

**GRE Task Force on Substitutes / Retrofits (TF S/R)****1st meeting**

14 December 2017, 10:30 – 15:30 CET  
 Philipsstraße 8, 52068 Aachen, Germany

**DRAFT REPORT**

		<b>Documents</b>
1	Welcome and opening remarks	
	<p>Mr. Manz, as chairman of this TF, welcomed the participants and opened the meeting.</p> <p>An attendance sheet was signed by the participants present in the room, see Annex 1.</p> <p>Mr. Hay (CLEPA) and Mr. Blusseau (CLEPA) participated by telephone.</p> <p>Apologies had been received from Mr. Krautscheid (DE) and Mr. Locufier (GRE chairman).</p>	
2	Organisational issues	
	<p>Some organisational matters were announced.</p> <p>A screen-sharing facility was set-up.</p>	
2.1	Introduction of participants	
	All participants briefly introduced themselves.	
2.2	Structure and organisation of the Task Force	
	<p>The web-site with the documents for this Task force was noted.</p> <p>Based on the GRE78 decision it was noted that Mr. Manz (DE) was the chairman of this group, and Mr. Bailey (UK) the vice-chairman.</p> <p>Mr. Plathner (IEC), with the support of Mr. Schager (IEC), was confirmed as secretary.</p>	
3	Adoption of the agenda	TFSR-01-01
	<p>The Chairman introduced the agenda, document TFSR-01-01, and announced that he had prepared a presentation to summarise the history of this discussion.</p> <p>Additional documents from Mr. Schlager, Mr. De Visser and from Mr. Blusseau were announced, and it was agreed to show and discuss them under the relevant items of the agenda.</p> <p>With these additions, the agenda was adopted.</p>	
4	Approval of the reports of the previous sessions	(not applicable)

5	Review of the discussion at GRE77 and GRE78	GRE-77, paragraph 12, 13 and 14  GRE-78, paragraph 17, 18 and 19  TFSR-01-02 TFSR-01-07 TFSR-01-08
<p>The Chairman explained the history of the discussion in general and specifically the discussion during GRE77 and GRE78 with a presentation (after the meeting distributed with document number TFSR-01-07).</p> <p>Document TFSR-01-02 was also briefly reviewed.</p> <p>The Chairman then opened the discussion.</p> <p>Mr. Bailey stated that the group needed to be clear about the purpose of the proposal, if it was about the current aftermarket or about future vehicles.</p> <p>Mr. De Visser reminded that non-approved retrofits were in the market in Europe and in other markets, and that under the UNECE system there was no “legal” option available. This was the motivation for the GTB proposal, to define the difference between “well performing” and “not well performing” products.</p> <p>He explained that in GTB the first idea was about retrofits, but then a few technical items were left, which could not be solved universally.</p> <p>So it was decided by GTB to switch from retrofits to substitutes.</p> <p>Mr. Bailey asked for an honest discussion, not using substitutes as a “Trojan horse” to bring in retrofits.</p> <p>There followed a general discussion about current “non-standardised” failure detection systems in cars, and also about the transition speed to LED in general and about the related “time window “for filament lamp solutions.</p> <p>Mr. Schlager, as GTB WGLS secretary, showed a presentation to summarise the history and status quo from GTB point of view (after the meeting distributed with document number TFSR-01-08)</p> <p>Mr. Bailey questioned that, if the transition to LED technology was the target, then a solution could be to phase-out the filament technology.</p> <p>Mr. Rovers replied that such a “phase-out” solution would need to be technology neutral, by specifying the efficiency limit.</p> <p>The chairman remarked that the phase-out of filament technology was not subject of the discussion of this task-force.</p>		

There followed a discussion on the slide 2 and Mr. Schlager explained in more detail the temperature test and the prescribed minimum and maximum currents.

Mr. Prigent confirmed that the definition of a minimum current allowed to adjust the failure detection for new vehicles.

Mr Manz suggested to start a small research project to show that the proposed substitute light sources worked correctly in a number of lamps with different designs.

