. One can interpret that criteria C applies to both options A and B, while the intention is that condition C only applies to option B.	Add a comma before “or”.  “ <i>This implies that legally relevant operating system parts can only be changed by means of a verified update (see 6.3.11.3) <b>or</b> by means of a traced update (see 6.3.11.4) <b>if</b> under the condition that an audit trail is used for protection of the legally relevant configuration settings.</i> ”	Agreed. The comma will be added.

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AU-33		6.3.5.3.5	Guidance	Ed	The first dot point of the guidance is ‘if high conformity is required’. It is not clear what this means. Suggest this is more generally related to risk.	Replace with ‘if there is a raised risk level’.	This is likely a relic of notion of conformity levels in D31:2008. We should discuss if a different phrasing is acceptable. <u>The group accepted.</u>
CA-13		6.3.5.3.5		ge	Documentation: The manufacturer has to identify the hardware and software environment that is suitable.  “has to” is not correct verbiage for OIML R docs.	Documentation: The manufacturer <b>shall</b> identify the hardware and software environment that is suitable.	It was the intention of SG1 to avoid requirement language outside actual requirement clauses. We should discuss this at the meeting.  <u>Proposal:</u> <u>The documentation is a requirement and the respective notes will be reformulated to</u> <u>“The documentation shall contain ...” throughout the document.</u>
US-09		6.3.5.3.5	Documen- tation	Ed	Text reads: The manufacturer <b>has to</b> identify the hardware and software environment that is suitable.	Use more suitable normative language: Shall or should	It was the intention of SG1 to avoid normative vocabulary in guidance, documentation recommendations etc. We should discuss this at the PG meeting. <u>See CA-13.</u>
US-10		6.3.5.3.5	1	te	<i>“A lack of resources or an unsuitable environment shall not inadmissibly influence the measurement result.”</i>  What is an ‘unsuitable environment’? Is the end result of an unsuitable environment equivalent to a lack of resources anyway?	<i>“Insufficient or depleted resources shall not inadmissibly influence the measurement result.”</i>	As there appears to be some overlap between the two terms, we should discuss this at the PG meeting. <u>The group proposed to add a new example to 6.3.5.3.5 to explain what an unsuitable environment is.</u>  <u>The group proposed to extend the requirement with the following sentence:</u> <u>Insufficient resources or an unsuitable environment shall not inadmissibly influence the measurement result.</u> <u>If insufficient resources or an unsuitable environment are detected by the instrument it shall respond appropriately, see 6.3.2.</u>
AU-36		6.3.5.3.6	3	Te	What is ‘a freely accessible storage’? How does this relate to securing data against change?	Clarify meaning.	The term refers to storage that is accessible without violating securing and protection measures. The sentence will be amended accordingly. It is assumed that the comment refers to clause 6.3.6.3.

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CECIP-25		6.3.5.3.6		Ed	“System Resources” has been (rightly) merged with the previous “Suitable environment and constraints for operation”, but the heading still exists without a requirement and an unrelated note.	Delete 6.3.5.3.6	The note is not unrelated, but provides a link to software separation which may impact system resources. The note will be amended to reflect this.  <u>The group decided to move the note into 6.3.5.3.5 and delete 6.3.5.3.6.</u>
US-11		6.3.5.3.6	Note	Ge	We note the transposition of the previous system resources to other segments of the document. Is the note now the only component of this section?	No recommendation. Only request for clarification.	Yes. The note is the only component in this section.
CECIP-26		6.3.6.2		Ed	This should mirror the general clause for data transmission.	“...results of remote verification and measurement data” -> “...results of remote verification and measurement data before they are used for legal purposes.”	Agreed. The corresponding text from 6.3.7.1 will be copied to 6.3.6.1.
CECIP-27		6.3.6.2.1 & 6.3.7.2	Guidance	Ed	“... data necessary to construct...” should probably be “...data necessary to REconstruct...”	“construct” -> “reconstruct”	Agreed. The result should probably exist beforehand.
CA-14		6.3.6.2.2			Guidance: PGs shall dedice how long records that store results of a remote verification shall be kept for.  Spelling mistake in “decide” and the word “for” should be deleted.	Guidance: PGs shall <b>decide</b> how long records that store results of a remote verification shall be kept.	Agreed.
