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Irish Standard
I.S. EN 45545-7:2013

Railway applications - Fire protection on railway vehicles - Part 7: Fire safety requirements for flammable liquid and flammable gas installations

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 45545-7

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Supersedes CEN/TS 45545-7:2009

English Version

Railway applications - Fire protection on railway vehicles - Part 7: Fire safety requirements for flammable liquid and flammable gas installations

Applications ferroviaires - Protection contre les incendies dans les véhicules ferroviaires - Partie 7: Exigences de sécurité incendie relatives aux installations de liquides inflammables et de gaz inflammables

Bahnanwendungen - Brandschutz in Schienenfahrzeugen - Teil 7: Brandschutzanforderungen an Anlagen für brennbare Flüssigkeiten und Gase

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Foreword

This document (EN 45545-7:2013) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by March 2016.

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 document supersedes CEN/TS 45545-7:2009.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2008/57/EC.

For relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.

This series of European standards *Railway applications — Fire protection on railway vehicles* consists of:

— Part 1: General;

— Part 2: Requirements for fire behaviour of materials and components;

— Part 3: Fire resistance requirements for fire barriers;

— Part 4: Fire safety requirements for railway rolling stock design;

— Part 5: Fire safety requirements for electrical equipment including that of trolley buses, track guided buses and magnetic levitation vehicles;

— Part 6: Fire control and management systems;

— Part 7: Fire safety requirements for flammable liquid and flammable gas installations.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

EN 45545-7 has been developed from existing fire safety regulations for railway vehicles from the International Union of Railways (UIC) and different European countries.

In using the Operation and Design Categories defined in EN 45545-1, the requirements laid down in this part take into account the current operating conditions for European public rail transport.

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1 Scope

This part of EN 45545 specifies requirements for flammable liquids and liquefied petroleum gas installations, e. g. for traction, auxiliary power units, heating or cooking, to cover the objectives defined in EN 45545-1. This part is not applicable to technical liquids themselves, e. g. hydraulic liquid and transformer oil, except where guidance is given as to dealing with spillages, leakage and spray generation.

The measures and requirements specified in this European Standard aim to protect passengers and staff in railway vehicles by preventing a fire from occurring and spreading by leakage of flammable liquids or gases.

It is not within the scope of this European Standard to describe measures for flammable gases, other than liquefied petroleum gases (LPGs).

It is not within the scope of this European Standard to describe measures that ensure the preservation of the railway vehicles in the event of a fire.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10204, *Metallic products — Types of inspection documents*

EN 15227, *Railway applications — Crashworthiness requirements for railway vehicle bodies*

EN 45545-1:2013, *Railway applications — Fire protection of railway vehicles — Part 1: General*

EN 45545-6, *Railway applications — Fire protection of railway vehicles — Part 6: Fire control and management systems*

EN 50153, *Railway applications — Rolling stock — Protective provisions relating to electrical hazards*

ISO 11014, *Safety data sheet for chemical products — Content and order of sections*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 45545-1:2013 apply.

4 General system requirements

There shall be a design assessment, and the following factors shall be considered:

— possible sources and paths of leakage, and for LPG installations, there shall be means of detecting any leakage;

— flammability characteristics of flammable liquids and gases including the effects of any combustible or absorbing materials;

— possible ignition sources, including electrical faults, overheating of equipment, and malfunctioning of protective devices;

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