

Specification of Competency Standards
for the Testing, Inspection and Certification Industry
Unit of Competency

Functional Area - Testing Operations

Title	Implement laboratory quality control procedures
Code	105878L4
Range	This unit of competency (UoC) covers the abilities to implement quality control procedures in a testing laboratory by continuously monitoring the reliability and validity of test results in compliance with the formulated quality control protocol.
Level	4
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge of quality control protocol and validity of test results</p> <ul style="list-style-type: none"> • Describe the implementation plan of the formulated quality control protocol. • Employ the concepts of continuous improvement processes. • Describe the meaning of reliability and validity of test. • Identify the acceptance criteria for determining the validity of test results. • Outline statistical techniques for analysing quality control data. <p>2. Implement laboratory quality control procedures</p> <ul style="list-style-type: none"> • Select monitoring methods appropriate for the type and volume of the work undertaken. • Record all results in such a way that the trends in testing activities are detectable by use of quality control procedures, e.g.: <ul style="list-style-type: none"> ○ use of analytical control charts for the monitoring of the ongoing level of precision by analysing certified reference materials, ○ ongoing estimate of the repeatability from replicate tests, ○ ongoing estimate of the recovery from fortification of test samples with certified reference materials or other reference materials, ○ estimation of between-operator precision from testing of the same sample by two or more operators. • Verify the accuracy of test data and technical records. • Apply statistical techniques to review and evaluate the results. • Report findings to relevant personnel concerning the quality control data outside pre-defined acceptance criteria. • Identify potential causes for unacceptable results and nonconformities. • Take necessary actions to correct the problem and prevent incorrect results from being reported. <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> • Ensure the quality control data are recorded in such a way that trends are detectable and, where practicable, statistical techniques shall be applied to review the results.
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • implement quality control procedures by selecting monitoring methods appropriate for the type and volume of the work undertaken, • collect and analyse all necessary data / documentation / records in quality control to identify unacceptable results and nonconformities, • implement and monitor corrective actions for correcting the problem and preventing incorrect results from being reported.
Remark	