CECIP-28		6.3.6.2.2	Guidance #2	Ed	Typo	“dedice” -> “decide”	The typo will be corrected.
PL-05	1	6.3.6.2.2		ge		We propose to establish stronger link of the sentence “The measurement result may be deleted if” with additional two bullet points, with latter sentence “Measurement data stored in a component..”. For example by putting them in additional, the same subclause 6.3.6.2.2.1	We should discuss this at the PG meeting. <u>It was agreed to create a new subclause 6.3.6.2.3 for the proposed change including the bullet points.</u>
AU-35	/	6.3.6.2.2 and the checklist	6	Ed	Improve clarity.	Delete “engaged” for conciseness.	Agreed.
AU-34	/	6.3.6.2.2 and the checklist and the PG actions and decisions table.	4	Ed	Improve clarity.	Fix verb used with measurement “result” as “result” is a third person singular subject, i.e. “measurement result data <del>are</del> is relevant...” Replace “...all measurement result relevant data included in the calculation...” with “all data relevant to the measurement result is/are (please see comment in first row) included in the calculation and shall be automatically stored with the final value.”. In the checklist, make sure data is treated as either a singular or plural noun (please see comment in first row), e.g. data...is/are automatically stored. In the PG actions and decisions table, ‘measurement result’ also needs third person singular form of the verb, i.e. the measurement result is relevant...	While the measuremet result is surely singular, would it not be possible for it to consist of a larger dataset with several items, in which case “measurement result relevant data” would be plural? This should be briefly discussed at the PG meeting. <u>The group decided to stick with the plural version.</u>

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CECIP-29		6.3.6.3	Penultimate clause	Te	Origin of this requirement is unclear: “Intermediate measurement data shall always be stored locally.” It introduces arbitrary restrictions on new technical solutions, and could introduce questionable definitions of “locally”.  Also mentioned in 6.3.6.2, perhaps it should be clearer that ‘intermediate data used to construct’ means MDMI’s length/width/height measurements to construct a volume, not NAWI’s weight measurements to construct a price.	Delete “Intermediate measurement data shall always be stored locally.”	If there is enough time at the meeting, the proposal will be discussed. <u>Agreed with the comment and the guidance below will be modified as follows</u> <u>Guidance: PGs may set limitations on storage solutions, e.g., whether or not data shall be stored locally, in different locations, or in the cloud.</u>  <u>We will add an example for buffering intermediate data for consecutive measurements.</u>
AU-37	/	6.3.6.3 and the checklist and the PG actions and decisions table	5	Ed	Improve clarity.	Include commas “, or further processes,”. And replace “after having read them from the storage” with “after having read the data from the storage” and amend in the checklist and PG actions and decisions table also. In the PG actions and decisions table, add a comma, “if an irregularity is detected,...” as it is in the text of the clause.	Agreed. The editorial changes will be implemented as suggested.
JP-14		6.3.6.3 Securing and Protection  Also, the relevant part in Annex B	1 <sup>st</sup> sentence	ed	The order of three adjectives (intentional, unintentional or accidental) that modify changes is not consistent with the order in 6.2.3.2.	Correct “intentional, unintentional, or accidental changes” to “accidental, unintentional or intentional changes”, in line with 6.2.3.2.	Agreed. We should harmonize the different clauses as much as possible.
AU-38	/	6.3.7.2 only in the checklist	/	Ed	Improve clarity	Replace “include” with “includes” in the checklist.	Since data will be treated as plural, we should keep “include” here. See response to AU-01.
CECIP-30		6.3.7.3	Guidance	Te	R51 sw subgroup concluded that “open network” isn’t defined and is meant to capture WANs, not internal CANs, for example.	“open network” -> “publicly accessible open networks”	Agreed.
AU-39	/	6.3.7.3 and the checklist and the PG actions and decisions table.	6	Ed	Improve clarity.	Include commas “, or further processes,” and amend in checklist and PG actions and decisions table. In the checklist and the PG actions and decisions table, add a comma, “if an irregularity is detected,...” as it is in the text of the clause.	Agreed.

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CECIP-31		6.3.7.4	Guidance	Ed	Consistently use the infinitive or gerund. "...disabling of further measurements, stop[ing] the current measurement process, discard[ing] or mark[ing] the measurement..."	"disabling" -> "disable"	Agreed.
