SLOVENSKI STANDARD
oSIST prEN 14654-1:2019

01-julij-2019

Sistemi za odvod odpadne vode in kanalizacijo zunaj stavb - Upravljanje in nadzor aktivnosti - 1. del: Splošne zahteve

Drain and sewer systems outside buildings - Management and control of activities - Part 1: General requirements

Entwässerungssysteme außerhalb von Gebäuden - Management und Überwachung von Maßnahmen - Teil 1: Allgemeine Anforderungen

Réseaux d'évacuation et d'assainissement à l'extérieur des bâtiments - Gestion et contrôle des activités opérationnelles - Partie 1: Exigences générales

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Ta slovenski standard je istoveten z: **prEN 14654-1**

ICS:

93.030	Zunanji sistemi za odpadno vodo	External sewage systems

oSIST prEN 14654-1:2019 **en,fr,de**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 14654-1

April 2019

ICS 93.030

Will supersede EN 14654-1:2014

English Version

Drain and sewer systems outside buildings - Management and control of activities - Part 1: General requirements

Réseaux d'évacuation et d'assainissement à l'extérieur des bâtiments - Gestion et contrôle des activités opérationnelles - Partie 1: Exigences générales

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 165.

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European foreword

This document (prEN 14654-1:2019) has been prepared by Technical Committee CEN/TC 165 “Wastewater Engineering”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 14654-1:2014.

EN 14654 consists of the following parts, under the general title *Drain and sewer systems outside buildings — Management and control of activities*:

— *Part 1: General*; (the present document)

— *Part 2: Rehabilitation*

— *Part 3: Sewer cleaning*

— *Part 4: Control of inputs*

This document, together with prEN 14654-3:2019 supersedes EN 14654-1:2014. The general content of EN 14654-1 which is duplicated in EN 14654-2:2013 is included in this document. The specialized text relating to Rehabilitation has been retained in prEN 14654-2:2019 and the specialized text relating to Sewer Cleaning has been moved to prEN 14654-3:2019 .

There are no substantive changes to the general text in this document.

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Introduction

Drain and sewer systems are part of the overall wastewater system that provides a service to the community. This can be briefly described as:

— removal of wastewater from premises for public health and hygienic reasons;

— prevention of flooding in urbanized areas;

— protection of the environment.

The overall wastewater system has four successive functions:

— collection;

— transport;

— treatment;

— discharge.

Wastewater can, if necessary after treatment, be discharged to the environment or reused.

Collection and transport of wastewater is provided by drain and sewer systems.

Drain and sewer systems were installed because there was a need to remove the polluted water to prevent diseases.

Traditionally, drain and sewer systems were constructed to collect and transport all types of wastewater together irrespective of the initial source. This led to difficulties in handling the peak flows in times of heavy rainfall and to the introduction of combined sewer overflows, which discharged polluted water to surface receiving water bodies.

It was later recognized that separate systems, where foul wastewater was kept separate from runoff derived from surface water, would be an improvement over such combined systems.

Although many drain and sewer systems started out as combined systems there are strong arguments for considering the separation of foul wastewater and surface water. The pollutant effects are not the same and the separation of effluents allows for the different treatment for each element of wastewater, providing more environmentally friendly solutions.

This concept is included in the approach of integrated sewer management.

This European Standard provides a framework for the design, construction, maintenance, operation and rehabilitation of drain and sewer systems outside buildings. This is illustrated in the upper part of the diagram in Figure 1. This European Standard is supported by more detailed standards for the investigation, design, construction, organization and control of drain and sewer systems.

Investigation and assessment standards include:

— EN 13508 (all parts), *Investigation and assessment of drain and sewer systems outside buildings*

Design and construction standards include:

— EN 16932 (all parts), *Drain and sewer systems outside buildings — Pumping systems*

— EN 16933-2, *Drain and sewer systems outside buildings — Design — Part 2: Hydraulic design*

— EN 1295 (all parts), *Structural design of buried pipelines under various conditions of loading*

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— EN 1610, *Construction and testing of drains and sewers*

— EN 12889, *Trenchless construction and testing of drains and sewers*

— EN 15885, *Classification and characteristics of techniques for renovation and repair of drains and sewers*

Management and control standards include:

— EN 14654 (all parts), *Management and control of activities in drain and sewer systems outside buildings*

To support these detailed standards information comes from specifications produced by individual organizations for their own use. Product standards should also take into account the functional requirements in this European Standard through EN 476, EN 13380 and EN 14457.

