Bulletin

OTIF

Organisation intergouvernementale pour les transports internationaux ferroviaires
Zwischenstaatliche Organisation für den internationalen Eisenbahnverkehr
Intergovernmental Organisation for International Carriage by Rail

131nd year
N°1/2023

Bulletin of International Carriage by Rail

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EDITORIAL

Dear readers,

The first edition of the Bulletin in 2023 is all about cooperation in international rail transport.

It is only together with our many partner organisations that OTIF can succeed in making rail transport the backbone of a sustainable transport system. The contributions show the whole range of activities of OTIF and its partners, both in Europe and far beyond.

I would particularly like to highlight the contributions on the new features of RID 2023 and the amended regulations in the area of technical interoperability. Both areas, dangerous goods transport and technology, are developing at a fast pace and require constant legal adjustments and sufficient flexibility in terms of the legislation.

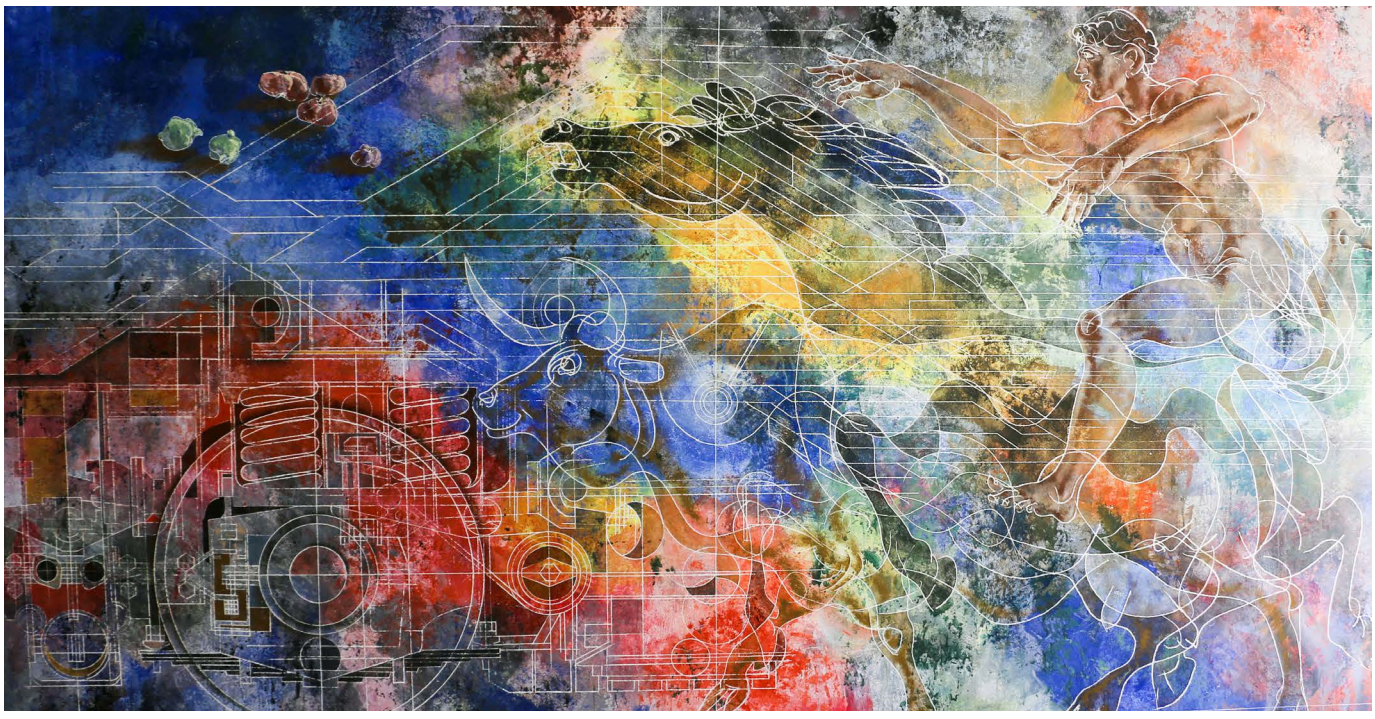
And another special event:

As a result of the fourth ratification of the Luxembourg Rail Protocol by the Kingdom of Spain, the entry into force of the Protocol is within reach. The months now ahead of us require intensive work by all parties involved in order successfully to establish the new international registry system for railway rolling stock.

I am very pleased that the Luxembourg Protocol can finally be brought to life and that OTIF can actively contribute to this.

I hope you enjoy reading this edition of the Bulletin!

Wolfgang Küpper
Secretary General



Hans Erni, mural, approximately 20m2, 1965, entrance to the Secretariat

PARTICIPATION IN THE UNECE WORKING PARTY ON RAIL TRANSPORT: UNIFICATION OF RAILWAY LAW UNDER DISCUSSION

From 16 to 18 November 2022, the 76th session of the Working Party on Rail Transport (SC.2) established by the Inland Transport Committee (ITC) of the United Nations Economic Commission for Europe (UNECE) was held in Geneva at the Palais des Nations.

The Intergovernmental Organisation for International Carriage by Rail (OTIF) was represented by the Secretary General, Mr Wolfgang Küpper. Also participating were Mr Aleksandr Kuzmenko, head of the OTIF Secretariat's Legal Department, and Ms Iris Gries, Senior Legal Adviser in the same department.

Since 2010, the UNECE has been working on the Unified Railway Law project and in 2013, 37 of its Member States had signed the "Joint Declaration on the promotion of rail transport between Europe and Asia and activities to this end". Since 2013, the working methods and the project itself have evolved. For some years, it has been SC.2's task to reflect on the issue of unifying railway law in the pan-European region and along the Europe-Asia transport corridors.

This subject of the unification of railway law was included in item 2 of the agenda of the 76th session of SC.2. The Secretary General of OTIF, Mr Küpper, made a point of speaking during the discussions. He began by emphasising that OTIF's General Assembly supported the development of unified railway law as interface law. He then reminded the meeting that a General Assembly decision would be necessary for OTIF to take part in the process of drawing up a legal instrument that would be considered as a replacement for the existing legal framework of OTIF.

The Convention concerning International Carriage by Rail (COTIF), the basic text of OTIF, provides a legal framework to ensure legal and technical interoperability. At the meeting, OTIF recalled the important role of the Uniform Rules concerning the Contract for the International Carriage of Goods by Rail (CIM UR), and in particular the industry's extensive use of the CIM/SMGS consignment note.

Lastly, under agenda item 21, OTIF presented the recent work carried out by its committees and working groups.

The Secretariat thanked SC.2 for inviting it to the meeting and for the continually renewed cooperation.

STATEMENT BY THE SECRETARY GENERAL AT THE UNESCAP COMMITTEE ON TRANSPORT

The 7th session of the United Nations Economic Commission for Asia and the Pacific (UNESCAP) Committee on Transport was held in Bangkok, Thailand from 23 to 25 November 2022. As this was a hybrid meeting, the Secretary General of OTIF, Mr Wolfgang Küpper, and Mr Aleksandr Kuzmenko, head of the OTIF Secretariat's Legal Department, participated in the meeting online. The UNESCAP Committee on Transport meets every two years. At this session, participants discussed, among other things, issues of strategic importance for regional transport development, regional cooperation and the definition of regional policies to advance the sustainable development of transport in the region.
On 24 November 2022, Mr Küpper took the floor to present the roles of OTIF and of international rail transport in improving connectivity and establishing a sustainable, multimodal transport system:

"OTIF is a 129 year old international organisation based in Berne, Switzerland. OTIF's goal is to ensure legal and technical interoperability for cross-border railway transport. OTIF's legal framework ensures that the same legal rules are applied (rail transport law, dangerous goods law for rail transport and rules for technical interoperability and safety) in 51 Member States. Of particular importance for OTIF is the international aspect. Railways are best when operated successfully on a larger scale, i.e. across borders. One of OTIF's and UNESCAP's

important challenges is the development of Euro-Asian freight transport by rail. The proportion of rail freight transport in the Euro-Asian region is growing steadily, as it is cheaper than air transport and faster than maritime transport. Close cooperation between all organisations involved in the development of international rail transport is of the utmost importance in order to develop synergies between work programmes, avoid duplication of work and provide maximum effective use of the resources and experience available. A very good example of international cooperation is the common CIM/SMGS consignment note, which enables the harmonised organisation and operation of international rail freight transport between members of OTIF and OSJD.

