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Standards

Standard Recommendation
S.R. CEN/TS 45545-1:2009

Railway applications - Fire protection on railway vehicles -- Part 1: General

S.R. CEN/TS 45545-1:2009

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Railway applications - Fire protection on railway vehicles - Part 1: General

Applications ferroviaires - Protection contre les incendies
dans les véhicules ferroviaires - Partie 1: Généralités

Bahnanwendungen - Brandschutz in Schienenfahrzeugen -
Teil 1: Allgemeine Regeln

This Technical Specification (CEN/TS) was approved by CEN on 8 June 2008 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN/CENELEC will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN and CENELEC members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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Foreword

This document (CEN/TS 45545-1:2009) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

For relationship with EC Directive(s), see informative Annex ZA, which is an integral part of this document.

This series of Technical Specifications *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 organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

CEN/TS 45545 is based on 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 this part, the requirements laid down in the different parts of CEN/TS 45545 will take into account the current operating conditions for European public rail transport.

1 Scope

CEN/TS 45545 specifies:

- measures on railway vehicles for fire protection;
- verification of these measures.

CEN/TS 45545 specifies prevention measures. The measures and requirements specified in CEN/TS 45545 are intended to protect passengers and staff in railway vehicles in the event of a fire on board. This protection of passenger and staff is essentially based on the ability of the rolling stock to allow for evacuation in safety, satisfying conditions (according to the objectives in Clause 4) in the frame of a guided transportation system which includes in particular vehicles, infrastructure and operation rules.

The present Technical Specification describes the measures to be taken in the design of the vehicles in the context of the infrastructure within which they operate.

It is not within the scope of CEN/TS 45545 to describe measures that ensure the preservation of the vehicles in the event of a fire.

This Technical Specification is valid for railway vehicles as defined in 3.1.

Freight transportation vehicles are not covered by CEN/TS 45545.

This part of CEN/TS 45545 covers:

- principal definitions;
- operation categories;
- design categories;
- fire safety objectives;
- general requirements for fire protection measures and their evaluation of conformity.

2 Normative references

The following referenced documents are indispensable for the application 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 13943:2000, *Fire safety — Vocabulary (ISO 13943:2000)*

ISO 8421-1:1987, *Fire protection — Vocabulary — Part 1: General terms and phenomena of fire*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 13943:2000 and ISO 8421-1:1987, and the following apply.

3.1

railway vehicles

track guided public passenger land transport vehicles such as:

- locomotives and dedicated power vehicle (self-propelled);
- multiple units;
- coaches, including driving trailers;
- light rail vehicles;
- underground vehicles;
- trams;
- luggage and post vans running as part of a passenger train;
- passenger occupied motor vehicle transporters.

The following vehicles are also considered as railway vehicles:

- track guided buses;
- trolley buses (only in relation to the electrical equipment);
- magnetic levitation vehicles

3.2

dwelt time

period of time during which passengers and staff stay in an area susceptible to being affected by fire or its effluents

3.3

staff

all persons on duty on board railway vehicles including:

- passport inspectors;
- customs officers;

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