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Meeting Report

3rd Meeting of RESS

**Boras – SP facilities, Sweden
April 12th until April 14th, 2011**

The Chair of the working group, Gerd Kellermann, welcomed the attendees in Boras, Sweden.

The Agenda for the third meeting (RESS-3-2) and the Minutes of the second meeting (RESS-2-6) were agreed by the group.

The first topic of the agenda was a presentation by Korea about “RESS Status of Korea (RESS-3-6 Rev.01). The presentation gives an overview about the Korean Regulation, Test Facilities and Test Scene. In addition to the presentation the Korean representative showed movies about an RESS Drop Test and an RESS Fire Resistance Test in Korea. The following parts of the presentation were discussed more in depth:

- **Test-Conditions regarding RESS installed e.g. on the roof of a bus**
 - It became clear that because of the size of the RESS for some tests it could be necessary to have the possibility to conduct the tests with parts of the RESS.
- **Mechanical Shock (Drop) Test**
 - The Korean Drop Test has the aim to check the mechanical shock behavior of an RESS, avoiding any damage to test facilities.
 - A height of 4.9 m is chosen to simulate a speed of 56 km/h when the RESS strikes the ground
 - It became clear that the test is not reproducible due to the fact that the impact to the RESS when touching the ground differs every time.
 - Furthermore the Korean representative agreed that for the next RESS meeting Korea will present further information of the dynamics regarding the test (e.g. the acceleration).
- **Immersion Test**
 - The presentation showed that the water changed during the test the color.
 - Korea will try to find out until the next RESS meeting why this happens.

During the presentation the Korean representative mentioned that Korea is interested to harmonize their local RESS requirements with a possible GTR. Regarding the development of a GTR the Chair of RESS mentioned that he has also information that USA and Japan are interested in a GTR. Furthermore the representative from the European Commission expressed their interest in a GTR. But the Chair of RESS made clear that for the moment the informal group is developing requirements under 1958 Agreement. If a GTR should follow in a second step a country has to volunteer as a sponsor.

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The second topic of the agenda was a presentation from the representative of Continental. The aim of the presentation was to propose possible RESS levels which should be used to address the safety requirements. The following levels were agreed:

1. Level = Vehicle
2. Level = RESS
3. Level = RESS-Pack
4. Level = RESS-Module
5. Level = RESS-Cell

It was agreed that the proposed definitions should be incorporated in the working paper and should be reviewed by the members of RESS for the next meeting.

After the two presentations the group discussed whether requirements for dewatering are necessary. The group came to the conclusion that there is no necessity and that this topic can be deleted from the working paper.

During the second meeting of RESS different groups took onboard working packages. The outcome of the working packages was incorporated into the working paper (RESS-3-3) by the secretary of the group. During the rest of the meeting in Boras the results of the different groups were presented and discussed. The outcome of the discussion is documented in RESS-3-3 Rev.01. After the meeting document RESS-3-13 with the action items for the members of RESS out of the 3. Meeting was distributed.

Because of lack of time the agenda item "Possible solutions for amendments of ECE regulations (brainstorming)" could not be discussed and was postponed to the 4th Meeting.

The chairman thanks SP for the hospitality and perfect organization, especially for the occasion to be witness of a fire test in the SP laboratory. Also videos about battery tests were appreciated and served for better understanding.

Date and venue of the next Meeting

The attendees agreed that the 4th RESS Meeting will be held at the Opel facilities in Mainz Kastel , Germany from July 05th until July 07th.

Thomas Goldbach,

13.05.2011