Despite the current geopolitical situation, the underlying worldwide political conditions for international rail transport have never been so favourable. We really have the opportunity to make rail transport the transport mode of the 21st century. All the megatrends, such as the requisite sustainability of transport, urbanisation, digitalisation and demographic changes would seem to favour the railways. International railway transport should in future be the backbone of a sustainable and multimodal land transport system. To achieve a sustainable worldwide transport system, rail transport is indispensable: freight transport by rail, long distance passenger transport by rail and commuter trains provide the best solution to reach the agreed climate goals."

The Secretary General warmly thanked the UNESCAP Committee on Transport for giving him the opportunity to present OTIF.

LUXEMBOURG RAIL PROTOCOL: PREPARATORY COMMISSION AND TRANSFER OF OWNERSHIP OF THE DESIGNATED REGISTRAR

On 29 and 30 November 2022 at the headquarters of UNIDROIT in Rome, the Secretary General of OTIF, Mr Wolfgang Küpper, attended the 11th session of the Preparatory Commission for the establishment of the International Registry of railway rolling stock in accordance with the Luxembourg Rail Protocol.

Her Excellency Ms Michèle Pranchère-Tomassini, Ambassador of Luxembourg to Italy, and Her Excellency Ms Nosipho Nausca-Jean Jezile, Ambassador of South Africa to Italy, made opening statements.

The Secretary General of OTIF gave a welcome speech. He explained OTIF's role in connection with the Luxembourg Rail Protocol. When the latter enters into force, OTIF will become the secretariat of the Supervisory Authority.

Mr Küpper emphasised that rail transport provided a real solution and an efficient way to achieve sustainable development goals

in transport. Nevertheless, the investment and costs that are necessary for the railways to operate well are significant.

Mr Küpper explained as follows: “First and foremost, of course, rail transport needs an infrastructure on which the rolling stock can run. However, rolling stock itself is very expensive and, as has been the case with aviation, the system of international securities introduced by the Cape Town Convention can help to achieve significant savings in procurement. In the future, it will be crucial to simplify the way railways are financed. Therefore, governments and the sector cannot decide not to use additional financial instruments. This is where the Luxembourg Protocol comes into play.”

Mr Küpper concluded that the Luxembourg Rail Protocol is an instrument that facilitates the financing of railway rolling stock and creates a solid basis and additional means for the international development of rail transport.

At the end of its 11th session, the Preparatory Commission for the establishment of the International Registry for railway rolling stock under the Luxembourg Rail Protocol approved the transfer of control of the international communications and technology group SITA (SITA BV) to the listed Canadian company Information Services Corporation (ISC).

Via a wholly-owned subsidiary, ISC has therefore become the owner of Regulis S.A., the designated registrar for the Luxembourg Protocol.

In their respective statements, Mr Ignacio Tirado, Secretary General of UNIDROIT, and Mr Küpper, Secretary General of OTIF, welcomed the decision of the Preparatory Commission:

“UNIDROIT welcomes the positive outcome of the transfer of ownership of the designated registrar, which offers an excellent solution for a successful and timely entry into force of the Protocol after a long wait”, said Mr Tirado, who also thanked all parties to the negotiations.
“With its strong and documented financial position and its experience in establishing, operating and improving registry systems, ISC fully meets our expectations for the operation of the International Registry”, commented Mr Küpper.

The Luxembourg Rail Protocol

The Luxembourg Rail Protocol of 26 February 2007 is the result of numerous meetings sponsored by the International Institute for the Unification of Private Law (UNIDROIT). Its raison d'être is the success of the Cape Town Convention on International Interests in Mobile Equipment, and more specifically its Aircraft Protocol. The Luxembourg Rail Protocol establishes a new legal regime for the recognition and enforcement of securities of lenders, creditors and conditional sellers when these securities are in railway rolling stock. In the face of increasing private financing of rolling stock and the absence of international rules, issues surrounding ownership rights for railway rolling stock are critical. The Luxembourg Protocol offers a solution. It is the first comprehensive legal framework for the protection of owners and financiers of rolling stock operating across jurisdictional boundaries.

9th ANNUAL MEETING OF INTERNATIONAL ORGANISATIONS (OECD): SHARING EXPERIENCES

On 5 and 6 December 2022 in Paris (France), the Secretary General of OTIF, Mr Wolfgang Küpper, took part in the 9th Annual Meeting of International Organisations organised by the Organisation for Economic Co-operation and Development (OECD). Mr Aleksandr Kuzmenko, head of the OTIF Secretariat's Legal Department, also took part.

For some years now, the OTIF Secretariat has been actively cooperating with the OECD in the Partnership of International Organisations for more effective international rule-making and better international coordination.

On 6 December, Mr Küpper took part in discussion panel 1 on "agility", one of the three areas considered by international organisations to be a priority in order to remain "operational", especially in times of crisis.

In reply to the question "how can international regulations remain 'agile' and adapt quickly?", Mr Küpper explained the practice and tools that exist within OTIF.

He began by pointing out that, for imperative safety reasons, the Regulation concerning the International Carriage of Dangerous Goods by Rail (RID) is updated in a simplified procedure every two years in line with technical and scientific progress.
He then explained the new modern and fast procedure adopted by OTIF's General Assembly in 2018 for amending railway contract law and the technical interoperability rules. According to this new uniform procedure for amending railway law, modifications will enter into force automatically for all Member States thirty-six months after the modifications have been notified by the Secretary General.
Lastly, Mr Küpper emphasised that in order to be agile, an international regulation should preferably be formulated in a sufficiently flexible way to be able to adapt to new situations.

While it is essential to respond quickly to the needs of Member States, at the same time the following question arises: "how can inclusive decision-making, enhanced cooperation and coordinated action be ensured while being agile?". Mr Küpper replied that a multilateral approach was needed from the outset in order to speed up decision-making or at least allow for some progress in the conduct of discussions in search of solutions. Lastly, within OTIF, the General Assembly had set up an ad hoc Committee on Legal Affairs and International Cooperation. This Committee played a key role in framing, developing and strengthening international cooperation with international organisations and associations.

It is crucial to strengthen cooperation between OTIF and other relevant international organisations and associations so that the Organisation can achieve the aim it has been given under Article 2 of the Convention concerning International Carriage by Rail (COTIF).

The Secretariat of OTIF would like to thank the organisers of this 9th Annual Meeting for the depth of the discussions and the lessons learned.

MEETING IN BRUSSELS WITH DG MOBILITY AND TRANSPORT

On 17 January 2023, Mr Wolfgang Küpper, Secretary General of OTIF, and Mr Aleksandr Kuzmenko, head of the OTIF Secretariat's Legal Department, were in Brussels for a meeting with Mr Kristian Schmidt, Director of Land Transport in the European Commission's Directorate-General for Mobility and Transport, Mr Sandro Santamato, Head of the Single European Railway Area Unit, Mr Laurent Prat, Legal and Policy Officer in the same unit, and Ms Estelle Bacconnier and Ms Kornelija Vasauskaitė, Policy Officers in the Railway Safety and Interoperability Unit.

OTIF's long-term strategy, the project of the United Nations Economic Commission for Europe (UNECE) on the unification of railway law and cooperation with the Organisation for Cooperation between Railways (OSJD) were the main points discussed.

The discussions were constructive and the Secretary General of OTIF welcomed the meeting.

THE LUXEMBOURG RAIL PROTOCOL: RATIFICATION BY SPAIN

On 20 January 2023, the Kingdom of Spain deposited its instrument of ratification of the Luxembourg Rail Protocol, accompanied by declarations in accordance with Articles XIII, XIV, XXIV, XXV and XXVI of the Protocol.

This is the fourth ratification of the Luxembourg Rail Protocol, which will enter into force as soon as the conditions set out in Article XXIII § 1 have been met.

The Protocol has already been ratified by Luxembourg (2012), Gabon (2017) and Sweden (2018). The European Union approved it in 2014 and it has also been signed by Italy (2007), Switzerland (2007), Germany (2012), the UK (2016), Mozambique (2016), France (2017) and South Africa (2022).

