EURAMET 1187

ANNEX 5

DECLARATIONS OF CMC CONSISTENCY
BEV declares that the Draft B comparison results are consistent with the CMC claims of Austria as published in the KCDB.

Michael Schnaitt

BEV - Bundesamt für Eich- und Vermessungswesen
Abteilung E1, Leiter des Labors Hochspannung, Hochstrom
1160 Wien, Arlgasse 35
Tel. + 43 1 21110-826305, Fax + 43 1 21110-6000
Mobile: + 43 676 8210 8035
michael.schnaitt@bev.gv.at
www.bev.gv.at

BIM declares that the Draft B comparison results are consistent with the CMC claims of Bulgaria as published in the KCDB.

Ginka Kumanova

Electrical Measurements Department
Bulgarian Institute of Metrology
52 B, G.M.Dimitrov, blvd
1040 Sofia
Bulgaria
Phone: +359 2 9702 792; Fax: +359 2 9702 735
Mobile: +359/878 294 267;
g.kumanova@bim.government.bg

CMI declares that the Draft B comparison results are consistent with the CMC claims of the Czech Republic as published in the KCDB.
It is noted however, that the CMI measurement uncertainty in case of the ratio error was slightly smaller (by 1 ppm) than the CMI CMCs.
A bigger value of phase displacement uncertainty (30 \( \mu \)rad) against CMI CMC value (10 \( \mu \)rad) was caused by the type A uncertainty (25 \( \mu \)rad) due to transfer standard instability.

Renata Styblíková

Český metrologický institut
Department of electromagnetic quantities
V Botanice 4, 150 00 Prague 5
Czech republic
Phone: +420 257 288 335
Mobile: +420 602 196 072
rstyblikova@cmi.cz
www.cmi.cz
DMDM doesn’t have CMCs published in the KCDB for values and ranges that were subject of the comparison. Our CMCs published in KCDB are for ranges up to 3 kA. Our intention was to check our capabilities for higher values and eventually to apply for new services for CT. Based on DMDM results from this comparison, we will reconsider the following steps (review of our Calibration working instruction, uncertainty calculation etc.) and see if we could expand our CMCs for higher values.

Dr. Jelena Pantelić-Babić

-----------------------------------------------------------------------------------
Directorate of Measures and Precious Metals (DMDM)
Head of Section for Electrical Quantities
Mike Alasa 14
11000 Belgrade
Serbia
jelenapb@dmdm.rs

GUM Central Office of Measures declare that the Draft B (Euramet 1187) comparison results are consistent with the CMC claims of Poland as published in the KCDB.

Jerzy Szutkowski

------------------------------------------------------------------------------
Electricity and Magnetism Laboratory
Email: j.szutkowski@gum.gov.pl
T: +48 723 997 249
Central Office of Measures
Ul. Elektoralna 2, 00-139 Warszawa
Tel.: 22 581 92 82; Fax: 22 581 94 99

gum.gov.pl

INRIM declares that the Draft B comparison results are consistent with the CMC claims of Italy as published in the KCDB, except for the measurement of the phase error at rated ratio 4 kA/ 5 A, burden 5 VA, 4 kA primary current. The cause of the discrepancies found is being studied, and our uncertainty budget will be modified accordingly. It is noted that the INRIM phase error measurement uncertainty was larger than the INRIM CMCs, due to limitations in the stability of the travelling standard, made particularly critical by the INRIM long adjusting time of the primary current, and reflected in the uncertainty budget.

Gabriella Crotti

-------------------------------------------------------------------------------------------
INRIM Istituto Nazionale di Ricerca Metrologica
Division of Metrology for the Quality of Life
Strada delle Cacce, 91
10135 Torino - ITALY
tel: +39 011 3919826; fax: +39 011 3919849
g.crotti@inrim.it
LCOE declares that the Draft B comparison results are not included in present CMC of SPAIN as published in the KCDB. These comparisons results will be used as a basis for requesting CMC’s in high current ratio error and phase displacement.

