Human error (Appendix B) during input preparation, during derivation of the best-estimate critical values or during documentation cannot be excluded. It is easy to suspect human error whenever outliers are encountered, but any such judgment must be made with great caution. Agreement between results may involve common input data errors (nuclear data, density data, etc.).

Admitting to the existence of human error is a fundamental basis for quality and for safety. Like for systematic effects, the probability distribution of human error effects can be estimated. Also like for systematic effects, the influence of human error can be reduced with additional resources and some of its effects can be corrected for. The corrections may be very different for accuracy and for safety applications. This study focuses on accuracy (physical constants are requested).

Statistically, a benchmark with an uncertainty of 0.001 is worth as much as ten benchmarks with uncertainties of 0.003. The ten benchmarks need to be completely uncorrelated (experimental configuration, manufacturing, measurement system, chemical analysis, etc.). Otherwise only the random effect of the uncertainty will be reduced, not the systematic effect.

From a human error point of view, the set of ten uncorrelated benchmarks has an advantage: some single mistakes or omissions do not so easily influence all benchmarks.