

**Annex I: Amendment to the Annex to Commission Regulation (EU) No 1302/2014 concerning the technical specification for interoperability relating to the subsystem ‘rolling stock – locomotives and passenger rolling stock of the rail system in the European Union’**

1. In chapter 7 ‘Implementation’, in section 7.1 ‘General rules for implementation’, a new point 7.1.4 is added as follows:

*‘7.1.4. Conditions related to additional EC verification and additional authorisation*

**7.1.4.1. Introduction**

In accordance with Article 22(2) b) of Directive 2008/57/EC the authorisation of a vehicle is granted on the basis of all necessary ‘EC’ declarations of verification as provided for in Article 18 of the same directive.

In accordance with Article 23(1) of Directive 2008/57/EC, the TSI may specify conditions under which an additional authorisation is not needed.

Considering the two points above, these conditions have to be considered at the level of the ‘EC’ verification, and are subject of the clause 7.1.4.2 below, while conditions related to the authorisation are subject of the clause 7.1.4.3.

**7.1.4.2 Conditions related to EC verification**

(1) The following points (2) and (3) lay out the conditions under which an ‘EC’ verification procedure including ‘EC’ declaration of verification of a unit is not required to be complemented (under Annex V, section 3 of the Interoperability Directive) for having its ‘limits and conditions of use’ not limited to one particular national network.

These conditions shall be seen as complementary to the requirements in chapters 4, 5,6 and 7 of this TSI. These conditions shall be fulfilled in their entirety.

(2) Conditions related to chapters 4, 5 and 6 of this TSI:

- a) The unit is designed for operation on the 1435 mm track gauge (clauses 2.3.2 and 4.2.3.5.2.3); in case of variable gauge wheelset, the second track gauge position is not covered.
- b) The maximum speed of the unit is lower than 250 km/h (clauses 2.3.3, 4.2.3.3.2 and 4.2.6.2.5).
- c) The unit shall not be equipped with eddy current track brake.  
The unit, if equipped with magnetic track brake, shall be fitted with a system allowing the possibility of preventing the use of such equipment; in addition to the requirements in clauses 4.2.4.5 and 4.2.4.8 of this TSI, a braking performance calculation performed without considering this brake system shall be part of the technical documentation specified in clause 4.2.12.
- d) Where the unit is equipped with pantograph(s), pantograph head(s) shall be compliant to types 1600 mm or 1950 mm (clause 4.2.8.2.9.2).
- e) The unit is declared as compatible with train detection systems based on track circuits, on axle counters (including mechanical wheel detectors) and on loop equipment on the basis of the TSI requirements in clause 4.2.3.3.1 and on the basis of the following requirements, in order to mitigate open points:
  - The metal free space around wheels fulfils the conditions of the figure 3 of the specification referenced in Appendix J-2, index 1, clause 3.1.3.5.

- The use of sanding equipment may be subject to limitations, in case the sand characteristics, referenced in Appendix J-2, index 1, clause 3.1.4.2, are not suitable.
- The unit, if equipped with flange lubrication, shall be fitted with a system allowing the possibility of preventing the use of such equipment, according to the specification referenced in Appendix J-2, index 1, clause 3.1.5.
- Where the unit is equipped with composite brake blocks, these brake blocks shall be assessed for their suitability for train detection systems based on track circuits, in accordance with the procedure specified in Appendix J-2, index 3.
- Electromagnetic fields measured according to the specification referenced in Appendix J-2, index 1, clause 3.2.1, shall be part of the technical documentation specified in clause 4.2.12.
- Where the units is equipped with a pantograph, the vehicle impedance between pantograph and wheel, as described in the specification referenced in Appendix J-2, index 1, clause 3.2.2.1 shall be evaluated and recorded in the technical documentation specified in clause 4.2.12.
- Where the unit is equipped with electric traction equipment, harmonics in traction current measured according to the specification referenced in Appendix J-2, index 1, clause 3.2.2, shall be part of the technical documentation specified in clause 4.2.12.

Note: Regarding compatibility with train detection systems, additional checks may be needed when justified, considering the specification referenced in Appendix J-2, index 1, clauses 3.1.10 and 3.2.2, information provided in the RINF for specific routes and the integration of the unit in the train composition. In case additional checks have been performed, these shall be identified for consideration in the 'limits and conditions of use' of the unit.

