GRSP TF on the transposition of GTR 13 Phase 2 to UN-R 134 (15)

Meeting Date: 28/08/2023 9:00 am – 11:00 am (CET)
Location: Microsoft Teams Meeting

Participants:

- ☑ Alex Milward (LUXFER)
- ☑ Amy Ryan (TOYOTA)
- ☑ Anais Garo (UTAC)
- ☑ Annett Schuessling
- ☑ Ansgar Pott (HYUNDAI)
- ☑ Antoine Azzopardi (FRANCE)
- ☑ Daniel Frame (ARROWHEAD)
- ☑ Gerhard Gissibl (BMW)
- ☑ Gilles Jouvenot (PLASTIC OMNIUM)
- ☑ Hans Lammers (NETHERLANDS)
- ☑ Harald Beck (MAN)
- ☑ Hiroaki Tamura (JARI)
- ☑ Ikuya Yamashita (HONDA)
- ☑ Klaus Weis (HEXAGON)
- ☑ Koie (METI)
- ☑ Masaaki Iwasaki (TOYOTA)
- ☑ Matthias Kuntz (BOSCH)
- ☑ Morinaga (KHK)
- ☑ Paul Dijkhof (KIWA)
- ☑ Richard Trott (FORVIA)
- ☑ Romary Daval (LUXFER)
- ☑ Salim Abdennadher (RENAULT)
- ☑ Seonghoon Kim (HYUNDAI)
- ☑ Shougo Suda (TOYOTA)
- ☑ Tatsumi Takehana (KHK)
- ☑ Tohru Nakanishi (METI, JAPAN)
- ☑ Valentin Hettrich (DAIMLER TRUCK)
- ☑ Volker Rothe (STELLANTIS)
- ☑ Vuthy Phan (VOLVO)
- ☑ Wataru Okoyama (MLIT)
- ☑ Yoshio Fujimoto (NTSEL)
- ☑ Yuto Sekiya (KHK)
- ☑ Yoshinori Tanaka (NTSEL)

Minutes:

1. Welcome
2. Material Compatibility
    - □ Feedback from Japanese experts: see document: *(Japan)UNR134 TF Final opinion for remaining issues_.pptx*
        - The determination of hydrogen compatibility of materials is a very important factor for the safety of CHSS.
        - The proposed SAE TIR J3294 is a private standard, and as a regulatory authority, we are concerned about the fact that this standard will be taken directly into UN regulations as a commonly accepted standard in terms of safety without national government, national material experts, national academia, etc. checking its contents as I described before.
        - Regarding the alternative testing of components in hydrogen, we oppose Option B. We have concerns about its safety validity and lack of rationale. We recognize that material tests and component tests are fundamentally different. This deliberation shall be the subject of the GTR 13 Phase 3.

- Regarding the manufacturer‘s declaration on materials, we oppose Option C. It does not fit into the Japanese high pressure law legal system, so Japan is opposed to including this in the UN regulations.
- (The declaration of conformity by the manufacturer is not allowed to be accepted as is. Confirmation of conformity by an inspection agency such as KHK is required.)
- On the other hand, we understand the need for a white list of materials. For example, one idea is to establish a mechanism for experts to discuss within the framework of the UNR to amend the UNR text to stipulate a white list based on Annex 8 and to add such a list of material.

□ HG-SCC

- The position that the test method itself is necessary remains unchanged. This test method is very important for expanding the type of aluminum alloys safely in the future. Now we recognize that there is no problem in using the existing 6061-T6 alloy.
- We understand the need for a white list of materials like as Material compatibility.

3. Remote TPRD and alternative testing

□ Feedback from Japanese experts: see document: *(Japan)UNR134 TF Final opinion for remaining issues_.pptx*

- The requirement for Remote TPRD had not discussed in GTR13 Phase2. Basically, our opinions for GTR or UNR are as results of discussion among Japanese national committee described page 2 of this document.
- For consideration of this matter in the committee, we need following information.
  1. Detailed requirements for remote TPRD and supply line (e.g., construction, design, specifications, type of fittings, etc.)
  2. We would like to know the definition of "worst case approach" again. For example, what is the definition of worst case approach for fitting
  3. Why drop test is not required? (awareness of the problem that drop test is required if the container and supply line are installed in a vehicle as a one set)

□ The worst-case approach (definition to be found in the minutes of last meeting) is a common procedure within the UN regulations, confirmed by Hans Lammers (NL)

□ Proposal document from OICA: *R134-14-05_draft_R134-02s1_OICA-draft.docx*

- §9.3 COP provisions (new paragraphs with clarifications)
- Annex 7 footnotes 5 and 8 in Change of design table. OICA is working on technical justification for the sentences between brackets (conformable tanks).

□ Overall feedback:

- Japan remains positive about the passage of the GRSP in December.
- Regarding material compatibility, Japan supports Option A without the SAE TIR and Option D.

- We would be willing to cooperate if a safety-reasonable white list of materials is developed.

4. Next steps:
   - Japanese will have additional internal discussions
   - Luxfer will provide drawings and description of remote TPRDs on containers for the Japanes experts to discuss

5. Next meeting for entire TF:
   - September 7th 2023
     - 9 am – 11 am (CET)
     - 4 pm – 6 pm (JST /KST)