

UN Regulation No. 144 (Uniform provisions concerning the Accident Emergency Call Systems)

DRAFT Proposal for amendments to UN Regulation No. 144
(Accident Emergency Call Systems)

The modifications to the current text of UN Regulation No. 144 are marked in bold characters for new and strikethrough for deleted characters.

I. PROPOSAL

Tables of contents, amend to read:

Uniform provisions concerning:

Ib. Accident Emergency Call Devices (AECD) ~~which are intended to be fitted to vehicles of categories M₁ and N₁~~

...
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Scope, amend to read

1.1. This Regulation applies to:

- (b) Part Ib: the approval of AECDs ~~which are intended to be fitted to vehicles of categories M₁ and N₁~~¹

...

1.3. Vehicles,

- (a) In the scope of neither UN Regulation No. 94 nor UN Regulation No. 95 and not fitted with an automatic triggering of a AECS;
- ~~(b) Of category M₁ in the scope of UN Regulation No. 94 and not equipped with frontal airbag;~~
- ~~(c) Of category N₁ in the scope of UN Regulation No. 95 and not equipped with side airbag;~~
- (~~b~~) Of category M₁ with a total permissible mass above 3.5 t; and

(ec) Armoured vehicles¹
shall be excluded from the scope of this Regulation.

Part Ia, correct praagraph 7.3.11 to read

7.3.11. The testing procedures in Annex-~~8~~ **10** can be performed either on the AECC unit including post-processing ability or directly on the GNSS receiver as a part of the AECC.

Part Ib, correct paragraph 16.1 to read

16.1. ...
The manufacturer shall provide a documentation package which gives access to the basic design of the AECD and the means by which it is intended to be linked (e.g. identification number) to a subsequent installation of AECD **in a vehicle approved according to Part II.**

Correct paragraph 17.3. to read:

17.3. Position determination
...
AECD compliance with respect to positioning capabilities shall be demonstrated by performing the test methods described in Annex 10: Test methods for the navigation solutions. It shall be indicated in the communication document of Annex 2, item-~~11~~ **12.**

Correct paragraph 17.5. to read:

17.5. AECD information and warning signal
If the applicant for approval so requests, the AECD information and warning signals verification may be part of the approval of a type of AECD. In this case the provisions of paragraphs 17.5.1. to 17.5.3. shall apply. It shall be indicated in the communication document of Annex 2, item-~~12~~ **13.** If the information and warning signals verification is not part of AECD approval (Part Ib), then it shall be subject to Part II approval.

Correct paragraph 17.6.4. to read:

17.6.4. In the case of an AECD equipped with a back-up power supply, at the request of the applicant, it shall be verified that the AECD is able to operate autonomously for a period of, first, not less than 5 minutes in voice communication mode followed by 60 minutes in call-back mode (idle mode, registered in a network), and finally, not less than 5 minutes in voice communication mode. It shall be indicated in the communication document of Annex 2, item-~~10~~ **11.**

Part II, Correct paragraph 26.2.1.2.2. to read:

26.2.1.2. Vehicles of category M₁ with a total permissible mass less than or equal to 2.5 tons and R-point height above 700 mm, verification of the trigger signal:

...

26.2.1.2.2. In the case of the extension of type approvals to this Regulation, or in the case of the approval of vehicle types already approved to UN Regulations Nos. 94 ~~or 95~~ prior the entry into force of this Regulation, when demonstrating with existing documentation (report, images, simulation data or equivalent) that during a UN Regulation No. 94 (Frontal collision) impact:

- (a) A triggering signal was generated;
- (b) The installation of AECD is not adversely affected by the impact to the vehicle.

Correct paragraph 26.2.1.3.2. to read:

26.2.1.3. Vehicles of category M₁ with a total permissible mass above 2.5 tons and R-point height less than or equal to 700 mm, verification of the trigger signal:

...

26.2.1.3.2. In the case of the extension of type approvals to this Regulation, or in the case of the approval of vehicle types already approved to UN Regulations Nos. ~~94~~ **95** prior the entry into force of this Regulation, when demonstrating with existing documentation (report, images, simulation data or equivalent) that during a UN Regulation No. 95 impact:

- (a) A triggering signal was generated;
- (b) The installation of AECD is not adversely affected by the impact to the vehicle.

