

Transmitted by the representative of the Republic of Korea

Informal document No. WP.29-161-12
(161st WP.29 session, 12-15 November,
agenda item 20)

Proposal for development of a new UN Global Technical Regulation on Vehicle Indoor Air Quality (VIAQ)

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This document contains a proposal to develop a new UN GTR on Vehicle Indoor Air Quality (VIAQ) in the framework of a newly created VIAQ Informal Working Group under GRPE. It is based on informal document WP.29-160-38, distributed at the 160th session (ECE/TRANS/WP.29/1104, para. 130).

I. Proposal for development of a UN Global Technical Regulation (UN GTR) on Vehicle Indoor Air Quality (VIAQ)

A. Background

1. A variety of interior materials and adhesives are being used for the construction of indoor space of vehicles, using several chemical constituents as a raw material. As a result, various kinds of chemical substances may be emitted from the interior materials inside the completed vehicles. Some of the emitted chemical substances may contain components, such as Volatile Organic Compounds (VOCs) or aldehydes, that are harmful to human body. In some circumstances, such as early stages of the vehicle life, the amounts of chemical substances emitted can be particularly high.
2. Notwithstanding deviations in the extent and a certain degree of dependency on the reaction of each individual, some of the substances that can be emitted inside vehicles are likely to be the potential cause symptoms such as nausea, allergy, fatigue, stinging eyes, and headache. Such symptoms may not only affect drivers' health, but also safe driving.
3. To secure consumers' health and safe driving environment against harmful substances for human body, discussions and decisions by the international community, involving regulations to minimize emission of the harmful substances upon manufacturing vehicles, are timely.

B. Existing regulations and international standards

4. Currently, even if many vehicle manufacturers are already performing management for the harmful substances generated from interior materials of vehicles with their own standards, Korea and China introduced guidelines on the national level, while Japan introduced them on a civil level. In 2012 the International Organization for Standardization (ISO) also enacted measurement standards on the harmful substances for human body as emitted from interior materials of vehicles.
5. Examples of existing guidelines
 - (a) Korea
 - (i) Automobile Management Act Article 33_3, 18 December 2012 "Indoor air quality management for newly produced vehicles"
 - (ii) Ministry of Land, Infrastructure and Transport Announcement No. 2007_539, 5 June 2007 "Indoor air quality management guideline for newly produced vehicles"
 - (b) China
 - (i) HJ/T 400_07 December 2007 "Determination of Volatile Organic Compounds and Carbonyl Com-pounds in Cabins of Vehicles"
 - (ii) GB/T 27630-2011 01 March 2012 "Guideline for air quality assessment of Passenger car"
6. Information on current ISO Standards
ISO 12219_1:2012 "Interior air of road vehicles - Part 1: Whole vehicle test chamber – Specification and method for the determination of volatile organic compounds in cabin interiors.

C. Objective of the proposal

7. The objective of this proposal is to develop a new UN GTR, under the 1998 Agreement, concerning the protection of occupants from the harmful substances emitted from indoor materials used in the construction of vehicles.

8. The UN GTR shall specify indoor air pollutant emission requirements and specifications for the materials used for the construction of vehicles having an impact on the generation of indoor air pollutants. It shall include provisions concerning the measurement of the indoor air pollutant emissions. The requirements included in the UN GTR, if mandated by the Contracting Parties, shall secure consumers' health and safe driving environment against harmful substances for human body.

9. The scope of the UN GTR (its application) shall cover all categories of vehicles

D. The VIAQ Informal Working Group

11. The UN GTR shall be developed by an Informal Working Group (IWG) on Vehicle Indoor Air Quality (VIAQ), established under the Working Party on Pollution and Energy (GRPE).

12. The IWG shall conduct comprehensive studies for the existing individual contents regarding management of indoor air quality of vehicles. It shall draft a new UN GTR to provide drivers and passengers with better driving environments for vehicles, also enabling more cost-effective management for the vehicle industry through unification of standards and measurement methods.

E. Terms of reference

13. The following terms of reference describe the main tasks of the new IWG.

- (a) Identify, review and assess the status of current research on indoor air quality and its relevance for vehicles, taking into account of the activities being carried out by various governments, universities and non-governmental organizations.
- (b) Identify, review and assess existing regulatory requirements with respect to vehicles indoor air quality in different markets.
- (c) Identify, review and assess existing test procedures suitable for the measurement of emissions of indoor air pollutants (including sample collection methods and analysis methods, etc.) such as those concerning chemical substances associated with materials used for the construction of vehicles.
- (d) Develop harmonized test procedures for the measurement of emissions of indoor air pollutants inside vehicles;
- (e) Draft a new UN GTR, under the 1998 Agreement, concerning the protection of drivers and passengers from the harmful substances emitted from indoor materials used in the construction of vehicles, including provisions on the measurement procedures, the emission limit values and eventual restrictions on material use.
- (f) Stay abreast of developing issues through regular dialogue and expert presentations.

F. Timeline

14. The target completion date for the work of the informal group, and possible adoption of Global Technical Regulation(s) shall be the 171st session of WP.29 in March 2017.

- (a) **November 2013** : Submission of the mandate document by Republic of Korea to the 161st Session of WP.29
- (b) **January 2014** : Further consideration of mandate document by GRPE
- (c) **March 2014** : Adoption of the mandate document and establishment of the VAIQ informal working group by WP.29 in Geneva
- (d) **May 2014** : First meeting of the VIAQ informal Working Group and consideration of Terms of Reference by IWG
- (e) **November 2014** : Adoption of Terms of Reference by WP.29 its 164th session
- (f) **2015 – 2016** : Meetings of the IWG, regular reporting to WP.29/AC.3
- (g) **March 2017** : Adoption of Draft UN GTR on VIAQ by WP.29 its 171st session

G. Rules of procedure

15. The following rules of procedure describe the functioning principles of the new IWG.

- (a) Terms of Reference will be finalized at first meeting of VIAQ informal working group.
- (b) The Informal Working Group is open to all participants of WP.29 and its subsidiary GRs. A need to limit the number of participants from any organization is not expected, although this will be kept under review.
- (c) The official language of the IWG shall be English.
- (d) [A Chair (COUNTRY), a Vice-Chair (COUNTRY), a Secretary (COUNTRY) and Technical Sponsor] shall govern and guide the work of the IWG.
- (e) The secretary shall be appointed by the IWG (by consensus) and will be responsible for recording the minutes and preparing the draft report for each meeting of the IWG. In addition the secretary shall be responsible for receiving and distributing all documents (such as proposals and presentations) to the IWG according to the deadlines described below.
- (f) All documents and/or proposals shall be submitted to the Secretary of the group at least two weeks in advance of the meeting. At the discretion of the Chair, the group may not discuss any item or proposal which has not been circulated ten working days in advance of the relevant meeting start date.
- (g) A draft agenda and related documents shall be circulated to all members of the IWG five days in advance of all scheduled meetings.
- (h) The conclusions of the IWG group shall be based on a majority vote of governmental (members of the WP.29/AC.3) attendees.
- (i) If the IWG cannot reach common agreement on particular items or proposals, the Chair shall present the issue to the GRPE and/or the WP.29/AC.3 for resolution.