

(Proposal for discussion to the members of GRE)

New approach for lighting Regulations

Why a new approach?

- **UNECE/GRE Role:** GRE manages 41 Regulations. Many of them use the same test requirements. Furthermore these requirements are very often design specific (especially light sources) and are subject to continuous amendment. There is an increasing administrative and regulatory workload as well as an increasing trend to find an interpretation of the existing text of a regulation. All in all too many UN Regulations are subject to continuous amendment in GRE which multiply the administrative work, increase the risk of error and create legal uncertainty. Regulatory systems based on UN regulations are out of line with the latest amendments.
- **Innovation & Competitiveness:** Technological solutions and innovative technologies are developed at an increasing speed requiring an increasing administrative and regulatory workload to maintain the 41 design specific Regulations up to date with respect to the technological developments. Innovative solutions sell cars and provide a competitive advantage but innovation and regulations follow a different time schedule. Regulatory systems based on UN regulations are out of line with the latest amendments. Furthermore Vehicle manufacturer's need to launch quickly an innovation to gain a competitive advantage but are not always prepared to provide the details necessary to formulate an amendment. To compensate this situation, one can be tempted to find a "stretched" interpretation of the existing text of a regulation. This creates an unfair playing field, threats mutual recognitions of type-approvals and trade as administrations will not agree on an interpretation of another administration. Competition distortion phenomena and the potential development of technical barriers to trade may become evident in the next years. Frequent amendments are necessary to keep pace with technological development. Innovative solutions sell cars and provide a competitive advantage but frequently innovation and the need to regulate are in conflict. Vehicle manufacturer's need to launch an innovation to gain a competitive advantage and are not prepared to provide the details necessary to formulate an amendment.
- **Global Technical Harmonisation:** How to adapt the UN automotive lighting regulations to facilitate global harmonisation, ensure traffic safety and avoid being a barrier to commercial exploitation of new technologies? UN Regulations are applied globally and are adopted in totality by contracting parties to the 1958 agreement. Non-contracting parties are increasingly adopting the technical provisions of the UN regulations for incorporation into national standards and regulations, such as the case with China. This presents a problem of keeping the national standards and regulations in line with the UN regulations that are currently subjected to regular amendments. The "new approach" proposed by EC needs some common understanding on what should be achieved, a roadmap defining specific milestones and actions, commitment of efforts and an effective revision and adoption mechanism of the changes proposed.

Objectives of the exercise

1. Develop more "performance based" than "design specific regulations". Emphasis to be given on "what" the signalling device has to accomplish and not on "how". Less design-restrictive regulations promoting new technologies and innovation. The issue is however particularly difficult for light source Regulations because such Regulations are specifically designed to be "design restrictive" to restrict the access to the market of bad quality replacement light bulbs.
2. Attract more Contracting Parties into applying UNECE Regulations. Regulations should be simple but effective to assure minimum safety levels. The example of Japan as s in 1 above.
3. Decrease the administrative burden for all stakeholders involved in GRE and the number of proposals/corrections submitted by GRE.

Scope of the simplification exercise

1. The 41 GRE Regulations should be concerned.
2. The IWVTA exercise presents also a good opportunity for the review of Regulations.

Road map

The following Roadmap describes the principle tasks of the simplification process concerning the UNECE regulations under the responsibility of GRE.

Short term (1 year)

Agree on basic principles for managing amendments in the UNECE Regulation, e.g.:

- -Freeze old version of Regulation (to not have 3 series running in parallel), clarify the transitional provisions of Regulation 48. Only 1 or 2 different series of amendments to a regulation to remain "active" at all times,
- -whenever possible gather adopted amendments into 1 amendment with one single date of entry into force/year(e.g. 1 January 20xx),
- -avoid last minute 'corrections', review last minutes adopted amendment at the next GRE session before sending them to Wp.29, etc.

Medium term – Stage 1 Simplification Process (3 years)

Study the feasibility of simplifying and/or grouping the current 41 UN Lighting and Light-Signalling Regulations, e.g. as follows:

- a. Forward Lighting Devices
- b. Light Signalling Devices

- c. Retro-reflective & Luminescent Devices
- d. Light sources according to Regulations 37, 99 and the new Standardised replaceable LED's
- e. Adaptive Front Lighting Systems (Regulation 123) – with the exception of the removal of provisions that can be transferred into the HRD
- f. The installation regulations 48, 53, 74, 86. (However GRE is already working on a rationalisation of Regulation 48).

