APTU Uniform Rules (Appendix F to COTIF 1999)

Uniform Technical Prescriptions (UTP)

General provisions –

COMMON SAFETY METHOD (CSM) ON

RISK EVALUATION AND ASSESSMENT (RA)

Explanatory note:
The texts of this UTP which appear across two columns are identical to corresponding texts of the European Union regulations. Texts which appear in two columns differ; the left-hand column contains the UTP regulations, the right-hand column shows the text in the corresponding EU regulations. The text in the right-hand column is for information only and is not part of the OTIF regulations.

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<th>OTIF UTP</th>
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<td>0.</td>
<td>EQUIVALENCE</td>
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<td>Following their adoption by the Committee of Technical Experts, the OTIF regulations included in this document have been declared equivalent to the corresponding EU regulations within the meaning of Article 13 of APTU and Article 3a of ATMF.</td>
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<tr>
<td>1.</td>
<td>SUBJECT MATTER PURPOSE</td>
<td>Article 1</td>
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<td>1.1</td>
<td>This UTP Regulation establishes a revised common safety method (CSM) for risk evaluation and assessment of safety risks of subsystems and integration into their environment.</td>
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<td>1.2</td>
<td>This UTP when and where necessary and reasonably practicable. The CSM shall facilitate cross-border rail transport services through harmonisation of: the risk management processes used to assess impact of changes on the safety levels and the compliance with safety requirements; the exchange of safety-relevant information between different actors within the rail sector in order to manage safety across the different interfaces which may exist within this sector; the evidence resulting from the application of a risk management process.</td>
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<td>2.</td>
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The CSM on risk evaluation and assessment shall apply to any change of the proposer as defined in section 3(11) when making any change to the railway system of the Contracting States which has an impact on international traffic, and which is considered to be significant within the meaning of Article 4 of this UTP.

Such changes may be of a technical, operational or organisational nature. As regards organisational changes, only those changes which could impact operational or maintenance processes shall be subjected to consideration under the rules of this UTP.

2.2 When, on the basis of an assessment under the criteria set out in:

points a) to f) of section 4.2:

a) the change is considered significant, the risk management process set out in section 5 shall be applied;
b) the change is considered not significant, keeping adequate documentation to justify the decision shall be sufficient.

2.3 This UTP Regulation shall apply also to Where the significant changes concern structural subsystems to which COTIF 1999 applies, the CSM on risk evaluation and assessment shall apply:

a) if a risk assessment is required by the relevant uniform technical prescriptions (UTP); technical specification for interoperability (TSI);
in this case the UTP shall, where appropriate, specify which parts of this CSM apply;
b) if the change is significant as set out in
section 4.2,
the risk management process set out in
section 5
shall be applied within the placing in service of structural sub-systems to ensure their safe integration into an existing system of the structural sub-systems to which the UTGs apply.

2.4 The however, application of this Regulation CSM in the case referred to in point b) of section 2.3 paragraph (b) of Article 2(3) point (b) of the first subparagraph must shall not lead to requirements contradictory to those laid down in the relevant UTGs which are mandatory. If such contradictions occur, the proposer shall inform the Contracting State which may then decide to ask for a revision of the UTP in accordance with Article 8a of APTU Article 6(2) or Article 7 of Directive 2008/57/EC or a derogation in accordance with Article 7a of APTU and the guidelines and provisions adopted in accordance with that article ATMF Annex B.

2.5 (reserved)

The railway systems excluded from the scope of Directive 2004/49/EC according to its Article 2(2) are excluded from the scope of this Regulation.
a) metros, trams and other light rail systems;

networks that are functionally separate from the rest of the railway system and intended only for the operation of local, urban or suburban passenger services, as well as railway undertakings operating solely on these networks;

privately owned railway infrastructure that exists solely for use by the infrastructure owner for its own freight operations;

heritage vehicles that run on national networks providing that they comply with national safety rules and regulations with a view to ensuring safe circulation of such vehicles;

heritage, museum and tourist railways that operate on their own network, including workshops, vehicles and staff.

2.64 These provisions of UTP GEN-G, document A 94-01G/1.2012, version 01, dated 01.05.2012 Regulation 352/2009 shall continue to apply in relation to are projects which are at an advanced stage of development as defined in Article 2 b) of APTU. within the meaning of Article 2(t) of Directive 2008/57/EC.

not apply to systems and changes, which, on at the date of application entry into force of this UTP Regulation.

3. DEFINITIONS

For the purpose of this

the definitions in ATMF Article 2 and APTU Article 2 in Article 3 of Directive 2004/49/EC shall apply.

The following definitions shall also apply:

1. "risk" means the frequency rate of occurrence of accidents and incidents resulting in harm (caused by a hazard) and the degree of severity of that harm;

2. "risk analysis" means systematic use of all available information to identify hazards and to estimate the risk;

3. "risk evaluation" means a procedure based on the risk analysis to determine whether anthe acceptable level of risk has been achieved;

4. "risk assessment" means the overall process comprising a risk analysis and a risk evaluation;

5. "safety" means freedom from unacceptable risk of harm;

6. "risk management" means the systematic application of management policies, procedures and practices to the tasks of analysing, evaluating and controlling risks;

7. "interfaces" means all points of interaction during a system or subsystem life-cycle, including operation and maintenance where different actors of the rail sector will
work together in order to manage the risks;

8. “actors” means all parties which are, directly or through contractual arrangements, involved in the application of this UTP pursuant to section 5.2;

9. “safety requirements” means the safety characteristics (qualitative or quantitative) of a system and its operation (including operational rules) and maintenance necessary in order to meet legal or company safety targets;

10. “safety measures” means a set of actions either reducing the frequency rate of occurrence of a hazard or mitigating its consequences in order to achieve and/or maintain an acceptable level of risk;

