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English Version

Structural design of buried pipelines under various conditions of loading - Part 2: Summary of nationally established methods of design

Calcul de résistance mécanique des canalisations enterrées sous diverses conditions de charge - Partie 2: Résumé des méthodes nationales de dimensionnement

Statische Berechnung von erdverlegten Rohrleitungen unter verschiedenen Belastungsbedingungen - Teil 2: Zusammenstellung national eingeführter Berechnungsverfahren

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Foreword

This Technical Report (CEN/TR 1295-2:2005) has been prepared by Technical Committee CEN/TC 165 "Wastewater engineering", the secretariat of which is held by DIN.

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 Technical Report was prepared by a Joint Working Group (JWG 1) of Technical Committees TC 164, Water supply, the secretariat of which is held by AFNOR, and TC 165, Waste water engineering, the secretariat of which is held by DIN.

This Technical Report is intended for use in conjunction with the series of product standards covering pipes of various materials for the water industry.

This Technical Report includes an Informative Annex A in which are included additional details about the nationally established methods of design declared, submitted by and used in member countries, and collated by the Joint Working Group.

Introduction

The structural design of buried pipelines constitutes a wide ranging and complex field of engineering, which has been the subject of extensive study and research, in many countries over a period of very many years.

Whilst many common features exist between the design methods which have been developed and established in the various member countries of CEN, there are also differences reflecting such matters as geological and climatic variations, as well as different installation and working practices.

In view of these differences, and of the time required to develop a common design method which would fully reflect the various considerations identified in particular national methods, a two stage approach has been adopted for the development of this document.

In accordance with this two stage approach, the Joint Working Group, at its initial meeting, resolved "first to produce a document giving guidance on the application of nationally established methods of structural design of buried pipelines under various conditions of loading, whilst working towards a common method of structural design". This document represents the full implementation of the first part of that resolution.

1 Scope

In addition to EN 1295-1, this Technical Report gives additional guidance when compared with EN 1295-1 on the application of the nationally established methods of design declared by and used in CEN member countries at the time of preparation of this document (see informative Annex A).

This Technical Report is an important source of design expertise, but it cannot include all possible special cases, in which extensions or restrictions to the basic design methods may apply.

Since in practice precise details of types of soil and installation conditions are not always available at the design stage, the choice of design assumptions is left to the judgement of the engineer. In this connection the document can only provide general indications and advice.

2 Normative references

The following referenced documents are indispensable for the application 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 1295-1, *Structural design of buried pipelines under various conditions of loading — Part 1: General requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1295-1 apply.

4 Additional details about established methods

Annex A gives for several countries details about the established methods of design declared, submitted by and used in member countries.