Long term – Stage 2 Simplification Process (5 years)

- i. Lighting Devices (vehicle operational safety)
- ii. Integrated Signalling Devices (vehicle-to-vehicle and vehicle-to-pedestrian, including Retro-reflective & Luminescent Devices)
- iii. Integrated vehicle systems (vehicle-driver interaction, including vehicle-to-infrastructure interaction and future transport technologies, i.e. platooning)

This grouping exercise may take benefit from the work in the working group on the horizontal Regulation.

Develop harmonised "Performance-Based assessment criteria" that will guide the necessary regulatory procedures for simplifying the GRE related regulations.

The lifting of technical barriers and roadblocks to the uptake and implementation of innovative technologies by manufacturers. The analysis is not intended to address specific countries or regions, but rather general considerations each Contracting Party (to WP.29) should consider.

Organisation/Reporting:

1. The set-up of a Special group of interest at the 69th GRE session. The group will assess the technical and administrative parameters of the simplification process and assess the feasibility of a possible formation of an informal working group. A draft set of terms of reference of the SIG or the IWG are provided in the following section.
2. Provide an interim status report to the GRE by October 2013 and to WP.29/AC.3 by November 2013. The report will elaborate on the efforts required for the conclusion of the 1st stage of the simplification process.
3. Provide a final status report to the GRE by April 2014 and to WP.29/AC.3 by June 2014. The report will elaborate on the final date for the completion of the 1st stage simplification process. It will further provide justification on the continuation of the SIG or the possible development of an IWG for the examination of the 2nd Stage simplification parameters.

ANNEX I: Special Interest Group draft Terms of Reference:

The following draft ToR describe the principle tasks of the SIG efforts with respect to the simplification process concerning the UNECE regulations under the responsibility of GRE.

1. Decrease the administrative burden for all stakeholders involved in GRE and the number of proposals/corrections submitted by GRE.
2. Develop harmonised "Performance-Based assessment criteria" that will guide the necessary regulatory procedures for simplifying GRE regulations towards "performance based" than "design restrictive" regulations. Emphasis to be given on "what" the signalling device has to accomplish and not on "how". Less design-restrictive regulations promoting new technologies and innovation.
3. Attract more Contracting Parties into applying UNECE Regulations. Regulations should be simple but effective to assure minimum safety levels.
4. Identify, review and assess the status of various regulations according to assessments provided by contracting parties, competent organisations and stakeholders involved in the GRE proceedings.
5. Invite, consult with and consider the input of experts from other GRs (GRPE, GRSG and GSRP)
6. Determine potential regulations for inclusion in the IWVTA concept that convey desired performance-based vehicle technical characteristics. The IWVTA exercise presents a good opportunity for the way forward.
7. Provide an interim status report to the GRE by October 2013 and to WP.29/AC.3 by November 2013.
8. Provide a final status report to the GRE by April 2014 and to WP.29/AC.3 by June 2014.
9. Determine the costs and benefits associated with:
 - a. A two-step simplification and grouping of the GRE regulations
 - b. The lifting of technical barriers and roadblocks to the uptake and implementation of innovative technologies by manufacturers. The analysis is not intended to address specific countries or regions, but rather general considerations each Contracting Party (to WP.29) should consider.
10. Define and clarify administrative and transitional provisions of the Regulations (i.e. Regulation No. 48) by identifying specific cut-off dates for type-approvals and certifications according to previous series of amendments.
11. Study the feasibility of simplifying and/or grouping the current 41 UN Lighting and Light-Signalling Regulations by following a two-stage approach:
 - a. The First step involves reducing lighting and signalling regulations from 41 down to 11 by eventually grouping them as:

- i. Forward Lighting Devices
 - ii. Light Signalling Devices
 - iii. Retro-reflective & Luminescent Devices
 - iv. Light sources according to Regulations 37, 99 and the new Standardised replaceable LED's
 - v. Adaptive Front Lighting Systems (Regulation 123) – with the exception of the removal of provisions that can be transferred into the HRD
 - vi. The installation regulations 48, 53, 74, 86. (However GRE is already working on a rationalisation of Regulation 48).
- b. The second step involves reducing the 11 regulations down to three (3) regulatory frameworks namely:
- i. Lighting Devices
 - ii. Signalling Devices
 - iii. Integrated Vehicle Systems (i.e. intelligent signalling and/or integrated vehicle electronics and alerting systems).
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