Correct paragraph 26.2.2.1.2. to read:

26.2.2.1. Vehicles of category N₁ with a R-point height at or below 700 mm, verification of the trigger signal:

...

26.2.2.1.2. In the case of the extension of type approvals to this Regulation, or in the case of the approval of vehicle types already approved to UN Regulations Nos. ~~94~~ **95** prior the entry into force of this Regulation, when demonstrating with existing documentation (report, images, simulation data or equivalent) that during a UN Regulation No. 95 (Lateral collision) test:

- (a) A triggering signal was generated;
- (b) The installation of AECD is not adversely affected by the impact to the vehicle.

Correct paragraph 26.3. to read:

26.3. Position determination

...

AECS compliance with respect to positioning capabilities shall be demonstrated by performing test methods described in Annex 10: Test methods for the navigation module. It shall be indicated in the communication document of Annex 3, item ~~10~~ **10**.

26.3.1. The AECS shall be able to output the navigation solution in a NMEA-0183 protocol format (RMC, GGA, VTG, GSA and GSV message). The AECDS set-up for NMEA-0183 messages output to external devices shall be described in the operation manual.

Correct paragraph 26.5.3. to read:

26.5.3. A warning signal shall be provided in case of AECDS internal malfunction. Visual indication of the AECDS malfunction shall be displayed while the failure is present. It may be cancelled temporarily, but shall be repeated

whenever the ignition or the vehicle master control switch is being activated (whichever is applicable).

Part III, Correct paragraph 34.1., to read:

34.1. If the vehicle type submitted for approval in accordance with paragraph 33. above meets the requirements of paragraph 35. of this Regulation, approval shall be granted.

Before granting approval for a vehicle type, the competent authority shall ensure that all the parts listed in paragraph ~~47.6.1.~~ **35.10.1** are tested to Annex 9. If the AECS is fed by a power supply other than the back-up power supply described in paragraph ~~47.6.2.,~~ **35.10.2**, this power supply shall also be tested to Annex 9 to this Regulation.

Correct paragraph 35.5.1.2.2., to read:

35.5.1.2. Vehicles of category M₁ with a total permissible mass less than or equal to 2.5 tons and R-point height above 700 mm, verification of the trigger signal:

...

35.5.1.2.2. In the case of the extension of type approvals to this Regulation, or in the case of the approval of vehicle types already approved to UN Regulations Nos. 94 ~~or~~ 95 prior the entry into force of this Regulation, when demonstrating with existing documentation (report, images, simulation data or equivalent) that during a UN Regulation No. 94 (Frontal collision) impact:

- (a) A triggering signal was generated;
- (b) The installation of AECS is not adversely affected by the impact to the vehicle.

Correct paragraph 35.5.1.3.2., to read:

35.5.1.3. Vehicles of category M₁ with a total permissible mass above 2.5 tons and R-point height less than or equal to 700 mm, verification of the trigger signal:

...

35.5.1.3.2. in the case of the extension of type approvals to this Regulation, or in the case of the approval of vehicle types already approved to UN Regulations Nos. ~~94 or~~ 95 prior the entry into force of this Regulation, when demonstrating with existing documentation (report, images, simulation data or equivalent) that during a UN Regulation No. 95 (Lateral collision) impact:

- (a) A triggering signal was generated;
- (b) The installation of AECS is not adversely affected by the impact to the vehicle.

Correct paragraph 35.5.2.1.2., to read:

35.5.2.1. Vehicles of category N₁ with a R-point height at or below 700 mm, verification of the trigger signal:

...

35.5.2.1.2. In the case of the extension of type approvals to this Regulation, or in the case of the approval of vehicle types already approved to UN Regulations Nos. ~~94 or~~ 95 prior the entry into force of this Regulation, when demonstrating with existing documentation (report, images, simulation data or equivalent) that during a ~~UN Regulation No. 94 and~~ UN Regulation No. 95 test:

- (a) A triggering signal was generated;
- (b) The installation of AECD is not adversely affected by the impact to the vehicle.

