



**Specific Accreditation Criteria
Life Sciences ISO/IEC 17025 Annex**

Facilities conducting biological tests on water

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Facilities conducting biological tests on water

This document provides additional interpretative criteria and recommendations for the application of ISO/IEC 17025 for both applicant and accredited facilities conducting biological tests. These criteria do not cover the testing for *Cryptosporidium* and *Giardia*, which are covered in *Life Sciences Annex: Facilities testing water samples for Cryptosporidium and Giardia*.

Applicant and accredited facilities must also comply with ISO/IEC 17025, the NATA ISO/IEC 17025 Standard Application Document (SAD) and the Life Sciences ISO/IEC 17025 Appendix. The clause numbers in this document follow those of ISO/IEC 17025 but since not all clauses require interpretation the numbering may not be consecutive.

Accreditation is available for the detection, identification and enumeration of algae, microinvertebrates, macroinvertebrates, protozoa (other than *Giardia* and *Cryptosporidium*), cyanobacteria, metazoan and for ecotoxicology. The scope of accreditation must list potentially toxic cyanobacteria and planktonic algae to species level, other cyanobacteria and planktonic algae can be identified to the lowest level as determined by the competency of the facilities.

Accreditation is also available for the collection of samples of aquatic organisms, the detection of toxicity associated with the cyanobacteria and marine phytoplankton, and ecotoxicological bioassays using a range of indicator organisms, including microinvertebrates.

The system of classification for all determinations under Aquatic Biology is based on the classification of organisms to a specified level.

5.2 Staff competency

Staff undertaking sample analysis and staff approved to release results for Aquatic Biology will be expected to demonstrate an ability to identify and enumerate examples of target organisms to a defined level e.g. family, genus or species.

Facility management is expected to provide opportunities for staff to gain further experience in the field of Aquatic Biology. Provision must be made for staff to attend relevant workshops and conferences to ensure they keep up to date with changes in taxonomy and develop a professional network with other scientists working in the field.

5.3 Accommodation and environmental conditions

The facility must provide a suitable environment for the undertaking of careful observations using microscopic techniques.

Provision for adequate rest periods must be available between samples and for the provision of adequate staff resources to meet peak demand.

5.6 Measurement traceability

5.6.3 Reference materials

The facility is expected to maintain a reference library including text books, photo micrographs and specimens. It is important to maintain a collection of specimens that have not been able to be identified. With advances in taxonomy, such a collection may provide valuable information for the future.

A system must be developed to allow new or unidentifiable specimens to be sent to taxonomic experts for identification. With advances in electronic photo imaging it is desirable that a means of capturing images electronically be developed.

References

This section lists publications referenced in this document. The year of publication is not included as it is expected that only current versions of the references shall be used.

Amendment Table

The table below provides a summary of changes made to the document with this issue.

Section or Clause	Amendment
New document	This document represents a direct adoption of the former Biological Testing Annex E. The document has been reviewed and updated to reflect the new accreditation criteria documentation structure.