# GRSP TF on the transposition of GTR 13 Phase 2 to UN-R 134 (10)

**Meeting Date**: 14/02/2023 07:30 – 10.10 (CET)
**Location:** Microsoft Teams Meeting

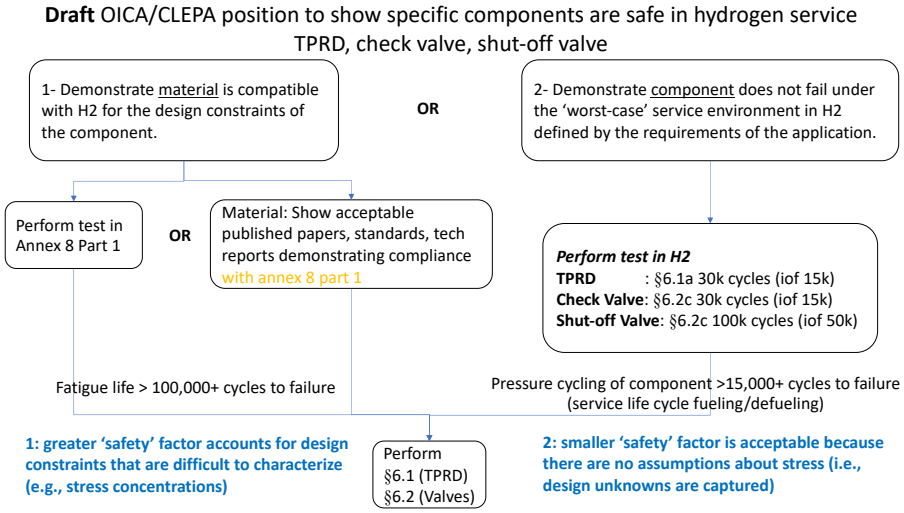
Participants:

- ☑ Anais Garo (Utac, France)
- ☑ Andres Fernandez Duran (Iveco/OICA)
- ☑ Annett Schuessling (LIFTE H2)
- ☑ Ansgar Pott (Hyundai/OICA)
- ☑ Antoine Azzopardi (Ministry of Energy, France)
- ☑ Anton Weiler (IAV)
- ☑ Ayumu Ishizuka (Honda/OICA)
- ☑ Chris San Marchi (Sandia Lab)
- ☑ Frank Otremba (NPROXX)
- ☑ Gerhard Gissibl (BMW/OICA)
- ☑ Harald Beck (MAN/OICA)
- ☑ Ikuya Yamashita (Honda/OICA)
- ☑ Ito (KHK, Japan)
- ☑ Masaaki Iwasaki (Toyota/OICA)
- ☑ Matthias Kuntz (Bosch)
- ☑ Muhammad Yasir (Forvia/CLEPA)
- ☑ Paul Dijkhof (Kiwa)
- ☑ Richard Trott (Forvia/CLEPA)
- ☑ Romary Daval (Luxfer)
- ☑ Salim Abdennadher (Renault/OICA)
- ☑ Sekiya (KHK, Japan)
- ☑ Seonghoon Kim (Hyundai/OICA)
- ☑ Shinohara (KHK, Japan)
- ☑ Shinya Yamamura (MLIT, Japan)
- ☑ Shougo Suda (Toyota/OICA)
- ☑ Sigurd Sonderegger (Volvo/OICA)
- ☑ Takashi Iijima (AIST/Japan)
- ☑ Tatsumi Takehana (KHK, Japan)
- ☑ Tohru Nakanishi (METI, Japan)
- ☑ Volker Rothe (Stellantis/OICA)
- ☑ Ylva Castenhag Blomström (Scania /OICA)

