
Železniške naprave - Zgornji ustroj proge - Zagotavljanje varnosti med delom na progi - 3. del: Usposobljenost osebja za delo na progi ali ob njej

Railway applications - Track - Safety protection on the track during work - Part 3:
Competences of personnel related to work on or near tracks

Applications ferroviaires - Voie - Protection et sécurité durant des travaux sur la voie -
Partie 3: Compétences du personnel liées au travail sur ou à proximité de la voie ferrée

Applications ferroviaires - Voie - Protection et sécurité durant des travaux sur la voie -
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Railway applications - Track - Safety protection on the track during work - Part 3: Competences of personnel related to work on or near tracks

Applications ferroviaires - Voie - Protection et sécurité
durant des travaux sur la voie - Partie 3: Compétences du
personnel liées au travail sur ou à proximité de la voie
fermée

Bahnanwendungen - Oberbau - Sicherungsmaßnahmen
während leisbauarbeiten - Teil 3: Fachkenntnisse des
Personals für Arbeiten neben oder in Gleisen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 256.

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Foreword

This document (prEN 16704-3:2014) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This European Standard is one of the series EN 16704 “*Railway applications – Track – Safety protection on the track during work*” as listed below:

- *Part 1: Railway risks and common principles for protection of fixed and mobile work sites;*
- *Part 2-1: Common solutions and technology – Technical requirements for Track Warning Systems (TWS);*
- *Part 2-2: Common solutions and technology – Requirements for barriers;*
- *Part 3: Competences of personnel related to work on or near the railway track.*

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prEN 16704-3:2014 (E)

Introduction

Work on or near railway tracks can, if not executed with the proper package of measures related to safety, be of danger to the health and safety of personnel on work sites.

It is therefore essential that personnel involved in the work on or near the track are competent to carry out the activity or activities listed in this standard. As job descriptions can vary from country to country and from company to company this standard specifies the activities to be carried out. Job descriptions should specify the activities within the work.

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1 Scope

This European Standard defines the activities related to work on or near the railway track and the associated competence profiles of persons who carry out these activities and defines procedures for assessing the competence.

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.

prEN 16704-1:2014, *Railway applications – Track – Safety protection on the track during work – Part 1: Railway risks and common principles for protection of fixed and mobile work sites*

EN ISO/IEC 17024, *Conformity assessment – General requirements for bodies operating certification of persons (ISO/IEC 17024)*.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 assessment

process by which the evidence generated, gathered and provided about a person is judged to determine the competence of this person

3.2 competence

the ability to undertake responsibilities and to perform activities to a recognized standard on a regular basis. A combination of practical thinking skills, experience and knowledge, and may include a willingness to undertake work activities in accordance with agreed standards, rules and procedures

3.3 Track safety card

A document that confirms that specific competence has been demonstrated by an individual against the requirements of this standard.

4 Competences

4.1 Competence level

To be deemed competent a person shall demonstrate a level of predefined competence of theoretical and/or practical ability as far as necessary for the activity in question as set out in Annex A.

prEN 16704-3:2014 (E)**4.2 Requirements for assessment and maintenance of competence****4.2.1 General requirements**

The competence of persons who work on safety aspects shall be checked against the requirements set in this standard and a track safety card shall be issued after a positive evaluation. by a body complying with the requirements specified in EN ISO/IEC 17024.

NOTE Some aspects of a person's competence have to be reassessed on a regular basis.

4.2.2 Maintenance of competence

The evidence for a person's competence shall be checked at least once every five years. An overview of this competence is provided in Annex A.

NOTE Regular practise is considered to be very important for keeping the competence at the required level. Requirements should be set to the number of times work is carried out in a certain period of time. This number depends on the competence profile.

4.3 Withdrawal of track safety card

A track safety card may be withdrawn for the following reasons:

- making a decision resulting in a major breach of safety;
- taking action that endangers the safety of self or others;
- individual demonstrates a history of poor safety behaviours;
- the medical details have expired and there is no record that a renewal has taken place;
- the failure of a Drugs and Alcohol Screening.

On withdrawal of the track safety card the reasons shall be recorded in accordance with the regular procedures.

It shall be decided based on a risk assessment in relation to the reason for the competence being withdrawn how long the person shall be prevented from holding the competence.

