ICS 19.100 SLOVENSKÁ TECHNICKÁ NORMA Máj 2019

STN	**Nedeštruktívne skúšanie Kontrola korózie a pokrytí potrubia prežarovaním röntgenovými lúčmi a lúčmi gama Časť 2: Kontrola prežarovaním dvojsteny (ISO 20769-2: 2018)**	**STN EN ISO 20769-2** 13 3411

Non-destructive testing - Radiographic inspection of corrosion and deposits in pipes by X- and gamma rays - Part 2: Double wall radiographic inspection (ISO 20769-2:2018)

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/19

Obsahuje: EN ISO 20769-2:2018, ISO 20769-2:2018

Oznámením tejto normy sa ruší
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EUROPEAN STANDARD

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EN ISO 20769-2

October 2018

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Supersedes EN 16407-2:2014

English Version

Non-destructive testing - Radiographic inspection of corrosion and deposits in pipes by X- and gamma rays - Part 2: Double wall radiographic inspection (ISO 20769-2:2018)

Essais non destructifs - Examen radiographique de la corrosion et des dépôts dans les canalisations, par rayons X et rayons gamma - Partie 2: Examen radiographique double paroi (ISO 20769-2:2018)

Zerstörungsfreie Prüfung - Durchstrahlungsprüfung auf Korrosion und Ablagerungen in Rohren mit Röntgen - und Gammastrahlen - Teil 2: Doppelwand-Durchstrahlungsprüfung (ISO 20769-2:2018)

This European Standard was approved by CEN on 9 August 2018.

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European foreword

This document (EN ISO 20769-2:2018) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration with Technical Committee CEN/TC 138 “Non-destructive testing” the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by April 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

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.

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Endorsement notice

The text of ISO 20769-2:2018 has been approved by CEN as EN ISO 20769-2:2018 without any modification.

INTERNATIONAL STANDARD

ISO 20769-2

First edition
2018-09

Non-destructive testing — Radiographic inspection of corrosion and deposits in pipes by X- and gamma rays —

Part 2: Double wall radiographic inspection

Essais non destructifs — Examen radiographique de la corrosion et des dépôts dans les canalisations, par rayons X et rayons gamma —

Partie 2: Examen radiographique double paroi

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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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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 135 *Non-destructive testing*, Subcommittee SC 5 *Radiographic testing*.

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.

A list of all parts in the ISO 20769 series can be found on the ISO website.

INTERNATIONAL STANDARD **ISO 20769-2:2018(E)**

Non-destructive testing — Radiographic inspection of corrosion and deposits in pipes by X- and gamma rays —

Part 2: Double wall radiographic inspection

1 Scope

This document specifies fundamental techniques of film and digital radiography with the object of enabling satisfactory and repeatable results to be obtained economically. The techniques are based on generally recognized practice and fundamental theory of the subject.

This document applies to the radiographic examination of pipes in metallic materials for service induced flaws such as corrosion pitting, generalized corrosion and erosion. Besides its conventional meaning, "pipe" as used in this document is understood to cover other cylindrical bodies such as tubes, penstocks, boiler drums and pressure vessels.

Weld inspection for typical welding process induced flaws is not covered, but weld inspection is included for corrosion/erosion type flaws.

The pipes can be insulated or not, and can be assessed where loss of material due, for example, to corrosion or erosion is suspected either internally or externally.

This document covers double wall inspection techniques for detection of wall loss, including double wall single image (DWSI) and double wall double image (DWDI).

Note that the DWDI technique described in this document is often combined with the tangential technique covered in ISO 20769-1.

This document applies to in-service double wall radiographic inspection using industrial radiographic film techniques, computed digital radiography (CR) and digital detector arrays (DDA).

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 11699-1, *Non-destructive testing — Industrial radiographic film — Part 1: Classification of film systems for industrial radiography*

ISO 11699-2, *Non-destructive testing — Industrial radiographic films — Part 2: Control of film processing by means of reference values*

ISO 17636-2, *Non-destructive testing of welds — Radiographic testing — Part 2: X- and gamma-ray techniques with digital detectors*

ISO 19232-1, *Non-destructive testing — Image quality of radiographs — Part 1: Determination of the image quality value using wire-type image quality indicators*

ISO 19232-5, *Non-destructive testing — Image quality of radiographs — Part 5: Determination of the image unsharpness value using duplex wire-type image quality indicators*

ISO 20769-1, *Non-destructive testing of welds — Radiographic inspection of corrosion and deposits in pipes by X- and gamma rays — Part 1: Tangential radiographic inspection*

EN 14784-1, *Non-destructive testing — Industrial computed radiography with storage phosphor imaging plates — Part 1: Classification of systems*