US-13		6.3.7.4		Ed	Phrasing is hard to follow: The measurement shall not be inadmissibly influenced by a transmission delay, or interruption or unavailability of network services or this shall be detected in which case an appropriate response shall be required.	Break up sentences to simplify: This measurement shall not be inadmissibly influenced by a transmission delay, or by the interruption or unavailability of network services. If a transmission delay or the interruption or unavailability of network services occurs, an appropriate response shall be required. OR In the case of such influences, an appropriate response shall be required.	Thank you. The first option would be preferred.
US-14		6.3.7.4		Ed	Under "Guidance", in the list of examples, suggest the consistent usage	Rather than "disabling of further measurements,. stop the current measurement process, discard or mark the measurement as unusable to avoid the loss of measurement data." Either use "disable" or "stopping", "discarding" and "marking".	We will use the gerund version in all four cases. <u>The proposal from CECIP-31 has been implemented.</u>
JP-15		6.3.7.4 Transmission delay or interruption	4th line of Example 1	ed	A lack of harmonization into American English.	Correct "organised" to "organized".	Agreed. We should use American English throughout the document.
JP-16		6.3.8, 6.3.9 and 6.3.10	Whole subsections	ge	<p>The current arrangement of sections looks like as follows: 6.3.8 Specification and separation of legally relevant components and modules, 6.3.9 Separation of components, 6.3.10 Separation of software modules.</p> <p>Since the first subsection covers the latter two, it might be better that both the latter sections 6.3.9 and 6.3.10 would be arranged underneath the section 6.3.8 as 6.3.8.2 and 6.3.8.3, respectively.</p>	<p>Move the whole section 6.3.9 under 6.3.8 as 6.3.8.2. Again, move the whole section 6.3.10 under 6.3.8 as 6.3.8.3.</p> <p>The rearranged sections would be as follows: Present 6.3.8 Specification and separation of legally relevant components and modules 6.3.8.1 General 6.3.9 Separation of components 6.3.9.1 General 6.3.9.2 Shared components 6.3.9.3 Securing and protection 6.3.10 Separation of software modules</p> <p>Revised 6.3.8 Specification and separation of legally relevant 6.3.8.1 General 6.3.8.2 Separation of components 6.3.8.2.1 General 6.3.8.2.2 Shared components 6.3.8.2.3 Securing and protection 6.3.8.3 Separation of software modules</p>	<p>We should have a discussion regarding a better arrangement of clauses at the PG meeting. <u>The group agreed.</u></p> <p><u>Note: the proposal is not complete here but will be implemented completely for all affected clauses.</u></p> <p><u>6.3.8.2 will be renamed to Specification and separation of components</u></p> <p><u>6.3.8.3 will be renamed to Specification and separation of software modules</u></p>

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CECIP-33		6.3.9			<p>This section avoids the difficult issue of ‘bring your own devices’ where certain components are only legally relevant due to (verifiable) software running on them so they may be interchangeable without breaking a seal.</p> <p>It is important that D31 addresses this issue as these devices are already appearing on the market and it is unreasonable to expect individual PGs of determining consistent and appropriate requirements.</p>		BYOD scenarios were discussed during the previous revision. It was decided that the current requirements are sufficient.
CECIP-32		6.3.9.1	Note 2	Ed	In the new D31 format, I think this should be rewritten as a “certificate” type clause.	Replace note 2 with “ <i>Certificate</i> : The components that comprise the complete legally relevant hardware shall be stated in the certificate.”	We should keep the note and add the proposed certificate information.
JP-17		6.3.9.2 Shared components	Guidance	te	We could not imagine the relevance between identifying components on a printout or the necessity of a printout and the case where the measurement is repeatable.	We would appreciate if you added more concrete explanations or assumptions on the relevance or the case of repeatable measurement.	If a measurement is repeatable, there should be no need to identify the exact components which produced a measurement result in the printout. If the measurement cannot be repeated, such identification on a printout would enable inspectors etc. to check for the source of an error. This will be explained by means of a note.
