

AS/NZS 5667.10:1998
ISO 5667-10:1992

Australian/New Zealand Standard[®]

Water quality—Sampling

**Part 10: Guidance on sampling of
waste waters**

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EV/8, Methods for Examination of Waters. It was approved on behalf of the Council of Standards Australia on 31 December 1997 and on behalf of the Council of Standards New Zealand on 9 February 1998. It was published on 5 April 1998.

The following interests are represented on Committee EV/8:

Australian Chamber of Commerce and Industry
 Australian Institute of Marine Science
 Australian Water and Waste Water Association
 Australian and New Zealand Environment and Conservation Council
 Griffith University, Australia
 Minerals Council of Australia
 National Association of Testing Authorities, Australia
 National Health and Medical Research Council, Australia
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First published as AS/NZS 5667.10:1998.

PUBLISHED JOINTLY BY:

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EV/8, on Methods for Examination of Waters. This Standard is identical with and been reproduced from ISO 5667-10:1992, *Water quality—Sampling, Part 10: Guidance on sampling of waste waters*.

This is Part 10 in a series of Standards on the sampling of waters, waste waters, sediments and sludges. The objective of this series of Standards is to provide parties interested in monitoring and sampling with guidance, including guidance on the design of sampling programs, sampling techniques, preservation, handling and transport of samples for the purposes of process control, quality characterization, identification of sources of pollution, compliance with water quality guidelines or standards, and other activities. This Part of the series provides detailed principles to be applied to the sampling of waste waters.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

As this Standard is reproduced from an international Standard, the following applies:

- (a) Its number appears on the cover and title page while the International Standard number appears only on the cover.
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<i>Reference to International Standard</i>		<i>Australian, New Zealand or Australian/New Zealand Standard</i>	
ISO		AS/NZS	
2602	Statistical interpretation of test results—Estimation of the mean—Confidence interval	—	
2854	Statistical interpretation of data—Techniques of estimation and tests relating to means and variances	—	
5667	Water quality—Sampling	5667	Water quality—Sampling
5667-1	Part 1: Guidance on the design of sampling programmes	5667.1	Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples
5667-2	Part 2: Guidance on sampling techniques		
5667-3	Part 3: Guidance on the preservation and handling of samples		
5667-5	Part 5: Guidance of sampling of drinking water and water used for food and beverage processing	5667.5	Part 5: Guidance on sampling of drinking water and water used for food and beverage processing
6107-2	Water quality—Vocabulary—Part 2	—	

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AUSTRALIAN/NEW ZEALAND STANDARD

Water quality — Sampling —**Part 10:****Guidance on sampling of waste waters****1 Scope**

This part of ISO 5667 contains details on the sampling of domestic and industrial waste water, i.e. the design of sampling programmes and techniques for the collection of samples. It covers waste water in all its forms, i.e. industrial waste water, and crude and treated domestic waste water.

Sampling of accidental spillages is not included, although the methods described in certain cases may also be applicable to spillages.

1.1 Objectives

A sampling programme may be based on many different objectives. Some of the more common objectives are:

- to determine the concentration of pollutants in a waste-water stream;
- to determine the load of pollutants carried by a waste-water stream;
- to provide data for the operation of a waste-water treatment plant;
- to test whether given discharge concentration limits are kept;
- to test whether given discharge load limits are kept;
- to provide data for the levy upon discharge of waste water.

When designing a waste-water sampling programme, it is essential for the objective of the study to be kept in mind, so that the information gained from the study corresponds closely to the information required.

Generally, the objectives of sampling are quality control or quality characterization, as described in 1.1.1 and 1.1.2.

1.1.1 Quality characterization

Quality characterization aims at determining the concentration or load of pollutants in a waste-water stream, generally during an extended period of time, for example, to monitor compliance with a standard, to determine trends, to provide data on unit process efficiency or to provide loading data for planning and/or design purposes.

1.1.2 Quality control

The objective of quality control may be one of the following:

- a) to provide data for either short-term or long-term control of waste-water treatment plant operation (e.g. control of biomass growth in activated sludge units, control of anaerobic digestion processes, control of industrial effluent treatment plants);
- b) to provide data for waste-water treatment plant protection (e.g. to provide domestic waste-water plants with protection against deleterious effects from industrial effluents, to identify the sources of undesirable industrial effluent residues);
- c) to provide data for pollution control (e.g. controlling disposal operations to land, sea or water courses).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 5667. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this