Mr. Blusseau questioned the LEA box for the PY21W and Mr. Schlager explained that the proposed box was equivalent to the total tolerance of the R37 category sheet.

This discussion was followed by a question on the environmental conditions, e.g. temperature.

Mr. Blusseau commented that the temperature may be higher than 80°C under certain conditions.

Mr. Schlager replied that his investigations had shown that this was the case when the light source was placed directly above a high-power halogen lamp like H4 or H7.

It was noted that currently there were no tests at high temperature required during UN approval tests, also not on luminaire level.

The Chairman summarised the discussion so far and asked about the way to proceed.

He proposed to consider a short-term-solution (substitutes) and a longer-term solution (retrofits), i.e. to use a 2-step approach for the discussions. But not forgetting the long-term aim to find a solution for retrofits in the aftermarket.

Mr. Manz reminded the discussion at GRE78, where for substitutes a keying was requested, to prevent mis-use.

Mr. De Visser replied that the colour coding, which was introduced at GRE78, could be a good and pragmatic solution.

Mr. Bailey replied that colour keying could be a solution as part of a package: i.e. combined with warning message. He would also like to see standardised failure detection on vehicles, to have 100% electrical compatibility between vehicles and components in the future, also for trailers and aftermarket-luminaires.

Mr. Rovers confirmed that the additional colour coding was a very interesting aspect to add an additional barrier against mis-use.

Mr. Prigent reminded that this would introduce extra cost for the vehicle manufacturer.

	<p>Mr. Blusseau commented that a “green dot” may not prevent mis-insertion.</p> <p>Mr. Bailey stated that the colour coding needed to be very clear and easy to understand and that he would like to see some examples of how such colour coding would look in real applications.</p> <p>The Chairman reminded that a mechanical keying was discussed for substitutes during GRE78, and it was agreed to discuss the aspects of mechanical keying after the lunch break.</p> <p>At this point the meeting was stopped for lunch.</p>	
5.1	Statement of the light source manufactures to the dualism of LED substitutes and retrofits	
	See agenda item 5.	
6	LED Substitutes	*
	See agenda item 5.	
7	New topics raised at GRE78	
	See agenda item 5.	
7.1	Mechanical keying, Colour-coding, etc.	
	<p>The meeting was continue after the lunch break.</p> <p>A presentation from Mr. Blusseau on mechanical keying for the PY21W was shown on the screen, and distributed after the meeting with document number TFSR-01-10.</p> <p>The Chairman commented that Germany supported the idea of mechanical keying for the PY21W (BA15-family), however such mechanical keying will not be possible for glass wedge (W2.1x9.5d) and festoon (SV8.5) types.</p> <p>Mr. Bailey commented that mechanical keying would solve many concerns, and confirmed that mechanical keying could work for higher wattage lamps, but probably not for lower wattage lamps.</p> <p>Mr. Schlager showed a presentation on his first investigation of the BA15 cap family, after the meeting distributed with document number TFSR-01-09, and also containing the first investigation of the glass-wedge and festoon caps.</p> <p>Mr. Schlager confirmed that there was no keying possibility for glass-wedge and also not for festoon types.</p> <p>For the investigation presented by Mr. Blusseau on the PY21W, it was concluded that also the cross-relationships between all the BA15-keying needed to be investigated, to avoid accidental mis-insertion-possibility due to the newly proposed keying features. Also keying options for all categories in R37 with a BA15-cap needed to be addresses, with a focus on white and yellow types.</p>	<p>TFSR-01-09</p> <p>TFSR-01-10</p>

