

Section 3 (UNR) – Application for Approval

Paragraph 3.1 and 3.1.1 (UNR)

- 3.1. Prior to application for approval, and as early as reasonably practicable, the manufacturer or their duly accredited representative shall provide the following information to the approval authorities of all of the Contracting Parties in whose territory features of the ADS can be active ('receiving approval authorities').
- (a) A single point of contact for the receiving approval authorities to request information from the manufacturer,
 - (b) The expected granting approval authority and the designated technical service being used by the manufacturer, if already selected, and
 - (c) Brief details of the ADS, its feature(s) and ODD; this information shall be treated as confidential by the receiving approval authority.
- 3.1.1. In the case that the territory of an additional Contracting Party is added as part of an application for extension of a type approval, the requirements of paragraph 3.1 shall apply mutatis mutandis with respect to that Contracting Party and its approval authority Approval Authority.

Explanation of the requirement

These provisions introduce a requirement for manufacturers to contact the authorities in the countries where the ADS can operate in advance of formally applying for an approval. This step falls before the normal formal process of 'application for approval', which begins with the submission of the application to the granting Approval Authority. The intention of this notification is to make the receiving authorities aware that an automated vehicle is destined for their territory so that any necessary information can be exchanged with the manufacturer as early as possible. Information that could be provided in return might include:

- Specific national processes that need to be followed for deploying automated vehicles
- Any national guidance which is available on driving behaviours, unreasonable risk, 'competent and careful' standard, and traffic rules
- Information on national authorities that oversee automated driving, for example for the purpose of data reporting

The information provided by the manufacturer is expected to be brief, but giving enough information to understand the kind of vehicle, the type(s) of ADS feature, and any geographical or other significant aspects of the ODD.

'As early as reasonably practicable' means at the point the manufacturer has the information available and is confident that the information is mature and that the ADS vehicle is destined for the given country.

This process is not intended to open significant dialogue between the manufacturer and the Approval Authority of every destination country. The intent is to establish the relevant communication channels for exchange of information that will facilitate later processes, in particular the review activity prescribed in Paragraph 4.5.

Paragraph 3.2.3. (UNR)

3.2.3. In the case of ADS with features that can be active in the territory of Contracting Parties other than the Contracting Party issuing the approval, the manufacturer shall provide to the granting approval authority the following information for each territory:

- (a) Summary of how freedom from unreasonable risk has been defined, including details of specificities for the respective territory (if any),
- (b) Summary of how the safety level of a competent and careful human driver has been determined, including details of specificities for the respective territory (if any),
- (c) Summary of how applicable traffic rules have been identified, interpreted, and assessed,
- (d) Summary of specific testing carried out regarding the territory,
- (e) A single point of contact for the receiving approval authorities to request information from the manufacturer, and
- (f) Details of the authorities identified for fulfilling the obligation to provide post-deployment notifications and reports to the ‘relevant authority’.

Explanation of the requirement

The intention of this provision is to ensure that the manufacturer provides the granting approval authority with the necessary information for them to transmit to the receiving approval authorities during the process described in paragraph 4.5. The information provided should have sufficient detail to enable the receiving authority to make a meaningful assessment that the application and interpretation of the regulation are appropriate for deployment in their territory. Further guidance on the kind of information expected for some of the required items is given below.

(a) ‘Freedom from unreasonable risk’ is one of two top-level provisions in the ADS regulation which sets the expectation for ADS safety (alongside the comparison with competent and careful human driving). In order to certify freedom from unreasonable risk, it is necessary for the manufacturer to have determined what constitutes an acceptable risk, and this level of reasonableness may have national specificities.

The concept of freedom from unreasonable risk is closely aligned with that of ‘absence of unreasonable risk’ defined in international standards including ISO21448 and ISO26262 as:

“Risk judged to be unacceptable in a certain context according to valid societal moral concepts.”

Where national authorities have published guidance on acceptable / unacceptable risk, or other safety principles for automated driving, it is expected to be shown that this has been taken into account.

(b) Whilst many aspects of competent and careful driving are common everywhere, there are also differences in the behaviours, skills and competencies expected by driving standards authorities in different countries. A driving behaviour that is appropriate and safe in one country may be inappropriate in another, resulting in a reduction of safety level. Traffic safety statistics also differ between countries, and where manufacturers use statistical comparisons as part of the demonstration of safety of the ADS, it is important that the comparisons are made to the relevant cohort of human drivers. It is understood that not all human drivers behave competently and carefully at all times, and so the manufacturer would need to explain how the subset of competent and careful driving has been extracted from an overall dataset.