11. “proposer” means

a) a railway undertaking or an infrastructure manager which implements risk control measures in accordance with the railway undertakings or the infrastructure managers in the framework of the risk control measures they have to implement in accordance with Article 4 of Directive 2004/49/EC;

b) an entity in Charge of Maintenance which implements measures in accordance with national, regional or international regulations, insofar as these make the railway undertakings and infrastructure managers responsible for the safe operation of the railway system and the control of risks associated with it and oblige them to implement necessary risk control measures, where appropriate in cooperation with each other, to apply national safety rules and standards, and to establish safety management systems;

c) an assessing entity to assess a subsystem in accordance with UTP GEN-D;

d) or the applicant

for a technical admission of structural sub-systems/vehicles;

or an Entity in Charge of Maintenance;

12. “safety assessment report” means the document containing the conclusions of the assessment performed by an assessment body on the system under assessment;
13. “hazard” means a condition that could lead to an accident;

14. “assessment body” means the independent and competent external or internal individual person, organisation or entity which undertakes investigation to provide a judgement, based on evidence, of the suitability of a system to fulfil its safety requirements;

15. “risk acceptance criteria” means the terms of reference by which the acceptability of a specific risk is assessed; these criteria are used to determine that the level of a risk is sufficiently low that it is not necessary to take any immediate action to reduce it further;

16. “hazard record” means the document in which identified hazards, their related measures, their origin and the reference to the organisation which has to manage them are recorded and referenced;

17. “hazard identification” means the process of finding, listing and characterising hazards;

18. “risk acceptance principle” means the rules used in order to arrive at the conclusion whether or not the risk related to one or more specific hazards is acceptable;

19. “code of practice” means a written set of rules that, when correctly applied, can be used to control one or more specific hazards;

20. “reference system” means a system proven in use to have an acceptable safety level and against which the acceptability of the risks from a system under assessment can be evaluated by comparison;

21. “risk estimation” means the process used to produce a measure of the level of risks being analysed, consisting of the following steps: estimation of frequency, consequence analysis and their integration;

22. “technical system” means a product or an assembly of products including the design, implementation and support documentation; the development of a technical system starts with its requirements specification and ends with its acceptance; although the design of relevant interfaces with human behaviour is considered, human operators and their actions are not included in a technical system; the maintenance process is described in the maintenance manuals but is not itself part of the technical system;

23. “catastrophic consequence” means fatalities and/or multiple severe injuries and/or major damages to the environment resulting from an accident;

24. “safety acceptance” means status given to the change by the proposer based on the safety assessment report provided by the assessment body;

25. “system” means any part of the railway system

(within the scope of this UTP)

which is subjected to a change whereby the change may be of a technical, operational or organisational nature;

26. “notified national rule” means any national rule notified by a Contracting State in accordance with APTU Article 12.


“safety management system” (SMS) means the organisation and arrangements established...
Risk evaluation and assessment

SMS may also be in place with keepers of rolling stock. Entities in charge of maintenance (ECM) and workshops delivering maintenance.

27. “certification body” means a certification body as defined in Section 3 of Annex A to ATMF (ECM Uniform rules);

28. “conformity assessment body” means a conformity assessment body that performs conformity assessment activities including calibration, testing, certification and inspection;

29. “accreditation” means an attestation by a national accreditation body that a conformity assessment body meets the applicable requirements;

30. “national accreditation body” means the sole body in a Contracting State that performs accreditation with authority derived from the State;

31. “recognition” means an attestation by a national body other than the national accreditation body that the assessment body meets the requirements set out in Annex II of this Regulation to carry out the independent assessment activity specified in sections 6.1 and 6.2. Article 6(1) and (2).

4. SIGNIFICANT CHANGES

4.1 If there is no notified national rule for defining whether a change is significant or not in a Contracting State, the proposer shall consider the potential impact of the change in question on the safety of the railway system. When the proposed change has no impact on safety, the risk management process described in section 5 does not need to be applied.
4.2  When the proposed change has an impact on safety, the proposer shall decide, by expert judgement, on the significance of the change based on the following criteria:

   a) failure consequence: credible worst-case scenario in the event of failure of the system under assessment, taking into account the existence of safety barriers outside the system under assessment;

   b) novelty used in implementing the change: this concerns both what is innovative in the railway sector, and what is new just for the organisation implementing the change;

   c) complexity of the change;

   d) monitoring: the inability to monitor the implemented change throughout the system life-cycle and intervene appropriately;

   e) reversibility: the inability to revert to the system before the change;

   f) additionality: assessment of the significance of the change taking into account all recent safety-related changes to the system under assessment and which were not judged to be significant.

4.3  The proposer shall keep adequate documentation to justify its decision.

5.  RISK MANAGEMENT PROCESS

   Article 5

5.1  The proposer shall be responsible for applying this UTP Regulation, including the assessment of the significance of the change based on the criteria in section 4, and for conducting the risk management process set out described in Annex I shall apply:

   a) for a significant change as specified in section 4, including the placing in service of structural subsystems as referred to in section 2.2 b);

   b) where a UTP Regulation as referred to in section 2.2 a) refers to this:

5.2  The risk management process described in Annex I shall be applied by the proposer.

5.23  The proposer shall ensure that risks introduced by its suppliers and its service providers, including their subcontractors, are also managed in compliance with this UTP Regulation.

To this end, the proposer may require through contractual arrangements request that its suppliers and its service providers, including their subcontractors, participate in the risk management process set out described in Annex I.
6. INDEPENDENT ASSESSMENT

6.1 An assessment body shall carry out an independent assessment of the suitability of both correct the application of the risk management process as set out described in Annex I and of list the results of this application (including adequate identification of hazards and the estimation of the risk arising from them).

This assessment body shall be carried out by a body which shall meet the criteria listed in Annex II.

The assessment body is not already designated identified by existing Union Community or national legislation, the proposer shall appoint its own assessment body which may be another organisation or an internal department.

The proposer shall appoint its own assessment body at the earliest appropriate stage of the risk assessment process.

6.2 To perform the independent assessment the assessment body shall:

a) ensure it has a thorough understanding of the significant change based on the documentation provided by the proposer;

b) conduct an assessment of the processes used for managing safety and quality during the design and implementation of the significant change, if those processes are not already certified by a relevant conformity assessment body;

c) conduct an assessment of the application of those safety and quality processes during the design and implementation of the significant change.

