

OICA consideration on the Fuel Quality IG outcome

This document, submitted by OICA, is intended to review the activities of the GRPE Informal Group on Fuel Quality and to give OICA's understanding of the agreed outcome of the discussion between OICA and IPIECA.

Review of Fuel Quality IG activities

During its November 2007 session, the World Forum WP.29 held a Round Table on Fuel Quality, where the car industry was represented by OICA and the oil industry by IPIECA. The Round Table showed that there is a close link between the market fuel quality and the emissions of pollutants from motor vehicles, and there was the general consent to start discussion on the development of specific market fuel quality standards for vehicles. WP.29 also agreed to establish a GRPE informal group on Fuel Quality (see WP.29 report ECE/TRANS/WP.29/1064, para. 11). The experts from OICA and IPIECA welcomed the initiative by WP.29 to set up this informal group and agreed to take part in these activities.

During the first FQ IG meeting, OICA recalled that it was recognized, during the WP.29 Round table, that a further reduction of emissions through more stringent emission regulations requires more advanced emission control technologies, which drives the crucial need for fuel quality to be available to consumers. OICA underlined the importance and the need to develop recommendations for market fuel quality with regard to the emission level and technology type of motor vehicles in use. IPIECA volunteered to contribute actively to the technical part of that effort.

During the 2nd FQ IG meeting, "The experts from IPIECA and OICA were invited to prepare, for the next FQ meeting in January 2008, a list of fuel quality parameters deemed necessary to enable the corresponding emission levels of the motor vehicle engines". During the first joint OICA and IPIECA meeting in October 2008, "after some discussion it was agreed to evaluate all proposed parameters as to their effect on emissions control equipment, their direct (chemical) effect on vehicle emissions and their relevance for any other reason such as vehicle performance – and to report this to the Informal Group so that they could decide on the detailed scope of the list. It was noted that some parameters may fall into more than one category".

During the 3rd FQ IG meeting, IPIECA "underlined that the position of his organization was to limit the development of market fuel quality specifications only to those parameters which could degrade the vehicles' emissions control equipment". Instead OICA requested that "the market fuel quality specifications to be developed should enable vehicles in-use to fulfil, during their service life, the same performance level as during the certification procedure with regard to the emissions of gaseous pollutants and particles". "The expert from OICA expressed the preference of his organization to elaborate not only specifications for parameters that could affect the vehicles' emissions control equipment, but also specifications for any parameter that can affect the tailpipe emissions". "The FQ informal group agreed

with the Chairman's suggestion to consider, at the next FQ meeting in June 2009, a draft of technical specifications, jointly prepared by the experts from IPIECA and OICA, for the first set of parameters:

(i) for gasoline: lead, sulphur, metallic additives, oxygen/oxygenates and vapour pressure (with the indication of limit values or a range of validity) as well as the density and RON/MON (specifications for publication, definitions and test methods only);

(ii) for diesel: sulphur, ash and total contamination (with the indication of limit values or a range of validity) as well as the cetane number/index, density, viscosity and flash point (specifications for publication, definitions and test methods only);

The experts from IPIECA and OICA were invited to include also general guidelines for enforcement purposes by governments of the recommendations on market fuel quality.

Following the January 2009 GRPE mandate to continue the discussion on the market fuel quality, OICA and IPIECA had a second joint meeting to develop the technical details of the two steps approach, in September 2009, focussing on the first set of parameters. In fact IPIECA underlined that the discussion should focus on parameters which may directly affect emissions control equipment (first step) and that IPIECA could not, at this stage, consider being engaged in a second step. OICA believed that considering only the first step parameters was not sufficient when discussing emissions regulations beyond Euro 2 level. The result of the meeting were two tables of parameters, one for gasoline and one for diesel, which were then presented at January 2010 FQ IG and GRPE session. The aim of these tables was to link the vehicle technology levels associated with the various emission levels and with the corresponding market fuel quality, to ensure proper functioning of in-use vehicles. A certain number of parameters were agreed upon, while a number of parameters remained to be discussed (indicated as "TBD").

Instead of resolving the remaining parameters, the further joint meeting between OICA and IPIECA (April 2010 in Washington DC) proved difficult to get an agreement on the values tabled. The joint group concluded that "One possible option to make progress could be to refer to qualifying footnotes and annexes, in order to provide more detailed information regarding the various fuel parameters that need to be taken into account. A first attempt to follow this route has been done and the draft result is reported herewith" (FQ-06-02). The Washington tables, presented at the 6th FQ IG meeting held in June 2010, are again reported herewith as the last result which could be reached among the two associations. It should be noted that, further to the joint decision, OICA added the remark "no intentional addition" for Manganese and Iron in the Gasoline Table (as was included for Phosphorus). This does, in our view, constitute a minimum fuel quality requirement necessary to achieve the aim of the process, i.e. protecting at least the emission control equipment.

Conclusion of the joint discussion

It has not been possible to organise any further meeting between OICA and IPIECA since the June 2010 GRPE. Meanwhile, at its November 2010 session, WP.29 has not yet decided to prolong or not the mandate of the FQ IG. It was agreed to take a decision, at the next WP.29 session in March 2011, on the eventual continuation of the work in this area, on the basis of further information to be provided by GRPE. Thus, to provide an outcome of more than three years of activities and to trace lessons learned from this exercise, OICA has deemed useful providing at least its own understanding of results. This can be found in the informal

document GRPE-61-11, a guideline listing the results for gasoline and for diesel agreed upon by OICA and IPIECA, as said, according to our interpretation.

OICA recommends the Contracting Parties to agree upon that guideline (GRPE-61-11) as a recommendation linking key market fuel quality parameters and the functioning of vehicle emission control equipment (Euro 2 through Euro 4). An extension to more stringent levels will be needed in due time, in order to keep the recommendation updated with the technical progress.

Administrative outcome

Regarding the administrative outcome of the process, the 6th FQ IG meeting, held in June 2010, “proposed that the outcome achieved is converted to a document which would be submitted either as an annex to the corresponding UNECE Regulations (R.83, R.49, and possibly R.101), or as an annex to Consolidated Resolution on the Construction of vehicles (RE.3), to which the various Regulation could refer to”.

In case of agreement by the Contracting Parties on the guideline proposed, the decision on the form of the administrative outcome should be taken by GRPE and WP.29.
