GRE TF Substitutes / Retrofits

Document: TFSR-02-05

Date: 2018-02-23

GRE Task Force on Substitutes / Retrofits (TF S/R)

2nd meeting

6 February 2018, 10:30 – 15:00 CET

German Federal Ministry of Transport and Digital Infrastructure (BMVI)
Robert-Schuman-Platz 1, Room 0.105
D-53175 Bonn
Germany

DRAFT REPORT

		Documents
1	Welcome and opening remarks	
	The Chairman, Mr. Manz, opened the meeting and welcomed the participants to the BMVI in Bonn.	
	He informed that Mr. Krautscheid hat sent his apologies and will not be able to attend the meeting.	
	A telephone-connection was set-up and Mr. Pamart joined the meeting by telephone (with some delay).	
	Mr. Manz apologized that unfortunately it had not been possible to set-up a WebEx in advance due to BMVI network restrictions.	
2	Organisational issues	
	An attendance sheet was circulated and signed by the participants, see Annex 1	
2.1	Introduction of participants	
2.2	Structure and organisation of the Task Force	
	No discussion	
3	Adoption of the agenda	TFSR-02-01
	The draft agenda, TFSR-02-01, was adopted.	
4	Approval of the reports of the previous sessions	TFSR-01-11
	The report of the previous meeting, TFSR-01-11, was approved.	
	The chairman started the meeting with a statement that the DE-BMVI (Mr. Krautscheid)	
	- does not support colour coding for LED substitutes and	

 can only accept LED substitutes in case of mechanical (physical) keying 	
In addition, the DE-BMVI was supporting a "real" retrofit solution.	
Mr. Schlager asked if the DE-BMVI was judging the risk of mis-use of LED substitutes as very high and Mr. Manz confirmed that this is the case.	
Mr. Bailey stated that the UK-DFT view was in general in line with the DE-BMVI position and that physical keying would ensure that LED substitutes are not misused.	
He added that the UK-DFT does not oppose colour coding, but only if it is very clearly visible to the end-user.	
Mr. Rovers stated that this task force should try and find a solution that works in multiple ways. The target was to find solutions both for the OEM and also for the end-user (aftermarket), i.e. the widest possible solution. He reminded that there were currently products on offer in the market, and these often do not show good performance.	
Mr. Schlager replied that a restricted substitute solution with mechanical keying would not solve the end-user (aftermarket) problem, which could only be solved by LED retrofits.	
Mr. Terburg confirmed that the light source industry was interested to find a legal solution, also for the aftermarket, and that this was also in the interest of the consumers.	
Mr. DeVisser announced that he had prepared a presentation to explain again the motivation for LED substitutes and LED retrofits, because there were still questions asked about the motivation during the last meeting.	
The discussion was continued under agenda item 5.1	
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
No discussion	
Statement of the light source manufactures to the dualism of LED	See TFSR-01-11
substitutes and retrofits	TFSR-02-02
The presentation from Mr. DeVisser was shown on the screen and distributed after the meeting with document number TFSR-02-02.	
There followed a discussion on the slides and the "holistic approach".	
Mr. Bailey asked why the holistic approach was needed and if the motivation was the bad performance of filament lamps.	
In this case, he asked if the requirements for filament lamps should be improved to address the concerns about failure.	
Mr. Böttcher reminded that the average age of vehicles in Europe was 9	
	keying In addition, the DE-BMVI was supporting a "real" retrofit solution. Mr. Schlager asked if the DE-BMVI was judging the risk of mis-use of LED substitutes as very high and Mr. Manz confirmed that this is the case. Mr. Bailey stated that the UK-DFT view was in general in line with the DE-BMVI position and that physical keying would ensure that LED substitutes are not misused. He added that the UK-DFT does not oppose colour coding, but only if it is very clearly visible to the end-user. Mr. Rovers stated that this task force should try and find a solution that works in multiple ways. The target was to find solutions both for the OEM and also for the end-user (aftermarket), i.e. the widest possible solution. He reminded that there were currently products on offer in the market, and these often do not show good performance. Mr. Schlager replied that a restricted substitute solution with mechanical keying would not solve the end-user (aftermarket) problem, which could only be solved by LED retrofits. Mr. Terburg confirmed that the light source industry was interested to find a legal solution, also for the aftermarket, and that this was also in the interest of the consumers. Mr. DeVisser announced that he had prepared a presentation to explain again the motivation for LED substitutes and LED retrofits, because there were still questions asked about the motivation during the last meeting. The discussion was continued under agenda item 5.1 Review of the discussion at GRE77 and GRE78 No discussion Statement of the light source manufactures to the dualism of LED substitutes and retrofits The presentation from Mr. DeVisser was shown on the screen and distributed after the meeting with document number TFSR-02-02. There followed a discussion on the slides and the "holistic approach". Mr. Bailey asked why the holistic approach was needed and if the motivation was the bad performance of filament lamps. In this case, he asked if the requirements for filament lamps should be improved to address the concerns