Having completed its assessment in accordance with points (a), (b) and (c), the assessment body shall deliver the safety assessment report provided for in section 15 and Annex III.

6.3 Duplication of work between the following assessments shall be avoided:

a) the assessment of conformity of

the safety management system and of as required by Directive 2004/49/EC,

the system of maintenance of entities in charge of maintenance as required by

Annex A to ATMF (ECM Uniform rules), and:

Directive 2004/49/EC, and;

a) the conformity assessment carried out by

an assessing entity in accordance with UTP GEN-D, and:

a notified body or a national body as defined required by Article 2(j) of Directive 2008/57/EC or a body designated in accordance with Article 17 of that Directive, and;
6.43 Without prejudice to the safety authority may act as the assessment body where that the significant changes concern the following cases:

- where a vehicle needs an authorisation for placing in service, as referred to in Articles 22(2) and 24(2) of Directive 2008/57/EC;
- regional or international regulations,
- the proposer may choose the Competent authority in the meaning of ATMF Article 5 as assessment body where that Competent authority offers this service and where the significant changes concern the following cases:
  (a) a vehicle needs a first admission to operation as referred to in ATMF;
  (b) a vehicle needs an addition
tional authorisation for placing in service, as referred to in Articles 22(2) and 24(2) of Directive 2008/57/EC;
  (b) a vehicle needs
  A complementary admission to operation in accordance with ATMF Article 6 §4(b);
  (reserved)
  (reserved)
  (reserved)
  (c) the safety certificate has to be updated due to alteration of the type or extent of the operation, as referred to in Article 10(5) of Directive 2004/49/EC;
  (d) the safety certificate has to be revised due to substantial changes to the safety regulatory framework, as referred to in Article 10(5) of Directive 2004/49/EC;
  (reserved)
  (e) the safety authorisation has to be updated due to substantial changes to the infrastructure, signalling or energy supply, or to the principles of their operation and maintenance, as referred to in Article 11(2) of Directive 2004/49/EC; as referred to in Articles 23(5) and 25(4) of Directive
(reserved)

Where the significant changes concern a structural subsystem that needs a technical admission in accordance with ATMF, the proposer may choose the national authority competent for technical admission may act as the assessment body, where that national authority competent for technical admission offers this service, unless the proposer has already given that task to another assessing entity which meets the provisions in UTP GEN-D.

a notified body in accordance with Article 18(2) of that Directive.

7. ACCREDITATION/RECOGNITION OF THE ASSESSMENT BODY

7.1 The assessment body provided for in section 6 shall be either:

a) accredited by the national accreditation body referred to in section 13.1 using the criteria defined in Annex II, or;

b) recognised by the recognition body referred to in section 13.1 using the criteria defined in Annex II, or;

Corresponding text in EU regulations ^1 EU ref.

2008/57/EC;

(f) where the safety certificate has to be updated due to an alteration of the type or extent of the operation, as referred to in Article 10(5) of Directive 2004/49/EC;

where the safety certificate has to be revised due to substantial changes to the safety regulatory framework, as referred to in Article 10(5) of Directive 2004/49/EC;

where the safety authorisation has to be updated due to substantial changes to the infrastructure, signalling or energy supply, or to the principles of its operation and maintenance, as referred to in Article 11(2) of Directive 2004/49/EC;

where the safety authorisation has to be revised due to substantial changes to the safety regulatory framework, as referred to in Article 11(2) of Directive 2004/49/EC.
c) the National authority competent for technical admission under the requirement of section 9.2.

8. ACCEPTANCE OF ACCREDITATION/RECOGNITION

8.1 (Reserved)\(^3\)

When granting the safety certificate or the safety authorisation in accordance with Regulation (EU) No 1158/2010 or Regulation (EU) No 1169/2010, a national safety authority shall accept accreditation or recognition by a Member State in accordance with Article 7, as proof of the ability of the railway undertaking or infrastructure manager to act as an assessment body.

8.2 When granting the certificate to an entity in charge of maintenance in accordance with Annex A to ATMF (ECM Uniform rules) Regulation (EU) No 445/2011, the certification body shall accept such accreditation or recognition by a Contracting State as proof of the ability of the entity in charge of maintenance to act as assessment body.

9. TYPES OF RECOGNITION OF THE ASSESSMENT BODY

9.1 The following types of recognition of the assessment body may be used:

a) recognition by the Contracting State of an entity in charge of maintenance, an organisation or a part of it or an individual:

b) (reserved)

recognition by the national safety authority of the ability of an organisation or a part of it or an individual to conduct independent assessment through the assessment and supervision of the safety management system of a railway undertaking or an infrastructure manager:

c) when the national authority competent for technical admission

is acting as certification body in conformity with

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\(^3\) In OTIF Railway undertakings or infrastructure managers may act as proposers, as set out in the definitions, but are not recognised as possible assessment bodies.
section 10 of Annex A to ATMF (ECM Uniform rules)  
recognition by the national authority competent for technical admission of the ability of an organisation or a part of it or an individual to conduct independent assessment through assessment and surveillance of the system of maintenance of an entity in charge of maintenance;  
d) recognition by a recognition body designated by the Contracting State of the ability of an entity in charge of maintenance, an organisation or a part of it or an individual to conduct independent assessment.

9.2 When the Contracting State recognises the national authority competent for technical admission as an assessment body, it is the responsibility of that Contracting State to ensure that the national authority competent for technical admission fulfills the requirements set out in Annex II; in this case, the assessment body functions of the national authority competent for technical admission shall be demonstrably independent of the other functions of the national authority competent for technical admission.

10. VALIDITY OF RECOGNITION  
10.1 In the cases referred in points a) and d) of section 9.1. and in section 9.2 the period of validity of recognition shall not exceed 5 years from the date it is granted.