His Excellency Mr Miguel Ángel Fernández-Palacios Martínez, Ambassador Extraordinary and Plenipotentiary of Spain in Italy, and Mr Moisés Morera, First Secretary of the Embassy of Spain in Italy, participated in a ceremony held on the occasion of the deposit of the instrument of ratification of the Luxembourg Rail Protocol at the headquarters of UNIDROIT in Rome.

Article XXIII — Entry into force

1. This Protocol enters into force between the States which have deposited instruments referred to in sub-paragraph (a) on the later of:

a) the first day of the month following the expiration of three months after the date of the deposit of the fourth instrument of ratification, acceptance, approval or accession, and

b) the date of the deposit by the Secretariat with the Depositary of a certificate confirming that the International Registry is fully operational.

2. For other States this Protocol enters into force on the first day of the month following the later of:

a) the expiration of three months after the date of the deposit of its instrument of ratification, acceptance, approval or accession; and

b) the date referred to in sub-paragraph (b) of the preceding paragraph.

DEPOSITARY NOTIFICATIONS

Since last Bulletin 15 December 2022 (Bulletin 4/2022)

NOT-23009	07.03.2023	Corrections to modifications to the French text of the ATMF UR (Appendix G to the Convention) adopted by the Revision Committee at its 25th session Corrections taking effect
NOT-23001	03.02.2023	Proposal for corrections to modifications to the French text of the ATMF UR (Appendix G to the Convention) adopted by the Revision Committee at its 25th session
NOT-23004	03.02.2023	List of CIV maritime and inland waterway services (Circular letter 31) (Germany)
NOT-22045	02.12.2022	Correction of the modifications to RID (Annex to Appendix C of the Convention) adopted by the 57th session of the RID Committee of Experts

RID 2023: WHAT'S NEW?

The new provisions of the Regulation concerning the International Carriage of Dangerous Goods by Rail (RID) came into force on 1 January 2023.

Every two years, RID is revised to take account of technical and scientific progress. This biennial review contributes to improving safety and enhances the attractiveness of rail transport.

The main new features in 2023 are as follows:

Transcontinental transport of gas cylinders: the new 1.1.4.7 of RID 2023 now regulates the import and export of gases in refillable pressure receptacles approved by the US Department of Transportation.

With regard to extra-large tank-containers: there is now a definition of "extra-large tank-container". One of the defining criteria is a minimum capacity of 40,000 litres. Many of the construction requirements that apply to tank-wagons now also apply to extra-large tank-containers.

With regard to the inspection and approval of tanks: in future, the lists of all the inspection bodies approved by the competent authorities of the RID Contracting States will be published on OTIF's website. These lists will identify the fields of activity for which each inspection body is approved and the marks or stamps used. A transitional period of ten years has been chosen to implement the new provisions.

Addition of a new UN number: a new UN number has been added to Table A of Chapter 3.2 for cobalt dihydroxide. The conditions of carriage for this new UN number take into account the special properties of cobalt dihydroxide powder.

With regard to the use of recycled plastics in the manufacture of packagings for dangerous goods: from 2023 onwards, the use of certain recycled plastics is permitted in the manufacture of packagings for dangerous goods.

With regard to tank-containers carrying liquefied gases: tank-containers intended for the transport of flammable liquefied gases must now be equipped with safety valves.

You will find all the details in the article "RID 2023" on page 16.

RID applies to the international transport of dangerous goods by rail between the 45 existing RID Contracting States in Europe, Asia and North Africa. In the Member States of the European Union, RID applies to both national and international transport.

RID is harmonised with the United Nations Recommendations on the Transport of Dangerous Goods, which form the basis for all the modal regulations on dangerous goods. There is also close coordination with the dangerous goods regulations for road transport (ADR) and inland waterway transport (ADN). This approach ensures the seamless transport of dangerous goods by all modes of transport.

UNCITRAL WORKING GROUP ON NEGOTIABLE MULTIMODAL TRANSPORT DOCUMENTS

From 28 November 2022 to 2 December 2022, the 41st session of Working Group IV "Negotiable Multimodal Transport Documents" of the United Nations Commission on International Trade Law (UNCITRAL) took place in Vienna, Austria. The Secretary General of OTIF, Mr Wolfgang Küpper, and Mr Aleksandr Kuzmenko, head of the OTIF Secretariat's Legal Department, took an active part in the discussions.

In 2019, following a proposal from one of these Member States, UNCITRAL began work on the possible development of a negotiable transport document aimed at facilitating the multimodal transport of goods, in particular by rail, in the Eurasian area.

Given the wide range and complexity of the issues involved, the UNCITRAL Secretariat began by researching the legal issues surrounding the use of consignment notes, particularly for rail transport. At the same time, the UNCITRAL Secretariat coordinated its work with other relevant organisations, such as the Intergovernmental Organisation for International Carriage by Rail (OTIF), the Organisation for Cooperation between Railways (OSJD), the International Rail Transport Committee (CIT), the United Nations Economic Commission for Europe (UNECE), the International Federation of Freight Forwarders Associations (FIATA) and the International Chamber of Commerce (ICC).

It is therefore in this context that the OTIF Secretariat actively cooperates with and is regularly involved in UNCITRAL Working Group IV.

LIAISON MEETING WITH UIC

The International Union of Railways (UIC) and the Intergovernmental Organisation for International Carriage by Rail (OTIF) work to facilitate the international movement of goods and passengers and to ensure effective harmonisation of the rail transport sector.

For a number of decades, OTIF and UIC have cooperated closely and have joined forces to develop interoperability and seamless international operation of the railway networks. In 2017, OTIF and UIC also signed a memorandum of understanding to formalise and strengthen their cooperation.

As a result, once or twice a year, a liaison meeting is held between various managers and departments of both organisations. The last one was held online on 15 December 2022, in the presence of the Secretary General of OTIF, Mr Wolfgang Küpper, and the Director General of UIC, Mr François Davenne.

At the end of the meeting, the OTIF Secretariat and UIC decided to work together to develop a "promotion package" that would explain how COTIF's legal tools and UIC's tools fit together. Freight could be the first area to be dealt with. This cooperation would take shape in a preliminary working meeting in the first quarter of 2023.

MEETING WITH GCC AND ITS MEMBERS

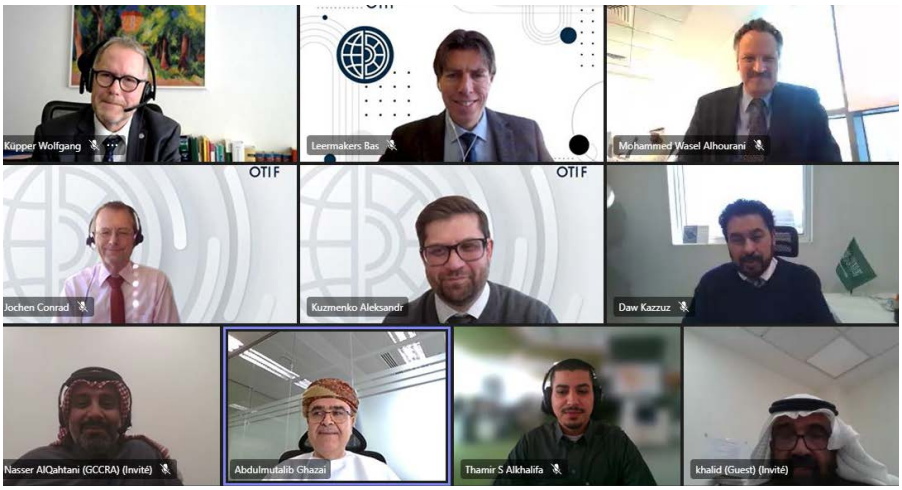
The Member States of the Gulf Cooperation Council (GCC), the GCC Secretariat and representatives of various OTIF departments, as well as the Secretary General of OTIF, met on 19 January 2023 in an online meeting.

In the context of the cooperation established since 2014, when a memorandum of understanding was signed, the OTIF Secretariat holds regular discussion with the GCC and its Member States with a view to accession.