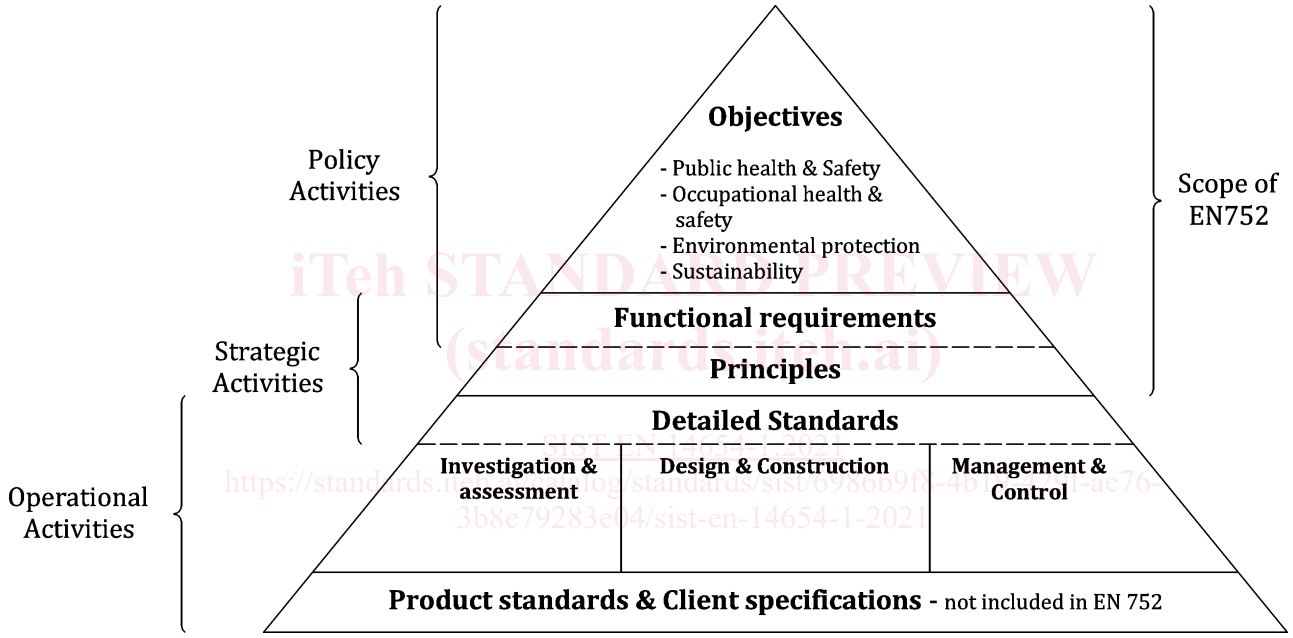

Figure 1 —Pyramid diagram

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1 Scope

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

This document covers general requirements for the management and control of activities.

It is applicable to drain and sewer systems from the point where wastewater leaves a building, roof drainage system, or paved area, to the point where it is discharged into a wastewater treatment plant 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 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 752:2017, *Drain and sewer systems outside buildings - Sewer system management*

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

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EN 16323:2014, *Glossary of wastewater engineering terms*

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3 Terms and definitions

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For the purposes of this document, the terms and definitions given in EN 16323:2014 and the following apply.

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ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

Note 1 to entry: Certain key definitions from EN 16323:2014 have been repeated below for clarity. The following additional terms used in this European Standard are defined in EN 16323:2014.

