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5th Meeting: WP29 - GRSP – Informal WG on Electrical Safety (ELSA)

Budapest – Offices of KTI

22. January 2009**23. January 2009**

Meeting Report

At the beginning a representative from KTI as the host of the meeting gave an overview about the organisation of KTI and Hungary.

While ELSA is dealing with requirements for electric vehicles a presentation about such vehicles in Hungary was provided.

After the presentations the original work of the group started.

Agenda (see ELSA-5-1)

The agenda was adopted.

Meeting Minutes of the Fourth Meeting (see ELSA-4-7)

Minutes of the fourth meeting were approved.

Action Items

Action items are listed in attached Table 1 (3rd meeting), Table 2 (4th meeting) and Table 3 (5th meeting) together with the organization/country responsible for each item. The topics regarding "in-use" where action is still necessary are highlighted with grey background in Tables 1 and 2. The items concerning "post-crash" are also listed but most of them are still open because of the pending discussions.

General

The chairman of the ELSA informal working group gave a short oral report about the forty-fourth session of GRSP (10 – 12 December 2008). There he introduced the informal document GRSP-44-13 and gave an outlook regarding the ongoing work of the group.

Following are key excerpts from the report of the forty-fourth meeting of GRSP:

“50. The Chairman of ELSA introduced a status report on the ongoing activities of its group (GRSP-44-13). He informed that, considering the present legal situation, a distinction should be made between the so-called "in-use" and "post-crash" requirement modules, which could be both incorporated in the HFCV gtr. Regarding the draft amendment to Regulation No. 100, he stated that ELSA intends to propose the in-use module only.

51. GRSP agreed to resume the discussion of this agenda item, awaiting a consolidated proposal expected for the GRSP May 2009 session of GRSP.”

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After this report from the GRSP meeting, the representative from Germany gave an oral report about the last meeting of SGS. There he informed about the work of ELSA. In addition he addressed the need for advice from SGS on how to proceed with the “post-crash” document. The response was that SGS is not able to give this advice, and that WP.29 should be asked for a decision. The representative from USA remind to current rulemaking process and pointed out, that NHTSA maybe able to accept the state-of-the-art requirements (derived from ISO) by end of April at earliest. Therefore the members of ELSA decided that during the next ELSA meeting (28. & 29. April) the questions which should be addressed to WP.29 have to be discussed. Based on that discussion a document for the WP.29-148 (23. – 26. June 2009) will be drafted. This document should be presented to WP.29 by the HFCV manager.

(A) Electrical Safety Provisions for Vehicles “in-use” (see ELSA-5-3 and ELSA-5-3Rev.1)

To have one document the secretary of ELSA incorporates the proposals from OICA and JAMA in one document (ELSA-5-3). Based on this consolidated document, the group decided what is acceptable and where improvements are necessary.

The topics which need further investigation are listed in Tables 1, 2 and 3 at the end of this report.

(B) Electrical Safety Provisions for Vehicles “post-crash”

The work on “post-crash” electrical safety is on hold pending direction from WP.29.

Structure to amend ECE R100

After the members of ELSA finalised the work on ELSA-5-3Rev.1, the structure for how to amend ECE R100 was discussed.

1. Scope

The scope should be changed as follows:

“The following prescriptions apply to safety requirements with respect to ~~all battery electric road vehicles~~ **the electric power train of road vehicles** of categories M and N with a maximum design speed exceeding 25 km/h **equipped with one or more traction motor(s) operated by electric power and not permanently connected to the grid and the high voltage components and systems which are galvanically connected to the high voltage bus of the electric power train.**”

2. Definitions

The existing definitions should be replaced by the definitions of the “in-use” document.

3. Application for approval

The existing wording of ECE R100 should be reviewed for consistency with the proposed amendments of ECE R100.

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4. Approval

Existing wording should be reviewed for consistency with the proposed amendments of ECE R100.

5. Specifications and tests

5.1 Vehicle construction requirements

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5.2.4 Emergency power reduction

Existing wording has to be replaced by the paragraphs 3 to 5 of ELSA-5-3eRev.1.

5.3 Determination of hydrogen emissions

Existing wording should be checked for consistency with the proposed amendments of ECE R100. Furthermore a re-numbering is necessary.

6. Modification and extension of the type approval for vehicle type

Existing wording should be checked for consistency with the proposed amendments of ECE R100.

7. Conformity of production

Existing wording should be checked for consistency with the proposed amendments of ECE R100.

8. Penalties for non-conformity of production

Existing wording should be checked for consistency with the proposed amendments of ECE R100.

9. Production definitely discontinued

Existing wording should be checked for consistency with the proposed amendments of ECE R100.

10. Names and addresses of technical services responsible for conducting approval tests and of administrative departments

Existing wording should be checked for consistency with the proposed amendments of ECE R100.

