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Avlopp – Förvaltning och kontroll av rensning i avloppssystem utanför byggnad – Del 1: Rensning

Management and control of operational activities in drain and sewer systems outside buildings – Part 1: Cleaning

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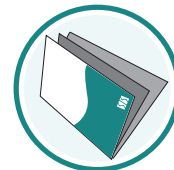
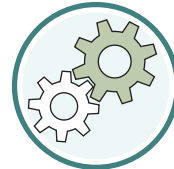
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Denna standard ersätter SS-EN 14654-1:2005, utgåva 1.

The European Standard EN 14654-1:2014 has the status of a Swedish Standard. This document contains the official version of EN 14654-1:2014.

This standard supersedes the Swedish Standard SS-EN 14654-1:2005, edition 1.

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Denna standard är framtagen av kommittén för Avloppsteknik, SIS/TK 198/AG 165.

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EUROPEAN STANDARD

EN 14654-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2014

ICS 93.030

Supersedes EN 14654-1:2005

English Version

Management and control of operational activities in drain and sewer systems outside buildings - Part 1: Cleaning

Gestion et contrôle des opérations d'exploitation dans les réseaux d'évacuation et d'assainissement à l'extérieur des bâtiments - Partie 1: Nettoyage

Management und Überwachung von betrieblichen Maßnahmen in Entwässerungssystemen außerhalb von Gebäuden - Teil 1: Reinigung

This European Standard was approved by CEN on 17 April 2014.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 14654-1:2014) 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 December 2014, and conflicting national standards shall be withdrawn at the latest by December 2014.

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

This document supersedes EN 14654-1:2005.

EN 14654 “*Management and control of operational activities in drain and sewer systems outside buildings*” contains the following parts:

- *Part 1: Cleaning;*
- *Part 2: Rehabilitation.*

Other parts, dealing with other activities, may be added later.

In drafting this part of EN 14654, account has been taken of other available standards, in particular EN 752 “*Drain and sewer systems outside buildings*” and EN 13508 “*Investigation and assessment of drain and sewer systems outside buildings*”.

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

Introduction

This European Standard deals with the management and control of cleaning operations in drain and sewer systems. Cleaning operations are a part of the general management of drain and sewer systems.

The employing authority sets the aims of the cleaning operations, expressed in terms of the end result, necessary to achieve the performance requirements for the drain and sewer system (see EN 752), and develops a strategy to meet these aims. The employing authority also produces a specification for cleaning operations taking account of the aims and the strategy, and including indicators for controlling the quality of the results.

Before commencing cleaning operations, the employing authority should have a thorough knowledge of the drain and sewer system and an assessment of the hydraulic conditions and other relevant factors in order to understand the type and frequency of cleaning necessary (see EN 752). However, it is sometimes necessary to carry out some work in order to obtain this knowledge.

On completion, a report of the cleaning operations is produced, providing information on the works, on any difficulties encountered and any anomalies.

This information is used to improve the management of drain and sewer systems.

1 Scope

This European Standard establishes the general principles for the management and control of operational activities in drain and sewer systems outside buildings and specifies requirements for development and implementation of work programmes, and the selection of techniques.

This European Standard covers the management and control of cleaning.

It is applicable to drain and sewer systems, which operate essentially under gravity, from the point where wastewater leaves a building, roof drainage system, or paved area, to the point where it is discharged into a treatment works or receiving water body. Drains and sewers below buildings are included provided that they do not form part of the drainage system of the building.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 752:2008, *Drain and sewer systems outside buildings*

EN 1829-1:2010, *High pressure water jet machines - Safety requirements - Part 1: Machines*

EN 1829-2:2008, *High-pressure water jet machines - Safety requirements - Part 2: Hoses, hose lines and connectors*

EN 13508-1:2012, *Investigation and assessment of drain and sewer systems outside buildings - Part 1: General Requirements*

EN ISO 14001, *Environmental management systems - Requirements with guidance for use (ISO 14001:2004)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 General

3.1.1

cleaning activities

removal or partial removal of settled deposits, attached deposits, roots and other obstacles from a drain or sewer system

3.1.2

degree of cleaning

extent to which complete removal of deposits is achieved

3.1.3

employing authority

organization that owns or is responsible for the management of a drain or sewer system

3.1.4

removal

extraction of deposits after collecting at the working area or the intentional use of the flow in the drain or sewer to carry the re-entrained solids to a specified point of extraction

3.1.5

self-cleansing

ability of the flow in a drain or sewer to carry away solid particles which would otherwise be deposited in the pipe

[SOURCE: EN 16323: 2014, 2.2.1.13]

3.1.6

supernatant liquor

liquor in a tank lying above the deposited solids

[SOURCE: EN 16323:2014, 2.1.2.16]

3.2 Deposits

3.2.1

attached deposits

material attached to the wall of elements of the drain or sewer system by physical or chemical bonding

3.2.2

settled deposits

material deposited by gravity in the invert or benching of elements of the drain or sewer system

3.3 Cleaning methods

3.3.1

cleaning ball

spherical device, having an indented surface, designed to be carried through a drain or sewer by the flow to facilitate removal of sediments

[SOURCE: EN 752:2008, 3.9]

3.3.2

combined jetting

simultaneous use of high-pressure water jetting equipment together with a suction action, to remove obstructions or sediments from drains or sewers

[SOURCE: EN 16323:2014, 2.2.1.10]

3.3.3

flushing

use of a temporary and substantially increased flow to facilitate the removal of obstructions or sediments from drains or sewers

[SOURCE: EN 16323: 2014, 2.2.1.16]

3.3.4

jetting

use of water under defined conditions of pressure and flow through a nozzle

[SOURCE: EN 16323:2014, 2.2.1.18]

3.3.5

rodding

use of appropriate device on the end of flexible rods to facilitate the removal of obstructions (or sediments) from drains or sewers

[SOURCE: EN 16323: 2014, 2.2.1.11]