

**Progress Report of the
VIAQ (Vehicle Interior Air Quality)
Informal Working Group**

8th June 2016

Chair: Jongsoon Lim, Korea

Co-Chair : Yunshan GE, China

Technical secretary: Andreas Wehrmeier, OICA

● VIAQ Background, ToR and Mandate

- **WP.29 Mandate**(ECE/TRANS/WP.29/1112)
 - AC.3 endorsed the proposed action plan to, in a first stage, collect information, review existing standards and develop recommendations.
 - End of mandate : November 2017
- **GRPE Adoption**(ECE/TRANS/WP.29/GRPE/70)
 - GRPE adopted the proposals for terms of reference to the IWG on VIAQ as reproduced in Annex VI of this report.
- **Review of VIAQ Terms of Reference**
 - The scope of the work is to develop a recommendation (R.E.3, S.R.1, or a new Mutual Resolution) to harmonize test procedures of interior air emissions emitted/generated from interior materials

- **VIAQ IWG Meetings since last GRPE**

- **4th VIAQ IWG Meeting**

- Beijing, China, 30th – 31st March 2016 (VIAQ-04-11)

- **5th VIAQ IWG Meeting**

- Geneva, Switzerland, 8th June 2016 (VIAQ-05-xx)

● **Status of Working Items (VIAQ-04-04)**

- **Working items : 28 total working items**
 - Closed working items: 5
 - Open working items: 23
 - Under Provisional conclusion: 11 items
 - Under discussion: 12 items

- **Development of recommendation document**
 - Making of the drafting group for the draft document to harmonize the test procedures

● Status of Working Items (VIAQ-04-04)

➤ Closed working items

- **Protection covers:** Protection covers should stay in the vehicle and be taken off one day before the measurement.
- **Sampling point:** Driver seat (nose position)
- **Analytics method:** Analytics methods should be used according to ISO 16000-3 (Aldehydes) and ISO 16000-6 (VOCs)
- **Test mode:** Adopting the Ambient, Parking and Driving mode with discussions continuing on the detailed items.
- **Substances to be measured :** Formaldehyde, Acetaldehyde, Benzene, Toluene, Xylene, Ethylbenzene, Styrene, and Acrolein. These are the most relevant substances according to the existing standards.

● Status of Working Items (VIAQ-04-04)

- **Open working items:** under provisional conclusion
 - **Vehicle categories:** Category M1, to add Category N1
 - **Definition of new vehicle:** Less than 80km on the odometer
Used cars, prototypes, test cars will not be included
 - **Vehicle age at measurement:** 28d \pm 5 days after production date
 - **Definition of production date:** Sign off date of production line
 - **Vehicle transportation & storage conditions:** VIAQ-04-09
 - **Ambient mode:** Doors open time : 30 ~ 60 min, Soak time : 16 \pm 1h
Ambient temperature : 25 °C vs 23°C, Humidity : 50 \pm 10%
 - **Sampling:** Max flow rate for Aldehydes is 1.0 L/min and VOCs is 0.2 L/min
sampling time is 30 min. Sampling of one Aldehyde and one screening is necessary, but it is recommended to take other backup samples.

● Status of Working Items (VIAQ-04-04)

- **Open working items:** under discussion
 - **Vehicle storage conditions in the plant before transportation**
Storage conditions vary in the plant and cannot be controlled.
 - **Preconditioning:** Storage is 1 day before measurement (soak time) near the test facility, test temperature is as close as possible to soak temperature (20-30 °C) Workers should carefully deal with the vehicle to prevent contamination.
 - **Parking mode:** Radiation of 400W/m² and 4h soak time
 - **Driving mode:** Sampling for 30 min with air conditioning
 - **Repeated test:** 1 vehicle to be measure twice vs 1 vehicle only once + scientific examination on repeatability
 - **Selection of vehicles:** The vehicle selection process was discussed to give information on how to select a worst case car

- **Next VIAQ IWG Meeting**

- **6th VIAQ IWG Meeting**

- October 2016 (location TBD)

- **7th VIAQ IWG Meeting**

- Geneva, Switzerland, January, during 74th GRPE session
- Half a day is requested

● VIAQ meeting 73rd GRPE Session

C. Informal meetings scheduled to be held in conjunction with the next GRPE session

77. The informal meetings were scheduled to be held as follows, subject to confirmation:

<i>Date</i>	<i>Group</i>	<i>Acronym</i>	<i>Time</i>
Monday, 6 June 2016	Environmental and Propulsion Performance	EPPR	9.30 a.m. – 12.30 p.m.
	Requirements of L-category vehicles		2.30 p.m. – 5.30 p.m.
Tuesday, 7 June 2016	Worldwide harmonized Light vehicles Test	WLTP	9.30 a.m. – 12.30 p.m.
	Procedure		2.30 p.m. – 5.30 p.m.
	Vehicle Interior Air Quality	VIAQ	9.30 a.m. – 12.30 p.m.
Wednesday, 8 June 2016	Particulate Measurement Programme	PMP	9.30 a.m. – 12.30 p.m.
	Gaseous Fuelled Vehicles	GFV	2.30 p.m. – 5.30 p.m.
	Electric Vehicles and the Environment	EVE	2.30 p.m. – 5.30 p.m.

78. The agendas of these meetings will be prepared by the respective secretaries and distributed to the members of each group prior to each meeting.