Annex 1 Communication, correct to read:

Communication

(Maximum format: A4 (210 x 297 mm))



issued by :

Name of administration:

.....

- Concerning:³
- Approval granted
 - Approval extended
 - Approval refused
 - Approval withdrawn
 - Production definitively discontinued

of a type of AECC intended to be fitted to an AECD for vehicles of categories M₁ and N₁ approved pursuant to Part Ia of UN Regulation No. 144

Annex 2 Communication, correct to read

Communication

(Maximum format: A4 (210 x 297 mm))



issued by :

Name of administration:

.....

- Concerning:⁵
- Approval granted
 - Approval extended
 - Approval refused
 - Approval withdrawn
 - Production definitively discontinued

of a type of AECD intended to be fitted to vehicles of categories M₁ and N₁ approved pursuant to Part Ib of UN Regulation No. 144

II. Justification

1. UN Regulation No. 144 was elaborated by Informal Working Group on Accident Emergency Call Systems (AECS) and adopted at the 173rd session of the World Forum WP.29 in November 2017 on the basis of ECE/TRANS/WP.29/2017/132 (Draft UN Regulation No. 144). UN Regulation No. 144 entered into force on 19 July 2018.
2. However, in the course of elaborating the Draft UN Regulation it appeared that the IWG on AECS erroneously "forgot" to mention in the wording of paragraph 1.3(c) (the Scope) the vehicles of category M₁, that are also included in the scope of UN Regulation No. 95 and not fitted with a side airbag.
3. During the 115th GRSG session OICA representatives proposed amendments to provisions of UN Regulation No. 144 with additions regarding references to some passive safety solutions/regulations (ECE/TRANS/WP.29/GRSG/2018/23, GRSG-115-22, GRSG-115-23).
4. In view of number of comments during discussions of the documents and according to the decision made at 115th GRSG session (Report ECE/TRANS/WP.29/GRSG/94, item 56) the present proposal was prepared by the representatives of the Russian Federation.
5. In the course of the AECS IWG meeting (which started in 2013) initially it was decided to introduce appropriate exemptions within the scope of the UN Regulation No. 144, referred to in paragraphs (b) - (d). This was made at the initial stage of development of AECS requirements, based on a number of research tests. At this stage, there was not a large amount of data regarding certification tests of vehicles in terms of functionality of the AECS.
6. Customs Union regulation prescribes that all vehicles of M₁ category which are under the scope of UN Regulation No. 94 and UN Regulation No. 95 and vehicles of N₁ category which are under the scope of UN Regulation No. 95 should be equipped with AECS, which should ensure MSD transmission by means of airbag(s) or sensor(s) of another components of passive safety system or any other system which can identify the level of deceleration of vehicle during the UN Regulation No. 94 and UN Regulation No. 95 (whichever is relevant).
7. To date hundreds of homologation tests were made with regard to vehicles equipped with AECS under Customs Union requirements mentioned above and:
 - all vehicles, which are under the scope of UN Regulation No. 94 and/or UN Regulation No. 95 (whichever is relevant) were tested to check the functionality of AECS (transmission of MSD and voice communication) during the tests with respect to the above mentioned requirements;
 - some of tested vehicles were not equipped with side airbag and successfully passed through the test of AECS functionality during UN Regulation No. 95 tests;
 - some of such type approved vehicles (which are already at the Customs Union market) were successfully tested under Governmental supervision program with respect to the AECS performance requirements.
8. The main idea of UN Regulations № 144 approval is to check the AECS performance during the crash test (transmission of MSD, voice communication etc.), but not to check passive safety "technologies" performance, for which there are another UN Regulations to verify.
9. Taking into account the above mentioned we propose to exclude from the Scope of UN Regulation № 144 (paragraph 1.3) items (b)-(c).
10. Removal of references to "vehicles of categories M₁ and N₁ " from the paragraphs concerning AECD/components of AECD (Scope (1.1 (b)), Annex 1 and Annex 2) can allow Contracting Parties to apply the relevant requirements at the national level to assess compliance of AECD designed for installation on vehicles of categories other than M₁ and N₁. Proposed corrections change nothing in respect with safety requirements in UN Regulation № 144.
11. Other corrections in the text are in the nature of editorial corrections.