

English Version

**Natural gas fuelling stations - Guidance for
implementation of European standards on CNG and LNG
stations for fuelling vehicles**

Erdgastankstellen - Leitlinien für die Umsetzung
europäischer Normen für CNG- und LNG-Anlagen zur
Betankung von Fahrzeugen

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European foreword

This document (CEN/TR 17452:2020) has been prepared by Technical Committee CEN/TC 326 “Natural gas vehicles – Fuelling and operation”, the secretariat of which is held by NEN and TSE.

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.

Introduction

Under standardization request M/533, CEN/TC 326 has adopted ISO 16923 and ISO 16924 as European standards to support the deployment of infrastructure for vehicles operating on natural gas, either compressed (CNG) or liquefied (LNG). In addition to interoperability aspects, as the objective of M/533, the international standards concerned also address minimum safety requirements and describe up-to-date technology.

ISO 16923 and ISO 16924 have been developed by experts of relevant industry sectors across different parts of the world, including Europe. The intent of ISO 16923 and ISO 16924 is that they are worldwide applicable. For this reason, they cannot specifically address European standards as well as European Directives and other European regulations.

Requirements in European legislation prevails over requirements in (European) standards, which are designed for voluntary use. As part of the European adoption process of ISO 16923 and ISO 16924 it was concluded that these international standards do not conflict with European legislation. It was also considered useful to link the referenced international standards to equivalent European standards and, if applicable, to European Directives.

After the publication of ISO 16923 and ISO 16924, some issues were identified in these international standards that can be further clarified. It was considered useful to include these clarifications in this document as well. When revising ISO 16923 and ISO 16924, these clarifications can be considered to be incorporated in the second edition of those international standards.

Since the similarities between EN ISO 16923 and EN ISO 16924 and because several organizations provide products and/or services for both CNG and LNG fuelling stations at the European market, this document provides guidance for the implementation of both EN ISO 16923 and EN ISO 16924.

1 Scope

This document provides guidance to support organizations with the implementation of the European standards on CNG and LNG stations for fuelling vehicles (i.e. EN ISO 16923:2018 and EN ISO 16924:2018, respectively).

This document cross-references European standards to the international standards listed in EN ISO 16923:2018 and EN ISO 16924:2018 and links these standards to relevant European Directives, where applicable.

This document provides clarifications of certain requirements and recommendations described in EN ISO 16923:2018 and EN ISO 16924:2018.

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 ISO 16923:2018, *Natural gas fuelling stations - CNG stations for fuelling vehicles (ISO 16923:2016)*

EN ISO 16924:2018, *Natural gas fuelling stations - LNG stations for fuelling vehicles (ISO 16924:2016)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 16923:2018 and EN ISO 16924:2018 apply.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 European Directives

The following European Directives are considered relevant in the area of natural gas fuelling stations:

- Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (also known as Machinery Directive);

NOTE 1 Directive 2006/42/EC has superseded Directive 98/37/EC.

- Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods;

NOTE 2 Directive 2008/68/EC has superseded *inter alia* Directives 94/55/EC and 96/86/EC related to transport of dangerous goods by road. Directive 2008/68/EC is linked to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

- Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of measuring instruments (also known as MID);

NOTE 3 Directive 2014/32/EU has superseded Directive 2004/22/EC.

- Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres (also known as ATEX);
- Directive 2014/68/EU of the European Parliament and of the Council of 15 May 2014 on the harmonization of the laws of the Member States relating to the making available on the market of pressure equipment (also known as PED).

NOTE 4 Directive 2014/68/EU has superseded Directive 97/23/EC.

The EC conformity declaration to be provided by natural gas fuelling station manufacturers usually includes the following European Directives:

- Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility (also known as EMC Directive);
- Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (also known as Low Voltage Directive).

NOTE 5 Directive 2014/35/EU has superseded Directive 2006/95/EC.

5 Cross-references to European standards and European Directives

Table 1 provides an overview of normative references in EN ISO 16923:2018 and/or EN ISO 16924:2018 and their link with equivalent European standards and, if applicable, European Directives.