European Railway Agency

Executive Director

OPINION

ERA/OPI/2014-6

OF THE EUROPEAN RAILWAY AGENCY

FOR

EUROPEAN COMMISSION

REGARDING

QUESTION AND CLARIFICATION FROM NB RAIL CONCERNING THE TSI SRT SUBSYSTEM ENERGY - QC-ENE-006

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1 General Context

1. In its letter referenced as MOVE B2/IV/fz Ares (2014) and dated on 3 June 2014 addressed to the European Railway Agency ("ERA"), the European Commission requested ERA to prepare a technical opinion regarding the Question/Clarification request numbered QC-ENE-006 put forward by NB-Rail.
2. This question is relative to the assessment of electrical cables in tunnels, when these do not form part of the Energy subsystem as defined in Directive 2008/57/EC[1]. The Commission's request and the NB-Rail question can be found in Annex 1 to this opinion.
3. NB-Rail is asking in its question which Notified Body (if any) needs to assess the electrical cables running in tunnels that do not form part of the Energy subsystem stricto sensu, such as those related to signalling, electrical machinery, ventilators, lighting, data transmission, etc.

2 Legal Background

1. The Annex to Commission Decision 2008/163/EC concerning the technical specification of interoperability relating to 'safety in railway tunnels" in the trans-European conventional and high-speed rail system[2] ("TSI SRT 2008"), to which the question makes reference, is a transversal TSI in the sense that it covers several structural subsystems: Infrastructure, Energy, Rolling Stock and Control Command and Signaling. In the TSI SRT 2008, the functional and technical specifications are distributed per subsystem, with the requirements about fire characteristics of the electric cables in tunnels gathered under the heading 4.2.3 "Subsystem Energy".
2. The Directive 2008/57/EC defines the subsystems in its annex II. The Energy subsystem is defined as: *"the electrification system, including overhead lines and on-board parts of the electric consumptions measuring equipment"*. The Infrastructure subsystem is defined as: *"the track, points, engineering structures (bridges, tunnels, etc.), associated station infrastructure (platforms, zones of access, including the needs of persons with reduced mobility, etc.), safety and protective equipment"*.

[1] OJ L 315, 3.12.2007, p. 51, as last amended by Directive 2014/106/EU of 5 December 2014 (OJ L 355, 12.12.2014, p. 42).
[2] OJ L 64, 7.3.2008, p. 1, as last amended by Commission Directive 2014/38/EU of 10 March 2014 (L 70, 11.3.2014, p. 20).

3 Analysis

1. As recalled in the introduction of the SRT TSI 2008, *"the purpose of this TSI is to define a coherent set of measures for the infrastructure, energy, -command-control and signalling, rolling stock, and traffic operation & management subsystems, thus delivering an optimal level of safety in tunnels in the most cost-efficient way."*
2. In order to mitigate the risks deriving from a fire starting in a tunnel, the TSI imposes a certain level of fire resistance for all tunnel components and equipment; for being efficient, this measure shall apply to all materials constitutive of a tunnel. This is specified in the SRT TSI 2008, in two different points:
    a. Point 4.2.2.4 under the heading "Subsystem Infrastructure", that *"applies to building material and installations inside tunnels other than structures which are covered in 4.2.2.3."* and requires that such material and installation *"shall have low flammability, be non-flammable or protected, depending on the design requirements."*
    b. Point 4.2.3.5 under the heading "Subsystem Energy", that *"applies to the infrastructure part of the subsystem Energy"* (i.e. to the fixed installation part) and requires that *"exposed cables shall have the characteristics of low flammability, low fire spread, low toxicity and low smoke density."*
3. Given the definition of subsystems in the Directive 2008/57/EC, where the definition of the Infrastructure subsystem refers to *"engineering structures (bridges, tunnels)"* while the definition of the Energy subsystem refers to *"the electrification system"* in general, it was preferred to place all requirements for electrical cables under the heading "Energy subsystem".
4. Consequently, when several Notifed Bodies are involved in the assessment of a tunnel (and therefore notified for the TSI SRT), each of them covering a different subsystem, the Notified Body covering the Energy subsystem should verify that the requirements related to the fire resistance characteristics of all electrical cables are met. This Notified Body should also make the assessment of the reliability of electrical installations.

4 Case of the revised SRT TSI

1. The revised SRT TSI adopted by the Commission Regulation (EU) No 1303/2014 of 18 November 2014[3] ("TSI SRT 2014") concerns the same subsystems as the SRT TSI 2008. There, requirements about fire characteristics of the materials and installations in tunnels are distributed as follows:

[3] OJ L 356, 12.12.2014, p. 394

a. Point 4.2.1.3 under the heading "Subsystem Infrastructure", that *"applies to construction products and building elements inside tunnels"*.

b. Point 4.2.2.4 under the heading "Subsystem Energy", that *"applies to the infrastructure part of the subsystem Energy"* (i.e. to the fixed installation part) and requires that *"exposed cables shall have the characteristics of low flammability, low fire spread, low toxicity and low smoke density."* The SRT TSI 2014 makes reference for those cables to the Commission Decision 2006/751/EC of 27 October 2006 amending Decision 2000/147/EC implementing Council Directive 89/106/EEC as regards the classification of the reaction-to-fire performance of construction products[4].

2. As for the SRT TSI 2008, when several Notifed Bodies are involved in the assessment of a tunnel (and therefore notified for the TSI SRT), each of them covering a different subsystem, the Notified Body covering the Energy subsystem should verify that the requirements related to the fire resistance characteristics of all electrical cables are met.
3. All electrical cables used in a tunnel need assessment according to the processes described in the Decision 2006/751/EC and in the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC[5].
4. As per the point 106 of the Commission Recommendation 2014/897/EU of 5 December 2014 on matters related to the placing in service and use of structural subsystems and vehicles under Directives 2008/57/EC and 2004/49/EC of the European Parliament and of the Council[6], the conformity assessment against this specific EU legislation will have to be performed according to the rules of that legislation. The Notified Body in charge of the assessment of the SRT TSI for Energy subsystem will only have to verify the presence of the documents confirming such assessment, and the selection of the proper category of materials as specified in the SRT TSI 2014 (§ 4.2.2.4).

5 The opinion

1. The Agency is of the opinion that the assessment of the requirements expressed in paragraphs 4.2.3.4 and 4.2.3.5 of the TSI SRT 2008, as well as the assessment of the requirements expressed in paragraphs 4.2.2.4 and 4.2.2.5 of the revised TSI SRT 2014, is a task that should be covered by the

[4] OJ L 305, 4.11.2006, p. 8
[5] OJ L 88, 4.4.2011, p. 5
[6] OJ L 355, 12.12.2014, p. 59

Notified Body, notified for the Energy subsystem and for the SRT TSI, and in charge of the assessment of the Energy subsystem for a tunnel project.

2. Such assessment should cover all cables even if they do not form part of the Energy subsystem stricto sensu.

Valenciennes 27 JAN. 2015

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