On 19 January 2023, the participants discussed their respective latest news: the development of railway law and railways in the GCC states.

Several questions on technical and legal issues were then asked. The clarification provided by the OTIF Secretariat was welcomed.

The Secretary General of OTIF welcomed this effective and cordial meeting.



REVISION OF THE RULES CONCERNING DEROGATION FROM THE APPLICATION OF UTPS

On 1 January 2023, a fully revised Annex B to the ATMF UR entered into force. It sets out the rules and conditions on the basis of which Contracting States may grant derogations concerning the non-application of UTPs or parts thereof.

The Committee of Technical Experts adopted these revised rules in accordance with Article 7a of the ATMF Uniform Rules (Appendix G to COTIF), which sets out that *"The Committee of Technical Experts is competent to adopt guidelines or mandatory provisions for derogations from structural and functional UTPs* [Uniform Technical Prescriptions].". The revised rules repealed and replaced the former rules concerning derogations, which had been in force since 1 January 2014.

"Derogation" in the context of Annex B to the ATMF UR means the permission granted by a Contracting State not to apply particular or any of the provisions of a Uniform Technical Prescription. The procedure and responsibilities for granting derogations have changed, but the general concept of derogations and the consequence of derogations have not changed. Derogations are only applicable and valid on the territory of the Contracting State that has granted them. Consequently, both under the old and new rules, a vehicle subject to a derogation cannot be used freely in international traffic and requires separate admission by each Contracting State before it can be used on the territories of these Contracting States.

Some notable principles of and changes to the new provisions:

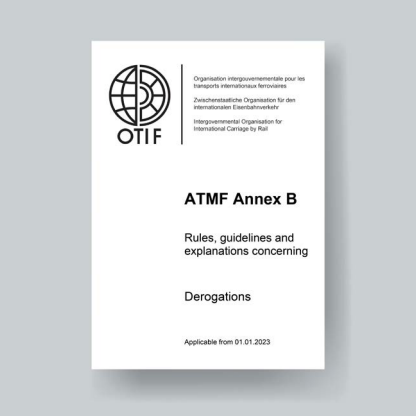
- The scope of the revised Annex B to the ATMF UR is limited to derogations concerning vehicles or types of vehicle. The scope does not extend to infrastructure. This is because the UTP concerning infrastructure already allows Contracting States to decide not to apply the UTP without having to apply any centralised derogation procedure. Derogations from UTPs concerning general provisions (UTP GEN) were and continue to be prohibited.

- In the previous situation, the Contracting State had to send a file to the Secretary General, who in turn had to check whether the file was complete and inform the Contracting State of his findings. Furthermore, the Committee of Technical Experts had a formal role in approving derogations.

- In the new situation, Contracting States are solely and fully competent to grant derogations from the application of specific provisions of specific UTPs, without the involvement of the Secretary General or the Committee.

- Applicants should request permission for derogations concerning specific provisions from the Competent Authority of the Contracting State. The Competent Authority should examine the request and decide whether to accept or reject the request.

- Guidelines on whether to grant or reject derogations are included in the same document as the rules; these should help the Competent Authorities apply the rules in a harmonised way.



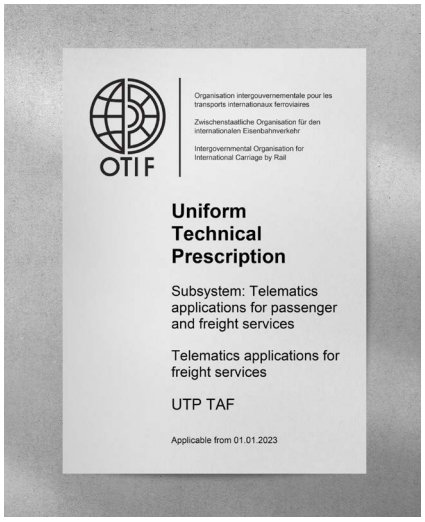
- Vehicles subject to any derogation do not comply with one or more UTP provisions and are not therefore automatically accepted in international traffic. The derogation must be described in the vehicle's Certificate of Operation. In particular, this should include a precise description of which UTP provisions are not applied, and which alternative requirements are applied instead. The description should allow Competent Authorities of other Contracting States and railway actors to understand the impact of the derogation and the consequences of the derogation in terms of the possible admission of the vehicle to other network(s) and should facilitate route compatibility assessment.

All the technical provisions of COTIF are available on OTIF's website: Reference Texts > Technical Interoperability > Prescriptions and Other Rules

Bas Leermakers

REVISED UTP TAF ENTERED IN FORCE: PRESENTATION OF THE CHANGES

On 1 January 2023, UTP TAF (Telematics Applications for freight services) entered in force. It repeals UTP TAF of 1 December 2017. The UTP provides the minimum legal requirements for the process and data messages in the exchange of information between railway operators and infrastructure managers for international freight services by rail, including intermodal transport. This article explains the changes and modifications to the UTP.



Revision of the UTP TAF was necessary following the European Union's adoption of a new *Regulation (EU) 2021/541 on 26 March 2021 as regards the simplification and improvement of data calculation and exchange and the update of the Change Control Management process.* This meant that the EU TAF TSI had to be revised with the introduction of new or modified specifications related to procedures, roles and responsibilities, information flow, tracking of data, and the exchange of data with other systems and operators. The change control management process is important to monitor the implementation of the telematics applications and continuously to update the content and structure of the messages that are defined in the Technical Documents listed in Appendix I of the TAF TSI.

The main modifications and differences compared to the UTP TAF of 1 December 2017 are structural, editorial and substantial.

Since 2017, the structure of the UTPs has been improved to provide more clarity on the general provisions and equivalence with the EU's legal provisions, which are reflected in Chapter 0 of each UTP. The UTP TAF is editorially aligned with the latest UTPs and continues to have a two-column layout, where the left-hand column and full width texts show the UTP provisions and the right-hand column shows the equivalent EU legislative text for information only.

Chapter 2, which defines the subsystem and the scope of this UTP, has been simplified by focusing only on the functions within and outside the scope. In addition, the definition of the process is limited to the exchange of data between infrastructure managers (IM) and railway undertakings (RU).

The detailed explanation of the roles and responsibilities of the different actors has been deleted from Chapter 2 and has been more precisely reflected in Chapter 4 of the UTP, which describes the functional and technical specifications of the subsystem and specific parameters, such as consignment note data, train preparation, path request and allocation, train running and train running forecast information, service disruption information, shipment information, wagon movement, data exchange, rolling stock reference database, reference files for the operation of trains and networking and communication. For example, when more than one RU is involved in the transport chain and the train operations, a Lead RU would be responsible for coordination with the other RUs involved in the train's journey and for the provision of information to the customer according to contractual agreement. The customer is also responsible for sending the consignment note to the Lead RU with all the information necessary to carry a consignment.

Addition of provisions related to path allocation and train running information

The parameter of train preparation was modified by adding path allocation to path request, which requires successive steps of communication between the RU, who can act as an applicant, and the IM or the Allocation Body. The Allocation Body is a term that has been newly added to the UTP. It refers to the body which is responsible for the path allocation and which is established in accordance with the national legislation of the Contracting State concerned. The Allocation Body might also be the IM.

Similar modifications were made to the parameters for the Train Running Forecast, where Train Running Information was added. Both these parameters require an exchange of information between IMs and RUs, as well as between neighbouring IMs involved in the same train run. With a view to intermodal transport, there is an

additional requirement for the RUs to provide information and messages to Terminal Operators. Terminal Operator is a term that has now been added to the UTP to describe the entities responsible for marshalling yards, multimodal or intermodal terminals and port terminals.

With regard to the estimated time of arrival (ETA), the UTP makes a clearer distinction between the ETA of the shipment, the ETA of the train (TETA), and the estimated time of interchange (ETI). This modification is important in order to reflect the different practices in train operation, which may include handover or interchange at terminals (in the case of intermodal transport).

Replacement of provisions regarding train composition, with reference to TCRC

Train preparation is a parameter that requires the RU, in coordination with the IM, to check the compatibility of the train and the intended route. The UTP TAF has limited the requirements to the obligation of the RU (or Lead RU in coordination with other RUs) to send the Train Composition message and makes reference to Chapter 5.2 of the UTP TCRC (Train Composition and Route Compatibility Checks), where detailed information for the compatibility checks is defined. The UTP TCRC entered in force on 1 January 2022.

