INTERNATIONAL STANDARD

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Water quality — Sampling —

Part 8:
Guidance on the sampling of wet deposition

Qualité de l'eau — Échantillonnage —
Partie 8: Guide général pour l'échantillonnage des dépôts humides

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Contents

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 5667-8 was prepared by Technical Committee ISO/TC 147, *Water quality*, Sub-Committee SC 6, *Sampling (general methods)*.

ISO 5667 consists of the following parts, under the general title *Water quality — Sampling*:

— *Part 1: Guidance on the design of sampling programmes*

— *Part 2: Guidance on sampling techniques*

— *Part 3: Guidance on the preservation and handling of samples*

— *Part 4: Guidance on sampling from lakes, natural and man-made*

— *Part 5: Guidance on sampling of drinking water and water used for food and beverage processing*

— *Part 6: Guidance on sampling of rivers and streams*

— *Part 7: Guidance on sampling of water and steam in boiler plants*

— *Part 8: Guidance on the sampling of wet deposition*

— *Part 9: Guidance on sampling from marine waters*

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

— *Part 11: Guidance on sampling of groundwaters*

— *Part 12: Guidance on sampling of sediments*

Annex A forms an integral part of this part of ISO 5667.

Introduction

This part of ISO 5667 should be read in conjunction with ISO 5667-1, ISO 5667-2 and ISO 5667-3.

The general terminology used is in accordance with the various parts of ISO 6107, and more particularly, with the terminology on sampling given in ISO 6107-2.

Water quality — Sampling —

Part 8:
Guidance on the sampling of wet deposition

1 Scope

This part of ISO 5667 provides guidance on the design of sampling programmes and the choice of instrumentation and techniques for the sampling of the quality of wet deposition. It does not cover measurement of the quantity of rain.

This part of ISO 5667 does not cover dry deposition or other types of wet deposition such as mist, fog and cloudwaters, since their measurements are still at research stages. However, their importance should be noted, since research results suggest that, in some cases their loading can be comparable with, or exceed, wet precipitation. Therefore, wet precipitation data alone are rarely sufficient for calculating total loadings.

The main objectives are outlined in 1.1 and 1.2.

1.1 Control of local emissions

Determination of loadings (i.e. mass/area/time) by wet deposition to a particular ecosystem requires information on emissions, transformation and transport of pollutants from point or area sources. This information, together with assessment of the relative loadings from distant and local sources, when combined with studies on the effects of the pollutant on the ecosystem, can be used to arrive at acceptable emission control regulations.

1.2 Long range transport of airborne pollutants

Determination of temporal and spatial variations in the constituents of precipitation on a regional scale requires that the stations which are selected are representative, and are remote from local point or area sources.

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 part of ISO 5667 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5667-1:1980, *Water quality — Sampling — Part 1: Guidance on the design of sampling programmes.*

ISO 5667-2:1991, *Water quality — Sampling — Part 2: Guidance on sampling techniques.*

ISO 5667-3:1985, *Water quality — Sampling — Part 3: Guidance on the preservation and handling of samples.*

ISO 6107-2:1989, *Water quality — Vocabulary — Part 2.*

3 Definitions

For the purposes of this part of ISO 5667, the following definitions apply.

3.1 wet deposition: Water precipitated from the atmosphere in either the liquid (rain) or solid state (snow/ice).

NOTE 1 In cold climates, winter precipitation is usually in the frozen or solid state. The precipitation may also include liquid contaminants in addition to water. Apart from the difficulties encountered with snow sampling (see 6.4.2), there