— drain

— receiving water body

— rehabilitation

— sewer

— sewer system

— surface receiving water body

— wastewater treatment plant

3.1
contractor
organization responsible for implementation of activities on a drain or sewer system

Note 1 to entry: The contractor can be the part of the same organization as the employing authority

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3.2
employing authority
organization that owns or is responsible for the management of a drain or sewer system

3.3
wastewater
water composed of any combination of water discharged from domestic, industrial or commercial premises, surface run-off and accidentally any sewer infiltration water

[SOURCE: EN 16323:2014, definition 2.3.10.65]

4 General

EN 752:2017, Clause 6, outlines the process for preparation and implementation of an integrated drain and sewer system management plan which includes, at a strategic level, a plan for new developments, the operation and maintenance, and rehabilitation of the drain and sewer system and for contingency and emergency planning.

This document sets out a process for implementing the proposals in the integrated drain and sewer system management plan. The process is based on a staged application of the process outlined in Figure 2.

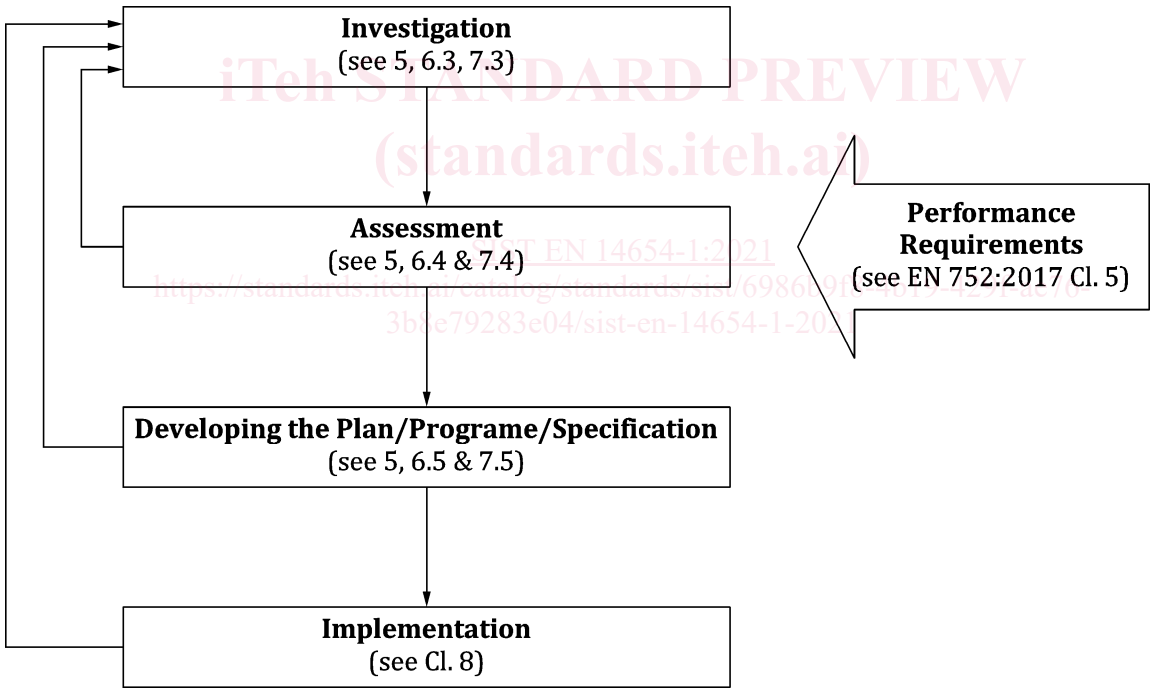

Figure 2 —The integrated sewer system management process (based on EN 752:2017, Figure 5)

The integrated sewer system management process is applied successively to develop programmes based on the integrated sewer system management plan. The programme outlines a series of projects, to implement the plan. Following this, the integrated sewer system management process is then used to produce a detailed specification for each of these projects in the programme. Finally, following the implementation of each project, the programme and the integrated sewer system management plan are reviewed and updated where necessary. The performance requirements for the rehabilitated systems should be in accordance with EN 752:2017, 5.2. At each stage further investigation and assessment is carried out in accordance with EN 13508-1.

