ITS-90 Subrange Review Protocol

ITS-90 Subrange review guidelines:

No review needed:
$U_{CMC} / U_{comb} \geq 1$ and U_{CMC} (FPs) OK

RMO scrutiny and WG8 acceptance:
$1 > U_{CMC} / U_{comb} \geq 2/3$ and U_{CMC} (FPs) OK

RMO scrutiny and WG8 scrutiny:
$U_{CMC} / U_{comb} < 2/3$ and U_{CMC} (FPs) OK

"U_{CMC} (FPs) OK": those FPs used for that temperature subrange are smaller than that of the U_{CMC} function for the SPRT.

If U_{CMC} (FPs) are not OK, then no acceptance is allowed.

Cutoff criteria table for review process:

ITS-90 subrange	U_{comb} range, mK	
Ar to 0.01	0.53	0.082
Hg to Ga	0.29	0.20
0 to Ga	0.082	0.20
0 to In	0.082	0.77
0 to Sn	0.082	0.91
0 to Zn	0.082	0.95
0 to Al	0.082	1.91
0 to Ag	0.082	3.41

Other combinations are acceptable. Examples of those combinations are

Zn to Al	0.95 mK to 1.91 mK
Hg to 0.01 °C	0.29 mK to 0.082 mK
Ar to Ga	0.53 mK to 0.20 mK

The U_{comb} values are estimated from the 25th percentile of the K3 and K4 values and non-uniqueness from several published and unpublished literature sources.

U_{CMC} submission must capture the maximum uncertainty for the given temperature subrange. If two values are given, then it will be interpreted as a linear function between end points, everywhere $\geq$ the calculated uncertainty.

ITS-90 SPRT subrange protocol - Scrutiny criteria required

1. Proper propagation of U_{FPs}
2. Non-uniqueness values used for the specified temperature subrange.
3. Copy of a Report of Calibration.
4. Calibration process (method) used for SPRT.
5. Stability assessment of SPRT

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

- review at next available meeting with those NMIs present for discussion of their submission and supporting documentation