PROPOSAL

Terms of Reference for the group of interested experts on Rechargeable Energy Storage Systems (RESS)

1. INTRODUCTION

GRSP agreed to set up a group of interested experts to establish legal requirements for Rechargeable Energy Storage Systems (RESS).

Therefore the World Forum agreed to extend the mandate of the Electric Safety informal group (ELSA) to cover these new activities through a group of interested experts, instead of establishing a new informal group under GRSG (s. report of 151th session WP.29 in June 2010, ECE/TRANS/WP.29/1085).

The informal group on Electric Safety (ELSA) deals with safety requirements under the 1998 Agreement. While it was agreed that the RESS component and system requirements are part of the Type Approval Process under the 1958 Agreement ELSA decided on its 8th meeting to start the business in a separate subgroup.

In a first step the group considers requirements for RESS in vehicles of categories M and N. In a second step the group may consider also requirements for RESS in vehicles of category L.

2. OBJECTIVE OF THE PROPOSAL

Ensure safety of rechargeable energy storage systems (RESS) which provide electric energy for electrical propulsion installed in vehicles of categories M and N during normal operation and post crash.

For that purpose existing regulations if possible and practicable under 1958 agreement should be amended for RESS requirements concerning their functional, mechanical, chemical and electrical safety. Details of the issues to be tackled by the group are laid down in the annex 1.

An approach for approval of components and systems (e.g. ECE R 28) should be achieved. Existing regulations and standards (e.g. IEC, ISO) will be considered.

3. OPERATING PRINCIPLES

- 1. Participants to include Contracting Parties, Vehicle Manufacturers and Suppliers, Technical Services, Electric Safety Experts, etc.
- 2. The group will be chaired by Germany, secretary will be provided by OICA.
- 3. The official language of the group will be English.

- 4. All documents will be submitted to the UNECE secretariat and posted on the website http://www.unece.org/trans/main/wp29/wp29wgs/wp29grsp/elsa/elsa_subgroup2_#.html in advance of the meetings. The group may postpone to discuss any item or proposal which has not been circulated 10 working days in advance of the scheduled meeting.
- 5. Proposals will be developed by consensus. When consensus cannot be reached, the chairman shall present the different points of view to GRSP. The chairman may seek guidance from GRSP as appropriate.
- 6. Sessions shall be held in agreement with the majority of the participants after the group has been established in a constitutional meeting.
- 7. A provisional agenda shall be drawn up by the secretariat in accordance with the participants of the group. The first item upon the provisional agenda for each session shall be the adoption of the agenda.
- 8. The second item on the provisional agenda will be the discussion, matters arising and adoption of the Minutes of the previous session.

4. WORK PLAN AND TIME SCHEDULE

November 2010 Constitutional meeting, ToR to GRSP (informal document)

December 2010 Adoption of ToR by GRSP

January 2011 Second meeting of the RESS group March/April 2011 Third meeting of the RESS group

May 2011 Progress-Report to GRSP

June 2011 Fourth meeting of the RESS group

September 2011 Formal Document to GRSP

December 2011 Adoption by GRSP March 2012 Adoption by WP.29 <u>Informal document No.</u> **GRSP-48-01 rev.1** (48th GRSP, 7 - 10 December 2010, agenda item 17)

Annex 1

Priority Requirements

Emission

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1	Vibration
2	Thermal Shock
3	Humidity / Moisture Exposure
4	Mechanical Shock
5	Fire Resistance
6	External Short Circuit
7	Overcharge Protection (RESS or via vehicle system)
8	Over-discharge Protection
9	Over-temperature Protection
10	Protection against direct contact