Where national authorities have published guidance on expected safety levels and/or behaviours, it is expected to be shown that this has been taken into account.

(c) As traffic rules differ between countries, are largely written with human driving in mind, and can require interpretation on a case-by-case basis, it is important for manufacturers to have correctly implemented any specificities for each country of operation. The information provided for this item could

include details of the relevant SMS processes which cover the identification, interpretation, and assessment of traffic rules, as well as specific examples related to particular national rules.

(f) The ISMR requirements expect the manufacturer to provide certain reports to the ‘relevant authority’. For the purpose of type approval, this is primarily the granting approval authority. However, the ADS regulation is without prejudice to “provision of data to other authorities”, and it is expected that many Contracting Parties will have their own national requirements for performance reporting. The provision of this information will give the receiving CP the opportunity to verify that the manufacturer has identified the relevant national authorities concerned.

Section 4 (UNR) – Approval

Paragraph 4.1.1.1. (UNR)

4.1.1.1. In the case of ADS vehicles that are subject to the requirements of UN Regulation No. 79, the approval authority or its designated technical service shall verify the compatibility between the safety concept of the ADS steering equipment and the safety concept of the ADS.

Explanation of the requirement

UN Regulation No. 79, as adapted to be fit for ADS vehicles, does not make specific prescriptions on the level of redundancy required for ADS steering (for example the amount of stored energy). Instead, the manufacturer provides a safety concept and the Approval Authority verifies the performance of the system under failure conditions against this concept.

The necessary manoeuvres to reach a safe and acceptable MRC under any reasonably-foreseeable circumstances are a function of the ODD of the ADS. It is therefore important at the time the ADS is approved to ensure that the safety concept certified for the steering system is sufficient for the ADS vehicle to be free from unreasonable risk in the case of steering failures during operation.

Paragraph 4.5. (UNR)

4.5. Approvals covering ADS features that can be active in the territory of a Contracting Party other than the Contracting Party issuing the approval.

Explanation of the requirement

These provisions are intended to facilitate the process of Mutual Recognition under the 1958 agreement by helping to ensure that that application and interpretation of the ADS regulation are harmonised between the manufacturer / granting Approval Authority on one side, and the Authorities of Contracting Parties where the ADS vehicles will operate on the other. The footnote to this paragraph states that the provisions are subject to ongoing review by GRVA so that its benefit and effectiveness can be monitored, and it can be modified or removed when and if deemed necessary.

Paragraph 4.5.1. (UNR)

4.5.1. Before granting an approval according to this UN Regulation, the granting approval authority shall inform the Approval Authorities of the respective Contracting Parties in whose territory any feature of the Automated Driving System can be active. The following information shall be provided by the granting approval authority to each receiving approval authority as soon as the granting approval authority has all necessary information from the manufacturer but at the latest 30 days prior to granting the approval:

- (a) The information described in paragraphs 3.2.3.(a) to (f) above.
- (b) Details of requirements where a significant interpretation has been made (if any)

This information shall be considered as confidential by the receiving approval authority.

Explanation of the requirement

TBC

Paragraph 4.5.2. (UNR)

4.5.2. Following a review of the documentation described in paragraph 4.5.1, the receiving Approval Authority may provide comments to the granting Approval Authority on the interpretation or application of this UN Regulation with respect to their territory. Comments shall be provided within 30 days of receipt of the documentation described in paragraph 4.5.1. In case of dispute, a detailed justification shall be provided by the receiving approval authority making the comments to the granting approval authority.

Explanation of the requirement

TBC. To include:

- What does the review consist of?
- What does it focus on?
- Not a full re-audit. Looking at high level application/interpretation and national specificities – has the receiving country been properly taken into account.
- Explanation of the kind of comments that might be made, focussing on national specificities.

Paragraph 4.5.2.1. (UNR)

4.5.2.1. Having taken account of any comments, the granting approval authority shall grant the approval with the respective Contracting Party(ies) included in the list in Appendix to Annex 1.

Explanation of the requirement

TBC

Paragraph 4.5.2.2. (UNR)

4.5.2.2. If it is not possible for the granting approval authority to take into account the comments received or in case of any dispute between Contracting Parties, this shall be settled in accordance with Article 10 and Schedule 6 of the 1958 Agreement.

Explanation of the requirement

TBC

Paragraph 4.5.2.3. (UNR)

4.5.2.3. The granting approval authority remains responsible for all decisions regarding the granting of an approval under this Regulation.

Explanation of the requirement

TBC