



# **Specific Accreditation Criteria**

## **ISO/IEC 17025 Application Document Life Sciences - Annex**

### **Facilities conducting biological tests on water**

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## Table of Contents

Introduction .....	4
5 Structural requirements.....	4
6 Resource requirements.....	4
6.2 Personnel.....	4
6.3 Facilities and environmental conditions.....	5
6.5 Metrological traceability.....	5
References.....	5
Amendment Table .....	5

## 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 a separate Annex.

Applicant and accredited facilities must comply with all relevant documents in the NATA Accreditation Criteria (NAC) package applicable to the activities covered, or proposed to be covered, by their scope of accreditation (refer to *NATA Procedures for Accreditation*).

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.

### Introduction

Accreditation is available for the detection, identification and enumeration of algae, microinvertebrates, macroinvertebrates, protozoa (other than *Giardia* and *Cryptosporidium*), cyanobacteria, metazoa and for ecotoxicology.

The scope of accreditation will 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 Structural requirements

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

## 6 Resource requirements

### 6.2 Personnel

6.2.3 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.

## 6.3 Facilities and environmental conditions

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

## 6.5 Metrological traceability

6.5.3 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.

### Standards

ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories

### NATA Publications

NATA Accreditation Criteria (NAC) package applicable to the activities covered, or proposed to be covered, by the facility's scope of accreditation

## Amendment Table

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

Section or Clause	Amendment
Whole document	Clauses have been aligned with ISO/IEC 17025:2017. No new interpretative criteria or recommendations have been included other than editorial changes.