



ORGANISATION INTERNATIONALE DES CONSTRUCTEURS D'AUTOMOBILES  
 INTERNATIONAL ORGANIZATION OF MOTOR VEHICLE MANUFACTURERS

6 June 2007

OICA detailed comments on formal document –**ECE/TRANS/WP.29/GRPE/2007/8**

1, Same comments as on 6 February 2007( Items not amended by the last OICA comments)  
 and new comments on Annex4a, App.4 section 2.3 ,App.5 sections 1.3.4.9 and 1.4.4

Page:	Paragraph:	Comment:
	<b>Annex 4a</b>	
10	6.2.4	PM background correction is necessary, and the background level varies according to tunnel conditions. Change the current sentence "the sampling point of background is the downstream of the HEPA and charcoal filter" to: "The measurement point of background shall be same as the PM sampling point."
10	6.2.5.	Need to allow PN background correction for type approval testing in the same way as PM background correction.
19	6.6.8	Add a background correction method for PN, just as a background correction method has been introduced for PM.
20	6.6.9.2	"the maximum filter face temperature shall be 192°C" - "be" means probably "not exceed" - meaning not clear. As it now stands this will not be possible to fulfill.
	<b>Annex 4a, App 2</b>	
34	1.3.2	<ul style="list-style-type: none"> <li>• Keep the use of charcoal scrubbers optional as they are today.</li> <li>• Need to allow background correction for both PM and PN measurements; consequently, modify the paragraph as follows (see the underlined words in bold type): "At the vehicle manufacturer's request, the dilution air may be sampled according to good engineering practice to determine the tunnel contribution to background particulate mass <b>and number</b> levels."</li> </ul>

Page:	Paragraph:	Comment:
	<b>Annex 4a, App 4</b>	
60	2.3	<p>Revised requirements are not clear to understand whether the intent is to compare today's reference filter weighing with the previous weighing, or with the average of the weighings over the last 30 days. It is also unclear whether today's reading is an absolute value or also a rolling average. OICA recommends that the text is clarified to compare the absolute reading from today with the rolling average.</p> <p>The text regarding the rolling average (&lt;=30 days) is unclear. It needs to be specified that it can be less than 30 where the measurements do not exist for sufficient days but otherwise should be 30.</p> <p>± 5 µg is probably very difficult to achieve. Use the USA/EPA part 1065 requirement of ± 10 µg.</p>
	<b>Annex 4a, App 5</b>	
63	1.3.3.3	<p>With respect to "...that achieve greater than 50, 55 and 60 percent solid particle penetration respectively at 30, 50 and 100 nm particle diameters for the sample pre-conditioning unit as a whole", this clause permits measurements to vary nearly two times from one measuring instrument to another. Therefore, modify the paragraph to set the lower penetration limit as high as possible. (Modification sample: "Include elements which operate under conditions that achieve greater than 80 percent solid particle penetration respectively at 30, 50 and 100 nm particle diameters for the sample pre-conditioning unit as a whole.")</p>
64	1.3.4.3	<p>Readability of 0.1 # /cm3 makes no sense compared to counting accuracy of +/- 10 particles / cm3</p>
64	1.3.4.9.	<p>With regard to "have inlet efficiencies at particle sizes of 23 nm and 41 nm of 50 percent (±12 percent) and &gt; 90 percent respectively", add an efficiency of 10% or less for a particle size of 16 nm in order to eliminate the possible measurement of particles smaller than 23 nm. (Need to add D10 particle size to specify a cutoff characteristic slope.)</p>
66	1.4.4	<p>With regard to "...and greater than 50, 55 and 60 percent respectively solid particle penetration at 30, 50 and 100 nm particle diameters", this clause permits measurements to vary nearly two times from one measuring instrument to another. Therefore, modify the paragraph to set the lower penetration limit as high as possible. (Modification sample: "The VPR shall operate under conditions that achieve greater than 99 percent reduction of 30 nm C40 particles and a minimum penetration efficiency of 80 percent shall be achieved at 30, 50 and 100 nm particle diameters for the sample pre-conditioning unit as a whole.")</p>

Page:	Paragraph:	Comment:
66	1.4.4.3	<ul style="list-style-type: none"> <li>The third sentence should be replaced with the sentence given below.</li> </ul> <p><b>Current :</b> The dilution factor of PND2 shall be selected in the range between 10 and 15 such that particle number concentration downstream of the second diluter is <math>&lt;10^4</math> particles <math>\text{cm}^{-3}</math> and the gas temperature prior to entry to the PNC is <math>&lt;35^\circ\text{C}</math>.</p> <p><b>New:</b> The dilution factor of PND2 shall be selected such that particle number concentration downstream of the second diluter is <math>&lt;10^4</math> particles <math>\text{cm}^{-3}</math> and the gas temperature prior to entry to the PNC is <math>&lt; 35^\circ\text{C}</math>.</p> <p>(1) From the viewpoint of measurement technology, it is sufficient to select the dilution factor without exceeding the particle concentration and the gas temperature tolerance, and there is no need to stipulate the range of the dilution factor.</p> <p>(2) Some research institutes and manufacturers have implemented devices (1 to 10 times) based on the conventional PMP standard draft, and they need major modifications of such devices to comply with the proposed new revisions.</p>
67	2.	The outcome of the ISO-standard for calibration shall be awaited before this can be finalized.
68	2.3.2.	Need to set the lower penetration limit as high as possible. (Modification sample: "A minimum penetration efficiency of 80 percent shall be achieved for all the three test particle diameters.")
69	2.4.6	150-380°C???: It is inconsistent with 1.3.3.2.(150-400)

## 2. Suggested editorial corrections

Page:	Paragraph:	Comment:
5	4.6.	<p>(1) Need to delete the phrase "(ii) Intake air to the engine". Need to delete intake air temperature, since it is not a correction factor for test results.</p> <p>(2) Replace (iii) by (ii).</p>
10	6.2.6.	Delete the phrase "but subject to the pressure-drop conditions of Appendix 4" in the first sentence, since these conditions are not stipulated in Appendix 4.
62	1.2.1	This paragraph is identical with paragraph 1.4.2, except the equivalent particle penetration of PTS and POT at 30nm and 25nm particle diameters. Apply the same diameter size.
65	1.4.2	This paragraph is identical with paragraph 1.2.1, except the equivalent particle penetration of PTS and POT at 30nm and 25nm particle diameters. Apply the same diameter size.
66	1.4.4.1	150-380°C???: It is inconsistent with 1.3.3.2.

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