10.2 In the case referred in point b) of section 9.1;
| OTIF UTP | Corresponding text in EU regulations | EU ref.
| --- | --- | ---
| a) (Reserved)-4 the statement of recognition for a railway undertaking or an infrastructure manager shall be displayed on the relevant safety certificate in field 5 ‘Additional Information’ of the harmonised format of safety certificates provided in Annex I to Regulation 653/2007/EC and in an appropriate part of the safety authorisations; | |
| b) (Reserved) the period of validity of recognition shall be limited to the validity of the safety certificate or authorisation under which it is granted. In this case, the request of recognition shall be made at the next application for renewal or update of the safety certificate or authorisation. | |

10.3 In the cases referred in point c) of section 9.1:

a) the statement of recognition for an entity in charge of maintenance shall be displayed on the relevant certificate in field 5 ‘Additional Information’ of the harmonised format of certificates for entities in charge of maintenance provided in Annex V of Annex A to ATMF (ECM Uniform rules); or in Annex VI where relevant, of Regulation (EU) No 445/2011; |

b) the period of validity of recognition shall be limited to the validity of the certificate issued by the certification body under which it is granted. In this case, the request of recognition shall be made at the next application for renewal or update of that certificate.

11. SURVEILLANCE BY RECOGNITION BODY

11.1 National accreditation bodies shall monitor the conformity assessment bodies to which they have issued an accreditation certificate, and by analogy the recognition body shall conduct periodic surveillance in order to verify that the assessment body it recognised continues to satisfy the criteria set out in Annex II during the validity of the recognition.

11.2 If the assessment body no longer satisfies the criteria set out in Annex II, the recognition body shall limit the scope of application of the recognition, suspend or withdraw the recognition, depending on the degree of non-compliance.

12. RELAXED CRITERIA WHERE A SIGNIFICANT CHANGE IS NOT TO BE MUTUALLY RECOGNISED

Where the risk assessment for a significant change is not to be mutually recognised, the proposer shall appoint an assessment body meeting at least the competency, independency and impartiality requirements of Annex II. The other requirements of

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4 In OTIF Railway undertakings or infrastructure managers may act as proposers, as set out in the definitions, but are not recognised as possible assessment bodies.
paragraph 1 in Annex II may be relaxed in agreement with

national authority competent for technical admission

the national safety authority

in a non-discriminatory way.

13. PROVISION OF INFORMATION TO THE

SECRETARY GENERAL AGENCY

13.1 Where applicable, by no later than [specific date to be inserted when OTIF text will be adopted + two years after the date of entry into force], Contracting States Member States shall inform the Secretary General Agency which is their national accreditation body and/or recognition body or recognition bodies for the purposes of this UTP, as well as of the assessment bodies they recognised in conformity with point a) of section 9.1. Article 9(1)(a).

They shall also notify any change to that situation within one month of the change.

Secretary General The Agency shall make this information publicly available.

13.2 By no later than [specific date to be inserted when OTIF text will be adopted + two years after the date of entry into force], the national accreditation body shall inform the Secretary General Agency of the assessment bodies accredited, as well as of the area of competence for which those assessment bodies are accredited as provided for in points 2 and 3 of Annex II. They shall also notify any change to that situation within 1 month of the change.

Secretary General The Agency shall make this information publicly available.

13.3 By no later than [specific date to be inserted when OTIF text will be adopted + two years after the date of entry into force], the recognition body shall inform the Secretary General Agency of the assessment bodies recognised, as well as of the area of competence for which those assessment bodies are recognised as provided for in points 2 and 3 of Annex II. They shall also notify any change to that situation within 1 month of the change.

Secretary General The Agency shall make this information publicly available.
14. SUPPORT FROM THE SECRETARY GENERAL TO ACCREDITATION OR RECOGNITION OF THE ASSESSMENT BODY

14.1 National accreditation bodies shall subject themselves to peer evaluation organised at international level, with the assistance of the Secretary General.

Contracting States shall ensure that their national accreditation bodies regularly undergo peer evaluation.

14.2 (reserved)

The Agency in collaboration with the European cooperation for Accreditation (EA), shall organise training on this Regulation for the national accreditation bodies and for the recognition bodies at least at each new revision of this Regulation.

715. SAFETY ASSESSMENT REPORT

715.1 The assessment body shall provide the proposer with a safety assessment report in accordance with the requirements set out in Annex III. The proposer shall be responsible for determining if and how to take into account the conclusions of the safety assessment report for the safety acceptance of the assessed change. The proposer shall justify and document the part of the safety assessment report for which the proposer eventually disagrees.

715.2 In the case referred to in point b) of section 2.3, in accordance with paragraph 5 of this section, point a) of section 5.1, the declaration referred to in safety assessment report section 16 shall be taken into account by the national authority competent for technical admission in its decision for the admission to operation of structural sub-systems and vehicles.

15.3 The national authority competent for technical admission may not request additional checks or risk analyses unless it is able to demonstrate the existence of a substantial safety risk.

157.49 In the case referred to in
point a) of section 2.3, in accordance with paragraph 5 of this section,
the declaration referred to in section 16 shall be accepted by the assessing entity which performs the assessment of conformity with the structural UTP, unless otherwise prescribed in the structural UTP.

If the independent assessment is not part of the task of that assessing entity which performs the assessment of conformity with the structural UTP, the safety assessment report shall be taken into account by the assessing entity notified body
in charge of delivering the conformity certificate, and by the contracting entity in charge of drawing up the EC declaration of verification, unless it justifies and documents its doubts concerning the assumptions made or the appropriateness of the results.

157.54 When a system or part of a system has already been accepted following the risk management process specified in this Regulation, the resulting safety assessment report shall not be called into question by any other assessment body in charge of performing a new assessment for the same system.

Mutual recognition shall be conditional on demonstration that the system will be used under the same functional, operational and environmental conditions as the already accepted system, and that equivalent risk acceptance criteria have been applied.
16. DECLARATION BY THE PROPOSER

16.1 Based on the results of the application of this Regulation and on the safety assessment report provided by the assessment body, the proposer shall produce a written declaration that all identified hazards and associated risks are controlled to an acceptable level.

817. RISK CONTROL MANAGEMENT / INTERNAL AND EXTERNAL AUDITS

17.1 Any proposer which has had a CSM on risk evaluation and assessment carried out shall continue to monitor the application and audit the effects of the application, in particular the hazard identification, risk estimation and risk evaluation on which the conclusions were based.

