Submitted by TF EMC

Informal document **GRE-79-04**
(79th GRE, 24-27 April 2018, agenda item 7(a))

Task Force on Electro-Magnetic Compatibility (TF EMC)

Status report to GRE-79

Friday, 27. April 2018

TF EMC Status Report

- TF EMC had its 13th meeting on Wednesday, 3rd of April 2018
- TF EMC will report on the work, which led to the "**GRE/2018/05** - (TF EMC) Proposal for the 06 series of amendments to Regulation No. 10 (Electromagnetic compatibility)" which was submitted by January 25th
- TF EMC is asking for the adoption of this proposal including the final approval of the reworked Transitional Provisions
- TF EMC will inform about an update on Regulation No. 10-06 until July 2018
- TF EMC will inform about the status of the proposals prepared by Spain and India and the topics, discussed by Netherlands at GRE-78

TF EMC Status Report – UN R10.06 Development
Status of the work

- Because of the **technical changes** and the **updated TPs**,
  at GRE 78 the decision was done, to publish a **new series of UN R10**; not any longer Proposal for Supplement 2 to the 05 series of amendments to Regulation No. 10
- Several **proposals of TPs**, delivered by OICA or the EU were discusssed
- With **Netherland's objection** regarding the deletion of usage of **„Open Test Sites" for ESA-Test** was **withdrawn** (and updated to „Open Area Test Sites")
- The proposal, delivered **from India** about changes of **figures of motorcycles**, was implemented
- It was decided to implement updated definitions and figures taken from **CISPR12** regarding the testing of charging systems
- The TF EMC reviewed the **update of normative references**
- A **proposal dealing with the Spanish topic regarding vehicle in DC charging mode was included**
- 122 modification proposals were discussed
  - **98 modifications were incorporated** in the working draft of UN R10.06; including the 87 already reported ones
  - 22 of the proposals have been included in a roadmap for a UN R10.07 series
  - 2 proposals were not accepted due to a contradiction with international standards

TF EMC Status Report – UN R10.06 Development

Status of Transitional Provisions

- The GRE TF EMC decided to follow the Revision 3 of 1958 Agreement (Guideline WP.29/2017/107 + corr.1) to apply Transitional Provisions
- A **proposal**, based on this "Draft **General Guidelines** for United Nations regulatory procedures and transitional provisions in UN Regulations" using Annex 1 paragraph II "Aide-mémoire" guidelines V.1., V.2. and V.9**.** was **implemented in GRE-document "GRE/2018/05 -** (TF EMC) Proposal for the 06 series of amendments to Regulation No. 10 (Electromagnetic compatibility)**"**
- **Contents**
  - Suppression of TPs concerning the 03 and 04 series of amendments
  - replacement of the single TP concerning the 05 series of amendments by TPs concerning the 05 series of amendments and consideration of extensions and vehicle types which are not equipped with a coupling system to charge REESS, or component or separate technical unit which does not include a coupling part to charge the REESS for proposed TPs
  - new TPs concerning the 06 series of amendments
  - change of the relative periods of time into exact calendar dates
- **Additional informal proposal (GRE-79-05)**
  - Addition in TPS for R10.06 of consideration of component or separate technical unit which does not include a coupling part to charge the REESS for proposed TPs

TF EMC Status Report – UN R10.06 Development

Status of Transitional Provisions

Paragraphs 13.1. to 13.11., amend to read:

~~"13.1. As from the official date of entry into force of the 03 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by the 03 series of amendments.~~

~~13.2. As from 12 months after the date of entry into force of this Regulation, as amended by the 03 series of amendments, Contracting Parties applying this Regulation shall grant approvals only if the vehicle type, component or separate technical unit to be approved meets the requirements of this Regulation as amended by the 03 series of amendments.~~

~~13.3. Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to the preceding series of amendments to this Regulation.~~

~~13.4. Starting 48 months after the entry into force of the 03 series of amendments to this Regulation, Contracting Parties applying this Regulation may refuse first national registration (first entry into service) of a vehicle, component or separate technical unit which does not meet the requirements of the 03 series of amendments to this Regulation.~~

~~13.5. As from the official date of entry into force of the 04 series of amendments, no Contracting Party applying this Regulation shall refuse to grant type approvals under this Regulation as amended by the 04 series of amendments.~~

~~13.6. As from 36 months after the official date of entry into force of this Regulation, as amended by the 04 series of amendments, Contracting Parties applying this Regulation shall grant approvals only if the vehicle type, component or separate technical unit, to be approved meets the requirements of this Regulation as amended by the 04 series of amendments.~~