NOTE In this document “project” refers both to discrete projects and continuous activities.

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This staged process is summarized in Figure 3.

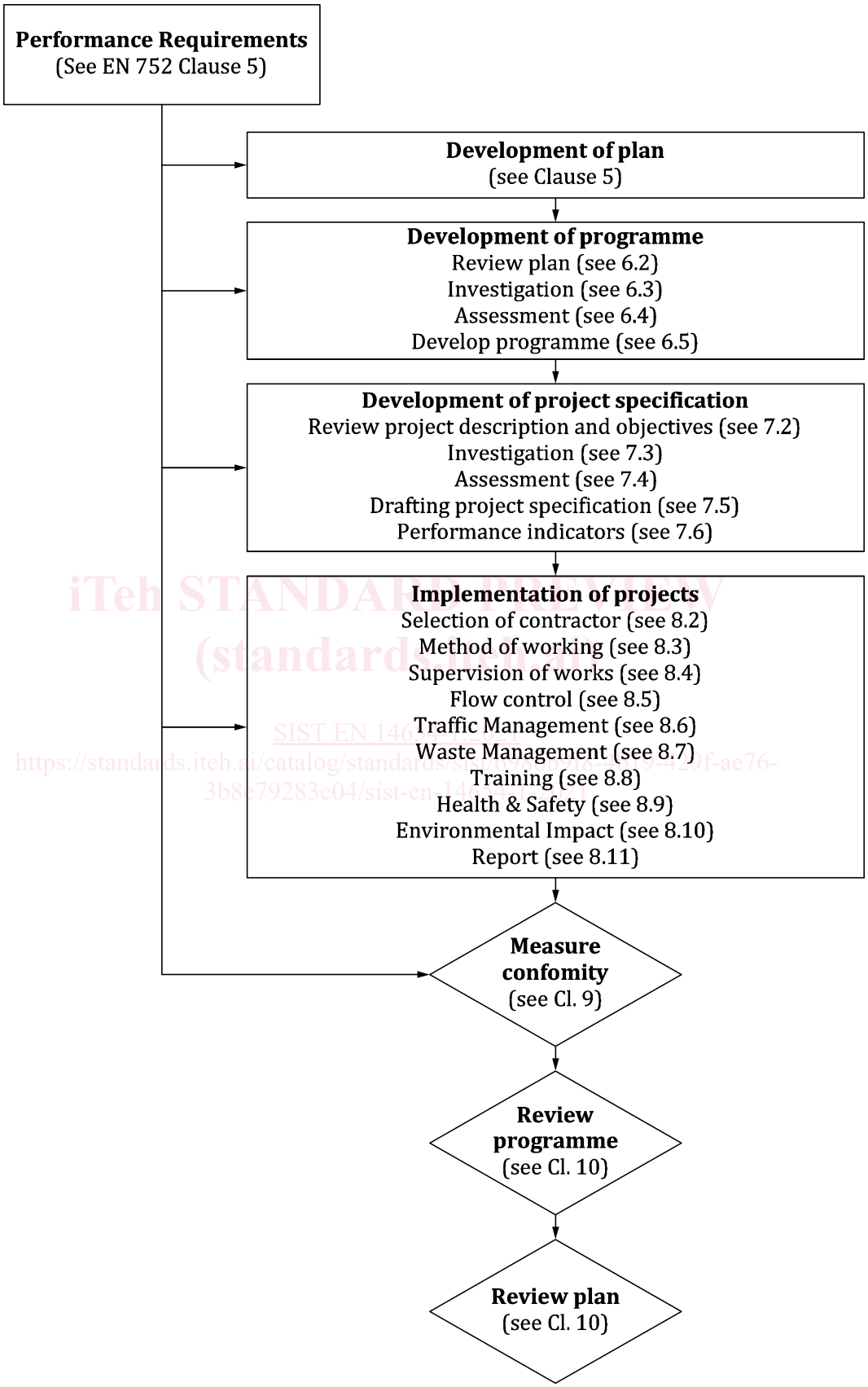

Figure 3 — Summary of the management and control process