17.2 The entities in charge of maintenance shall include audits of the application of this Regulation in their recurrent auditing scheme for the system of maintenance as referred to in Article 14a(3) of Directive 2004/49/EC.

17.3 As part of the tasks defined in section 7.1 of Annex A to ATMF (ECM Uniform rules), the certification body of an entity in charge of maintenance of freight wagons shall perform surveillance of the application of this Regulation by the entity in charge of maintenance.

918. FEEDBACK AND TECHNICAL PROGRESS

1. Each infrastructure manager and each railway undertaking shall, in its annual safety report referred to in Article 9(4) of Directive 2004/49/EC, report briefly on its experience with the application of this Regulation on risk evaluation and...
authority of the Contracting State which has issued the technical admission.

The report shall also include a synthesis of the decisions taken related to the level of significance of the changes.

2. A Contracting State which has issued one or more technical admissions where CSM on risk evaluation and assessment has/have been applied shall, on an annual basis—or immediately in the case of serious consequences being observed—report to the Committee of Technical Experts (through the OTIF Secretary General) on their experiences and feedback.

In the case of problems with the applications or the efficiency of the CSM system, the Contracting State shall, where applicable, make recommendations to the Committee of Technical Experts with a view to improving them.

3. The annual maintenance report of entities in charge of maintenance of freight wagons referred to in point I(7)(4)(k) in Annex III to Regulation (EU) No 445/2011, shall include information about the experience of entities in charge of maintenance in applying this Regulation. The Agency shall gather this information in coordination with the respective certification bodies and make it available to the Secretary General upon request.

4. The other entities in charge of maintenance that do not fall within the scope of Regulation (EU) No 445/2011, may also be requested by the Competent Authority of the country where they have their place of business to report on their activities. This information should also be made available to the Secretary General upon request.

5. The Agency shall collect all information on the experience of application of this Regulation and shall, when necessary, make recommendations to the Commis-
Corresponding text in EU regulations ¹

46. Before [specific date to be inserted when CSM text will be published in EC Official Journal + two years after the date of entry into force] the European Railway Agency shall submit to the Commission by 31 December 2011 at the latest, a report containing which shall include:

(a) an analysis of the experience with the application of this Regulation on risk evaluation and assessment, including cases where the CSM has been applied by proposers on a voluntary basis before the relevant date of application provided for in Article 240;

(b) an analysis of the experience of the proposers concerning the decisions unrelated to the level of significance of the changes;

(c) an analysis of the cases where codes of practice have been used as set out described in point section 2.3.8 of Annex I;

(d) an analysis of the experience with the accreditation and recognition of assessment bodies;

(e) an analysis of the overall effectiveness of this Regulation on risk evaluation and assessment.

The national safety authorities shall support assist the Agency in collecting such information by identifying cases of application of the CSM on risk evaluation and assessment.

19. REPEAL

The previous version 01 of this UTP, dated 01.05.2012 is repealed with effect from [two years after entry into force].

References to the repealed UTP shall be construed as references to this UTP.

Regulation (EC) No 352/2009 is repealed with effect from [specific date to be inserted when CSM text will be published in EC Official Journal + two years after the date of entry into force].

References to the repealed Regulation shall be construed as references to this Regulation.
1. This Regulation shall enter into force on the 20th day following its publication in the Official Journal of the European Union. (Not relevant for COTIF regulations)

2. This Regulation shall apply from [specific date to be inserted when CSM text will be published in EC Official Journal – two years after the date of entry into force]. However, it shall apply from 19 July 2010:

   (a) to all significant technical changes affecting vehicles as defined in Article 2(c) of Directive 2008/57/EC;

   (b) to all significant changes concerning structural subsystems, where required by Article 15(1) of Directive 2008/57/EC or by a TSI.

This Regulation shall be binding in its entirety and directly applicable in all Member States.
1. GENERAL PRINCIPLES APPLICABLE TO THE RISK MANAGEMENT PROCESS

1.1 General principles and obligations

1.1.1 The risk management process covered by this UTP Regulation shall start from a definition of the system under assessment and comprise the following activities:

a) the risk assessment process, which shall identify the hazards, the risks, the associated safety measures and the resulting safety requirements to be fulfilled by the system under assessment;

b) demonstration of the compliance of the system with the identified safety requirements; and

c) management of all identified hazards and the associated safety measures.

This risk management process is iterative and is depicted in the diagram of the Appendix. The process ends when the compliance of the system with all the safety requirements necessary to accept the risks linked to the identified hazards is demonstrated.

1.1.2 The iterative risk management process shall include appropriate quality assurance activities and be carried out by competent staff. It shall be independently assessed by one or more assessment bodies.

1.1.3 The proposer in charge of the risk management process required by this UTP Regulation shall maintain a hazard record in accordance with point to section 4.

1.1.4 The actors who already have in place methods or tools for risk assessment may continue to apply them if such methods or tools as far as they are compatible with the provisions of this UTP Regulation and subject to the following conditions:

a) (Reserved)

b) the risk assessment methods or tools are described in a safety management system which has been accepted by a national safety authority in accordance with Article 10(2)(a) or Article 11(1)(a) of Directive 2004/49/EC; or

b) the risk assessment methods or tools are required by a UTP or comply with publicly available recognised standards specified in notified national TSI.
1.1.5 Without prejudice to civil liability in accordance with the legal requirements of the Contracting States, the risk assessment process shall fall within the responsibility of the proposer. In particular the proposer shall decide, with agreement of the actors concerned, who will be in charge of fulfilling the safety requirements resulting from the risk assessment. The safety requirements assigned by the proposer to those actors shall not go beyond the scope of their responsibility and domain of control. This decision shall depend on the type of safety measures selected to control the risks to an acceptable level. The demonstration of compliance with the safety requirements shall be conducted in accordance to section 3.

1.1.6 The first step of the risk management process shall be to identify in a document, to be drawn up by the proposer, the different actors’ tasks, as well as their risk management activities. The proposer shall coordinate close collaboration between the different actors involved, according to their respective tasks, in order to manage the hazards and their associated safety measures.