AU-40		6.3.9.3 <a href="#">Now 6.3.8.2.3</a>		Te	This clause opens with a note and then examples. There should always be requirements before an example. Otherwise what does the example relate to?	Clarify.	Agreed. The clause will be reordered to clarify that the examples refer to the protection against exchange together with interface protection requirements in 6.2.3.7. <a href="#">The clause number is 6.3.8.2.3 after restructuring.</a>
AU-41		6.3.9.3	Guidance (4)	Ed	This guidance says: PGs needs to decide which action shall be taken. Perhaps this relates to the requirements several paragraphs earlier.	Move guidance up to where it is relevant.	The guidance refers to the requirement “In case the authenticity and/or integrity check fails, or the other component is not available, the checking component shall appropriately respond to this, see 6.3.2.” This will be addressed during reordering of the clause. <a href="#">The clause number is 6.3.8.2.3 after restructuring.</a>
AU-43	/	6.3.9.3 and the checklist	11	Ed	Improve clarity.	Replace “In case legally relevant components with limited functionality and...” with “If legally relevant components have limited functionality and...”, In the checklist amend to “they <b>shall have limited access to the measurement data...</b> ” for consistency with text in clause.	Agreed. The proposed text appears to be in line with 1WD. <a href="#">The clause number is 6.3.8.2.3 after restructuring.</a> <a href="#">Normative vocabulary cannot be used in the checklist. The text proposal has been amended accordingly.</a>

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AU-42	/	6.3.9.3 and the checklist and the PG actions and decisions table	6	Ed	Improve clarity and align with wording in the text of the clause.	Amend “In case the authenticity and/or integrity check fails...the checking component shall appropriately respond...” to “ <b>Where (or ‘When’)</b> the authenticity and/or integrity check <b>fails</b> ...the checking component <b>shall respond appropriately</b> ”.	Agreed. “When” will be used in the modified text.
JP-18		6.3.9.3 Securing and protection	last sentence of 6th example	ed	A redundant right parenthesis at the tail “in 6.3.10.3).” of the example.	Remove the right parenthesis.  Present: in 6.3.10.3). Revised: in 6.3.10.3.	The current version “(see also example 1) in 6.3.10.3)” is correct as the first closing bracket “)” is part of the numbering of examples, i.e., “1”.
AU-49		7.1.1	3	Ed	The note includes: ‘e.g. evolving ML-models’. Avoid use of undefined abbreviations.	Update.	We will use “machine learning” instead of “ML” henceforth.
PL-06	1	7.1.2	Bullet point 2	ed		We propose to change “see 6.2.3.6.1” to “see 6.2.3.7.1”.	Thank you. The cross-reference will be corrected.
PL-07	1	7.1.2	Bullet point 13	ed		We propose to change “see 6.2.3.4” to “see 6.2.3.5”.	The cross-reference will be corrected.
JP-24		7.1.2 Contents of the documentation	3rd subbullet in the bullet “if dynamic modules of ...” before the last one	ed	The content of the sentence “a description of the means to validate the conformity of devices in use ...” originates from Note 2 in the clause 6.2.1.  (The comment is related to JP3.)	Add a reference “, see 6.2.1” at the end of the sentence.  Present: a description of the means to validate the conformity of devices in use even in the presence of dynamic parameter changes;  Revised: a description of the means to validate the conformity of devices in use even in the presence of dynamic parameter changes; <u>see 6.2.1</u> .	Agreed. The reference would help.



