

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.

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

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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 μ rad) against CMI CMC value (10 μ rad) was caused by the type A uncertainty (25 μ rad) due to transfer standard instability.

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DIRECTORATE OF MEASURES AND PRECIOUS METALS

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.

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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.

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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

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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

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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 delared in the frame of the EURMAET 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".

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

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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 μ Rad 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.

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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

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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.

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TUBITAK 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.

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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).

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

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