

International Legal Metrology Update

for the 2020 NCWM Interim Meeting in Riverside



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Load Cells

OIML TC9:

Instruments for Measuring Mass and Density
(U.S. is Secretariat)

- **The Subgroup that was formed to develop a “Gap Analysis” comparing the latest edition of R60 (2017) to the previous version (2000) has completed its work. Final version of Gap Analysis will be posted on the OIML web site.**
- **BIML is completing the translation of R60 (2017) English version to French and has noted a few (mostly editorial) necessary amendments that will be corrected.**
- **The requirement continues for a load cell marking to include the OIML certificate number.**



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Software

OIML TC5/SC2 (Germany is the Secretariat)

- **Revision of OIML D 31 “*General Requirements for Software-controlled Measuring Instruments*” was approved at the CIML meeting in Bratislava, October 2019.**
- **This document serves as guidance for the software requirements in all of the OIML International Recommendations.**
- **A new project to immediately revise D31 was approved at the CIML meeting as well.**
- **The new revision is expected to address use of machine learning and statistical analysis tools, data storage and cloud systems, operating system updates, and remote verification. The project group will also seek to determine whether more than two risk classes are needed for software examination and protection.**
- **No project group meetings have been announced at this time.**





Active Electrical Energy Meters

OIML TC12/p1 (Australia is the Secretariat)

- **R 46 “Active Electrical Energy Meters” is undergoing revision.**
- **The last project group meeting was 22-24 May 2019 in Helsinki.**
- **U.S. provided comments on the 2WD in advance of the meeting. These, along with updates associated with meeting discussions, have not yet been incorporated into a draft.**
- **Subgroups, as listed below, have not yet convened:**
 - **Fundamental vs. Harmonic power and Reactive Energy have been combined into one subgroup. Canada to lead.**
 - **Electric Vehicle (EV) Charging Stations. Pending meeting outcome, U.S. may lead this group.**
 - **Smart Street Lighting.**
 - **Remote Displays and Meters with Modular Components.**
- **The next project group meeting is scheduled for 18-20 May 2020 in Delft, The Netherlands.**





Non-Automatic Weighing Instruments

OIML TC9/SC1 (Germany and France are Co-Secretariats)

- **The Project Group met in December 2017 to discuss plans to revise OIML R76 (2006) “*Non-Automatic Weighing Instruments.*”**
- **Work delayed in part by uncertainty over BREXIT.**
- **Subgroups have been tasked with reformatting and updating the Recommendation, and with developing field verification and inspection procedures for these instruments.**
- **Another group will update software requirements and the tentative plan is to add new test procedures for modules.**
- **An informative annex has been drafted which provides a general overview of field test methods.**
- **Expect the 1st Draft Revision of R76 to be released this Summer.**



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Automatic Weighing Instruments

(Automatic instruments for weighing road vehicles in motion and axle loads)

OIML TC9/SC2 (UK is Secretariat)

- **The project to revise R 134 was approved in October 2018 at the 53rd CIML Meeting (Hamburg, Germany)**
- **In addition to an overall update, the new revision is expected to address:**
 - Requirements on “Low speed” and “High Speed” WIM systems;
 - Additional requirements for legal applications;
 - Dispersion of results, safety factor; and
 - Requirements on vehicle speed control systems
- **First Working Draft of R 134 is anticipated soon.**

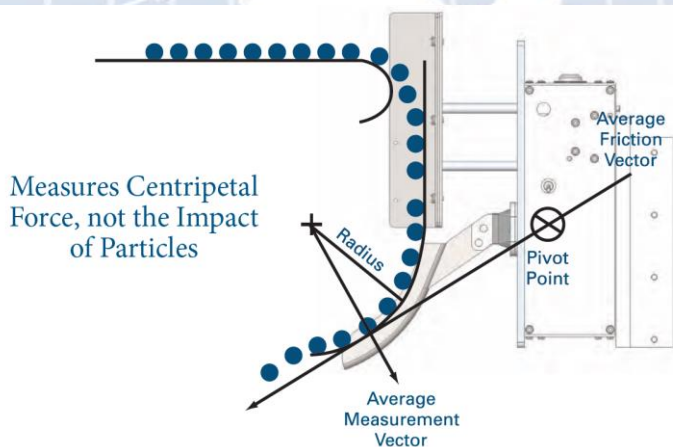


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Automatic Weighing Instruments (Arched Chute Type)

OIML TC9/SC2 (U.K. is Secretariat)



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- Project to develop a new OIML Recommendation on “*Continuous Totalizing Automatic Weighing Instruments of the Arched Chute Type*”
- **Measures centripetal force on an arched chute.**
- **3rd Committee Draft passed PG vote in November 2019, with significant comments.**
- **The Secretariat is reviewing the comments with the BIML and a next draft will likely be issued early this spring.**



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Automatic Catchweighing Instruments

OIML TC9/SC2 (U.K. is Secretariat)

- Project to revise OIML R 51 “Automatic Catchweighing Instruments”
- These include “weigh-labelers,” “checkweighers” and “onboard weighing systems” for wheel loaders and garbage trucks.
- A 3rd Working Draft is under development and expected to be distributed this Spring.