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JP-25		7.1.2 Contents of the documentation  7.3.2.1 Analysis of Documentation and Specification and Evaluation of the Design (AD)	The last subbullet in the bullet “if dynamic modules of ...” before the last one in 7.1.2  Note in 7.3.2.1	ed	<p>The content of the sentence “detailed description of the dynamic module’s algorithm design ...” in 7.1.2 originates from Note in the clause 7.3.2.1.</p> <p>The content of Note in 7.3.2.1 is, actually, a requirement for Documentation. Moreover, it is more appropriate to arrange the requirement in 6.3.4.1 than in the current 7.3.2.1.</p>	<p>(1) Move the note in 7.3.2.1 to the clause 6.3.4.1, with marking “Document”.</p> <p>Present: 7.3.2.1 Analysis of Documentation and Specification and ... Application: Basic procedure for software evaluation. Preconditions:  1) Specification of the ....  2) Specification of the software functions and...  <u>Note: In cases of dynamic modules of legally relevant...the compliance with the relevant Recommendation.</u></p> <p>Revised: 6.3.4.1 Functional requirements Where a measurement result is the product of a measurement ... is regarded as measurement result relevant data. <u>Documentation: In cases of dynamic modules of legally relevant...the compliance with the relevant Recommendation.</u></p> <p>-----</p> <p>(2) For the sentence in 7.1.2, add a reference “, see 6.3.4.1” ..</p> <p>Present: 7.1.2 Contents of the documentation The documentation (for each....: ... ... ... - detailed description of the dynamic module’s algorithm design as well as a description of the training process and the used training datasets;</p> <p>Revised: - detailed description of the dynamic...training datasets, <u>see 6.3.4.1;</u></p>	<p>As the change would affect several clauses. We should discuss this briefly at the PG meeting <u>The group agrees.-</u></p>

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JP-26		7.1.2 Contents of the documentation	19th bullet referring 6.3.9.1	ed	The list of components is not general but specific for configurations. The beginning of the requirement should be aligned with the beginning of next “software separation”.	Add "In case of hardware separation," at the beginning of the requirement. Present: • list of components of a measuring instrument that perform legally relevant functions, see 6.3.9.1;  Revised: • <u>In case of hardware separation</u> , a list of components of a measuring instrument that perform legally relevant functions, see 6.3.9.1;	“Hardware separation” is not a defined term in D31. Therefore, we should keep the current phrasing.
JP-27		7.2.2 Information to be included in the certificate	three items in the last bullet	te	It is not clear where the first item “means of integrity protection checking” originates from. We could not find any relevant requirements in Chapter 6.  The second item “software operating environment” seems to be redundant, since it is already included in the previous bullet “Minimum resources and a suitable software configuration management ...”.  The last item “test items with their unique identification...” seems to be originated from 6.3.12.2.2.	Clarify the requirements linked to the first item "means of integrity protection checking".  Delete the second item “software operating environment.”  Add a reference “, see 6.3.12.2.2.” for the last item “test items with their unique identification ...”  Revised: 7.2.2 Information to be included in the certificate The following information shall be...: • The software.... • Instruction on ... • if applicable: - means of integrity protection checking; <del>– software operating environment,</del> - test items with their unique identification, <u>see 6.3.12.2.2</u> used for the remote verification procedure.	The “means of integrity protection checking” stems from clause 6.3.9.3. The reference will be added.  The reference to 6.3.12.2.2 will be added also.  “Software operating environment” is indeed already covered by the configuration management and will be deleted from the list.
CZ-13		7.2.2.	bullet no. 4, 5	ge	Among items that shall be included in the certificate an information wheather dynamic modules are incorporated in the instrument is missing. Dynamic modules can completely influence the instrument and its measuring characteristics, so in the certificate it shall be stated wheather the instrument is equipped with it or not.	Add to the 4 <sup>th</sup> bullet: “software modules under legal control, including whether or not the instrument is equipped with a remote verification procedure or a traced update procedure <b>or with a dynamic modules</b> ” OR Update the 5 <sup>th</sup> bullet: “ <b>specification wheater measuring instruments is equipped with dynamic modules and its impact</b> on the legally relevant software (modules/parts/algorithms etc.), see 6.3.4.2.”	Agreed. The second option would be preferred.
PL-08	1	7.3.1	Table 1, Row 2	ed		We propose to change “speification” to” specification”.	The typo will be corrected.
PL-09	1	7.3.1	Table 1, Rows 5 and 6	ed	We propose change to harmonise with American English spelling.	We propose to change “analysing” to analyzing”	Agreed. We should use American English throughout the document.

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JP-28		7.3.1 Overview of methods and their application Table 1	row of DFA	ed	A lack of harmonization into American English.	Correct "analysing" to "analyzing".	Agreed. We should use American English throughout the document.
JP-29		7.3.1 Overview of methods and their application Table 1	row of CIWT	ed	A lack of harmonization into American English.	Correct "analysing" to "analyzing".	Agreed. We should use American English throughout the document.
JP-30		7.3.1 Overview of methods and their application table 1	description column of AD row	ed	The word “specification” is a typo for “specification”.	Correct "speification" to "specification".	The typo will be corrected.
PL-10	1	7.3.2.3	Reference	ge		We propose to change reference to the newest WELMEC Guide 7.2. (2023 year)	All references will be updated accordingly.
