

## TPW CMC Review Protocol

### TPW CMC review guidelines:

- 1.1  $U_{\text{CMC}} (k=2) < 300 \mu\text{K}$  are to be examined by the submitting RMO, using the scrutiny elements.
- 1.2  $U_{\text{CMC}} (k=2) < 82 \mu\text{K}$  are to be examined by RMO and CCT WG8, using the scrutiny elements.
- 1.3  $\frac{|T_{\text{NMI}} - KCRV|}{\sqrt{U_{\text{CMC}}^2 (k=3) + U_{\text{Comparison}}^2 (k=3)}} < 1$  requires CCT WG8 review.
- 1.4  $U_{\text{CMC}} (k=2) < U_{\text{NMI}} (k=2)$  submitted for comparison requires CCT WG8 review.
- 1.5 Participation in a comparison is mandatory and must be linked to CCT K7 Comparison accepted types: Key, Supplementary (including bilateral), or KCDB listed.

The threshold values are the 25<sup>th</sup> and 75<sup>th</sup> percentile values of the K7 and submitted CMCs.

### TPW Review protocol - Scrutiny criteria required

- Extensive analysis and internal intercomparisons with linkage to K7 results
  - intercomparison must include three cells with one linked to K7
  - method of realization and intercomparison
    - number of mantles realized
    - mantle annealing period
- NMI to submit description of evaluation method and value of each of the following uncertainty components:

Bridge Repeatability	SPRT Self-Heating Correction
Bridge Non-Linearity (Differential)	Heat Flux (Immersion)
Bridge Quadrature Effects (AC only)	Gas Pressure
Reference Resistor Resistance stability	Isotopic Correction / Composition
Phase Transition Realization Repeatability	Strain, crystal defects
Chemical Impurities	Light piping
Hydrostatic Head Correction	

### **CMC submission protocol:**

- RMO review level
  - Post review on WG8 discussion forum for 6 weeks
  - new topic created for each submission
  - executive summary and any supporting documentation
  - judging of implementation of review protocol

WG8 chair will submit the CMCs to JCRB Exec Sec for fasttrack if no comments after 6 weeks or if all WG8 RMO representatives give approval before the 6 week deadline

- CCT WG8 review level
  - Post review on WG8 discussion forum for comment
  - new topic created for each submission
  - executive summary and any supporting documentation
  - final vote will occur at Tempmeko 2007 meeting with those NMIs present for discussion of their submission and supporting documentation

By the end of December, a list of old comparisons for providing K7 linkage placed on BIPM Discussion Forum. These comparisons will be submitted by WG8 chair to WG7 chair for consideration of approval (KCDB posting).

For those CMCs submitted that cover the certification/calibration of TPW cells, the same review protocol is used.