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Installation and equipment for liquefied natural gas — Design and testing of marine transfer systems —

Part 2: Design and testing of transfer hoses

Installations et équipements de gaz naturel liquéfié — Conception et essais des systèmes de transfert marins —

Partie 2: Conception et essais des flexibles de transfert

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Contents

Page

Foreword ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms, definitions and abbreviations **1**
3.1 Terms and definitions 1
3.2 Abbreviations 5

4 Applications and qualification categories **5**
4.1 Applications 5
4.2 Qualification categories 6

5 Description of typical LNG transfer hose assembly designs and accessories **6**
5.1 General 6
5.2 Mandatory components 7
5.3 Optional components 7
5.4 Typical construction of LNG transfer hose assemblies 7
5.4.1 Main hose categories 7
5.4.2 Corrugated metal hose assemblies 8
5.4.3 Thermoplastic multi-layer (non-vulcanized) hose assemblies (Composite hose assemblies) 10
5.4.4 Hose-in-hose with annular space 11

6 Design features of the LNG transfer hoses assemblies **12**
6.1 General 12
6.2 Transfer hose assembly technology design parameters 12
6.3 Project specific design parameters 13
6.3.1 Selection of hose assembly length 13
6.3.2 Service life 13
6.3.3 Selection of buoyancy and submersion 13
6.3.4 Selection of insulation 13
6.3.5 Selection of external protection 13
6.3.6 Selection of leak detection 13
6.4 Component details – End fitting 14
6.4.1 General 14
6.4.2 Termination 14
6.4.3 Connector 14
6.4.4 Bending stiffener/restrictor (optional) 15
6.5 Hose assembly handling / lifting device 15
6.6 Safety systems 15
6.6.1 Leak detection (optional) 15
6.6.2 Fire safety requirements 16
6.6.3 Electrical safety requirements 16
6.7 Connection to the ship 16
6.8 Hydraulic and electric control systems 16

7 Qualification requirements **16**
7.1 Foreword 16
7.2 Qualification process 16
7.2.1 General principle 16
7.2.2 Qualification levels specific requirements 17
7.2.3 Certification range definition from a tested hose assembly 18
7.2.4 Certification extension and update 19
7.3 Hose assembly tests 19
7.3.1 General 19
7.3.2 Hose assembly property characterization tests 20
7.3.3 Qualification tests with acceptance criteria 28

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8 Quality assurance and control ... **37**
8.1 General ... 37
8.2 Material selection ... 37
8.3 Manufacturing ... 37
8.3.1 Manufacturing basics ... 37
8.3.2 Traceability ... 38
8.3.3 Marking ... 38
8.3.4 Packing and preservation ... 38
8.4 Factory acceptance tests ... 38
8.4.1 General ... 38
8.4.2 Tests to be performed on every hose assembly ... 39
9 Documentation ... **39**
9.1 Purchasing guidelines ... 39
9.2 Design, qualification and manufacturing documentation ... 39
9.3 As-built documentation/manufacturing Data Book ... 39
9.4 Operation manual ... 40
Annex A (informative) **Purchasing guidelines table** ... **41**
Annex B (informative) **Guidelines for additional testing program** ... **43**
Annex C (informative) **Guidelines for Hose Qualification Categories (HQCs) selection** ... **50**
Annex D (informative) **Surge pressure considerations for LNG hose assemblies** ... **52**
Annex E (informative) **Pressure leak tests - justification about maximum allowed permeability rate and leak detection value** ... **53**
Bibliography ... **55**

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Foreword

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This document was prepared by the European Committee for Standardization (CEN) (as EN 1474-2:2020+AC:2023) and drafted in accordance with its editorial rules. It was assigned to Technical Committee ISO/TC 67, *Oil and gas industries including lower carbon energy*, Subcommittee SC 9, *Production, transport and storage facilities for cryogenic liquefied gases* and adopted without modification.

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Installation and equipment for liquefied natural gas — Design and testing of marine transfer systems —

Part 2:
Design and testing of transfer hoses

1 Scope

This document gives general guidelines for the design, material selection, qualification, certification, and testing details of hose assemblies for Liquefied Natural Gas (LNG) marine transfer applications.

The transfer hose assemblies are part of transfer systems (it means that they may be fitted with ERS, QCDC, handling systems, hydraulic and electric components etc.) To avoid unnecessary repetition, cross-references to EN ISO 16904 and EN 1474-3 are made for all compatible items, and for references, definitions and abbreviations. Where additional references, definitions and abbreviations are required specifically for LNG hose assemblies, they are listed in this document.

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 1474-1:2008, *Installation and equipment for liquefied natural gas — Design and testing of marine transfer systems — Part 1: Design and testing of transfer arms*

EN 1474-3:2008, *Installation and equipment for liquefied natural gas - Design and testing of marine transfer systems - Part 3: Offshore transfer systems*

EN ISO 7369:2004, *Pipework - Metal hoses and hose assemblies - Vocabulary (ISO 7369:2004)*

EN ISO 8330:2014, *Rubber and plastics hoses and hose assemblies - Vocabulary (ISO 8330:2014)*

EN ISO 10012:2003, *Measurement management systems - Requirements for measurement processes and measuring equipment (ISO 10012:2003)*

EN ISO 10619-1:2018, *Rubber and plastics hoses and tubing - Measurement of flexibility and stiffness - Part 1: Bending tests at ambient temperature (ISO 10619-1:2017)*

EN ISO 16904:2016, *Petroleum and natural gas industries - Design and testing of LNG marine transfer arms for conventional onshore terminals (ISO 16904:2016)*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 7369:2004 and EN ISO 8330:2014 and the following apply.

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

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

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