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RECOMMENDATION FOR USE

NB-RAIL COORDINATION GROUP

Administrative Decision according to Interoperability Directive
(EU) 2016/797 art. 30.6



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RFU-CCS-078

Issue 02

Date 02/03/2021

TITLE

'EC' VERIFICATION OF CCT SUBSYSTEMS – ETCS STOP MARKER BOARDS

ORIGINATOR

TÜV SÜD NEDERLAND B.V.

SUBJECT RELATED TO

Commission Regulation (EU) 2016/919
amended by Reg. (EU) 2019/776
Directive (EU) 2016/797, Decision
2010/713/EU

AMENDMENT RECORD:

Issue 01: First publication

Issue 02: Update of legal reference (IOD 2008/57/EC no longer applicable)

DESCRIPTION AND BACKGROUND EXPLANATION

Background:

TSI CCS Section 4.2.15:

“Visibility of trackside Control-Command and Signalling objects

This basic parameter describes:

- (1) the characteristics of retro-reflecting signs to ensure correct visibility;*
- (2) the characteristics of interoperable marker boards.*

See Annex A 4.2.15a.

In addition, the installation of trackside Control-Command and Signalling objects shall be compatible with the driver’s field of view and the infrastructure requirements.”

TSI CCS Annex A 4.2.15a refers to TSI CCS Index 38 (06E068 v2, ETCS Marker-board definition).

Index 38 (06E068) gives requirements on dimension, colours, reflectivity, operational use and others of the ETCS stop marker board. Some of these requirements (dimension, colour and reflectivity) can be checked by looking at the stop marker board itself (the sign). The stop marker boards do not need to be integrated into the subsystem for checking these requirements.

Description of the Situation:

Situation in Projects using Module SB, Module SH1 or Module SG

The Control-Command and Signalling trackside (CCT) subsystem NoBo shall do a design review (Module SB), a design examination (Module SH1) or unit verification (Module SG). So, the NoBo shall check design evidence for ETCS stop marker boards.

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This evidence shall be provided by the applicant who applies for 'EC' Verification of the subsystem.

Usually, the applicant is not the manufacturer of the ETCS stop marker board. The applicant buys the ETCS stop marker boards from a supplier. This supplier is usually a company who manufactures road signs. The marker board manufacturer usually has a sub-supplier for the marker board foil. This foil is responsible for the colour and the reflectivity of the marker board.

In some CCT projects the applicant does not even choose the manufacturer / supplier himself. The applicant's customer (the infrastructure manager) chooses a type of marker board to be used in all of his projects.

Because of this situation, classical design documentation is often not available to the applicant. Instead, the ETCS stop marker board is sold / bought without specific details on its design such as colours etc.

Declaration of Performance according to Regulation (EU) 305/2011

As the marker board manufacturer is usually a company who manufactures road signs, they work according to other regulations than the railway industry.

In some projects the manufacturer provides a declaration of performance according to Regulation (EU) 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR):

Regulation (EU) 305/2011:

"CHAPTER II

DECLARATION OF PERFORMANCE AND CE MARKING

Article 4

Declaration of performance

1. When a construction product is covered by a harmonised standard or conforms to a European Technical Assessment which has been issued for it, the manufacturer shall draw up a declaration of performance when such a product is placed on the market."

TSI CCS Index 38 (06E068) and EN 12899-1

The declaration of performance usually refers to "CE marking and system of assessment and verification of constancy of performance" and gives reference to EN 12899-1 (Fixed, vertical road traffic signs – Part 1: Fixed signs).

06E068 refers to EN 12899-1:2007 in Section 2.2 as reference [2].

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The requirement from 06E068, 4.2.1.1 on colours of the ETCS stop marker board is “consistent with the daylight chromaticity and luminance factors class CR2 and with the coefficient of retroreflection class RA2, both as defined in [2].” [06E068, 4.2.1.1.1]. The same principle applies to 06E068, 4.3.1.1: The requirement from 06E068, 4.3.1.1 on reflectivity is “consistent with the coefficient of retroreflection class RA2 as defined in [2].” [06E068, 4.3.1.1.1].