CZ-14		7.3.2.5	Description	ed	At the sentence “The examiner may also concentrate on algorithms or functions that <b>they have</b> identified as complex, error-prone,...” a subject and a verb were changed, but now the sentence is not in a correct form.	Return to the previous subject and verb: The examiner may also concentrate on algorithms or functions that <b>he has</b> identified as complex, error-prone,...	“They have” is the gender neutral form of “he has” and should be kept.
US-12		7.3.2.5	4	ed	“... and inspect the respective part of the source code by analysing and checking.”  Missed an instance of British spelling	“analyzing”	The spelling will be corrected.
JP-31		7.3.2.5 Code Inspection and Walk Through (CIWT) Description	2nd para.	ed	A lack of harmonization into American English.	Correct "analysing" to "analyzing".	Agreed. We should use American English throughout the document.
AU-50		8.3.2	1	Ed	Avoid use of should	Change first sentence: Remote verification <del>should</del> <u>shall</u> cover...	Agreed. From the rest of the clause it should be apparent that this is a mandatory requirement.

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CECIP-38		8.3.2	Note 4	Te	Is it consistent to say D31 does not impose requirements on verification software running on the remote unit? If data transmission is in accordance with 6.3.7, is the remote unit not subject to D31 requirements?  Only the verification software module should be subject to D31, not the hardware (see bring-your-own devices comment above).  CECIP not in favour of making remote units subject to national legislation – wish to harmonise where possible.		The current wording of 8.3.2 was discussed at length during the previous revision. It is intentional that 6.3.7 applies even when the receiver (the verification software) is not subject to D31 requirements.
CZ-15		8.3.3.1	2 <sup>nd</sup> sentence	ge	At the sentence are listed audit trails and event loggers, but both indicate the same. At the D31 we use a term “audit trail”, not a term “event logger”, so unify the usage of terminology and delete “event loggers”.	Delete “event loggers”, so the sentence will be: “Applicable test items for this remote verification procedure are audit trails, event counters, etc.”	Agreed. We should also correct the term in 8.3.3.2.4.
CZ-16		8.3.3.2.1	2 <sup>nd</sup> sentence	ed	There is written “software version number”. We use in the whole document “software identification”, not version number (because software identification could be done by hash, CRC etc., not only by version number). So change it accordingly.	Write “software identification” instead of “software version number”.	Agreed. See also CZ-12, CZ-23.
CZ-17		8.3.3.2.4	2 <sup>nd</sup> sentence	ge	At the sentence are listed audit trail and event logger, but both indicate the same. At the D31 we use a term “audit trail”, not a term “event logger”, so unify the usage of terminology and delete “event logger”.	Delete “event logger”, so the sentence will be: The applicable test item for this remote verification procedure is the value of the parameter and the integrity measure of the parameters, i.e. audit trail or event counter.	Agreed, see also response to CZ-15.
JP-32		Annex A	Ref [10]	ed	A lack of harmonization into American English.	Correct “fibre optic cables” to “fiber optic cables”	Agreed. We should use American English throughout the document.
JP-33		Annex B	check sheet of the requirements	ed	The word “non legally relevant” is a typo for “non-legally relevant”.	Correct "non legally relevant" to "non-legally relevant".	The correct negation of “legally relevant” will be discussed at the PG meeting. <a href="#">See CA-04</a>
JP-34		Annex D, Elements to be implemented in a Recommendation	Clause 3	ed	Missing underline for “Clause 3 “Terms and definitions””.	Underline the “Clause 3”.  Present: Clause 3 “Terms and definitions”  Revised: <u>Clause 3 “Terms and definitions”</u>	The format will be corrected.

Country Code <sup>1</sup>	Part	Clause/ Sub clause	Paragraph / Figure/ Table/	Type of comment <sup>2</sup>	COMMENTS	PROPOSED CHANGE	OBSERVATIONS OF THE CONVENER/PG on each comment submitted
JP-35		Annex D, Elements to be implemented in a Recommendation	3 <sup>rd</sup> paragraph of Clause 3	ed	Missing a period at the end of the paragraph.	Add a period.  Present: Clause 3 “Terms and definitions” Terms and definitions...to avoid conflicting implementations  Revised: Clause 3 “Terms and definitions” Terms and definitions...to avoid conflicting implementations.	The missing period will be added.
