

**UK proposal for amendments to AFS draft RXXX
July 2003**

A. EMC

It is not necessary to approve an AFS system for EMC if it is only fitted in a vehicle type which is going to be approved to ECE R10. This system or parts of it can then be sold for fitment only to that vehicle type in the aftermarket.

Proposal

5.8 Amend to read "The system shall comply with ECE Regulation 10. This is deemed to be satisfied if the system is only intended for fitment to a vehicle which is approved to Regulation 10".

2.2.2 Existing (i) renumber as (j)

Add 2.2.2 (i) " The approval number(s) of the EMC approval of the vehicle type(s) to which the AFS system is authorised to be fitted".

B. Separate Technical Unit approval

The UK would like to consider and discuss a scenario where an AFS system may only be approved in conjunction with the manufacturer of the vehicle that it is intended for. This may restrict the freedom of the aftermarket producers, but perhaps this restriction is needed for safety reasons, at least in the early days of AFS.

C. Annex 18. Complex systems

With a complex electronic system like AFS there is a concern over software reliability. There already exists paragraph 5.9.4 which states that the failure of one lighting unit shall not cause a failure of another lighting unit. It is difficult for the technical service to exhaustively check this during type approval and so another way is needed.

The method used to regulate ABS (anti-lock braking system) and other electronic systems used in the braking system could be used in the field of lighting. ABS momentarily stops the brakes from being applied when the vehicle senses that the wheels are locking. However in the event of a malfunction it is possible to foresee a situation where the brakes are needed but an ABS fault prevents them from being applied. Therefore the manufacturer must test his software and systems and carry out a risk analysis. This is formalised in Braking Regulation 13H, Annex 8 and Regulation 13.09, Annex 18, also Regulation 79 (Steering equipment) draft Annex 6.

It might be useful to bring this Annex into the AFS Regulation and Regulation 48.

Proposal

2.2.2.1 Amend to read "Information requested in accordance with the requirements of Annex 12".

New paragraph 5.11 "The requirements of Annex 12 shall be applied to verify that 5.7.2, 5.7.3, 5.9.1, 5.9.4 and 6.2.6.5 are fulfilled".

New Annex 12 – see Annex 8 of braking regulation ECE R13H S2 (attached as "Annex 8.doc")

D. Photometric test points

Following the UK comments in working paper 4.9 and preliminary discussion with interested parties, the following changes are proposed:

Annex 3

Amend diagram by adding:
Segment S1 at L8 to R8; U4
Segment S2 at L4 to R4; U2

Table 1 - Part A

No.

- 9 SL deleted, replace with Segment S1, min. 0.1 for all classes
- 10 SR deleted, replace with Segment S2, min 0.2 for all classes
- 14 50L. Should be 15lx for all classes except 20 lux for Class W
- 18 Segment D. Should be maximum 10 (in case 1/: 14), or 4 for Class W.

New point 75L L3.43 D0.57 Should be max 12 lux for all classes

Annex 10, paragraphs 2.2, 2.3, 2.4
Change multiplier 0.7 to 0.74.