Reference files and databases

The UTP TAF has kept in its Appendix I the requirements for the wagon keeper to provide vehicle related data via a rolling stock reference database, whose structure is defined in the technical document of the TAF TSI: Annex D.2 – Appendix F.

The wagon and intermodal unit operational database used to track trains and wagon movements and their status becomes optional; however, if such database is used by the RUs, it should be accessible to IMs, wagon keepers and fleet managers through bilateral agreements.

With the development of new IT tools for the exchange of information, it was necessary to modify the parameter on networking and communication to reflect the need for a safe and secure interface, the protection of data and the encryption of data transmission and storage. The technical standards are defined in the technical document of the TAF TSI: Annex D.2: Appendix E – Common Interface.
Appendix I of the UTP TAF lists the relevant technical documents.

Requirement that non-EU Contracting States should inform the OTIF Secretariat of their National Contact Point

Contracting States should appoint a National Contact Point (NCP) who can help facilitate the implementation of TAF at national level. The tasks of the NCP are described in Appendix III of the UTP, but are limited to coordination and liaison activities between the OTIF Secretariat and the European Union Agency for Railways (ERA). It should be noted that at EU level, it has already been obligatory for several years for EU Member States to appoint an NCP. The NCPs have an active and coordinated role, not only in the implementation of TAF, but also in assisting ERA, as the EU Competent Authority, in reporting annually the level of implementation in the EU. The new UTP TAF provisions are more flexible with regard to the tasks, bearing in mind the currently insufficient information on the implementation of TAF by some non-EU Contracting States.

Updated glossary, abbreviations and references to several legal texts

The glossary in Appendix II of the UTP TAF was revised and updated to include terms that are either new to the list or whose description had to be corrected.

New terms, such as Combined Transport, Estimated Time of Pick-up, IM Entry Point, IM Exit Point, and Terminal Operator were added to the glossary to reflect the functional and technical specifications of the subsystem and the specific features of intermodal transport. Terms and abbreviations that were no longer used in the legal text and its appendices were deleted.

Throughout the UTP TAF text, including the appendices, the references to the latest EU legislation were also updated.

The UTP TAF of 1 December 2017 is repealed but will remain available on OTIF's website for reference.

All the technical provisions of COTIF are available on OTIF's website: Reference Texts > Technical Interoperability > Prescriptions and Other Rules

Maria Price

15th SESSION OF THE COMMITTEE OF TECHNICAL EXPERTS

The Committee of Technical Experts (CTE) will hold its 15th session on 13 and 14 June 2023. The CTE is one of the organs of OTIF and it deals with subjects in the scope of the APTU UR (Appendix F to COTIF) and ATMF UR (Appendix G to COTIF), most notably the rules and procedures related to the admission of vehicles in international traffic.

The invitation letter and agenda for the meeting were published on OTIF´s website on 23 January 2023. *Link to the invitation letter: http://otif.org/en/?page_id=152*. The meeting will be held in Bern and delegates are able to attend in-person or remotely. All the documents concerning proposals for binding provisions under agenda item 6 were published on OTIF´s website on 20 February 2023 and the remaining working documents will be published on 17 April 2023. *Link to the working documents:* Activities > Technical Interoperability > Committee of Technical Experts > Working Documents > 2023

CTE will deal with a wide range of topics, including:

- A proposal for a decision to revise the **Committee's Rules of Procedure.** The proposed modifications include new requirements concerning the involvement of observers and stakeholders in CTE meetings, the designation of focal points, updating the voting procedure, the broadening of the Chair's responsibility between sessions of CTE, and a new procedure to establish a formal list of decisions shortly after each session of CTE.

- A proposal to revise the **UTP GEN-E** concerning the qualifications and independence of assessing entities. A completely revised version will be proposed to replace the existing version. The aim is to formulate more simply and clearly the rules concerning the qualifications and independence of assessing entities and to align UTP GEN-E with the provisions applicable in the European Union.

- A proposal to revise the **UTP GEN-G** concerning a Common Safety Method on risk evaluation and assessment. The proposed revision would widen the scope of UTP GEN-G, so that it covers risk evaluation and assessments relating to the safety management system in the scope of the future EST UR. In addition, several editorial improvements and improvements of substance are proposed.

- A proposal to update the list of technical documents referred to in **Appendix I to the UTP TAF** concerning telematics applications for freight services. These technical documents contain detailed IT specifications, such as interface and process descriptions, definitions of databases for master data and code lists, and are regularly updated.

- A draft proposal for **Annex C to the future EST UR** concerning harmonised procedures for issuing safety certificates. The aim is to harmonise applications for safety certificates, the procedure for issuing safety certificates and the content of the safety certificates, in order to facilitate the mutual acceptance of conformity assessment results between safety certification authorities in the meaning of Article 5 § 3 of the future EST UR.

Furthermore, CTE will review the application guides concerning the UTP WAG and the UTP Noise. It will discuss the provisions dedicated to vehicles that can be used freely in international traffic, the next steps on monitoring and assessing implementation of the APTU and ATMF UR and developments concerning the FRMCS. The meeting will conclude with a discussion on the CTE's 2023/2024 work programme.

Provisional Agenda

Opening of the session
Election of the Chair

1. **Approval of the agenda**
2. **Presence and quorum**
3. **Revision of the rules of procedure of the Committee**
4. **Involvement of stakeholders in the Committee**
5. **Items for information:**
   5.1 General information from the OTIF Secretariat
   5.2 Report from the Committee of Technical Experts' working group TECH
6. **Items concerning the adoption of binding provisions:**
   6.1 Revision of the UTP GEN-E concerning the qualifications and

independence of assessing entities
6.2 Revision of the UTP GEN-G concerning a Common Safety Method on risk evaluation and assessment
6.3 Revision of the list of technical documents set out in Appendix I to the UTP TAF concerning telematics applications for freight services

7. **Items concerning approval of non-binding guidance and recommendations:**
7.1 Revision of the application guide for the UTP WAG
7.2 Revision of the application guide for the UTP Noise

8. **Items for discussion:**
8.1 Progress report on development of the EST UR (Appendix H to COTIF):
- Draft Annex C to the EST UR concerning a harmonised procedure for issuing safety certificates
8.2 Giving more prominence to provisions dedicated to vehicles suitable for free circulation and general operation in international traffic
8.3 Next steps on monitoring and assessing implementation of the APTU and ATMF Uniform Rules
8.4 Update on the future railway mobile communication system (FRMCS) and its relevance to OTIF
8.5 Work programme of the Committee

9. **Any other business**

10. **Next session**

The Committee session will be followed on 15 June 2023 by the 49th session of the standing working group Technology (WG TECH).

Technical Interoperability Department

RID 2023

The new provisions of the Regulation concerning the International Carriage of Dangerous Goods by Rail (RID) entered into force on 1 January 2023. The 2023 edition replaces the 2021 edition. However, in accordance with a general transitional measure, the provisions of RID 2021 may continue to be used until 30 June 2023.

RID applies to the international carriage of dangerous goods by rail between the 45 existing RID Contracting States in Europe, Asia and North Africa. In the Member States of the European Union, RID also applies to national, as well as international transport.

RID is harmonised with the United Nations Recommendations on the Transport of Dangerous Goods, which serve as the basis for all the modal dangerous goods regulations. There is also close coordination with the dangerous goods regulations for road (ADR) and inland waterways (ADN). This approach ensures the through transport of dangerous goods by all modes of transport.

RID 2023 contains various new provisions to take account of technical and scientific progress, which contribute to improving the safety and appeal of the clean and energy-efficient rail mode:

Transcontinental carriage of gas cylinders

High-quality and high-purity gases are produced on both sides of the Atlantic and need to be transported for the specialised industries that require such gases. In the past, the problems that existed in Europe with the carriage of gas cylinders that did not comply with the provisions for RID/ADR pressure receptacles or the provisions for UN pressure receptacles were resolved by means of multilateral special agreements, which had to be extended again and again because of the persistence of the problem, but this contradicted the principle of the five year maximum period of validity of multilateral special agreements.

