INTERNATIONAL STANDARD

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Water quality — Sampling —

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

Qualité de l'eau — Échantillonnage —

Partie 7: Guide général pour l'échantillonnage des eaux et des vapeurs dans les chaudières

Reference number
ISO 5667-7:1993(E)

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 5667-7 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*

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

— *Part 11: Guidance on sampling of groundwaters*

— *Part 12: Guidance on sampling of sediments*

— *Part 13: Guidance on sampling of sludges*

Annexes A, B and C of this part of ISO 5667 are for information only.

Introduction

This part of ISO 5667 is one of a group of standards dealing with the general aspects of sampling (parts 1 to 3) and the sampling of specific types of water (from part 4 onwards). It should be read in conjunction with ISO 5667-1, ISO 5667-2 and ISO 5667-3.

The terminology used is in accordance with the various parts of ISO 6107.

Water quality — Sampling —

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

1 Scope

This part of ISO 5667 recommends procedures and equipment for sampling water and steam in boiler plants including examples of sampling apparatus, to provide samples for physical and chemical analysis that are representative of the main body of water or steam from which they are taken.

The procedures for sampling water apply to

— raw water;

— make-up water;

— boiler feed water;

— condensate;

— boiler water;

— cooling water.

The procedures for sampling steam cover both saturated and superheated steam.

This part of ISO 5667 does not apply to the sampling of water and steam in nuclear power plants.

Figures 2 to 6 are only given as examples of sampling apparatus.

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 6107-1:1986, *Water quality — Vocabulary — Part 1.*

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

ISO 8199:1988, *Water quality — General guide to the enumeration of micro-organisms by culture.*

3 Definitions

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

3.1 isokinetic sampling: A technique in which the sample from a water or steam stream passes into the orifice of a sampling probe with a velocity equal to that of the stream in the immediate vicinity of the probe. [ISO 6107-2]

3.2 sampler: A device used to obtain a sample of water or steam, either discretely or continuously, for the purpose of examination of various defined characteristic. [ISO 6107-2]

3.3 sampling point: The precise position within a system from which samples are taken. [ISO 6107-2]