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Multi-dimensional Measuring Instruments

OIML TC7/SC5 (Australia is Secretariat)

- **The 4th CD of OIML R129 “*Multi-dimensional Measuring Instruments*” has been distributed (with comments due to Ralph by 01 March 2020).**
- **There is significant interest to maximize harmonization between R129 and the US requirements for these instruments.**
- **Canada has become Co-Convener with Australia on this project.**
- **Canada hosted the Project Group’s first meeting in Ottawa in May 2019. The international comments received on the 3CD were mostly resolved at the meeting.**





Dynamic Measuring Systems for Liquids other than Water

OIML TC8/SC3 (US and Germany are Co-Secretariats)

- **The revision of all 3 parts of R117 (over 700 pages) received final CIML approval in October 2019 and is being prepared for publication. New requirements and test procedures for several additional systems were added in this revision cycle, including:**
 - Measuring systems for liquefied natural gas (LNG); and
 - Measuring systems for bunker fuel.
- **The comment period on the 2CD closed in early March 2019, and the 2CD received 100% “yes” votes from the PG.**



- **An R117 Project Group meeting was held in March 2019 in Cape Town, South Africa. All of the international comments received on the 2CD package were resolved, and a 3CD was created and approved at the meeting.**
- **The Preliminary Online Ballot package of R117 received 100% “yes” votes from the CIML last summer.**

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Ralph Richter

Speed Meters

OIML TC 7/SC 4/p 3 (Slovenia is the Convener)

- **This project had been dormant since the U.S. transferred convenership to Slovenia in 2016.**
- **The document is to cover both metrological and technical requirements (R91-1) and test procedures (R91-2) for devices such as radar and lidar.**
- **In summer of 2019 a 1WD was issued for comments, to which the U.S. provided input.**
- **No further progress to report as of now.**



Exhaust Soot Particle Number

OIML TC 16/SC 1/p 4 (Germany is the Convener)

- **This is a new project largely motivated by public pressure and increased scrutiny of diesel emissions in Europe.**
- **The U.S. currently measures emissions by particle mass (PM), so the project will cover new measurement technologies that may not be adopted by U.S. regulatory bodies.**
- **Project group members include representatives from U.S. regulatory bodies (EPA, CARB), automotive manufacturers, and technical experts associated with the development of instruments for particulate measurement.**
- **The project group convened 27-28 Nov 2019, in Braunschweig. The U.S. didn't attend, but provided a slide deck outlining regulatory and measurement procedures.**
- **The USNWG will likely work to develop a white paper or unified position for the purposes of developing the document.**





OIML Certification System

OIML-CS

- The OIML Certification System (OIML-CS) has two Schemes:
- **Scheme A: advanced level of the OIML-CS where accreditation or peer assessment is used as the basis for demonstrating compliance with the requirements of the OIML-CS**
- **Scheme B: introductory level of the OIML-CS where “self-declaration” is used as the basis for demonstrating compliance with the requirements of the OIML-CS**
- **A “Management Committee” and “Review Committee” oversees all aspects of the OIML-CS.**
- **The third annual meetings of the Review Committee and Management Committee will be held in New Delhi, India. in March 2020. D. Flocken and C. Ehrlich will attend.**
- **NCWM/NTEP has signed a Declaration to be a Utilizer for R 60 (load cells), as it was a Utilizing Participant under the MAA (99 NTEP Load Cell Certificates to date based on MAA and CS)**





OIML Certification System

OIML-CS

- **OIML Recommendations in Scheme A of the OIML-CS are:**
 - OIML R 49 (Water Meters)
 - OIML R 60 (Load Cells)
 - OIML R 76 (Non-automatic Weighing Instruments)
 - OIML R 51 (Automatic Catchweighing Instruments)
 - OIML R 117 (Dynamic Measuring Systems for Liquids other than Water)
- **OIML Recommendations in Scheme B of the OIML-CS that have just transitioned to Scheme A on January 1, 2020:**
 - OIML R 46 (Active Electrical Energy Meters)
 - OIML R 137 (Gas Meters)
- **The following OIML Recommendations will transition from Scheme B into Scheme A of the OIML-CS beginning July 1, 2020:**
 - OIML R 61 (Automatic Gravimetric Filling instruments)
 - OIML R 85 (Level gauges for Stationary Storage Tanks)
 - OIML R 129 (Multi-dimensional Measuring Instruments)
- See OIML web site (www.oiml.org) for other details.





CIML and APLMF Meetings

• **The 54th CIML Meeting was held the week of 21-25 October 2019 in Bratislava, Slovakia.**

• **Some Key Topics decided were:**

- **New CIML Second Vice President elected (Bob Joseph Mathew from Switzerland)**
- **OIML Certification System leadership**
- **Approved new CTT Document**
- **Promote e-Learning modules**
- **CEEMS leadership, D1, RLMO RT**



• **The 26th APLMF Meeting was held in Ha Long, Vietnam, 6-8 November 2019. C. Ehrlich and R. Richter attended. Malaysia will take over APLMF Secretariat in 2020.**



OIML web site: www.oiml.org



Thank You

