# Proposal for amendments to GRE/2012/44

# on Regulation No. 10 (Electromagnetic compatibility)

The text reproduced below was prepared by the expert from OICA to present comments on the working document GRE/2012/44 submitted by OICA, regarding the amendment of requirements in configuration "REESS charging mode coupled to power grid" for separate electrical component (ESA) and vehicles.

The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters, the proposed modifications to GRE/2012/44 are marked in red.

# I. Proposal

Annex 7, amend to read:

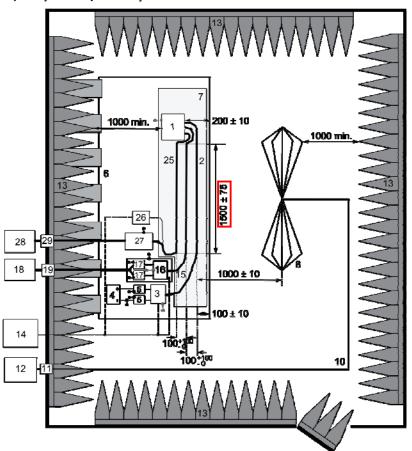
3.2.2 Unless otherwise specified the length of the LV harness and the HV harness parallel to the front edge of the ground plane shall be \(\frac{1700 \text{ mm} + 300/}{-0 \text{ mm}}\) 1.500 +/- 75 mm. The total length of the test harness including the connector shall be 1700 mm + 300/ -0 mm. The distance between the LV harness and the HV harness shall be 100 mm +100/-0mm.

Annex 7, Appendix, amend to read:

Figure 2

Test configuration for ESAs involved in "REESS charging mode coupled to the power grid" (example for biconical attenna)

Top view (horizontal polarization)



#### Key

1 ESA (grounded locally if required in test plan)

2 LV Test harness

3 LV Load simulator (placement and ground

connection

according to CISPR 25 paragraph 6.4.2.5)

4 Power supply (location optional)

5 LV Artificial network (AN)

6 Ground plane (bonded to shielded enclosure)

7 Low relative permittivity support ( $\varepsilon r \le 1,4$ )

8 Biconical antenna

 ${\bf 10\; High\mbox{-} quality\; coaxial\; cable\; e.g.\; double\mbox{-} shielded\; (50}$ 

 $\Omega$ )

11 Bulkhead connector

12 Measuring instrument

13 RF absorber material

14 Stimulation and monitoring system

15 HV harness

16 HV load simulator

**17 HV AN** 

18 HV power supply

19 HV feed-through

25 AC/DC charger harness

26 AC/DC load simulator (e.g. PLC)

27 50µH LISN (AC) or HVAN (DC)

28 AC/DC power supply

29 AC/DC feed-through

Annex 9, amend to read:

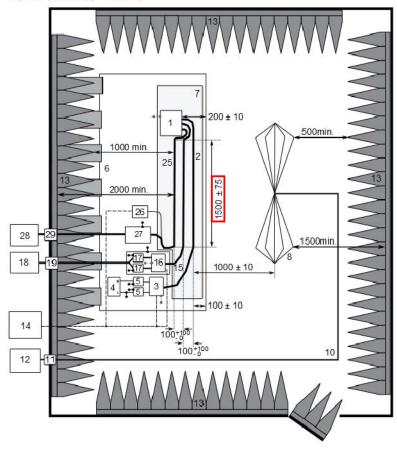
4.1.2.1.2 Unless otherwise specified the length of the LV harness and the HV harness parallel to the front edge of the ground plane shall be \(\frac{1700 \text{ mm} + 300/}{-0 \text{ mm}}\) 1.500 +/- 75 \text{ mm}\). The total length of the test harness including the connector shall be 1700 \text{ mm} + 300/ -0 \text{ mm}\). The distance between the LV harness and the HV harness shall be 100 \text{ mm} + 100/ -0 \text{ mm}\).

Annex 9 - Appendix 3, amend to read:

### Absorber chamber test

Test configuration for ESA's involved in "REESS charging mode coupled to the power grid". The test shall be performed according to ISO 11452-2.

Top view (horizontal polarization)



### Key

- 1 ESA (grounded locally if required in test plan)
- 2 LV Test harness
- 3 LV Load simulator (placement and ground
- connection according to CISPR 25 paragraph 6.4.2.5)
- 4 Power supply (location optional)
- 5 LV Artificial network (AN)
- 6 Ground plane (bonded to shielded enclosure)
- 7 Low relative permittivity support ( $\varepsilon r \le 1,4$ )
- 8 Biconical antenna
- 10 High-quality coaxial cable e.g. double-shielded (50  $\Omega$ )
- 11 Bulkhead connector"

- 12 RF signal generator and amplifier
- 13 RF absorber material
- 14 Stimulation and monitoring system
- 15 HV harness
- 16 HV load simulator
- **17 HV AN**
- 18 HV power supply
- 19 HV feed-through
- 25 AC/DC charger harness
- 26 AC/DC load simulator (e.g. PLC)
- 27 50µH LISN (AC) or HVAN (DC)
- 28 AC/DC power supply
- 29 AC/DC feed-through

Paragraph 13, Transitional Provisions, renumber paragraph 13.2.2. to new paragraph 13.1.3

Insert new paragraph 13.3.1:

13.3.1 As from 28 October 2011, no Contracting Party applying this Regulation shall refuse to grant UN type approvals under this Regulation as amended by the 04 series of amendments.

Renumber paragraph 13.3.1 to 13.3.2.

Renumber paragraph 13.3.2 to 13.3.3. Renumber paragraph 13.3.3 to 13.3.4. Renumber paragraph 13.3.4 to 13.3.5.

### **II.Justification**

This proposal aims to present comments on the working document GRE/2012/44 submitted by OICA.

Annex 7 and 9: It concerns the cable length of the high-voltage and low voltage test harness in the test-setups for ESA tests in annex 7 and 9. The active harness-length in front of the antenna has to be corrected to 1.500 +/- 75 mm (instead of 1.700 +300/-0mm) to be in line with current version of CISPR 25 and ISO 11452-2.

Paragraph 13.2.2. from GRE/2012/44 (old paragraph 13.3 in Regulation No. 10.04) is not limited to any specific series of amendments. It thus belongs to the General part of the Transitional Provisions (13.1) and not to paragraph 13.2, which is for application of 03 series of amendments only.

Paragraph 13.3.1 has to be added according to ECE-TRANS-WP29-1044r1, General Guidelines for UN regulatory procedures and transitional provisions in UN Regulations; ref. II.A.V.1. The date of entry into force of the 04 series of amendments is 28 October 2011.

Consequently, the successive paragraphs have to be renumbered.

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