1.1.7 Evaluation of the correct application of the risk management process falls within the responsibility of the assessment body. described in this Regulation

1.2 Interfaces management

1.2.1 For each interface relevant to the system under assessment and without prejudice to specifications of interfaces defined in relevant UTPs, TSIs, the rail-sector actors concerned shall cooperate in order to identify and manage jointly the hazards and related safety measures that need to be handled at these interfaces. The management of shared risks at the interfaces shall be coordinated by the proposer.

1.2.2 If, in order to fulfil a safety requirement, an actor identifies the need for a safety measure that it cannot implement itself, it shall, after agreement with another actor, transfer the management of the related hazard to the latter in accordance with the process set out described in section 4.

1.2.3 For the system under assessment, any actor who discovers that a safety measure is non-compliant or inadequate is responsible for notifying it to the proposer, who shall in turn inform the actor implementing the safety measure.

1.2.4 The actor implementing the safety measure shall then inform all the actors affected by the problem either within the system under assessment or, as far as known by the actor, within other existing systems using the same safety measure.

1.2.5 When agreement cannot be reached found between two or more actors it is the responsibility of the proposer to find an adequate solution.

1.2.6 When a requirement in a notified national rule cannot be fulfilled by an actor, the proposer shall seek advice from the relevant competent authority.

1.2.7 Independently from the definition of the system under assessment, the proposer is responsible for ensuring that the risk management covers the system itself and its integration into the railway system as a whole.

2. DESCRIPTION OF THE RISK ASSESSMENT PROCESS
2.1 General description

2.1.1 The risk assessment process is the overall iterative process that comprises:

a) the system definition;

b) the risk analysis including the hazard identification;

c) the risk evaluation.

The risk assessment process shall interact with the hazard management in accordance with pointsection 4.1.

2.1.2 The system definition shall address at least the following issues:

a) system objective (e.g., intended purpose);

b) system functions and elements, where relevant (including human, technical and operational elements);

c) system boundary including other interacting systems;

d) physical (i.e., interacting systems) and functional (i.e., functional input and output) interfaces;

e) system environment (for example, energy and thermal flow, shocks, vibrations, electromagnetic interference, operational use);

f) existing safety measures and, after the necessary relevant iterations, definition of the safety requirements identified by the risk assessment process;

2.1.3 A hazard identification shall be carried out on the defined system, in accordance with pointsection 2.2.

2.1.4 The risk acceptability of the system under assessment shall be evaluated by using one or more of the following risk acceptance principles:

a) the application of codes of practice (pointsection 2.3);

b) a comparison with similar systems (pointsection 2.4);

c) an explicit risk estimation (pointsection 2.5).

In accordance with the general principle referred to in pointsection 1.1.5, the assessment body shall refrain from imposing the risk acceptance principle to be used by the proposer.

2.1.5 The proposer shall demonstrate in the risk evaluation that the selected risk acceptance principle is adequately applied. The proposer shall also check that the selected risk acceptance principles are used consistently.

2.1.6 The application of these risk acceptance principles shall identify possible safety measures that make the risk(s) of the system under assessment acceptable. Among these safety measures, those selected to control the risk(s) shall become the safety requirements to be fulfilled by the system. Compliance with these safety requirements shall be demonstrated in accordance with pointsection 3.

2.1.7 The iterative risk assessment process can be considered as completed when it is demonstrated that all safety requirements are fulfilled and no additional reasonably foreseeable hazards have to be considered.

2.2 Hazard identification

2.2.1 The proposer shall systematically identify, using wide-ranging expertise from a compe-
tent team, all reasonably foreseeable hazards for the whole system under assessment, its functions where appropriate and its interfaces.

All identified hazards shall be registered in the hazard record in accordance with section 4.

2.2.2 To focus the risk assessment efforts upon the most important risks, the hazards shall be classified according to the estimated risk arising from them. Based on expert judgement, hazards associated with a broadly acceptable risk need not be analysed further but shall be registered in the hazard record. Their classification shall be justified in order to allow independent assessment by an assessment body.

2.2.3 As a criterion, risks resulting from hazards may be classified as broadly acceptable when the risk is so small that it is not reasonable to implement any additional safety measure. The expert judgement shall take into account that the contribution of all the broadly acceptable risks does not exceed a defined proportion of the overall risk.

2.2.4 During the hazard identification, safety measures may be identified. They shall be registered in the hazard record in accordance with section 4.

2.2.5 The hazard identification only needs to be carried out at a level of detail necessary to identify where safety measures are expected to control the risks in accordance with one of the risk acceptance principles referred to in point 2.1.4. Iteration may thus be necessary between the risk analysis and the risk evaluation phases until a sufficient level of detail is reached for the identification of hazards.

2.2.6 Whenever a code of practices or a reference system is used to control the risk, the hazard identification may be limited to:
   a) the verification of the relevance of the code of practices or of the reference system;
   b) the identification of the deviations from the code of practices or from the reference system.

2.3 Use of codes of practice and risk evaluation

2.3.1 The proposer, with the support of other involved actors and based on the requirements listed in point 2.3.2, shall analyse whether one, or several or all hazards are appropriately covered by the application of relevant codes of practice.

2.3.2 The codes of practice shall satisfy at least the following requirements:
   a) The must be widely recognised in the railway domain. If this is not the case, the codes of practice will have to be justified and be acceptable to the assessment body;
   b) They must be relevant for the control of the considered hazards in the system under assessment. Successful application of a code of practice for similar cases to manage changes and control effectively the identified hazards of a system in the sense of this UTP Regulation is sufficient for it to be considered as relevant;
   c) Upon request, they must be available to assessment bodies for them to either assess or, where relevant, mutually recognise, in accordance with section 15.5 of this UTP, the suitability of both the application of the risk management process and of its results be publicly available for all actors who want to use them.
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2.3.3 Where compliance with UTPs is required by Directive 2008/57/EC and the relevant UTP does not impose the risk management process established by this UTP, the UTPs may be considered as codes of practice for controlling hazards, provided requirement (b) of point 2.3.2 is fulfilled.

2.3.4 National rules notified in accordance with Article 12 of APTU may be considered as codes of practice provided the requirements of point 2.3.2 are fulfilled.

