

GRE Task Force on Substitutes / Retrofits (TF S/R)**10th meeting**

12 March 2020, 10:30 – 16:00 CET

by telephone, SKYPE

Conference-ID: 894828082

DRAFT REPORT

		Documents
1	Welcome and opening remarks	
	The chairman opened the meeting and welcomed the participants.	
2	Organisational issues	
	It was noted that the face-to-face meeting had to be cancelled due to the Coronavirus-related travel restrictions and was replaced by a telephone call using Skype.	
2.1	Introduction of participants	
	The participants were noted by the secretary, see Annex 1. Apologies had been received from: Ph. Bailey, UK T. Torma, IEC	
3	Adoption of the agenda	TFSR-10-01rev1
	The agenda was approved	
4	Approval of the report of the previous meeting	TFSR-09-04
	The report was approved.	
5	LED Substitutes for road illumination application	
5.0	Review of the discussion at GRE82	GRE-82-17rev2 Report GRE-82: item 23, 24, 25
	No discussion	
5.1	Demonstration of halogen headlamps equipped with LED prototypes	TFSR-05-10
	Noted	
5.2	R.E.5 H11/LED/6	(TFSR-05-06, H7/LED) TFSR-06-02 TFSR-07-02 GRE/2019/21 GRE/2020/6
	The document GRE/2020/6 was noted.	

5.2.1	Sheet H11/LED/2 Footnote 3 – Temperature testing	GRE/2019/21 GRE-82-45 TFSR-09-02 TFSR-09-03rev1
	No discussion.	
5.3	Mechanical keying, Interlock IEC 60061 H11/LED/6	(TFSR-05-05 H7/LED) TFSR-06-03 GRE-82-12
	No discussion.	
5.4	Equivalence Criteria	TFSR-05-04 TFSR-06-04 TFSR-06-07 (rev of TFSR-05-04) TFSR-07-04 GRE-82-03
	No discussion.	
5.5	Changes to Device Regulations – R149 (RID)	TFSR-05-03 TFSR-07-03 TFSR-07-03rev1 GRE/2019/19
	No discussion.	
6	Introducing LED technology into R37	
6.0	Review the discussion at GRE-82	GRE-82-17rev2 GRE82 report: item 21, 22
	noted	
6.1	Changes to R37 – administrative items	TFSR-06-05rev1 TFSR-08-02 TFSR-10-02
	Mr De Visser introduced document TFSR-10-02 page-by-page, highlighting the necessary changes. He explained that it was a “study”, based on a consolidated version of R37 in track-change-mode.	
	Mr. Böttcher questioned about the wording “the same cap” on page 7, and it was clarified that “same” referred to the same geometric dimensions relevant for the interchangeability. Mr. Goldbach raised concerns regarding the dynamic referencing from R37 to R128. There followed a more general discussion about referencing from one regulation into another regulation. It was concluded to have a fixed (dated) reference, not a “floating, dynamic” reference, to R128. Mr. Kooß asked about the wording “relevant” in 3.4.1, and it was concluded to insert here references to the specific paragraphs of R128. → Action item: De Visser, Schlager, Plathner	

	<p>Regarding the Polarity testing in the proposed paragraph 3.4.3.6, after a short discussion about possible safety impact, it was concluded that the LEDr light source should not be destroyed when operated with wrong polarity.</p> <p>Regarding the light-up when operated with wrong polarity, the following options were confirmed to maintain safety levels:</p> <ul style="list-style-type: none"> - Option 1: full light (ECE compliant) - Option 2: no light <p>Regarding the failure detection and minimum current levels, it was agreed that the two different options should be presented to GRE and that the decision should be done at GRE level.</p> <p>Mr. Krautscheid commented that the title of R37 should not be changed to avoid referencing-issues from EU regulations; this was agreed by the group.</p> <p>Mr. De Visser offered to prepare an updated version for the next meeting, based on the discussions and decisions taken.</p>	
6.2	Changes to R37 – technical items	<p>TFSR-08-03rev3</p> <p>TFSR-08-03rev4</p>
	<p>Mr. Schlager introduced the new technical input in TFSR-08-03-rev3, where the new input is marked with a yellow “flag” in the top-right corner.</p> <p>The technical topics were discussed page by page.</p> <p>A summary of the discussion and conclusions are given in the updated version of the presentation, TFSR-08-03rev4.</p>	
	<p>Regarding the voltage range (TFSR-08-03rev4 page 8, 9 and 10):</p> <p>As a base for the “real world” considerations, the applicable voltage range was questioned, and it was confirmed that the range from 12.0V to 14.0V represented typical “real world” scenarios in vehicles.</p>	
	<p>Regarding the temperature testing TFSR-08-03rev4 page 26 ff):</p> <p>The general approach for the calculation (starting with statistical temperature profile, leading to possibly more than one test temperature per category) was confirmed after some discussion. Also, the underlying assumptions were confirmed, after some discussion on possible other approaches and alternatives.</p> <p>Mr. Böttcher suggested to include a test at 60°C with a correlated flux requirement.</p> <p>Mr. Manz confirmed that a single test temperature, e.g. 60°C, would be preferred.</p> <p>It was agreed to explain the “real world” considerations to GRE in the next status report.</p>	

	<p>Regarding the PWM dimming operation (TFSR-08-03rev4 page 14):</p> <p>:</p> <p>The proposal contains additional testing of certain “single filament” categories, as they might be used in a dimmed mode for a second function (e.g. stop-tail). Mr. van Laarhoven suggested to choose only one test point from the proposed two (e.g. at 65% duty-cycle), which would be sufficient based on beam requirements and his experience with type-approvals of devices.</p>	
	<p>Regarding de-fogging (humidity testing) TFSR-08-03rev4 page 33):</p> <p>It was agreed to make a comparison test on a headlamp equipped with halogen and LEDr based on the SAE J575 test procedure.</p>	
	<p>For the status-report to GRE83, it was agreed to prepare slides both for the main administrative as well as the technical topics, especially those where decisions by GRE are needed.</p> <p>Mr. De Visser, together with Mr. Schlager and Mr. Plathner, offered to prepare a first draft of these slides based on the input and discussions of this meeting.</p>	
6.2.1	Electrical	
	See above	
6.2.2	Mechanical	
	No discussion	
6.2.3	Thermal	
	See above	
6.3	Changes to R128 (if any)	TFSR-10-03
	Mr. de Visser briefly introduced document TFSR-10-03.	
6.4	Changes to RE5	TFSR-10-04
	Mr. de Visser briefly introduced document TFSR-10-04	
6.4.1	First category proposal(s)	
	It was noted that a first category proposal may be helpful when giving a status-report to GRE.	
6.5	Demonstration with LEDr prototypes	
	The demonstration had to be cancelled, because the meeting could not take place face-to-face in Aachen.	
7	Next meeting(s)	
	A next meeting was scheduled for 25 May, 10:00 to 16:00 by telephone or face-to-face (to be decided).	
8	Closure	
	The chairman thanked the participants and closed the meeting.	

Annex 1: Participants (noted by the secretary)

Name	CP / NGO
K. Manz (chairman)	DE
P. Plathner (secretary)	IEC
R. Krautscheid	DE
A. De Visser	IEC
W. Schlager	IEC
B. Terburg	GTB, SAE
C. Versluijs	IEC
B. Böttcher	FIA
D. Kooss	GTB
Th. Goldbach	OICA
L. Schwenkschuster	GTB
W. Van Laarhoven	NL
D. Rovers, NL (afternoon only)	NL