So replacement parts for light sources were needed. Mr. Vandervreken confirmed that the average life of cars in Europe was actually quite high, and that replacement components were needed. Mr. Böttcher added that according to his investigation only half of the cars have OBD system, and this leads to cars with failed light sources driving on the roads. Mr. Rovers confirmed that light sources are replacement parts. They can/could fail during the lifetime of a vehicle, therefore the replaceability option for light sources was introduced in the UN regulatory system, i.e. R37, R99 and R128. Mr. Bailey replied that consumers may want the LED retrofit products, but he questioned if they needed them. Mr. Böttcher replied that the LED retrofits are really needed, because there are too many failed lamps on the road. 1 in 8 vehicles showed failed lamps according to a recent study by the ADAC. He highlighted that in this approach with substitutes / retrofits there was the chance to define how the products should work, which is a big improvement to the today "unregulated" LED retrofit products being offered in the market. There followed a longer discussion about the topic of retrofits, and the relationship with national law on modifications to vehicles, using wheels and other aftermarket spare parts as an example. It was concluded that in many of those cases where safety-relevant replacement parts were installed on the vehicle, and which were not 100% identical to the OEM equipment, this was addressed by national laws and regulation, e.g. an ABE (Allgemeine Betriebs-Erlaubnis) in Germany. Mr. Rovers explained that with LED retrofits it should probably be considered a "modification of the vehicle", where on national level in some countries additional approval / testing / "paperwork" is needed. Mr. Goldbach asked if the first task of this TF was not to discuss first LED substitutes. The chairman confirmed that the task is to work on substitutes as a first solution, but keeping in mind the retrofit solution. He proposed to present to GRE the examples for mechanical (physical) keying. It was agreed to continue after lunch with the topic of mechanical keying.

Mr. Versluijs announced that he had prepared a presentation on his

The discussion was continued after the lunch break with agenda item 7.1

TFSR-01-09

TFSR-01-10

investigation of the BA15-cap-holder family.

Mechanical keying, Colour-coding, etc.

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7.1

LED Substitutes

New topics raised at GRE78

TFSR-02-03

Mr. Versluijs showed a presentation on his investigation for new keying of the BA15-cap-holder family on the screen, and this was distributed after the meeting with document number TFSR-02-03.

From the first slide it was noted that the same cap is already today sometimes shared by different light source categories and always the same cap is used for different voltages.

Mr. Bailey asked about the possibility for using electrical keying

Mr. Versluijs replied that for the filament lamps, the contact is made from the side to the metal base.

Mr. Pamart asked if it was investigated to have the third pin on a different level

Mr. Versluijs replied that this needed further investigation

The Chairman asked for information on the "number of applications" of light source categories in different functions.

If there would be categories with only few applications, then these could be excluded from the investigation.

Mr. Böttcher asked how mechanical keying should be possible for C5W.

The Chairman replied that maybe there is also a possibility to have some keying, even if it may not be perfect.

The Chairman asked about the next steps.

Mr. Pamart commented that GRE had asked to investigate solution for preventing the mis-use of LED substitutes

He proposed to start with categories where a mechanical keying was available, and then look for the others to also find mechanical solution.

The chairman commented that some cap-holder systems will be able to have keying.

He asked if substitutes should only be allowed if physical keying was possible.

Mr. Pamart replied that he would prefer to proceed only in the case if physical keying is available.

Mr. Rovers clarified that "physical keying" in this context means: "It does not work if you (try to) insert it", so it is either mechanically or electrically blocked to work properly.

The chairman confirmed that it could (in theory) be solved by the software of the vehicle, e.g. by a hand-shake.

Mr. Terburg suggested that the right wording for this keying, whether mechanical, electrical or through software, could be "interlock".

Mr. Böttcher asked if his understanding was correct, that the keying should avoid that the substitute is mis-used as a retrofit.

The chairman confirmed that this was the intention.

Mr. Bailey also confirmed that avoiding mis-use was the main intention of this keying.

	Mr. Goldbach asked that the performance of the "physical keying" should be described, not specific technical solutions.	
	Mr. Schlager proposed to add to the equivalence criteria for LED substitutes: "blocking the insertion and/or operation"	
	Following this extended discussion on "keying", the chairman concluded that the first step should be done with LED substitutes, that cannot be misused.	
	LED retrofits would then follow in a second step.	
7.2	Additional user information, Listing of vehicles / functions	See TFSR-01-11
	No discussion	
7.3	Further necessary tasks for confidence-building measures	**
		See TFSR-01-11
	No discussion	
8	LED Retrofits	TFSR-01-03
		TFSR-01-04
		TFSR-01-05
		TFSR-01-06
	No discussion	
8.1	Review of the former discussions	
	No discussion	
8.2	Necessary tasks for confidence-building measures	See TFSR-01-11
	No discussion	
8.3	R48 (failure detection)	See TFSR-01-11
	No discussion	
8.4	Relationship with traffic and equipment use laws	See TFSR-01-11
	No discussion	
8.5	Sale only via OEM / OES channel	See TFSR-01-11
	No discussion	
9	Next meeting(s)	
-	- on 27 March either in London or Paris or Brussels, to be confirmed	
	- Possibly on 23 April 2018 afternoon in Geneva; Mr. Manz offered to contact the GRE secretariat (Cc to GRE chairmen) to ask for a meeting room	
10	Closure	
	The chairman closed the meeting at 15:00 and thanked the participants.	
	Note by the secretary: after the meeting two additional documents were distributed	TFSR-02-04 TFSR-02-06
	 TFSR-02-04 from Mr. Blusseau, CLEPA TFSR-02-06 from Mr. Böttcher, ADAC / FIA 	

- * 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

Attendance Sheet

2nd meeting of GRE Task Force Substitutes / Retrofits

Bonn, Germany, 6 February 2018

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