JP-36		Annex D, Elements to be implemented in a Recommendation	title of Clause 8	ed	Missing a name for the title Clause 8.	Add name "Verification of a measuring instrument" to the title Clause 8.  Present: <u>Clause 8</u>  Revised: <u>Clause 8 Verification of a measuring instrument</u>	Thank you. The referenced title will be corrected.
JP-37		Annex D, Elements to be implemented in a Recommendation	beginning of the last paragraph in Clause 8	ed	"requiremenPGts" is a typo.	Correct "requiremenPGts" to "requirements".	The typo will be corrected.
JP-38		Annex D, Elements to be implemented in a Recommendation	1 <sup>st</sup> paragraph	ed	The word “adaptation” is a typo for “adoption”, see the second paragraph of the beginning of Annex D.	Correct "adaptation" to "adoption".	In this case “adaptation” is meant, indicating the need to modify requirements before adding them to a recommendation.
JP-39		Annex D, Elements to be implemented in a Recommendation	1 <sup>st</sup> sentence in the last paragraph	ed	The reference in the phrase “see decision in clause 1 of this Annex” is unclear.	Correct the phrase “see decision in clause 1 of this Annex” to “see the list in the previous PG actions and decisions”.  「in clause 1」を「in the first part」に修正。	Agreed. The annex does not contain clauses.
JP-40		Annex D, the list	1st row of three 6.3.6.3 rows	ed	<ul style="list-style-type: none"> <li>"PG's" is a typo.</li> </ul>	Correct "PG's" to "PGs".	The spelling will be corrected.

Country Code <sup>1</sup>	Part	Clause/ Sub clause	Paragraph / Figure/ Table/	Type of comment <sup>2</sup>	COMMENTS	PROPOSED CHANGE	OBSERVATIONS OF THE CONVENER/PG on each comment submitted
JP-41		Annex D, the list	2nd row of three 6.3.6.3 rows	ed	"e.g., for example" is a typo.	Delete "for example".	Agreed. The copy&paste error will be corrected. The error should also be corrected in the original Guidance in 6.3.6.3.
JP-42		Annex D, the list	6.3.7.4	ed	"action is required,, e.g., disable further measurements. stop" is a typo.	Replace the phrase "action is required,, e.g., disable further measurements. stop" with the phrase "action is required, e.g., disable further measurements, stop".	The second comma will be deletec.
JP-43		Annex D, the list	6.3.9.2	ed	The same sentence is repeated.	Delete one of the repeated sentences.  Revised: If a component is shared by multiple components, e.g., one display for multiple sensors, then all the components that share another component shall be unambiguously identified. <del>If a component is shared by multiple components, e.g., one display for multiple sensors, then all the components that share another component shall be unambiguously identified.</del>	Agreed.
JP-44		Annex D, the list	The last row of four 6.3.9.3 rows	ed	The symbol [ ] is a typo.	Delete [ ].  Revised: PGs need to decide which action shall be taken {in case authenticity, integrity and/or availability of another component cannot be established}.	The square brackets [ ] were added to illustrate that the actual guidance text does not contain this clarification. Therefore, the text should stay as it is.
JP-45		Annex D, the list	6.3.11.4.3	ed	Missing a comma before “i.e.”.	Add a comma before “i.e.”	The missing comma will be added.
JP-46		Annex D, the list	The last row of three 4.3 rows	ed	According to the text, the number 4.3 in Clause column is a typo for 4.4.	Revise the clause number 4.3 to 4.4.	The referenced clause number will be corrected.
JP-47		Annex E	Remarks column for Ref. 4	ed	“tha” is a typo.	Correct “tha” to “the”.	The typo will be orrected.
JP-48		Annex E	both description columns for Ref 7.3.1	ed	“evaluaition” is a typo.	- Correct “evaluaition” to “evaluation”.	The spelling will be corrected.
JP-49		Annex E	Remarks column for Ref. 7.3.1	ed	“througout” is a typo.	Correct “througout” to “throughout”.	The typo will be corrected.