2.3.5 If one or more hazards are controlled by codes of practice fulfilling the requirements of point 2.3.2, then the risks associated with these hazards shall be considered acceptable. This means that:
   a) these risks need not be analysed further;
   b) the use of the codes of practice shall be registered in the hazard record as safety requirements for the relevant hazards.

2.3.6 Where an alternative approach is not fully compliant with a code of practice, the proposer shall demonstrate that the alternative approach pursued leads to at least the same level of safety.

2.3.7 If the risk for a particular hazard cannot be made acceptable by the application of codes of practice, additional safety measures shall be identified by applying one of the two other risk acceptance principles.

2.3.8 When all hazards are controlled by codes of practice, the risk management process may be limited to:
   a) the hazard identification in accordance with point section 2.2.6;
   b) the registration of the use of the codes of practice in the hazard record in accordance with point section 2.3.5;
   c) the documentation of the application of the risk management process in accordance with section 5;
   d) an independent assessment in accordance with Article 6.

2.4 Use of reference system and risk evaluation

2.4.1 The proposer, with the support of other involved actors, shall analyse whether one, or several, or all hazards are appropriately covered by a similar system that could be taken as a reference system.
2.4.2 A reference system shall satisfy at least the following requirements:

a) it has already been proven in-use to have an acceptable safety level and would therefore still qualify for approval in the Member State where the change is to be introduced;

b) it has similar functions and interfaces as the system under assessment;

c) it is used under similar operational conditions as the system under assessment;

d) it is used under similar environmental conditions as the system under assessment.

2.4.3 If a reference system fulfils the requirements listed in section 2.4.2, then for the system under assessment:

a) the risks associated with the hazards covered by the reference system shall be considered as acceptable;

b) the safety requirements for the hazards covered by the reference system may be derived from the safety analyses or from an evaluation of safety records of the reference system;

c) these safety requirements shall be registered in the hazard record as safety requirements for the relevant hazards.

2.4.4 If the system under assessment deviates from the reference system, the risk evaluation shall demonstrate that the system under assessment reaches at least the same safety level as the reference system, applying another reference system or one of the two other risk acceptance principles. The risks associated with the hazards covered by the reference system shall, in that case, be considered as acceptable.

2.4.5 If at least the same safety level as the reference system cannot be demonstrated, additional safety measures shall be identified for the deviations, applying one of the two other risk acceptance principles.

2.5 Explicit risk assessment and evaluation

2.5.1 If the hazards are not covered by one of the two risk acceptance principles laid down described in points sections 2.3 and 2.4, the demonstration of the risk acceptability shall be performed by explicit risk estimation and evaluation. Risks resulting from these hazards shall be estimated either quantitatively or qualitatively, taking existing safety measures into account.

2.5.2 The acceptability of the estimated risks shall be evaluated using risk acceptance criteria either derived from or based on legal requirements contained stated in COTIF regulations or in notified national rules. Depending on the risk acceptance criteria, the acceptability of the risk may be evaluated either individually for each associated hazard or globally for the combination of all hazards as a whole considered in the explicit risk estimation.

If the estimated risk is not acceptable, additional safety measures shall be identified and implemented in order to reduce the risk to an acceptable level.

2.5.3 If the risk associated with one hazard or a combination of several hazards is considered as acceptable, the identified safety measures shall be registered in the hazard record.

2.5.4 If hazards arise from failures of technical systems not covered by codes of practice or the use of a reference system, the following risk acceptance criterion shall apply for the design of the technical system:

For technical systems where a functional failure has a credible direct potential for a
catastrophic consequence, the associated risk does not have to be reduced further if the rate of that failure is less than or equal to $10^{-9}$ per operating hour.

2.5.5 A more demanding criterion, then the one laid down in point 2.5.4, may be requested, through a notified national safety rule, in order to maintain a national safety level.

2.5.6 If a technical system is developed by applying the $10^{-9}$ criterion laid down in point 2.5.4 the principle of mutual recognition is applicable in accordance with Article 7(4) of this Regulation.

Nevertheless, if the proposer can demonstrate that the national safety level in the Contracting State of application can be maintained with a rate of failure higher than $10^{-9}$ per operating hour, this criterion may be used by the proposer in that Contracting State.

2.5.7 The explicit risk estimation and evaluation shall satisfy at least the following requirements:

a) the methods used for explicit risk estimation shall reflect correctly the system under assessment and its parameters (including all operational modes);

b) the results shall be sufficiently accurate to serve as robust decision support, i.e. Minor changes in input assumptions or prerequisites shall not result in significantly different requirements.

3. DEMONSTRATION OF COMPLIANCE WITH SAFETY REQUIREMENTS

3.1 Prior to the safety acceptance of the change, fulfilment of the safety requirements resulting from the risk assessment phase shall be demonstrated under the supervision of the proposer.

3.2 This demonstration shall be carried out by each of the actors responsible for fulfilling the safety requirements, as decided in accordance with point 1.1.5.

3.3 The approach chosen for demonstrating compliance with the safety requirements as well as the demonstration itself shall be independently assessed by an assessment body.

3.4 Any inadequacy of safety measures expected to fulfil the safety requirements or any hazards discovered during the demonstration of compliance with the safety requirements shall lead to reassessment and evaluation of the associated risks by the proposer in accordance with point section 2. The new hazards shall be registered in the hazard record in accordance with point section 4.
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4. HAZARD MANAGEMENT

4.1 Hazard management process

4.1.1 Hazard record(s) shall be created or updated (where they already exist) by the proposer during the design and the implementation until the acceptance of the change or the delivery of the safety assessment report. The hazard record shall track the progress in monitoring risks associated with the identified hazards.

Once

In accordance with point 2(g) of Annex III to Directive 2004/49/EC, once

Once the system has been accepted and is in operation, the hazard record shall be further maintained by the infrastructure manager or the railway undertaking in charge of the operation of the system under assessment.


as an integrated part of its safety management system.

4.1.2 The hazard record shall include all hazards, together with all related safety measures and system assumptions identified during the risk assessment process. In particular, it shall contain a clear reference to the origin of the hazards and to the selected risk acceptance principles and shall clearly identify the actor(s) in charge of controlling each hazard.

