Policy for Making Statements of Conformity in Calibration Certificates

This policy is intended to proactively communicate the decision rules used by Micro Quality Calibration, Inc. ("MQC") and its satellite facilities in regard to how measurement uncertainty is accounted for when stating conformity with a specified requirement.

The technical basis for this approach is that the declared conformance to a specification defines a range of measurement values, within which the true value is expected to lie, at a specified level of confidence, which considers both any bias from the true value, as well as the measurement uncertainty

When the customer requests a statement of conformity to a specification or standard for the test or calibration (e.g. pass/fail, in-tolerance/out-of-tolerance), the specification or standard and the decision rule shall be clearly defined. Unless inherent in the requested specification or standard, the decision rule selected shall be communicated to, and agreed with, the customer.

Where the decision rule is prescribed by the customer, regulations or normative documents, a further consideration of the level of risk is not necessary.

MQC shall communicate which results the statement of conformity applies; which specifications, standards or parts thereof are met or not met; the decision rule applied (unless it is inherent in the requested specification or standard).

When a statement of conformity to a specification or standard is provided, the laboratory shall document the decision rule employed, taking into account the level of risk (such as false accept and false reject and statistical assumptions) associated with the decision rule employed, and apply the decision rule.

In a calibration event where the resultant measurement error, (the difference between the measured quantity value and the reference quantity value) is evaluated for verification to a product specification. There are many calibrations where the result of a measurement and its associated uncertainty are all that is reported. This policy is not applicable to those calibrations.

When making statements of conformity, MQC defaults to the following rule::

- Default: Simple Acceptance where a claim of "in tolerance" or "out of tolerance" is determined having the acceptance limit equal to the tolerance limit.
- Maintenance of no less than 4:1 test uncertainty ratio, when attainable, and never less than 1:1.

If the methodology described above is not acceptable to you, it must be indicated at the time your request is submitted to MQC. This may be done through a purchase order or by communicating directly with our customer service team. MQC always strives to comply to our customer's request, it is possible we may not be able to accommodate a different decision rule depending on the complexity or laboratory restraints.