- f) The unit is declared as compatible with track side axle bearing condition monitoring as specified in clause 4.2.3.3.2.2 (1).
- g) The unit is equipped with forged or rolled wheels (clauses 4.2.3.5.2.2 and 6.1.3.1).
- h) The unit, if of category B fire safety, is equipped with fire barriers of full cross section partition. (clauses 4.2.10.3.4 and 4.2.10.4.4).

The conditions a) to f) have to be taken into account in the 'limits and conditions of use' of the unit; these limits and other information declared in the ERATV have to be considered for the definition of the "area of use" of the unit (i.e. national networks).

Note: Regarding the TSI PRM and the TSI Noise that are also applicable to the unit, there is no need for additional verification provided that specific cases meet the conditions of point (3) below. The TSI PRM requires that the characteristics of the platform(s) where the unit is intended to stop, that have been taken into account for the verification, are recorded as part of the 'limits and conditions of use'.

(3) Conditions related to the section 7.3 of this TSI 'specific cases':

The specific cases listed in the section 7.3 of the TSI have their application limited as follows:

- a) Those that do not preserve the compliance to chapters 4, 5 and 6 of the TSI and to the conditions a) to h) listed above in point (2) shall not be applied; they are listed below:
  - Specific cases required by United Kingdom (Great Britain) and specifying a non-mandatory alternative;
  - Specific case defined in clause 7.3.2.3 – Rolling stock requirements for compatibility with trackside equipment (4.2.3.3.2.2) for Sweden – (application limited to non-upgraded lines);
  - Specific case defined in clause 7.3.2.8 – Aerodynamic effects (4.2.6.2) for United Kingdom (Great Britain);
  - Specific case defined in clause 7.3.2.10 – Power supply – general (4.2.8.2) for United Kingdom (Great Britain);

- Specific case defined in clause 7.3.2.15 – Contact strip material (4.2.8.2.9.4.2) for France – (not specified as mandatory);
- Specific cases defined in TSI PRM (excepted specific case for Austria and Germany for all rolling Stock intended to stop, in normal operation, at platforms below 550 mm height).

As a consequence, depending on the exact impact of the specific case, the unit may be declared as not intended to operate in the related member state network or part of network (according to the related specific case).

b) Those that represent additional requirements, complementary to requirements of chapters 4, 5 and 6 of the TSI, and to the conditions a) to h) listed above in point (2) shall be applied in case the unit is intended to operate (as identified by the Applicant) in the related member state network or part of network (according to the related specific case); they are listed below:

- Specific case defined in clause 7.3.2.8 – Aerodynamic effects (4.2.6.2) for Italy;
- Specific case defined in clause 7.3.2.11 – Operation within range of voltages and frequencies (4.2.8.2.2) for France;
- Specific case defined in clause 7.3.2.12 – Use of regenerative brakes (4.2.8.2.3) for Belgium, Czech Republic and Sweden;
- Specific case defined in clause 7.3.2.13 – Height of interaction with contact wires (RST level) (4.2.8.2.9.1.1) for United Kingdom (Great Britain);
- Specific case defined in clause 7.3.2.16 – Pantograph contact force and dynamic behaviour (4.2.8.2.9.6) for France, Sweden, United Kingdom (Great Britain) and Channel Tunnel;
- Specific case defined in clause 7.3.2.20 – Fire safety and evacuation (4.2.10) for Italy;
- Specific case defined in clause 7.3.2.21 – Running capability (4.2.10.4.4) and fire containment and control system (4.2.10.3.4) for Channel Tunnel.
- Specific case defined in TSI PRM in clause 7.3.2.6, for Austria and Germany for all rolling Stock intended to stop, in normal operation, at platforms below 550 mm height.

#### 7.1.4.3 Conditions for mutual recognition of the vehicle first authorisation for placing in service

(1) In accordance with Article 23(1) of Directive 2008/57/EC, the following points (2) and (3) lay out the conditions under which a vehicle, once authorised for placing in service in one Member State, shall not be subject to any additional authorisation for placing in service.

These conditions shall be fulfilled in their entirety.

(2) The vehicle shall correspond to a unit (as defined in this TSI) composed of a rolling stock subsystem only.

(3) The conditions of the clause 7.1.4.2 above, under which an additional EC verification against TSIs applicable to rolling stock is not necessary, shall be met, and the 'limits and conditions of use' attached to the authorisation of the vehicle shall be defined according to that clause.

2. In Appendix J-2 'Technical documents (available on ERA website)', index 3 is added as follows:

3	Friction elements for wheel tread brake for freight wagons	7.1.4.2	ERA/TD/2013-02/INT	All
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