4.2 Exchange of information

All hazards and related safety requirements cannot be controlled by one actor alone shall be communicated to another relevant actor in order to find jointly an adequate solution. The hazards registered in the hazard record of the actor who transfers them shall only be regarded as ‘controlled’ when the evaluation of the risks associated with these hazards is made by the other actor and the solution is agreed by all concerned.

5. EVIDENCE FROM THE APPLICATION OF THE RISK MANAGEMENT PROCESS

5.1 The risk management process used to assess the safety levels and compliance with safety requirements shall be documented by the proposer in such a way that all the necessary evidence showing the suitability of both the correct application of the risk management process and of its results are accessible to an assessment body. The assessment body shall establish its conclusion in a safety assessment report.

5.2 The documentation produced by the proposer under point 5.1. shall at least include:

a) a description of the organisation and the experts appointed to carry out the risk assessment process;

b) results of the different phases of the risk assessment and a list of all the necessary safety requirements to be fulfilled in order to control the risk to an acceptable level;

c) evidence of compliance with all the necessary safety requirements;

d) all assumptions relevant for system integration, operation or maintenance, which were made during system definition, design and risk assessment.

5.3 The assessment body shall establish its conclusion in a safety assessment report as defined in Annex III.
Appendix

Risk management process and independent assessment

- Significant Change? (YES or NO)
  - YES: Justify and document decision
  - NO: PRELIMINARY SYSTEM DEFINITION

- SYSTEM DEFINITION (Scope, Functions, Interfaces, etc.)

- HAZARD IDENTIFICATION

- HAZARD CLASSIFICATION
  - How critical?
    - YES: Broadly Acceptable Risk?
    - NO: Existent Acceptable Risk?

- Selection of Risk Acceptance Principle

- CODES OF PRACTICE
  - Application of Codes of Practice

- SIMILAR REFERENCE SYSTEM(S)
  - Similarity Analysis with Reference System(s)

- EXPLICIT RISK ESTIMATION
  - Identification of Scenarios & associated Safety Measures
    - Safety Criteria? (YES or NO)
      - YES: Quantitative Estimate Risk
        - Estimate Frequency
        - Estimate Severity
      - NO: Qualitative Comparison with Criteria
        - Comparison with Criteria
          - Acceptable Risk?
            - YES: YES
            - NO: NO

- Risk Requirements (i.e. the Safety Measures to be implemented)

- Demonstration of Compliance with the Safety Requirements

EU ref.

1. Corresponding text in EU regulations
ANNEX II

CRITERIA FOR ACCREDITATION OR RECOGNITION OF WHICH MUST BE FULFILLED BY THE ASSESSMENT BODIES

1. The assessment body may not become involved either directly or as authorised representatives in the design, manufacture, construction, marketing, operation or maintenance of the system under assessment. This does not exclude the possibility of an exchange of technical information between that body and all the involved actors. The assessment body shall fulfil all requirements of the ISO/IEC 17020:2012 standard and of its subsequent amendments. The assessment body shall exercise professional judgement in performing the inspection work defined in that standard. The assessment body shall fulfil both the general criteria concerning competence and independence in that standard and the following specific competence criteria:
   a) competence in risk management: knowledge and experience of the standard safety analysis techniques and of the relevant standards;
   b) all relevant competences for assessing the parts of the railway system affected by the change;
   c) competence in the correct application of safety and quality management systems:

2. The assessment body must carry out the assessment with the greatest possible professional integrity and the greatest possible technical competence and must be free of any pressure and incentive, in particular of a financial type, which could affect their judgement or the results of their assessments, in particular from persons or groups of persons affected by the assessments. By analogy to UTP GEN-D and UTP GEN-E, the assessment body shall be accredited or recognised for the different areas of competence within the railway system, or parts of it for which an essential safety requirement exists, including the area of competence involving the operation and maintenance of the railway system.

3. The assessment body must possess the means required to perform adequately the technical and administrative tasks linked with the assessments; it shall also have access to the equipment needed for exceptional assessments. The assessment body shall be accredited or recognised for assessing the overall consistency of the risk management and the safe integration of the system under assessment into the railway system as a whole. This shall include competence of the assessment body in checking the following:
   d) organisation, that is the arrangements necessary to ensure a coordinated approach to achieving system safety through a uniform understanding and application of risk control measures for subsystems;
   e) methodology, that is evaluation of the methods and resources deployed by various stakeholders to support safety at subsystem and system level; and
   d) the technical aspects necessary for assessing the relevance and completeness of risk assessments and the level of safety for the system as a whole.

4. The assessment body may be accredited or recognised for one, several or all of the area of competences listed in points 2 and 3. The staff responsible for the assessments must possess:
proper technical and vocational training;

a satisfactory knowledge of the requirements relating to the assessments that they carry out and sufficient practice in those assessments;

the ability to draw up the safety assessment reports which constitute the formal conclusions of the assessments conducted.

5. The independence of the staff responsible for the independent assessments must be guaranteed. No official must be remunerated either on the basis of the number of assessments performed or of the results of those assessments.

6. The assessment body where the assessment body is external to the proposer’s organisation it must have its civil liability ensured unless that liability is covered by the State under national law or unless the assessments are carried out directly by that Contracting State.

7. The assessment body’s staff are bound by professional secrecy with regard to everything they learn in the performance of their duties (with the exception of the competent administrative authorities in the State where they perform those activities) in pursuance of this UTP.
ANNEX III

SAFETY ASSESSMENT REPORT OF THE ASSESSMENT BODY

1. The safety assessment report of the assessment body shall contain at least the following information:
   a) identification of the assessment body;
   b) the independent assessment plan;
   c) the definition of the scope of the independent assessment as well as its limitations;
   d) the results of the independent assessment including in particular:
      1) detailed information on the independent assessment activities for checking the compliance with the provisions of this UTP; Regulation:
      2) any identified cases of non-compliances with the provisions of this UTP and the assessment body’s recommendations;
   e) the conclusions of the independent assessment.