Dr. Pascual Simón Comín

LNE declares that the EM-S37 (project 1187) Draft B comparison results have an impact on the CMC of the France as published in the KCDB. We will increase our CMC uncertainties both for ratio error and for phase displacement. These changes are declared in the frame of the EURAMET run number EURAMET.EM.15.2017. I remain available for any details concerning the LNE results and CMCs for the service: “8.6.3 Current transformers”.

Daniela Istrate

METAS declares that the Draft B comparison results are consistent with the CMC claims of Switzerland as published in the KCDB.

Christian Mester
NPL declare that the Draft B comparison results are not consistent with the CMC claims of the UK as published in the KCDB. The comparison uncertainty is ±10 ppm & ±10 µRad above the current CMC entries. Presently, the cause of the discrepancies found is being studied, and will look to undertake a bi-lateral comparison with an NMi that uses a similar measurement circuit configuration. Following this, if required, our uncertainty budget will be adapted accordingly.

Adrian Wheaton

-------------------------------------------------------------------------------------------------------------------------------
National Physical Laboratory
Electromagnetic Measurements Group – F2 A6
Hampton Rd | Teddington | Middlesex | UK | TW11 0LW
Tel: +44 20 8943 6235 | Fax: +44 20 8614 0539
adrian.wheaton@npl.co.uk
www.npl.co.uk

PTB declares that the Draft B comparison results are consistent with the CMC claims of Germany as published in the KCDB. It is noted however, that the PTB measurement uncertainty in case of the ratio error was slightly smaller than the PTB CMCs. Although all results of the phase displacement of PTB agree within the confidence coefficient (E), we note that PTBs results are slightly biased, due to either travelling standard behaviour or to an underestimated uncertainty component.

Dr.-Ing. Enrico Mohns

-------------------------------------------------------------------------------------------------------------------------------
Head of working group 2.31 Instrument Transformers and Sensors
Physikalisch-Technische Bundesanstalt - PTB
Bundesallee 100
38116 Braunschweig
Germany
Enrico.Mohns@ptb.de
www.ptb.de

RISE declares that our results are consistent with our CMCs at 5% of rated current and above. At lower currents they are not. We have, since this intercomparison was performed, found that the connections we used to employ left one winding of our current comparator floating. We have now changed the usage instructions so that one end of that winding is grounded and believe that this has remedied the poor results at lower currents.

Allan Bergman

-------------------------------------------------------------------------------------------------------------------------------
Research Institutes of Sweden
RISE Safety and Transport/Measurement Science and Technology
High Voltage/Power & Energy
Box 857
501 15 Borås
+46 10 516 5498
allan.bergman@sp.se
TÜBİTAK UME declares that the Draft B comparison results are consistent with the CMC claims of Turkey as published in the KCDB. It is noted however, that the TUBITAK measurement uncertainty in all cases was quite smaller than the TUBITAK CMCs and therefore a few points were reported as out of the reference values, due to either travelling standard behaviour or to an underestimated uncertainty component in these few measurement points.

Hüseyin Çayci
Head Senior Researcher
Head of Power & Energy Laboratory
TÜBİTAK UME
Power & Energy Laboratory
TÜBİTAK Gebze Yerleşkesi
Barış Mah. Dr.Zeki Acar Cad. No:1
41470 Gebze KOCAELI TURKEY
T +90 262 679 5000 - 4400/4450
F +90 262 679 5001
gr
www.ume.tubitak.gov.tr

VSL declares that the Draft B comparison results are consistent with the CMC claims of The Netherlands as published in the KCDB. It is noted however, that the VSL measurement uncertainty in many cases was larger than the VSL CMCs, due to limitations in the stability of the travelling standard (reflected in the uncertainty budget).

dr. ir. Gert (G.) Rietveld
Chief Metrologist
Thijsseweg 11
2629 JA Delft
The Netherlands
D: +31 15 2691645
T: +31 15 2691500
grietveld@vsl.nl
www.vsl.nl

VTT MIKES declares that the Draft B comparison results are consistent with the CMC claims of as published in the KCDB.

D.Sc. (Tech.) Jari Hällyström
Research team leader, electrical metrology
MIKES Metrology, VTT Technical Research Centre of Finland Ltd
Tekniikan tie 1, FI-02150 ESPOO, Finland
+358 50 382 2127
jari.hallstrom@vtt.fi
www.mikes.fi