

April 22, 2008

## **Statement of the CCM WG LP on CMC entries in the field of vacuum pressures**

The following statement of the CCM WG LP was discussed and approved both by the CCM WG CMC on April 23, 2008, and the CCM on April 24, 2008.

The CCM WG LP wishing to make the CMC entries in the field of vacuum pressures more user friendly and adapted to the needs of the NMI clients

and

considering the relevant CIPM and JCRB documents CIPM 07/11, JCRB-06/6, JCRB-8/9, JCRB-8/18, JCRB-10/6(3), JCRB-11/7, JCRB-12/06(2), JCRB-14/06(2a)

establishes the following guidelines<sup>1</sup> for CMC entries in the field of vacuum pressures:

1. CMC entries in the field of vacuum pressure shall be oriented towards the unit under calibration (UUC) and not only on the pressure scale. This means that CMC entries may have overlapping ranges.
2. In column "C" ("Instrument type or method") should appear the special type of vacuum gauge to be calibrated (e.g. capacitance diaphragm gauge, spinning rotor gauge etc.). As in the past, in column "A" shall be written "absolute pressure" and in column "B" ("Instrument"), "vacuum gauge". An entry in this column makes it clear that the given uncertainty is not only determined by the primary standard, but as well by the UUC. This entry also makes the following uncertainty values easier to understand for the reviewer.
3. Only those vacuum gauges may considered as UUC in the CMC entries being acknowledged as having a very high metrological quality and being suitable to disseminate the vacuum pressure scale by secondary calibration laboratories. This excludes e.g. thermal conductivity gauges and Penning gauges.
4. In column "G" and "H" ("Measurement conditions/independent variable") it shall be specified in separate lines: environmental temperature, gas species, and gas purity.
5. Uncertainties, if not given by a formula have to be given with two significant digits.

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<sup>1</sup> These guidelines are valid from April 24, 2008, and all new or changed CMC entries in the field of CCM WG LP must follow these guidelines thereafter.

6. A laboratory that has got a CMC entry or applies for such in a range that is covered by a key comparison and has abstained from or withdrawn its participation before or during a key or supplementary comparison<sup>2</sup> has to withdraw the relevant CMC entries from the BIPM database until it has successfully taken part in a key or supplementary comparison.

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<sup>2</sup> This is valid for CC and RMO comparisons.