	<p>All experts, but in particular Mr. Blusseau and the experts from IEC and GTB, were asked to prepare a more detailed investigation on the BA15 cap-holder family.</p>	
7.2	<p>Additional user information, Listing of vehicles / functions</p>	
	<p>Document TFSR-01-02, the text developed by OICA during GRE78, was reviewed and compared with the slightly revised text developed by Mr. De Visser and contained in document TFSR-01-03.</p> <p>Mr. Prigent was asked to check with his OICA experts the amended text in clause 4.2.2.</p> <p>There then followed a discussion about the new paragraph 5.1.</p> <p>Mr. Bailey stated that OEM package should be excluded from the marking requirements, all other applications shall have this information. He suggested to check the EU directive for tyres.</p> <p>Mr. De Visser offered to further work on this text.</p>	
7.3	<p>Further necessary tasks for confidence-building measures</p>	**
	<p>See agenda item 5.</p>	
8	<p>LED Retrofits</p>	<p>TFSR-01-03 TFSR-01-04 TFSR-01-05 TFSR-01-06</p>
	<p>The Chairman reminded the group that retrofits were intended for existing (old) cars.</p> <p>He questioned if the installation of retrofits into existing cars should be solved by national law or by the UN/ECE regulations.</p> <p>However he expressed his preference to find an international solution, to avoid many specific national solutions.</p> <p>Mr. De Visser commented that a possible solution for retrofits could be that they would only be allowed to be installed by professional workshops. This approach seems to also work for other spare parts, were certain level of knowledge is necessary to fit a spare part correctly.</p> <p>However, he had been advised from consumer expert's side that this would be an unnecessary financial burden to the consumer if the installation could easily be done by the consumer as is already done with some other spare parts.</p> <p>If the three limiting technical aspects (OBD, temperature, dimming), do not apply, then retrofits can be applied directly ("plug-and-play").</p> <p>The Chairman introduced the idea of limiting retrofits to "non-safety-relevant" functions, like license plate, parking lamps, side-marker etc</p>	

	<p>Mr. De Visser introduced an idea of a “break-off-part” to make the user aware that he was now doing something under his own responsibility.</p> <p>Mr. Bailey questioned if it was the target to drive-out “illegal, non-approved” retrofits from the market.</p> <p>Mr. Bailey suggested to further investigate a retrofit solution with a positive list for failure detection, high temp and dimming.</p> <p><b>ACTION ITEM:</b> All experts were asked to further consider possible solutions for LED retrofits, either at UN regulation level or via other routes.</p>	
8.1	Review of the former discussions	
	See agenda item 5.	
8.2	Necessary tasks for confidence-building measures	
	See agenda item 5.	
8.3	R48 (failure detection)	
	See agenda item 5.	
8.4	Relationship with traffic and equipment use laws	
	See agenda item 5.	
8.5	Sale only via OEM / OES channel	
	See agenda item 8.	
9	Next meeting(s)	
	The next meeting was agreed for 6 February 2018, in Bonn or London (to be confirmed)	
10	Closure	
	The chairman thanked the participants and closed the meeting.	



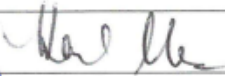






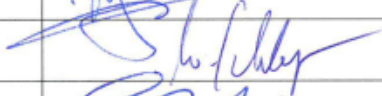
\* Substitute-related documents from GRE-77 and GRE-78:

- R128: GRE/2017/21
- R.E.5: GRE/2017/17, plus reference documents: GRE-77-02 and GRE-77-03
- Device regulations: GRE/2017/14, GRE-78-04
- Installation regulations: GRE/2017/22, GRE-78-28, GRE-78-33

\*\* Test project of the light source manufactures together with the manufactures of lamps and vehicles and independent test institutes

**Annex 1: Attendance sheet**

**Attendance sheet**  
**1<sup>st</sup> meeting of GRE Task Force Substitutes/Retrofits**  
**Aachen, Germany, 14-December-2017**

Name	CP / NGO	Signature
Mr. Michel LOCCUFIER	Belgium	
Mr. Derwin ROVERS	The Netherlands	
Dr. Karl MANZ	Germany	
Mr. Phil BAILEY	UK	
Mr. Jean-Marc PRIGENT	OICA	
Dr. Philipp PLATHNER	IEC	
Mr. Ad DE VISSER	IEC	
Mr. Olaf SCHMIDT	CLEPA	
Mr. Wilfried VAN LAARHOVEN	GTB	
Dr. Walter SCHLAGER	GTB	
Mr. Edmund BARTELSEN	KBA, Germany	