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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 32588.2-2025

**Railway applications - Automated urban guided
transport(AUGT) - Safety requirements - Part 2: Hazard analysis
at top system level
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 2 of GB/T 32588. GB/T 32588 has been published in the following parts.

--- Automation of rail transit - Safety requirements for urban rail transit (AUGT) - Part 1: General;

--- Automated guided transport for rail transit (AUGT) Safety requirements Part 2: System level hazard analysis.

This document is modified to adopt IEC TR62267-2:2011 "Safety Requirements for Automated Guided Transport (AUGT) in Rail Transit Part 2 Part. System Level Hazard Analysis.

This document has many technical differences compared with IEC TR62267-2:2011.

A single vertical line (|) is used to indicate these technical differences. A list of these technical differences and their reasons is given in Appendix A.

Introduction

GB/T 32588 "Safety requirements for automated guided transport (AGT) in rail transit" is intended to provide a common the security requirements for applicability are to help relevant organizations define appropriate security requirements for the AGT they manage, and are composed of two parts.

--- Part 1: General. Aims to provide basic safety requirements based on existing AGT operating experience.

--- Part 2: System level hazard analysis. Aims to support hazard identification, selection and combination of safety measures as a specific risk analysis basis.

In the AGT system, automatic functions or other measures replace the functions that are performed by drivers and passengers in traditional rail transit systems.

GB/T 32588.1 lists the foreseeable risks, but does not provide detailed instructions on how to formulate safety measures for each identified hazard.

This hazard analysis and corresponding safety measures are essential for the design and implementation of the AGT system.

It is particularly necessary to compile GB/T 32588.2, the system-level hazard analysis and response specification of AGT.

This document conducts hazard analysis based on the basic functional requirements for train operation listed in Table 1 of GB/T 32588.1-2016.

Find out the relevant causes and triggering conditions of the hazards, provide corresponding safety measures and make a table.

Whether to implement the safety measure or assess the remaining acceptable risk. Use a safety measure or a combination of safety measures, or no safety measure at all the specific risks in train operation are dealt with according to the risk tolerance. This risk tolerance is assessed through specific risk analysis.

Therefore, this document does not judge whether it is necessary to use a safety measure or combination of safety measures.

The generic hazard analysis and the safety requirements obtained in this document support the system life cycle specified in GB/T 21562-2008 activities, applied to rail transit including AGT systems. In order to facilitate specific risk analysis and determine system requirements, the identified Hazards, corresponding safety measures and methods are used as a guide to verify the environmental conditions for a specific system.

Automated Guided Transportation (AGT) Safety requirements Part 2: System level hazard analysis

1 Scope

This document specifies common hazard analysis and response specifications at the automated guided transportation (AUGT) system level.

This document is applicable to all types of cities that use manned automatic trains or unmanned automatic trains operating on dedicated lines.

Rail transit system.

Note 1: The system-level general hazard analysis and response specifications specified in this document are used for specific AUGT systems to support the requirements of GB/T 21562-2008.

Life cycle process activities.

Note 2: A dedicated line refers to a dedicated rail line that is fully or partially enclosed.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 21562-2008 Rail transit reliability, availability, maintainability and safety specifications and examples (IEC 62278.

2002, IDT)

GB/T 32588.1-2016 Automation of rail transit - Urban rail transit (AUGT) - Safety requirements - Part 1: General (IEC 62267:2009,MOD)

3 Terms, definitions and abbreviations

The terms, definitions and abbreviations defined in GB/T 32588.1-2016 apply to this document.

4.1 AUGT system

The AUGT system definition is in Chapter 5 of GB/T 32588.1-2016. This system definition includes the requirements of GB/T 21562-2008.

According to Chapter 6 of GB/T 32588.1-2016, this system definition covers exposure to the protected entities (including assets and personnel in the system) are subject to possible hazardous conditions.

4.2 AUGT basic functions

The basic functions of AUGT are specified in Table 1 of GB/T 32588.1-2016.

5.1 General

The purpose of the hazard analysis is to prove that the AUGT application is as safe as the application with a driver. The hazard analysis is based on GB/T 32588.1-the basic functions of the AUGT system identified in Table 1 in 2016 are constructed.