The new 1.1.4.7 of RID 2023 now regulates the import and export of gases in refillable pressure receptacles approved by the United States Department of Transportation. In return, the regulations of the United States Code of Federal Regulations (CFR49) are also being amended to allow the carriage of RID/ADR pressure receptacles in the USA.

Extra-large tank-containers

Extra-large tank-containers which have a capacity of up to 73,500 litres and a payload of up to 66 tons have been used by a German chemical company as an alternative to tank-wagons for a few years. They were built in accordance with the provisions of Chapter 6.8 applicable to tank-containers. In recent years, the RID Committee of Experts has dealt intensively with these extra-large tank-containers and found that the previous construction requirements for tank-containers were developed on the basis of a maximum capacity of 36,000 litres and cannot be transferred unchanged to tank-containers that are more than twice the size.

It was decided to include a definition of “extra-large tank-container”, which differs from a conventional tank-container by having a minimum capacity of 40,000 litres. Various construction requirements that apply to tank-wagons now also apply to extra-large tank-containers. In particular, the minimum wall thickness of tanks should be highlighted.

List of abbreviations

All the explanations of abbreviations and acronyms used in RID have been transferred from 1.2.1 (Definitions) to a new 1.2.3. This was based on the IMDG Code, where this separation has already existed for some time. Footnotes explain which foreign-language terms the respective abbreviation was derived from.

Testing and approval of tanks

Since 2015, a working group has been working on amendments to the administrative procedures and controls for the testing and approval of tanks. The aim of this working group was to have common requirements for the approval and monitoring of inspection bodies with a view to their mutual recognition.

In future, lists of all inspection bodies approved by the RID Contracting States’ competent authorities will be published on OTIF’s website. These lists will identify the areas of activity for which each inspection body is approved and the marks or stamps used. They serve to confirm that the inspection bodies listed are capable of carrying out the activities for which they are approved in any other RID Contracting State and that the certificates and confirmations issued are valid throughout the RID territory.

As the RID Contracting States are at different stages of accrediting inspection bodies and experts, a long transitional period of ten years

was chosen to implement the new provisions.

Inclusion of a new UN number

A new UN number has been added to Table A of Chapter 3.2 for cobalt dihydroxide, which is used to extract cobalt, a mineral used in various medical and technical applications. Globally, around 200,000 tons of this substance are carried each year. The transport provisions for this new UN number take account of the particular properties of cobalt dihydroxide powder, which has a risk of inhalation toxicity, although this is reduced by the high relative density and hygroscopic, i.e. hydrophilic, properties of the substance.

Use of recycled plastics material

Up to now, recycled plastics material could only be used to a very limited extent in the manufacture of dangerous goods packagings. Rigid plastics IBCs (IBC = intermediate bulk container) and composite IBCs with plastics inner receptacles made of recycled plastics material may now also be manufactured.

This regulation is just the first step. In future, the use of recycled plastics material is to be broadened. At present, only materials from used industrial packagings may be recovered, whereas in future, plastics from household collections will also be permitted.

Packagings with more than 400 kg net mass

RID 2023 now clarifies that the maximum net mass of 400 kg applicable to packagings only has to be complied with in cases where type-tested packagings are used. In those packing instructions where the use of strong outer packagings, protective enclosures or pallets is also permitted under certain conditions, it is pointed out that the net mass limitation need not be complied with.

Indication of waste quantities in the transport document

Since, in many cases, the exact quantity cannot be determined when carrying waste, because no weighing facilities are available at the place of loading (e.g. at construction sites, decontamination sites), an estimate of the quantity of waste based on the nominal volume of the packaging or container containing the waste is now permitted under certain conditions.

Fitting tanks with safety valves

Tank-containers for the carriage of flammable liquefied gases must in future be equipped with safety valves. This is to prevent a so-called BLEVE (boiling liquid expanding vapour explosion), which can occur if the tank is heated by an external fire to such an extent that the liquid phase passes into the gas phase and the resulting overpressure causes the tank to burst and the gas to escape abruptly with subsequent ignition at the external source of the fire. Tank-wagons were excluded from this provision because the initiation of a BLEVE by an engine or tyre fire can be ruled out for tank-wagons.

Tank-containers equipped in this way must now be marked with a white mark with the letters “SV” for safety valve so that the emergency services can recognise from a distance that a safety valve is present and the initial measures can be directed accordingly.

New Chapter 6.9

The new Chapter 6.9 of RID 2023 contains construction, testing and approval provisions for portable tanks made of fibre-reinforced plastics (FRP) that can be used worldwide. The previous Chapter 6.9 of RID/ADR, which had already permitted the use of FRP for ADR tank-vehicles and RID/ADR tank-containers since the beginning of the millennium, served as the basis. Since the previous Chapter 6.9 has not been fundamentally revised since then, the technical developments that have taken place in the meantime had to be reflected.

For RID/ADR tank-containers made of FRP, which were previously built on the basis of the previous RID/ADR Chapter 6.9, it was decided to make the new Chapter 6.9 applicable to the construction of portable FRP tanks. A ten-year transitional measure ensures the continued use of existing FRP tank-containers and those built within these ten years on the basis of existing and still valid design type approvals.

Jochen Conrad

15th SESSION OF THE RID COMMITTEE OF EXPERTS' STANDING WORKING GROUP (Berne/hybrid, 23 and 24 November 2022)

The 15th session of the RID Committee of Experts' standing working group was held as a hybrid meeting on 23 and 24 November 2022. 16 RID Contracting States, the European Union represented by the European Commission and the European Union Agency for Railways (ERA) and six international associations took part in the work.

After the 14th session of the standing working group (Berne/hybrid, 23 and 24 May 2022) focused on completing the work on the 2023 amendments to RID, this working group dealt with various questions of interpretation and issues that are currently being dealt with in ERA's working groups and that may have an impact on RID. In addition, the working group approved some more necessary corrections to the 2023 amendments to RID and discussed the results of the 19th session of the working group on tank and vehicle technology, which met in Berne on 22 November 2022 before the meeting of the standing working group.

RID Committee of Experts' standing working group

Placarding of swap bodies

RID 5.3.1.2 governs the affixing of placards to large containers, bulk containers, multiple element gas containers (MEGCs), tank-containers and portable tanks. While the corresponding sub-section of ADR states in a Note that, with some exceptions, these provisions do not apply to swap bodies, RID says nothing specific with regard to their application to swap bodies.

The representative of the International Association of Safety Advisers (IASA) proposed to add a Note to RID 5.3.1.2 to clarify that in RID, swap bodies are treated like large containers.

However, the standing working group saw no need for clarification for RID, as the definitions in 1.2.1 already provided a clear rule. In 1.2.1, swap bodies are defined as containers. As swap bodies usually have an internal volume of more than 3 m^3, they do not fall under the definition of a small container. In addition, as large containers are defined as containers which do not correspond to the definition of small containers, swap bodies are also considered as large containers.

For the purpose of user-friendliness, the Secretariat of OTIF was asked to prepare a corresponding interpretation of RID 5.3.1.2, which could be published on OTIF's website once the standing working group has approved it.

Transitional measure for fibre-reinforced plastics tanks

Together with the new provisions for fibre-reinforced plastics portable tanks in Chapter 6.9 of RID/ADR (see Bulletin 1-2/2022, p. 23), a transitional measure was also included in the 2023 edition of RID/ADR to allow the construction of tank-containers in accordance with the provisions of Chapter 6.9 in force until 31 December 2022 until 1 July 2033.

At its last meeting (Geneva, 8 - 11 November 2022), the Working Party on the Transport of Dangerous Goods (WP.15) adopted an addition to this transitional measure to clarify that the provisions of Chapter 4.4 applicable until 31 December 2022 also continue to apply to tank-containers made of fibre-reinforced plastics used in accordance with the transitional measure.

The standing working group also adopted this addition to the transitional measure for RID. As this amendment will not enter into force until 1 January 2025, the OTIF Secretariat was asked to publish a corresponding interpretation on OTIF's website.

Declarations of occurrences involving dangerous goods

In RID, declarations of occurrences involving dangerous goods are governed by 1.8.5. With the aim of improving reporting, ERA has been working since 2019 on the new European CSM ASLP Regulation (Common Safety Method on Assessment of Safety Level and Safety Performance of railway operators at National and Union level), which is expected to enter into force, with full functionality of the reporting system, in 2025 at the earliest.

