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Wastewater treatment plants - Part 10: Safety principles

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Wastewater treatment plants - Part 10: Safety principles

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Kläranlagen - Teil 10: Sicherheitstechnische
Baugrundsätze

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EN 12255-10:2023 (E)

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European foreword

This document (EN 12255-10:2023) 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of an identical text or by endorsement, at the latest by September 2023, and conflicting national standards shall be withdrawn at the latest by September 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12255-10:2000.

This is the tenth part prepared by Working Group CEN/TC 165/WG 40 relating to the general requirements and processes for treatment plants for a total number of inhabitants and population equivalents (PT) over 50.

The EN 12255 series, Wastewater treatment plants, consists of the following parts:

- *Part 1: General construction principles*
- *Part 2: Storm management systems*
- *Part 3: Preliminary treatment*
- *Part 4: Primary treatment*
- *Part 5: Lagooning processes*
- *Part 6: Activated sludge process*
- *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 automation*
- *Part 13: Chemical treatment — Treatment of wastewater by precipitation/flocculation*
- *Part 14: Disinfection*
- *Part 15: Measurement of the oxygen transfer in clean water in aeration tanks of activated sludge plants*
- *Part 16: Physical (mechanical) filtration*

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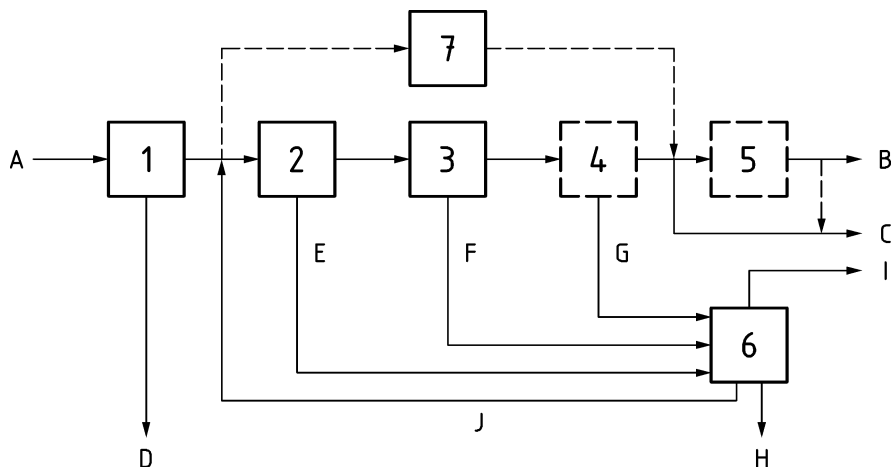
NOTE Part 2 is under preparation.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

Differences in wastewater treatment throughout Europe have led to a variety of systems being developed. This document gives fundamental information about the systems; this document has not attempted to specify all available systems. A generic arrangement of wastewater treatment plants is illustrated below in Figure 1:



Key

- 1 preliminary treatment
- 2 primary treatment
- 3 secondary treatment
- 4 tertiary treatment
- 5 additional treatment (e.g. disinfection or removal of micropollutants)
- 6 sludge treatment
- 7 lagoons (as an alternative)
- A raw wastewater
- B effluent for re-use (e.g. irrigation)
- C discharged effluent
- D screenings and grit
- E primary sludge
- F secondary sludge
- G tertiary sludge
- H stabilized sludge
- I digester gas
- J returned water from dewatering

Figure 1 — Schematic diagram of wastewater treatment plants

The primary application is for wastewater treatment plants designed for the treatment of domestic and municipal wastewater.

NOTE For requirements on pumping installations at wastewater treatment plants see EN 752, *Drain and sewer systems outside buildings* and the EN 16932 series, *Drain and sewer systems outside buildings — Pumping systems*:

- *Part 1: General requirements;*
- *Part 2: Positive pressure systems;*
- *Part 3: Vacuum systems.*

EN 12255-10:2023 (E)**1 Scope**

This document defines minimum safety requirements to be observed in the planning, construction or reconstruction of wastewater treatment plants.

The purpose of this document is to ensure the protection of people.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 476, *General requirements for components used in drains and sewers*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN