



The World Forum for the Harmonization of Vehicle Regulations (WP.29)

The UN 1997 Agreement

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Technical Roadside Inspection RTI

**Resolution R.E.6
1997 Agreement**



Technical Roadside Inspections

VERORDNUNG (EWG) Nr. 3118/90 DES RATES
vom 25. Oktober 1990
zur Festlegung der Bedingungen für die Zulassung von Verkehrsmitteln

VERORDNUNG (EG) Nr. 541/2006 DES EUROPÄISCHEN PARLAMENTS UND DES RATES



Technical Roadside Inspection

- **Benefits:**

- Identify and eliminate road safety risks at the spot
- Check vehicles as they are used
- No preparation for inspection
- Possibility for rating of transport undertakings
- Possibility for support of supervision of PTI centers

- **Downsides:**

- Need for specified resources
- Costly

Impact assessment of EU
Roadworthiness Package
results in positive
Cost/Benefit ratio



1997 Agreement – Resolution R.E.6

Guidelines for performing initial technical roadside inspections

- a form of **vehicle assessment** ensuring **in service compliance**
- a crucial element for the achievement of a **continuous high level of roadworthiness** of vehicles throughout their use.
- to **avoid unnecessary administrative burdens and costs**, and to **improve the efficiency** of inspections, it should be possible for competent **national authorities to select**, as a priority, **vehicles operated** by undertakings **not complying with road safety and environmental standards**, while **vehicles** which are **operated by responsible and safety-minded operators** and properly maintained should be **rewarded with less frequent inspections**.
- The selection of vehicles for roadside inspection based on the **risk profile** of their operators could prove to be a useful tool for the purposes of **checking high-risk undertakings more closely and more often**.



Resolution R.E.6 - Guidelines for performing initial technical roadside inspections

- The **use of mobile inspection** units reduces the delay and costs for operators as more detailed inspections can be performed directly at the roadside. The **closest practicable testing centres** and **designated roadside inspection facilities** may also be used to carry out more detailed inspections.
- **Personnel** conducting technical roadside inspections should be **appropriately trained or qualified**, including for the purpose of carrying out visual inspections in an efficient manner. Inspectors performing more **detailed technical roadside inspections** should have **at least the same skills** and fulfil the **same requirements** as those **performing roadworthiness tests** in accordance with the 1997 Vienna Agreement
- Another aspect to take into account is that roadside inspections have to be performed on **foreign as well as domestically registered vehicles**. This creates some differences, namely on the availability of data that may be used for selection.
This means that the **inspector** has to **define the extent of the inspection** taking into account his/ her **knowledge, experience** and **applicable legal framework**.



Resolution R.E.6 - Guidelines for performing initial technical roadside inspections

- This recommendation suggests the approach for **vehicle selection** and **initial inspection** of the vehicle and taking into consideration that the **final content of the inspection** is a **decision** for the inspector **based** on the **actual condition** of the vehicle
- The initial technical roadside inspection may be **done in combination with other inspections**, i.e. tachograph (AETR), the International Carriage of Dangerous Goods by Road (ADR), the International Carriage of Perishable Foodstuffs (ATP).
- Definitions of “Operator”, “Mobile inspection unit”, “Designated roadside inspection facility”



Technical roadside inspections – Steps of the process

Process of the initial technical roadside inspection

- (a) Selection;
- (b) Initial inspection;
- (c) Outcome and consequences;
- (d) More detailed inspection.



Selection

Selection is the process that **identifies** the vehicles on the road to be subjected to an **initial inspection** based on **visual indications** or **intelligence** that indicates that the vehicle **may have roadworthiness deficiencies**. Risk rating data should also be taken into account where available. Selection may be based on a **view of the general condition** of the vehicle, **intelligence gathering**, and unobtrusive drive-by emissions measurement by **remote sensing** devices. Remote sensing techniques may be used to identify **overload**, gross **polluters**, fuel leaks, **overheating of brakes** or other potential deficiencies of vehicles on the move, in combination of automatic registration plate recognition devices or not. **Selection procedures do not prevent the random selection** of vehicles for roadside inspections.



Initial technical roadside inspection

- Check of the documents including last PTI certificate or last roadside inspection report
- Visual assessment of the technical condition of the vehicle
- Checks according to the UN Rules. Also, the inspector shall verify, when possible, whether any deficiencies indicated in the previous inspection reports (roadside inspection report and roadworthiness certificate) have been rectified.
- The tests shall be carried out using techniques and equipment currently available, without the use of tools to dismantle or remove any part of the vehicle.
- The inspector may assess compliance with approval (modifications/tampering)
- The inspector may carry out a visual assessment of the securing of the vehicle's cargo in accordance with national regulations.



Initial technical roadside inspection (cont.)

- (a) Vehicle identification;
- (b) General condition of the vehicle (body, chassis, etc.);
- (c) Condition of tyres and wheels;
- (d) Condition of brake discs/drums where visible through the wheels;
- (e) Rear view mirrors or vision devices;
- (f) Horn;
- (g) Glazing and view to the front;
- (h) Dashboard tell-tales;
- (i) Lights and markings;
- (j) Windshield wipers;
- (k) Side protection;
- (l) Rear underrun protection;
- (m) Spray suppression devices;
- (n) Spare wheel mounting;
- (o) Towing device where fitted;
- (p) Air pipes/electrical connection from tractor to trailer;
- (q) Leakage other than air conditioning condensed water;
- (r) Unusual noises, air leaks;
- (s) Visible smoke emission or unobtrusive drive-by emissions measurement;
- (t) Fuel tank and filler cap;
- (u) General condition of the interior of the vehicle – only for M2 and M3 vehicles



Results of the initial inspection

- The results of the initial inspection may lead to a statement on deficiencies as defined in the UN Rules, annexed to the 1997 Vienna Agreement:
 - (a) No deficiencies;
 - (b) Minor deficiencies;
 - (c) Major deficiencies;
 - (d) Dangerous deficiencies;
 - (e) Or any combination of the above-mentioned deficiencies



More detailed inspection (cont.)

- Regardless of the deficiencies found, the inspector may decide that it is necessary to conduct a **more detailed inspection**
- Based on the findings of the initial inspection, whether the vehicle should be subject to a **more detailed inspection**
 - (a) Vehicles identified as gross polluters by means of remote sensing techniques or emitting excessive visible smoke;
 - (b) Evidence of a potentially defective brake(s) either visual or with the use of temperature monitoring equipment;
 - (c) General condition of vehicle or several minor defects suggest that further roadworthiness defects may be found;
 - (d) Major and/or dangerous defects have already been found.



Elements of the risk rating system

- For the attribution of a risk profile to an undertaking.
- That information shall be used to check undertakings with a high-risk rating more closely and more often.
- The risk rating system shall be operated by the competent authorities of the Contracting Parties.
- Basis for a targeted selection of vehicles operated by undertakings with a poor record concerning compliance with vehicle maintenance and roadworthiness requirements.
- It shall take into account results from both periodic roadworthiness tests and technical roadside inspections.
- Contracting Parties may allow additional voluntary roadworthiness tests. Information on compliance with roadworthiness requirements obtained from voluntary tests may be taken into account in order to improve the risk profile of an undertaking.



Elements of the risk rating system (cont.)

The risk rating System shall consider the following parameters for determining a risk rating for the undertaking concerned:

- (a) Number of deficiencies;
- (b) Severity of deficiencies;
- (c) number of technical roadside inspections or periodic and voluntary roadworthiness tests;
- (d) Time factor



Elements of the risk rating system (cont.)

The deficiencies shall be weighted according to their severity, using the following severity factors:

- (a) Dangerous deficiency = 40;
- (b) Major deficiency = 10;
- (c) Minor deficiency = 1.

The evolution of an undertaking's (vehicle's) situation shall be reflected by applying a lower weighting to "older" inspection results (deficiencies) than to more "recent" ones, using the following factors:

- (a) Year 1 = last 12 months = factor 3;
- (b) Year 2 = months 13-24 = factor 2;
- (c) Year 3 = months 25-36 = factor 1.

This shall only apply for the calculation of the overall risk rating.



Elements of the risk rating system (cont.)

The formula for the overall risk rating:

$$RR = [(D Y1 \times 3) + (D Y2 \times 2) + (D Y3 \times 1)] / [\#C Y1 + \#C Y2 + \#C Y3]$$

Where,

RR = overall risk rating score

D Yi = total for the defects in year 1, 2, 3

D Y1 = (#DD x 40) + (#MaD x 10) + (MiD x 1) in year 1

#... = number of ...

DD = dangerous deficiencies

MaD = major deficiencies

MiD = minor deficiencies

C = checks (technical roadside inspections or periodic and voluntary roadworthiness tests) in year 1, 2, 3



Elements of the risk rating system (cont.)

The formula for the annual risk rating:

$$\mathbf{AR = [(\#DD \times 40) + (\#MaD \times 10) + (MiD \times 1)]/\#C}$$

Where

AR = annual risk score

#... = number of...

The annual risk shall be used to assess the evolution of an undertaking over the years.



Elements of the risk rating system (cont.)

The classification of undertakings (vehicles) based on the overall risk rating shall be performed in such a way that the following distribution within the listed undertakings (vehicles) is reached:

(a) < 30 % low risk;

(b) 30-80 % medium risk;

(c) > 80 % high risk.



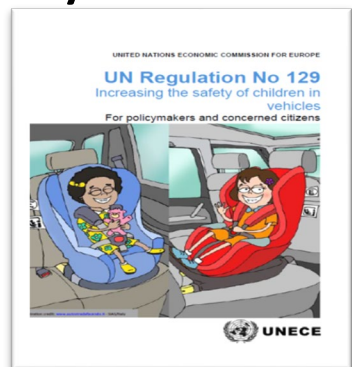
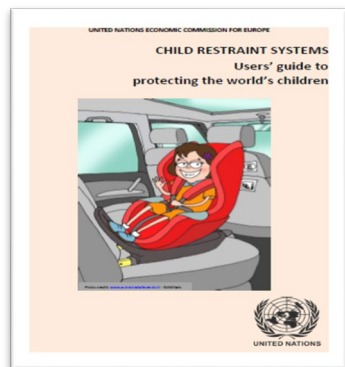
Technical Roadside Inspections

THE AIM
TO IMPROVE
ROAD-SAFETY
BY ENFORCEMENT

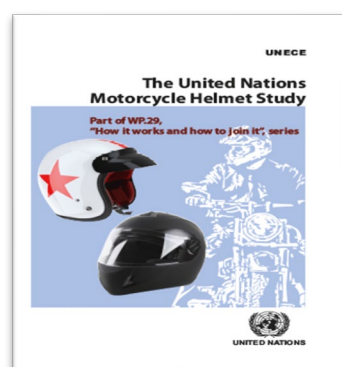
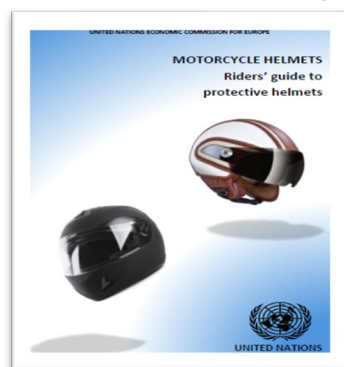


Leaflets and Publications

- Child restraint systems



- Motorcycle helmets



- Roadmap for accession and implementation of UN 1958 and 1997 Agreements



- World Forum for Harmonization of Vehicle Regulations (WP.29) – How It Works, How to Join It





INLAND TRANSPORT COMMITTEE



Thank you!

<https://unece.org/transport/vehicle-regulations>

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