5 Competence requirements**5.1 Medical requirements****5.1.1 General vision**

The following vision requirements shall be met:

- aided or unaided distance visual acuity: minimum of 0,8 (right eye + left eye – measured separately); Minimum of 0,3 in worse eye;
- intermediate and near vision: sufficient whether aided or unaided;
- contact lenses are allowed;
- vision field: normal (absence of any abnormality affecting the task to be performed);

- vision for both eyes: present;
- binocular vision: present;
- contrast sensitivity: normal;
- absence of progressive eye disease.

5.1.2 Colour vision

Normal colour vision shall be assessed using the Ishihara test, complemented by other recognized tests if required.

5.1.3 Hearing

Sufficient hearing confirmed with tone audiogram that person's hearing is good enough to hear warning signals, to keep a phone conversation going and able to hear alert tones and radio messages.

The following values given for information should be taken as guidelines:

- hearing deficiency should not be higher than 40 dB at 500 Hz and 1 000 Hz;
- hearing deficiency should not be higher than 45 dB at 2 000 Hz;

for the ear with the worst air conduction of sound.

5.1.4 Basic fitness

Individuals shall not be suffering from medical conditions, or taking any medical treatment, likely to cause:

- sudden loss of consciousness; [SIST EN 16704-3:2017](https://standards.iteh.ai/catalog/standards/sist/49e40515-95dc-4a62-9323-e4831c241530/sist-en-16704-3-2017)
- impairment of awareness or concentration; <https://standards.iteh.ai/catalog/standards/sist/49e40515-95dc-4a62-9323-e4831c241530/sist-en-16704-3-2017>
- sudden incapacity;
- visual impairment of a temporary or transient nature;
- impairment of balance or co-ordination;
- significant limitation of mobility.

5.2 Psychological requirements

The aim of psychological assessment is to support the company in the appointment and management of staff who have the cognitive, psychomotor, and behavioural and personality capabilities to perform their roles.

There are no internationally recognized testing procedures for psychological requirements. Assessment tools that are chosen shall be reliable, validated and consistently applied.

Capabilities shall be assessed by psychological screening taking into account the following criteria:

- Attention and concentration. Ability to regard different sources of information at the same time, to collect information and react to it while giving due regard to other sources of information.
- Memory. Storage of details and relationships.

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- Perceptive capability. Having or showing sensitive insight; the ability to see, hear, or become aware of something through the senses.
- Reasoning. Flexibility of thinking and the ability to find out relationships and essential cues in basic, technical and practical fields.
- Speed of reaction. React to acoustic and /or visual signals in a timely and defined way.
- Gestured co-ordination. The ability to use different parts of the body together smoothly and efficiently (especially a hand or the head, to express an idea or meaning).
- Emotional self control. The ability to control oneself, in particular one's emotions and desires, especially in difficult situations.
- Behavioural reliability. Consistently good in quality or performance/able to be trusted involving, relating to, or emphasizing behaviour.
- Autonomy. Freedom from external control or influence; independence (the capacity to act in accordance with objective morality rather than under the influence of desires).
- Conscientiousness. Wishing to do one's work or duty well and thoroughly.

5.3 Communication requirements**5.3.1 Reading/writing**

The following levels of competence shall be applied:

- a) Level 1: Can read and demonstrate understanding of basic written instructions in the language, or languages, in which the railway infrastructure operates. <https://standards.iteh.ai/catalog/standards/sist/49e40515-95dc-4a62-9323-16704-3:2017>
- b) Level 2: Can read and demonstrate understanding of complex written instructions and write basic records of actions taken in the language, or languages, in which the railway infrastructure operates.
- c) Level 3: Can read and demonstrate understanding of complex written instructions and write complex records and instructions in the language, or languages, in which the railway infrastructure operates.

5.3.2 Verbal communication

The following levels of competence shall be applied in the language, or languages, in which the railway infrastructure operates:

a) Level 1:

- can demonstrate understanding of basic verbal instructions;
- can communicate basic safety related information;
- can cope with practical situations involving an unforeseen element;
- can describe;
- can keep a simple conversation going.

b) Level 2:

- can demonstrate understanding of complex verbal instructions;
- can communicate complex safety related information;
- can put forward an opinion;
- can negotiate;
- can persuade;
- can give advice;
- can cope with totally unforeseen situations;
- can make assumptions;
- can express an argued opinion.

5.4 Professional skills

The following levels of competence shall be applied:

- a) Level 1: Understands the basic railway safety principles and acts upon them.
- b) Level 2: Understands the railway safety principles, selects those appropriate to a given situation and apply them. Implement safety plans and instructs track workers on site.
- c) Level 3: Has extensive knowledge of the railway safety principles. Performs risk analysis and write safety plans for work to be undertaken.