Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Lighting and Light-Signalling
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Item 9 of the provisional agenda
Regulation No. 87 (Daytime running lamps)

Proposal for Corrigendum 2 to Revision 2

Submitted by the expert from the Working Party "Brussels 1952"*

The text reproduced below was prepared by the expert from the Working Party "Brussels 1952" (GTB) to delete the requirement for the "n-1" rule associated with the failure of multiple light sources in the specific case of Daytime Running Lamps. The modifications to the existing text of the Regulation No. 87 are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2010-2014 (ECE/TRANS/208, para. 106, ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.
I. Proposal

Paragraph 7.4., shall be deleted.

II. Justification

1. Compliance with current provision of paragraph 7.4 requires that either a lamp is made with sufficient redundancy to permit one source to fail without the intensity falling below the minimum photometric requirements, or wired so as to switch off in the case of any single light source failure (so called ‘one out - all out’).

2. Redundancy requires extra light sources with associated penalties of size, weight, cost and design complexity.

3. ‘One out-all out’ may require the complexity of suitable control gear, and has the penalty of complete loss of all the visible signal from that lamp in the case of a single source failure.

4. In practice, the ‘one out – all out’ strategy is almost universally adopted for multi-source daytime running lamps.

5. However, with the removal para. 7.4., a single light source failure in a multi light source lamp may result in partial failure of that lamp, but in this case a significant light signal will remain; if (for example) 50 per cent of the sources fail there will still be a light output value of 200cd or more at HV–which will provide better vehicle conspicuity than a fully switched off lamp.

6. This reduced signal should be considered in the context that daytime running lamps are designed to enhance the conspicuity of an already visible vehicle and as such perform a different function to that provided by other signal lamps.