The important question that the standing working group had to deal with and will continue to deal with at its next meetings is whether and how to establish a link between the existing and the newly proposed system of reporting. For example, should the criteria for the threshold of the obligation to report in the future CSM ASLP Regulation on the one hand and in RID 1.8.5.3 on the other hand be aligned?

It was pointed out in the discussions that the two systems have different objectives. While the main objective in the existing RID system is to evaluate and, if necessary, improve the regulations, the system planned by ERA will also use the data collected for risk assessment and to assess undertakings.

ERA emphasised that the purpose of collecting accident data was a kind of collective learning in order to obtain a better understanding of the causes of accidents. In order to avoid duplication, the harmonised collection of data would, in its view, be desirable.

As ERA proposes, among other things, an extension of the new reporting system to the other two land transport modes, the RID/ADR/ADN Joint Meeting will also have to address the possibility of harmonising the two systems.

List of corrections to the notified texts in OTIF/RID/NOT/2023 dated 1 July 2022

As some editorial errors were still found in the notification texts in all three language versions when the 2023 edition of RID was finalised, the OTIF Secretariat prepared a list of corrections, which was published via a depositary notification (see OTIF website).

Language versions of RID

The standing working group was informed that the Secretariat of OTIF was looking into the possibility of translating RID into Arabic. Although Arabic is not an official language of OTIF, a translation into Arabic would facilitate the application of RID in the Arabic-speaking RID Contracting States and might encourage Arabic-speaking states' interest in acceding to COTIF. For some years now, an unofficial Russian translation of RID has been published on OTIF's website.

Following the example of the UNECE Secretariat, which already offers ADR Contracting Parties the opportunity of publishing a link to their national translation of ADR on the UNECE website, the OTIF Secretariat will now also enable RID Contracting States to publish a corresponding link to the national translations of RID on OTIF's website.

Working group on tank and vehicle technology

The working group on tank and vehicle technology, which met ahead of the standing working group, dealt with two important topics, namely the requirements for wagons that will in future be equipped with digital automatic coupling and the outstanding issues in connection with extra-large tank-containers.

Digital automatic coupling in the context of dangerous goods transport

In connection with the forthcoming introduction of digital automatic coupling (DAC) in European rail freight traffic, the importance of taking the requirements of dangerous goods law into account when revising the corresponding Technical Specifications for Interoperability (TSI) was already highlighted at the 14th session of the standing working group (see also Bulletin 3/2022, p. 22). To this end, in October 2022 ERA organised a bilateral workshop of its thematic working group and RID experts.

The results of the workshop were discussed at the working group on tank and vehicle technology. In addition, industry representatives introduced the working group to the new technology. It was pointed out that in contrast to wagons with buffers, where the energy is absorbed on both sides, the energy dissipation of wagons with DAC takes place in the middle, in the so-called UIC pocket. Since the "Scharfenberg" central coupling system had been chosen for European rail freight transport, which ensured the safe catching of the two halves of the coupling and which could also withstand a vertical force of 150 kN, the overriding of buffers with DAC was ruled out.

Thanks to this technical feature, the working group did not consider it necessary for wagons equipped with DAC to maintain the minimum distance of 300 mm between the headstock plane and the most protruding point at the shell extremity currently required for dangerous goods tank-wagons. This provision was included in RID at the time to prevent the buffer from penetrating the tank in the event of the buffers overriding.

In order to comply with special provision TE 25 assigned to tank-wagons for the carriage of very dangerous substances (e.g. toxic gases), it is sufficient if only one of the measures shown in paragraphs (a) to (e) is applied. As the DAC already meets the requirement of special provision TE 25 (a) due to the safe locking up to a speed of 36 km/h and the resistance to a vertical force of 150 kN, none of the further measures (b) to (d) (i.e. increasing the wall thickness of the tank ends, sandwich covers on tank ends and protective shields) would have to be applied according to the current state of the provisions. However, because carriage in accordance with special provision TE 25 involves the carriage of very dangerous substances, the need to maintain one of the measures set out in paragraphs (b) to (d) of special provision TE 25 will be discussed further.

In order for wagons equipped with DAC to meet the requirements of special provision TE 22 applicable to gas tank-wagons, it was proposed to use DAC AX, i.e. standard DAC with an elastic (reversible) energy absorption capacity of 75 kJ and an energy absorption element with a plastic (irreversible) energy absorption capacity of 600 kJ. This achieves a total energy absorption capacity of 675 kJ. Due to the limited space in the UIC pocket, this value is also the maximum value that can be achieved without having to impinge on the construction of the chassis. However, since the value of 800 kJ currently prescribed in special provision TE 22 is only achieved with conventional wagons in ideal cases, the working group agreed that the 125 kJ lower energy absorption capacity was justifiable in terms of safety.

According to the current provisions, all tank-wagons and battery-wagons for the carriage of gases must be fitted with buffers with a minimum energy absorption capacity of 70 kJ (C buffers). Industry representatives explained that the energy absorption capacity of a DAC C, which is the equivalent of C buffers, is 140 kJ. As this value is achieved by a hydraulic element, which is very expensive to maintain, it would also make sense to equip tank-wagons and battery-wagons for the carriage of gases with DAC AX, as it is a more cost-effective solution.

The working group also dealt briefly with the specific risks resulting from the electrical high voltage and the domino effect observed in derailments in North America, in which numerous wagons in the train set had overturned because of the rigid coupling. These issues will have to be discussed further at future sessions.

Extra-large tank-containers

The representative of the European Chemical Industry Council (Cefic) informed the working group of the chemical industry's experiences with using extra-large tank-containers up to now, including experience with hump shunting. The first extra-large tank-containers have already been in use since 2015 and have not so far shown any signs of fatigue. It should be emphasised that the tank-containers used for the transport of dangerous goods were designed for acceleration values of 3g.

The working group agreed that the value of 3g must be prescribed in RID. However, as this subject also concerns other modes of transport, a proposal to this effect will be submitted to the next session of the RID/ADR/ADN Joint Meeting.

Germany informed the working group that the research project on the effects of surge movements in rail traffic, which was to provide a basic understanding of surge behaviour, will be awarded in 2023 (see also Bulletin 1-2/2022, p. 26). As part of the research project, various conditions, such as the geometry of the route, the speed, the tank design type, viscosity of the substance and the interaction of transverse to longitudinal surge would be considered. The results of the research project are expected at the beginning of 2025 and will then be presented to the working group.

Next session

The 16th session of the RID Committee of Experts' standing working group will provisionally be held in the week from 20 to 24 November 2023.

Katarina Burkhard

61st SESSION OF THE UN SUB-COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

(Geneva/hybrid, 28 November to 6 December 2022)

The 61st session of the UN Sub-Committee of Experts was the last session in the 2021/2022 biennium. The decisions of the UN Sub-Committee of Experts are incorporated into the 23rd revised edition of the UN Model Regulations and form the common basis for all the mode-specific dangerous goods regulations. In the context of harmonising RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods, these decisions will later be carried over into the 2025 editions of RID, ADR and ADN.

The 61st session of the UN Sub-Committee of Experts was held from 28 November to 6 December 2022. It was chaired by Mr Duane Pfund (United States of America) and 23 states, 6 governmental organisations and 30 non-governmental organisations were represented at it. As all the decisions of the UN Sub-Committee of Experts have repercussions for the dangerous goods provisions of the various modes, the Intergovernmental Organisation for International Carriage by Rail (OTIF) was represented as a modal organisation.

Opening of the session

This UN Sub-Committee of Experts meeting was again held in a hybrid format, with the possibility of taking part online or in person. The Secretariat announced that following the global decline of the COVID-19 pandemic, the UN Sub-Committee of Experts' meetings in 2023 would be organised exclusively as meetings with the physical presence of participants.

Review of the draft amendments adopted during the biennium

The UN Sub-Committee of Experts endorsed the draft amendments to the UN Model Regulations and the Manual of Tests and Criteria adopted at the last three sessions. In the process, those amendments that had previously only been provisionally adopted in square brackets were also approved.

