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Wastewater treatment plants – Part 11: General data required

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Wastewater treatment plants - Part 11: General data required

Stations d'épuration - Partie 11: Informations générales
exigées

Kläranlagen - Teil 11: Erforderliche allgemeine Angaben

This European Standard was approved by CEN on 4 February 2001.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 165 "Waste water engineering", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2001, and conflicting national standards shall be withdrawn at the latest by December 2001.

It is the eleventh part prepared by the working groups CEN/TC 165/WG 42 und WG 43 relating to general requirements and processes for wastewater treatment plants for more than 50 PT. The parts of the series are as follows:

- Part 1: General construction principles
- Part 3: Preliminary treatment
- Part 4: Primary settlement
- Part 5: Lagooning processes
- Part 6: Activated sludge processes
- Part 7: Biological fixed-film reactors
- Part 8: Sludge treatment and storage
- Part 9: Odour control and ventilation
- Part 10: Safety principles
- Part 11: General data required
- Part 12: Control and automation¹⁾
- Part 13: Chemical treatment
- Part 14: Disinfection¹⁾
- Part 15: Measurement of the oxygen transfer in clean water in activated sludge aeration tanks
- Part 16: Physical (mechanical) filtration¹⁾

NOTE For requirements on pumping installations at wastewater treatment plants, provided initially as part 2 "Pumping installations for wastewater treatment plants", see EN 752-6 "Drain and sewer systems outside buildings – Part 6: Pumping installations".

The parts EN 12255-1, EN 12255-3 to EN 12255-8, EN 12255-10 and EN 12255-11 were implemented together as a European package (Resolution BT 152/1998). The date of withdrawal (dow) of all conflicting national standards is 2001-12-31. Until the date of withdrawal is reached the National and the already published European standards both coexist.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies data which is necessary for the planning, design, bidding, performance guarantees, construction, start-up and compliance testing of a wastewater treatment plant or parts of it.

Differences in wastewater treatment throughout Europe have led to a variety of practices being developed. This standard gives fundamental informations about the practices; this standard has not attempted to specify all available practices.

Detailed information additional to that contained in this standard may be obtained by referring to the bibliography.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 1085

Wastewater treatment – Vocabulary

¹⁾ in preparation

prEN 12255-1:1996
Wastewater treatment plants – Part 1: General construction principles

3 Terms and definitions

For the purposes of this European Standard the terms and definitions given in EN 1085 and the following apply:

3.1 plant

a new wastewater treatment plant; an upgrading or extension of an existing wastewater treatment plant or a part of a new or extended wastewater treatment plant (e. g. sludge handling facilities)

3.2 client

a municipality, city or other organisation which intends to build a wastewater treatment plant or parts thereof, or its representative [prEN 12255-1:1996]

3.3 functional tender

a tender document that contains the design loads, a description of the site where the plant is to be erected, the relevant discharge limits and any additional requirements

NOTE Turn-key contractors design the plant on the basis of the requirements and plans specified by the client (possibly with the assistance of a consulting engineer) and give bids on the plant as a whole in accordance with an overall guarantee. The turn-key contractor who secures the contract is responsible for the construction and the start-up of the plant as well as for the compliance with requirements demanded in the tender documents (turn-key project).

3.4 sectional tender

tender documents prepared for different sections of work for a plant

NOTE e. g. earth work, concrete work, mechanical equipment, electrical installations, buildings etc. A plant is normally designed by a consulting engineer. Different companies may get the commission for the different sections. A consulting engineer may be commissioned to coordinate and to supervise the work.

3.5 consulting engineer

an independant engineer commissioned by the client designing a plant or parts of it and/or supervising the construction

NOTE He may assist the client with any work preparing all or part of the tender documents. He supervises the construction and checks the time schedule and costs. The consulting engineer has knowledge and experience in planning, design and operational aspects of wastewater treatment plants. In some countries a special certification may be required.

3.6 turn-key contractor

a contractor building a plant or parts of it as a whole

NOTE The turn-key contractor is a company which has knowledge and experience in planning, design, construction and operational aspects of wastewater treatment plants.

4 Client options

The client decides whether a functional tender or a sectional tender shall be prepared.

The client may commission a consulting engineer to carry out one or more of the following:

- establish the design loads and data as described in clause 5;
- prepare the tender documents for a functional tender;
- design the plant and estimate the costs and prepare the tender documents for the sectional tender;
- inspect the construction in case of functional tendering;
- supervise and coordinate the construction in case of sectional tendering;
- evaluate the bids on the tenders and to propose which contractor or contractors (in case of sectional tendering) should be commissioned.