
R51 Revision update

TC 9/SC 2/p 10

May - 2024



R51 PG General

- Revision of OIML R 51 started in October 2018 with Resolution 2018/23 at 53rd CIML
- TC 9/SC 2/p 10 started in 2019 but 1st Project Group meeting 18./19.05.2021
- 6th PG meeting early June
- Currently on 5th Working Draft
- R51 Now split into 5 parts
 - R51-1 Metrological and technical requirements
 - R51-2: Testing procedures
 - R51-3: Test report format
 - R51-4: Type evaluation report format
 - R51-5: Verification and inspection procedures
- A lot of work carried out in sub-groups and Ad-hoc groups (CECIP leads 6 of the 9 SGs)



SG1 – Number of test runs

- Sub-group closed and agreed (results will be included in 6WD)
- Optional “stepwise model” annex at the end of R51-1 may be used to determine number of test runs.
 - Original version can still be used if you want
 - “Stepwise” option reduces number of test runs if smaller MPEs are achieved
 - Risk is almost the same for both options

N	MEAN		STD		Category	Load	Number of test weighings
	lower boundary	upper boundary	lower boundary	upper boundary			
10	0.44	1.56	0.61	1.37	X	$m \leq 1 \text{ kg}$	60
20	0.62	1.38	0.73	1.28		$1 \text{ kg} < m \leq 10 \text{ kg}$	30
30	0.69	1.31	0.78	1.21		$10 \text{ kg} < m \leq 20 \text{ kg}$	20
40	0.73	1.27	0.81	1.18		$20 \text{ kg} < m$	10
50	0.76	1.24	0.83	1.16	Y	Minimum of 10 for any load	
60	1.00	1.00	1.00	1.00			

SG2 List of tests for verification

- Second draft text under discussion (Not sure if included in 6WD)
- Since 5th PG meeting Peter Eekhout (NL, RDI) new co-leader of SG2
- NL suggested to amend SG2 to all Metrological Controls (Verification and type examination)
- PTB against “Modular Approach” in R51 (prefers a OIML uniform solution within the next revision)



SG3 – Stable equilibrium

- Sub-group closed and agreed (results will be included in 6WD)
- Content of proposed amendment has been accepted
- Final wording still needs to be minimally adjusted in formal terms
- Focus back to the 1996 root (to a more flexible “Stability Criteria”)
- R76 Stable equilibrium as one possible R51 Stability Criteria (reference made to R76)

- New proposed wording:

3.3.2.5 Stability criteria

Criteria catchweighing instrument uses to automatically determine whether a measuring result is considered as valid, independent of dynamic or static weighing.

Note: Stable equilibrium as defined in OIML R76 may be used as one kind of stability criteria.



SG5 – Physical display

- Major content agreed
- Physical display should not always be permanent for R 51 catchweighers
- Display does need to be available for metrological controls during verification and inspection
- During normal operation not needed for checkweigher, weigh labeller, weigh-price labeller
- Weigh-labellers need a printing/labelling device
- Checkweighers need a physical sorting device (see SG7)



SG6 – Presentation of markings

- Sub-group closed and agreed (results will be included in 6WD)
- Much needed clarification of which markings must be on a plate, which must be on/near the display, and which may be on either the plate or the display
- More freedom for manufacturer to select
- More information than before on digital name plate only



SG7 – Sorting device of a checkweigher

- Sub-group closed and agreed (results will be included in 6WD)
- Delineation between a sorting function (checked at type evaluation) and (physical) sorting device (checked at verification and inspection)
- (Physical) sorting device does not need to be sealed or defined in TEC
- Production line needs only one (physical) sorting device
- Already existing physical sorting device of production line may be used
- Checkweigher manufacture responsible for availability and correct function (initial verification)
- Marking (e.g. green/red ink dot) is accepted as possible method for physical sorting



SG9 – Software requirements

- Adapting D31:2023 requirements
- 10 Meetings to date, 1/3 through but speeding up
- SG9 Work is likely to be used by R76 and others – we are effectively fixing/improving D31
- Major changes
 - Generic AI clauses copied from D31 for now
 - Clarification of significant defects/faults/durability errors
 - Shared components need not be identified
 - Remote verification introduced (see next slide)



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SG9 - Remote verification capability

- 6.3.9 (and 8.3) Remote Verification Capability
- New concept, it would be good to get CECIP's general position, and any specific feedback on the text. Best way to do this?