- ☐ Alessia Bolla (Iveco/OICA)
- ☐ Amy Ryan (Toyota/OICA)
- ☐ Alexandra Mulot (Utac, France)
- ☐ Ayako Sugita (Toyota/OICA)
- ☐ Baptiste Ravinel (Daimler Trucks/OICA)
- ☐ Emi Miyake (Tokushima University)
- ☐ Hans Lammers (RDW, Netherlands)
- ☐ Hiroaki Tamura (Jari, Japan)
- ☐ Hisamoto (KHK, Japan)
- ☐ Hyungki Kim (Hyundai/ OICA)
- ☐ Johan Broeders (DAF/OICA)
- ☐ Junichi Tsukada (JASIC, Japan)
- ☐ Kawashima Tomoko
- ☐ Kazumi Watanabe (JASIC, Japan)
- ☐ Keobo Ku (Hyundai)
- ☐ Klaus Keck (Daimler Truck/OICA)
- ☐ Lukasz Rozanski (EU)
- ☐ Manoj Desai (India)
- ☐ Marco Aimo-Boot (Iveco/OICA)
- ☐ Marc Antoine Marcellin
- ☐ Marta Angles (IDIADA, Spain)
- ☐ Martin Koubek (NHTSA, USA)
- ☐ Mike Levet (DfT, UK)
- ☐ Myrna Cashatt (Linamar)
- ☐ Nick Hart (ITM Power)
- ☐ Ohgami Nobuyuki (Toyota/OICA)
- ☐ Patrick Breuer (Hexagon Purus)
- ☐ Romain Ladret-Piciorus (EU Commission)
- ☐ Saya Tanaka
- ☐ Toshinori Narumiya (KHK, Japan)
- ☐ Warren Hepples (Luxfer)
- ☐ Wataru Okuyama (MLIT, Japan)
- ☐ Yoshinori Tanaka (NTSEL, Japan)
- ☐ Yusuke Ito (KHK, Japan)
- ☐ Yves van der Straaten (OICA)

# Minutes

1. Welcome & Roll call
2. Review of comments document for submission to GRSP
   - ☐ No side meeting could be arranged for the material compatibility discussion




   - ☐ OICA/CLEPA prepared a presentation trying to clarify the proposal

CP Positions:

Japan: cannot accept the proposal for alternative component qualification with hydrogen, Annex 8 needs to be kept

NL: accept the proposal for material compatibility including the proposal for alternative component qualification

France: need more time for evaluation, will provide feedback before February 20th 2023

Korea: Seonghoon Kim (Hyundai / OICA) will contact representative KOTSA provided feedback via email stating that the inclusion of alternative material qualification methods is necessary:
*Korea believe that it is appropriate to include additional test methods considering the lack of experience of test and commercialized test centers or facilities for material compatibility verification.*

*Therefore, Korea supports the need for material compatibility verification, but, we do not support the inclusion of only material conformity test in UN R134.*
*So, Korea is in favor of maintaining paragraph 6.3 and 6.3.1 as it is with the deletion of all square brackets.*

NB!: For further clarification and consideration regarding the material compatibility, Dr. Chris San Marchi has provided a presentation from a scientific point of view. Please see document ***UN R134 Material Compatibility_230209_CS.pdf***

- Remote TPRDs, supply line qualification:
  - Discussion on the definition of container attachments led to the addition to definition 2.4 for Container:
    "*Container*" (for hydrogen storage) means the **pressure-bearing** component **on the vehicle** ~~the hydrogen storage system~~ that stores the primary volume of hydrogen fuel **in a single chamber or in multiple permanently interconnected chambers**. **Supply lines for additional TPRDs, if fitted, are part of the container.**"

  CP Positions:
  Japan: can in general accept the proposal for remote / additional TPRDs but have to check the position on the addition for the definition of containers
  NL: accepts
  France: need more time for evaluation, will provide feedback before February 20th 2023

- COP requirements:
  - Japan proposes to add one subsentence to 9.2.1 for the pressure-bearing chambers.
    **9.2.1. Every container or, upon agreement of the type-approval authority, every pressure bearing chamber of CHSS shall be pressurized smoothly and continually with a hydraulic fluid or gas to the target pressure of ≥ 125 per cent NWP until the target test pressure level is reached and then held for ≥ 30 seconds. Temperature variation during the test shall be taken into account. The quality variability of the products shall be assessed with a method defined by the manufacturer e.g., variability of elastic expansion, etc.**

  CP Positions:
  Japan: with the addition to 9.2.1 Japan can accept it
  NL: had to leave the meeting before this discussion item
  France: need more time for evaluation, will provide feedback before February 20th 2023

3. Other
   - Japan emphasized the importance of the involvement of the European Commission in the development of the transposition document and would appreciate the EC's opinion

   - OICA/CLEPA will have a meeting with the European Commission and hope to receive feedback on the overall proposal

4. Next meeting
   February 16th, 2023:
   10.30 pm to 11.30 pm (PST)
   February 17th, 2023:

7.30 am to 8.30 am (CET)
3.30 pm to 4.30 pm (JST/KST)