The requirements, to which 06E068 refers, are taken from EN 12899-1:2007, Section 4.1. This section is for glass bead material. ETCS stop marker boards are also made using microprismatic material. For microprismatic material, EN 12899-1:2007 requires in 4.2: “The performance of retroreflective materials using microprismatic technology can be found in the relevant European Technical Approval (ETA). The manufacturer shall obtain the performance specifications from the purchaser.”

So, the requirements from 06E068 on colour and reflectivity are consistent with the requirements given in EN 12899-1 for glass bead material. For microprismatic material, the specification is up to the purchaser, but shall be assessed via an ETA, which is compliant to (EU) 305/2011. In both cases, the requirements are covered by the declaration of performance acc. Regulation (EU) 305/2011.

Notified Bodies according to different Regulations / Directives

As shown above, at least some of the requirements for ETCS stop marker boards from TSI CCS have already been assessed by a NoBo, but not by a Railway Interoperability NoBo as the TSI CCS requires. In addition, the involved (EU) 305/2011-NoBo works according to different assessment modules than the CCT subsystem NoBo.

The CCT subsystem NoBo is usually not notified with regards to Regulation (EU) 305/2011. Thus, the CCT NoBo is not competent to understand in detail the way of assessing requirements according to Regulation (EU) 305/2011.

On the other hands, the requirements have been checked by a NoBo (acc. (EU) 305/2011) and repetition of checks shall be avoided.

RFU PROPOSAL

Note : The following proposal describes a possibility for the CCT NoBo, not an obligation.

If the CCT subsystem applicant provides a declaration of performance according to (EU) 305/2011 for an ETCS stop marker board which has been manufactured by a road sign manufacturer, the CCT NoBo may decide to accept this declaration as evidence for some of the TSI CCS requirements which apply to ETCS stop marker boards. If the CCT NoBo wants to accept the declaration, the CCT NoBo shall at least perform the following checks:

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1. Check whether the NoBo who issued the certificate of constancy of performance according to (EU) 305/2011 (the underlying certificate for the declaration of performance) is listed on NANDO.
The CCT NoBo should not do any further check of the competence of the NoBo who issued the certificate.
2. Check that the declaration of performance and the underlying documentation confirm compliance to those requirements on colour and reflectivity which are identical to the applicable requirements from 06E068. Special attention shall be paid on the luminance factors class and the coefficient of the retroreflection class.

If the checks are positive, the CCT NoBo shall accept the declaration of performance, the underlying certificate(s) and (if necessary) other underlying documents (such as reports) as evidence. The CCT NoBo shall use the declaration of performance and underlying documentation as a substitute for design and test evidence for the requirements from 06E068 on colour and reflectivity.

Other requirements on ETCS stop marker boards from TSI CCS, notably on their installation, shall be assessed by the CCT NoBo following the requirements of the used module according 2010/713/EU.

THIS RFU WAS AGREED ON

PLENARY MEETING 61

THIS RFU ENTERS INTO FORCE ON

02/03/2021 (DATE OF PUBLICATION)

FROM THIS DATE ON THIS RFU CAN BE APPLIED INSTEAD OF THE PREVIOUS MANDATORY VERSION.

RFU APPLICATION IS MANDATORY STARTING FROM

02/03/2021

AT THIS DATE ANY PREVIOUS VERSIONS OF THIS RFU WILL BE WITHDRAWN.

RFUS SHALL BE APPLIED BY ALL NOBOS. PLEASE REFER TO RFU-STR-702, CHAPTER 3 OF THE SECTION "DESCRIPTION AND BACKGROUND EXPLANATION", FOR THE LEGAL BASIS SUPPORTING THIS OBLIGATION.

ERA COMMENTS

PLENARY MEETING 61 – 25/02/2021: NO COMMENTS

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