~~13.7. Contracting Parties applying this Regulation shall continue to grant approvals to those types of vehicles or component or separate technical unit type which comply with the requirements of this Regulation as amended by the preceding series of amendments during the 36 months period which follows the date of entry into force of the 04 series of amendments.~~

~~13.8. Until 60 months after the date of entry into force of the 04 series of amendments, no Contracting Parties shall refuse national or regional type approval of a vehicle, component or separate technical unit type approved to the preceding series of amendments to this Regulation.~~

~~13.9. As from 60 months after the date of entry into force of the 04 series of amendments, Contracting Parties applying this Regulation may refuse national or regional type approval and may refuse first registration of a vehicle type, or first entry into service of component or separate technical unit which does not meet the requirements of the 04 series of amendments to this Regulation.~~

~~13.10. Notwithstanding paragraphs 13.8. and 13.9. above, approvals granted to the preceding series of amendments to the Regulation for vehicle type which are not equipped with a coupling system to charge the REESS, or for component or separate technical unit which doesn't include a coupling part to charge the REESS, shall remain valid and Contracting Parties applying this Regulation shall continue to accept them.~~

~~13.11 As from 36 months after the date of entry into force of the 05 series of amendments, Contracting Parties applying this Regulation shall grant type approvals only if the vehicle type, component or separate technical unit, to be approved meets the requirements of this Regulation as amended by the 05 series of amendments.~~

13.1. Transitional provisions applicable to 05 series of amendments

13.1.1. As from 09 October 2014, no Contracting Party applying this UN Regulation shall refuse to grant or refuse to accept UN type-approvals under this UN Regulation as amended by the 05 series of amendments.

13.1.2. As from [9 October 2017], Contracting Parties applying this UN Regulation shall not be obliged to accept UN type-approvals to the preceding series of amendments, first issued after [9 October 2017].

13.1.3. Contracting Parties applying this UN Regulation shall not refuse to grant extensions of UN type-approvals, the latter first issued before [9 October 2017], for existing types which have been granted according to any series preceding 05 series of amendments to this UN Regulation.

13.1.4. Notwithstanding paragraph 13.1.2. and 13.1.3., Contracting Parties applying the UN Regulation shall continue to accept UN type-approvals issued according to the preceding series of amendments to the UN Regulation, for the vehicle type which are not equipped with a coupling system to charge the REESS, or for component or separate technical unit which doesn't include a coupling part to charge the REESS which are not affected by the changes introduced by the 05 series of amendments

13.1.5. Contracting Parties applying this UN Regulation shall not refuse to grant UN type-approvals according to any preceding series of amendments to this UN Regulation or extensions thereof.

13.2. Transitional provisions applicable to the 06 series of amendments

13.2.1. As from the official date of entry into force of the 06 series of amendments, no Contracting Party applying this UN Regulation shall refuse to grant or refuse to accept UN type-approvals under this UN Regulation as amended by the 06 series of amendments.

13.2.2. As from [1 September 2022], Contracting Parties applying this UN Regulation shall not be obliged to accept UN type-approvals to the preceding series of amendments, first issued after [1 September 2022].

13.2.3. Contracting Parties applying this UN Regulation shall not refuse to grant extensions of UN type-approvals, the latter first issued before [1 September 2022], for existing types which have been granted according to any series preceding 06 series of amendments to this UN Regulation.

13.2.4. Contracting Parties applying this UN Regulation shall not refuse to grant UN type-approvals according to any preceding series of amendments to this UN Regulation or extensions thereof."

TF EMC Status Report – UN R10.06 Development
Spanish Proposal regarding DC charging mode (reminder)

- The needs for charging of heavy vehicles as trucks or buses in short time leads to high charging current
- In the present version of UN R10.05 a test procedure is defined to test at a current level of at least 80%.
- Many laboratories are not able to fulfil the resulting requirements for DC charging mode regarding the energy supply and test equipment.
- For the time being, the test requirements can not be fulfilled by the majority of laboratories. So for each test, the technical service has to consult the national regulation authority.
- Therefore the TF EMC has prepared a proposal for DC charging mode and a justification for an adoption of the test setup and requirements.