Annex 1

To avoid any misunderstanding regarding “vehicle type” and “vehicle category” a clear definition for both may be necessary.

Furthermore the existing wording should be checked for consistency with the proposed amendments of ECE R100.

Annex 2

Existing wording should be checked for consistency with the proposed amendments of ECE R100.

Annex 3

Can be deleted.

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Annex 4

Should be replaced by “Attached Sheet 1” of the “in-use” document.

Annex 5

Can be deleted.

Annex 6

Existing wording should be checked for consistency with the proposed amendments of ECE R100.

Annex 7

Existing wording should be checked for consistency with the proposed amendments of ECE R100.

OICA volunteered to develop a proposal for an amendment of ECE R100 based on the above structure for the next meeting. Regarding the necessary definition of “vehicle type” and “vehicle category” the representative from UTAC offered their support.

Date and venue of the next Meeting

The following was agreed by the group for the next ELSA meeting:

Date: 28. – 29. April 2009

Venue: EC in Brussels

Thomas Goldbach,

06.03.2009

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Table 1(3rd meeting in Bonn)

Subsection “in-use”		
Where	What	Who
§ 2	Definitions should be listed alphabetically	Secretary of the group / done
Subsection “post-crash”		
Where	What	Who
§ 2.	Definitions should be listed alphabetically Status: Will be done by the secretary of the group as soon as the document is finalized.	Secretary of the group / open

Table 2 (4th meeting in Paris)

“in-use”		
Where	What	Who
2-22 (now 2-14)	Contact with chairman of IEC TC 69 for a justification regarding the upper limits (1.500 V DC and 1.000 V AC) Status: OICA asked the chairman for a justification but for the meeting in Budapest no reply was available.	OICA / open
2-22 (now 2-14)	Study reservation form USA regarding the 1.500 V DC and 1.000 V AC Status: Because of the ongoing rule making process in the USA study reservation still necessary.	USA / open
3-3-2-1& (now 3-4-1) 3-3-2-2 (now 3-4-2)	Study reservation form USA regarding the 100 ohms/Volt and 500 ohms/Volt thresholds Status: Because of the ongoing rule making process in the USA study reservation still necessary.	USA / open
Attached Sheet 1 2-1-2	Proposal for a re-wording of the second paragraph Status: Proposal for a re-wording was available, but was not approved. TÜV has to come up with an improved wording.	TÜV / open

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“in-use”		
Where	What	Who
Attached Sheet 1 2-2-3-5	Check whether the wording of NOTE 1 has to be changed Status: Note was re-worded and agrees by the group.	TÜV together with OICA / done
Whole document	Where does the USA need an explanation or justification for their rule making process in the USA ? Status: The expected list was not available until the end of the meeting.	USA / open
“post-crash”		
Where	What	Who
2-13	Do we need this definition ? Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
2-18 / 2-19	What is the difference between “barrier” and “enclosure” ? Is it necessary to have both definitions ? Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
2-22	Study reservation by the USA regarding 1.500 V DC and 1.000 V AC Status: “post-crash” was not on the agenda of the Budapest meeting	USA / open
3-1	Question whether 5.0 liters of electrolyte spillage is still realistic. Therefore information about the battery design in the past and the future is necessary. Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
3-2	Check whether the requirements out of FMVSS 305 is o.k. in § 3.2 Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
3-3	Informal document for the 44 th session of GRSP	Secretary of the group / done
3-3	Advise from SGS witch alternatives could be agreed Status: Situation was presented to SGS. But the advice how to go ahead has to be made by WP.29	SGS / done

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“post-crash”		
Where	What	Who
4-3	Proposal regarding energy conversion system Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / JAISIC / open
5	Justification required why alternative test and analysis methods should be allowed. Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
5-2	Both sentences in green have to be checked Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
5-2	Why 5 seconds ? Status: “post-crash” was not on the agenda of the Budapest meeting	USA / open
5-3	Green part of the text has to be re-worded Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
5-4	t0 and t1 have to be defined to be able to integrate the product Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
5-5-1	Table 1 is missing Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open
5-5-2	What does it mean that the access probe shall not touch the live parts ? Wording is not precise enough. It may be necessary that the live parts of the vehicle have to be listed in a form. Status: “post-crash” was not on the agenda of the Budapest meeting	OICA / open

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Table 3 (5th meeting in Budapest)

“in-use”		
Where	What	Who
3-2-4	Justification for the exclusions of labeling is necessary.	OICA
3-2-4	The possibility whether to allow only orange color for the identification of outer covering etc. has to be checked by Japan. Therefore Japan raised a study reservation.	Japan
4-3	Justification whether a test for possible overcharging is necessary or not is necessary. When there is a justification a well proven test procedure will be necessary.	TÜV
Attached Sheet 3 2. Test conditions	The test conditions in general have to be checked. It should also be proven whether it could be allowed to use drawings and/or CAD.	OICA / JAISIC / USA