Country Code <sup>1</sup>	Part	Clause/ Sub clause	Paragraph / Figure/ Table/	Type of comment <sup>2</sup>	COMMENTS	PROPOSED CHANGE	OBSERVATIONS OF THE CONVENER/PG on each comment submitted
JP-50		Annex E	Remarks column for Ref. Annex B	ed	"updatedto" is a typo for "updated to".	Add space: "updated to ".	The missing space will be inserted.
JP-51		Annex E	Remarks column in Ref. Annex D (Conversely, the 3 <sup>rd</sup> row from the end)	ed	"hept" is a typo for "help".	Correct "hept" to "help".	The typo will be corrected.
CZ-01		Contents		ed	In contents there are listed only main headings and appropriate pages. But a section 6 includes a lot of requirements, so it would be helpful to include also subsections 6.2, 6.2.1, 6.2.2, 6.2.3 etc. It helps for better orientation.	Itemize the sections 6.2 and 6.3 in details in the table of contents - include also subsections 6.2, 6.2.1, 6.2.2, 6.2.3 etc.	Typically, D31 is intended to be used by PGs who will typically use all of D31 when developing a new Recommendation. We can discuss the level of detailedness of the table of contents in the context of the structure of the revised D31. <u>The group agreed two expand the toc to</u> - <u>three levels for section 6</u> - <u>two levels for all other sections</u>
CZ-21	Annex D	Table	Clause 6.2.1	ed	Comparing items at the table and "Guidance" through the D31 text the guidance for a clause 6.2.1 is missing.	Add the following item: Clause 6.2.1 and a text: "The manufacturer shall produce measuring instruments, components and versions of the legally relevant software that conform to the approved type and the documentation submitted. PGs may decide which forms of the software identification are permissible."	The text was intentionally omitted from Annex D as it does not state a testable requirement.
CZ-22	Annex D	Table	Clause 6.3.9.2	ed	The first sentence is written twice.	Delete the second occurrence of the sentence.	The copy&paste error will be corrected.
CZ-23	Annex D	Table	Clause 6.3.12.2.2	ed	There is a list of relevant test items and among them "software version identification". But a term "software identification" is used through D31. So change it accordingly.  see also CZ-11	Write "software identification" instead of "software version identification".	Agreed. The proposal appears to be line with the usage of the term software identification 6.2.1. See also response to CZ-12, CZ-16.
CZ-24	Annex D	Table	Clause 6.3.9.3	ed	The first sentence is copied from text of 6.3.9.2, but the text was amended – "act upon" was changed into "respond to". So change it also here.	The end of the sentence should be: "Legally relevant components shall ... the checking component shall appropriately <b>respond to this, see 6.3.2.</b> "	The proposal from AU-42 will be implemented.

Country Code <sup>1</sup>	Part	Clause/ Sub clause	Paragraph / Figure/ Table/	Type of comment <sup>2</sup>	COMMENTS	PROPOSED CHANGE	OBSERVATIONS OF THE CONVENER/PG on each comment submitted
CECIP-03		Throughout		ed	Ian Dunmill had suggested that British English would be the standard for future OIML Recommendations.	Change all to British English spelling.	According to B6-2 clause 2.3.4 American and British English are both acceptable. Since most of D31 is in American English at the moment, it would be ideal to keep it that way. Nevertheless, we should briefly discuss the issue at the PG meeting. <u>Ian Dunmill explained that a decision regarding the official language in OIML Publications is not yet decided.</u> <u>Until a final decision is on the horizon, the group decided to harmonize D31 to american english and adapt it if necessary.</u>
US-15	US	US	First entry in “remarks” – Ref. 4	Ed	Correct “tha” to “the”		The typo will be corrected.
US-16	US	US	Third entry in “remarks” – Ref 6	Ed	Correct “requiremens” to “requirements”		The typo will be corrected.
US-17	US	US	Entries for 7.3.1	Ed	Correct “evaluaition” to “evaluation” in first and third columns.		The spelling will be corrected.
US-18	US	US	Entries for 7.3.1	Ed	Correct “througout” to “throughout”		The typo will be corrected.
US-19	US	US	First entry for “Annex B”	Ed	Correct “updatedto” to “updated to”		The missing space will be inserted.
US-20	US	US	First entry for “Annex D”	Ed	Correct “hept” to “help”		The typo will be corrected.
US-21	US	US	Last entry Annex D/Annex F in “remarks”	Ed	Correct “througout” to “throughout”		The typo will be corrected.