TF EMC Status Report – UN R10.06 Development
Spanish Proposal regarding DC charging mode (Status)

- Several countries support the Spanish proposal to allow the reduction of a DC charging current if the minimum 80% of nominal current value can not be achieved (e.g an electric bus with a 700 A nominal charging current would lead to a test with at least 560 A current which is not achievable in EMC test facilities)
- Preliminary measurement data has been provided (Germany, Spain) which do not show significant differences of measurement results for different values of charging current (e.g for buses, passenger cars with DC charging mode).
- The TF EMC suggests the following change in UN R10 for series 06 for the time being:

  ~~If the current consumption can be adjusted, then the current shall be set to at least 80 per cent of its nominal value.~~

  If the current consumption can be adjusted, then the current shall be set to at least 80 per cent of its nominal value for AC charging.

  If the current consumption can be adjusted, then the current shall be set to at least 80 per cent of its nominal value for DC charging unless another value is agreed with the type approval authorities.
- The topic will be followed up continuously

TF EMC Status Report – UN R10.06 Development
Next Steps

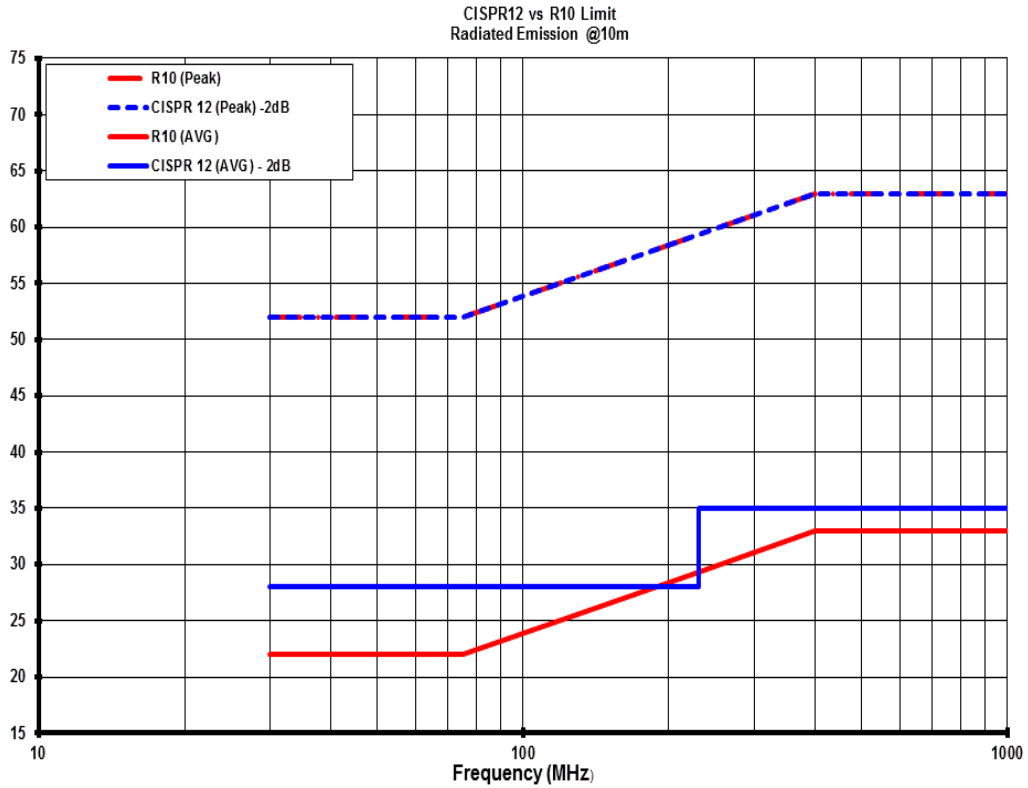
- The TF EMC will deliver the final draft of UN R10-06 in July 2018 to be approved in GRE 80 in October
- Goal for the publication of UN R10-06 is September 1st, 2019
- Open work items until July
  - Implementing the final CISPR12 updated topics
  - Implementing the additional chapter of TP, like shown in the informal document GRE-79-05
  - Eventually a note about Trolley buses

Thank you for your attention

Annex

TF EMC Status Report – R10.06 Development Details
(Change of the R10-05 narrow band limit consistent with CISPR 12)

- It has been precised that in order to get a R10-05 vehicle narrowband emission limit consistent with the CISPR 12 vehicle narrowband limit, the new R10.06 limit should be the CISPR12-limit minus 2dB to take into consideration this 2dB more stringent requirement as defined in CISPR 12 for type approval.



For information:
This figure shows also the consistence between the R10-05 and CISPR12 broadband peak limits.

The proposal for new R10-06 narrowband limit is shown in blue, in comparison to the present R10-05 narrowband limit in red.