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Construction and installation of ductile iron pipeline system

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 2, *Cast iron pipes, fittings and their joints*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Construction and installation of ductile iron pipeline system

1 Scope

This document specifies the recommended practices and requirements for the installation of buried and above-ground ductile iron pipeline system conforming to ISO 2531, ISO 7186 and ISO 16631.

The recommended practices in this document are intended to provide the practical advices based on the best methods of construction and installation of ductile iron pipeline system including pipes, fittings, valves and accessories.

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.

ISO 2531:2009, *Ductile iron pipes, fittings, accessories and their joints for water applications*

ISO 4179:2005, *Ductile iron pipes and fittings for pressure and non-pressure pipelines — Cement mortar lining*

ISO 8179-1:2017, *Ductile iron pipes, fittings, accessories and their joints — External zinc-based coating — Part 1: Metallic zinc with finishing layer*

ISO 8180, *Ductile iron pipes — polyethylene sleeving for site application*

ISO 10802, *Ductile iron pipelines — Hydrostatic testing after installation*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 2531 and the following apply.

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

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

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

3.1
system test pressure
STP
hydrostatic pressure applied to newly laid pipeline in order to ensure its integrity and leak tightness, based on project requirements of working pressure and the surge pressure

Note 1 to entry: The system test pressure (Clause 14) shall never exceed the maximum allowable site test pressure of each component of the pipeline i.e. pipes, *valves* (3.8), fittings and other accessories.

3.2
gravity system
system where flow and/or pressure are caused by the force of gravity.

Note 1 to entry: There are two kinds of such systems:

— pressurized gravity system, where the pipeline operates full;

— non-pressured gravity system, where the pipeline operates partially full.