

Draft Minutes of the 2nd Meeting
UN-ECE/GRPE ad hoc WG "Hydrogen Vehicles – Onboard Storage Systems"
19.02.2002 in Munich (BMW)

- Agenda item
"Greetings" The meeting participants assembled around a BMW – LH2 vehicle in front of the BMW tower and were welcomed by Mr. K Pehr (BMW) and Mr. D Stoll (BMW). Mr. Pehr briefly explained the LH2 BMW. The actual meeting started at 8:30 a.m. Mr. Albus welcomed the participants and thanked the meeting organizer Mrs. Maren Schwager for the well-organized meeting.
- Agenda item 1
"Agenda" Mr. Albus had received two additional agenda items from JASIC Japan
- o JASIC comments on EIHP proposals
 - o development of a timetable for LH2 and CGH2.
- The participants accepted the agenda with the additional items.
- Meeting minutes to be written by Mr. Udo Klein (Ford).
(Comments from Mr. Albus "Never change a winning team")
- Attendance List was distributed during the meeting.
- Agenda item 2
"Draft Minutes" The minutes of the 1st meeting were accepted without any comments.
- Agenda item 3
"Report 43. GRPE" Mr. Albus gave a short report about the 43. GRPE Meeting. Main point of discussion at the GRPE was around application for ECE's and/or GTR's. USA, Canada and ISO voted for GTR's only, since USA and Canada have not signed to the 1958 agreement and therefore cannot adopt an ECE. It was not made clear at the GRPE to develop GTR's only. Mr. Albus will check and advise. Pro's and con's of ECE/GTR was discussed at the ad hoc meeting. Mr. Rijnders (RDW) and Mr. Bauer (DC) suggested to go ahead with the ECE work and develop GTR's in parallel. Mr. Hay (ISO/TC197) and Mr. Dey (CCS/NRCAN) volunteered to identify differences between the two ECE drafts and corresponding draft ISO standards. Since it was fairly unclear, which way to go, ECE & GTR or GTR only, Mr. Albus stopped the discussion until further clarification – discuss at next meeting He also requested to develop a timetable for both, ECE and GTR process ahead of the next GRPE meeting (June 2002).

Agenda item 4
"ISO Report"

Mr. Hay reported that the letter from the ad hoc WG chairman (see minutes of the 1st meeting) was received by the chairmen of ISO/TC197 and ISO/TC22 and confirmed volunteering of ISO in the process of developing ECE's and GTR's. He suggested a comparison of ISO & ECE drafts, which could be done by ISO within a period of two month. ISO/TC22 is prepared to participate in the process as well, but emphasized that there should not be any overlapping between ISO & ECE work.

Mr. Dey reported that the ISO DIS documents were put on hold in favor of the ECE drafts.

It was agreed that ISO would compare ISO and ECE drafts and identify the differences. ISO will also involve SAE in the process to ensure development of GTR's are acceptable for the '98 agreement parties. Further on, ISO (Mr. Dey) will compile a list current ISO/SAE/EU/ECE codes and standards developments regarding H2 powered vehicles. This agreement is understood by ISO as a request from the ad hoc WG.

Agenda item 5
"Next Meeting"

The next meeting will be a two days meeting at DC in Nabern (Germany) on June 4 and 5 (one day workshop on CGH2 and one day meeting/discussion on LH" and CGH2 drafts and open items from this meeting).Mr. Bauer to provide meeting details to Mr. Albus.

Agenda item 6
"Other business"

The JASIC comments were discussed.

The general comments apply to both, LH2 & CGH2 drafts. JASIC requested that specific components for approval should be reduced. The discussion in the group shows, that several aspects have to be considered: reduction of the expenditure of tests, no unnecessary handicap for new technologies, identification of safety relevant devices who shall be tested, compatibility of fuel (system) and fitted components,safety certifications of the supplier or component type approval.

JASIC will prepare a list of "Specific Components for Approval" and forward to Mr. Albus, who will distribute to the members/participants of the meeting.To be discussed at the next meeting.

Agenda item
"LH2-Vehicle -
Tech. Explanation"

The technical explanation was given by Mr. Stöcklin (BMW)
The presentation will be available from the EIHP web-page
<http://www.eihp.org>

Agenda item
**"Draft Regulation
 (LH2) & discussion"**

Mrs. Ortenburger from TUEV-Sued gave a presentation about the development process of the LH2 draft and the rationale for the requirements contained therein.

This presentation is also available from the EIHP web-page
<http://www.eihp.org>

Some items of the LH2 draft were discussed

- o item 14.9.2. Boil off management system was agreed to be MANDATORY, therefore item 14.9.4. to be deleted. The main justification is the safety problem with boil off emissions of H2 in enclosed space. A problem is to define traffic areas of not allowed driving or parking in a ECE regulation regarding type approval of vehicles.
- o item 14.15. Periodic re-qualification was briefly discussed. Requires comparison with ECE R110. Further discussion at next meeting.
- o Labeling of Hydrogen Buses
 Such an annex is included in ECE R 110. In rev 11 the annex 9 was deleted, because in the case of accident/fire the information about the fuel is not the problem, but the pressure of the storage system is important. Mr. Albus will discuss this within his department and also ask the national expert group. Further discussions at next meeting. Any comments to be sent to Mr. Albus

Work to be done until next meeting:

Subject/action	Responsibility	Due Date
<ul style="list-style-type: none"> • List from JASIC to Mr. Albus (reduced no. of certification tests on specific components) 	JASIC Mr. Fujimoto Mr. Sato	April 26, 02
<ul style="list-style-type: none"> • Proposal fro a timetable for ECE & GTR process 	Mr. Albus Mr. Stoll	April 26, 02
<ul style="list-style-type: none"> • Comments from meeting participants on items discussed at this meeting to Mr. Albus 	All	April 26, 02
<ul style="list-style-type: none"> • All comments received onto EIHP web-page (if no reservation was noted) 	Mr. Stoll	as available
<ul style="list-style-type: none"> • All presentations of this meeting on EIHP web-page 	Mr. Stoll	immediately
<ul style="list-style-type: none"> • Info about changes on EIHP web-page regarding ad hoc WG activities/new entries to ad hoc members 	Mr. Stoll	as required
<ul style="list-style-type: none"> • Comparison of ISO standards & ECE drafts identifying differences and "List of Codes & Standards" LH2 	Mr. Hay Mr. Dey	May 25, 02

CGH2

pending info
from U Klein

- Inform ISO about latest developments on CGH2 drafts (go – no go) following the EIHP 2 meeting at Sevilla Mr. Klein asap

Visits to the BMW LH2-workshop and the LH2 filling station at Munich Airport are not minuted.

17:00 pm end of meeting