Classification

Pyrotechnic substances

At the last session of WP.15, the question of whether pyrotechnic substances should be taken into account when calculating the net explosive mass had been discussed. In this context, the meeting was also informed that Sweden had submitted a proposal to the UN Sub-Committee of Experts to clarify that pyrotechnic substances are considered as explosive substances.

RID/ADR/ADN 2.2.1.1.1 specifies which substances are covered by the term in Class 1.

In addition to a definition of explosive substances, RID/ADR/ADN 2.2.1.1.1 (a) contains a definition of pyrotechnic substances, although the latter only refers to the effects produced by pyrotechnic substances and not to their internal properties. It is not clear from the two definitions to what extent explosive substances and pyrotechnic substances are related. RID/ADR/ADN 2.2.1.1.1 (c) refers to substances and articles that produce "a practical explosive or pyrotechnic effect" without defining what is meant by such an effect. This lack of a definition can lead to the scope of Class 1 being incorrectly defined, as effects such as heat, light, sound, gas or smoke can also be produced by the combustion of flammable substances or fuels in the air.

The UN Sub-Committee of Experts decided to clarify in the definition of pyrotechnic substances that they are explosive substances and to include a new definition of explosive or pyrotechnic effect that emphasises the basic explosive properties, i.e. the ability to sustain a self-sustaining, exothermic chemical reaction.

Nitrocellulose membrane filters

Nitrocellulose membrane filters have been used for diagnostic and other life science applications for several decades. Applications for these nitrocellulose membrane filters include rapid tests for COVID-19 infections, infectious diseases such as influenza, hepatitis, malaria, borreliosis and pregnancy tests. In addition, nitrocellulose membranes are used for bioanalytical test platforms for the analysis of proteins, biomarkers and microorganisms. This can be

used, for example, to determine the bacterial load of water, food and beverages.

Membrane filters of nitrocellulose containing not more than 12.6% nitrogen by dry mass are assigned to UN No. 3270 of Class 4.1. Special provision 237, which is assigned to this entry, requires that membrane filters, including paper separators, coatings or backing materials that are present in transport, must not be liable to propagate a detonation. In addition, based on the results of suitable burning rate tests, taking account of the standard tests in the Manual of Tests and Criteria, the competent authority may determine that nitrocellulose membrane filters in the form in which they are to be carried are not subject to the provisions applicable to flammable solids of Class 4.1.

The chemical industry has carried out the tests specified in the Manual of Tests and Criteria for a number of nitrocellulose membrane filters and the test results have shown that membrane filters with a nitrocellulose content of up to 53 g/m^2 and paper separators of minimum 80 g/m^2 can be excluded from Class 4.1 by special provision 237.

The UN Sub-Committee of Experts adopted a proposal from the chemical industry to assign an additional special provision to UN No. 3270 specifying that, subject to a restriction on the nitrocellulose content (53 g/m^2), the specification of a minimum paper weight for the separator sheets and other criteria, nitrocellulose membrane filters may be fully exempted.

Tetramethylammonium hydroxide

Tetramethylammonium hydroxide (TMAH) is mainly used in the semiconductor and display manufacturing industry. It is used as a main substance in developers for photolithography and is one of the most critical substances in the microchip manufacturing process. As such, every microchip and Liquid Crystal Display (LCD) or Organic Light Emitting Diode (OLED) display is manufactured using TMAH. In these applications, TMAH is most commonly used as a simple aqueous solution containing only water and TMAH in varying concentrations, generally ranging from 2.5% to 25%.

TMAH is an ammonium compound used in the chemical industry in solid form and as a solution. In solid form, this substance is assigned to entry UN 3423 Tetramethylammonium hydroxide, solid in Class 8, while as a solution, it is assigned to entry UN 1835 Tetramethylammonium hydroxide, solution in Class 8.

According to the literature, TMAH has alkaline, corrosive properties that can cause skin burns and systemic neurotoxic effects that can lead to respiratory failure and cardiac arrest. The corrosive properties of TMAH solutions damage the skin and allow increased absorption of TMAH through the skin. The current classification of TMAH in RID/ADR/ADN does not reflect the acute toxic properties of the substance.

RID/ADR/ADN does mention in various places that experience with regard to humans must be taken into account when assigning packing groups. However, there are no quantitative criteria based on empirical values.

In the literature, 37 incidents can be found in which people were exposed to different concentrations of TMAH. In four incidents, contact with TMAH resulted in death.

After lengthy discussions in an ad hoc working group, the UN Sub-Committee of Experts agreed to change the assignment of UN Nos. 1835 and 3423 in order better to reflect the lessons learned from the incidents:

- The existing entry of UN No.1835 for packing group II will in future cover aqueous solutions with more than 2.5% but less than 25% TMAH. This entry retains the primary hazard of corrosivity but adds the subsidiary hazard of toxicity.
- The current entry of UN No. 1835 for packing group III will in future cover aqueous solutions containing not more than 2.5% TMAH. It is still assigned to Class 8 without reference to a subsidiary hazard.
- A new entry for packing group I is provided for aqueous solutions of TMAH containing at least 25% TMAH. In contrast to the entries for packing groups II and III of UN No. 1835, for this high concentration value, toxicity is the main hazard and corrosivity is only the subsidiary hazard. For systematic reasons, a new UN number (UN 3560) is therefore provided for packing group I.
- The only entry for the solid (UN No. 3423) is assigned to packing group I. The primary hazard is toxicity and the previous primary hazard of corrosivity is retained as a subsidiary hazard. This means that stricter conditions of carriage apply.
- All entries of UN No. 1835 are assigned a new special provision with explanatory notes for the classification of preparations containing TMAH.
- The entries for UN No. 1835, packing group I, UN No. 3423 and UN No. 3560 are assigned existing special provision 279, which points out that instead of a strict application of the classification criteria,

classification based on human experience has been made.

- A transitional measure stipulates that the new classification provisions, which also entail numerous changes to the conditions of carriage, must only be applied from 1 January 2027.

There was no majority support for the Netherlands' proposal to set the minimum concentration limit for UN No.3560, packing group I at 8.75% instead of 25%. The chemical industry in particular argued that the lower concentration value of 8.75% was based on a single incident where the TMAH solution contained several other chemicals. Among other things, the solution had contained a surfactant known to be used to enhance the effectiveness of medicines for the skin.

However, the new special provision assigned to UN Nos. 1835 and 3560, which contains explanatory notes on classification, now specifies that aqueous solutions containing more than 1% of a surfactant must be assigned to the entry UN 2927 Toxic organic liquid, corrosive, n.o.s..

New UN number for vehicles powered by lithium batteries

The new mark for lithium batteries was included in the 2019 edition of RID/ADR/ADN. The purpose of this mark is to ensure better hazard communication for consignments containing lithium batteries, even if they are packed with or contained in equipment.

In the meantime, the volumes of lithium batteries carried has increased significantly, as lithium batteries are an excellent source of energy with a much better power-to-weight ratio compared to other battery technologies. One area where significant innovation has occurred through the use of lithium-ion batteries includes personal mobility devices, such as e-bikes, e-scooters, e-skateboards and other light vehicles. These light vehicles are usually packed in cardboard packagings and shipped by manufacturers and distribution centres.

One problem is that these vehicles are assigned to UN No. 3171, which includes both battery powered vehicles and battery powered equipment. While battery powered equipment may only contain wet batteries or batteries with metallic sodium or batteries with sodium alloys according to special provision 388, all types of batteries, i.e. also lithium batteries, may be used for battery powered vehicles. Vehicles of UN No. 3171 powered by lithium batteries need only be marked with a Class 9 danger label, not with a lithium battery mark (model 9A), although the hazard is the same as for lithium metal and lithium-ion batteries of UN Nos. 3090, 3091, 3480 and 3481. In air transport especially, if the presence of lithium batteries is not indicated, this is highly problematic. For battery-powered equipment of UN No. 3171, it is known via special provision 388 that the energy source cannot be a lithium battery, as equipment containing lithium batteries must be assigned to UN Nos. 3091 or 3481. However, the same distinction is not possible for battery powered vehicles of UN No. 3171, as the energy source may be any type of battery, including a lithium battery.

At the last meeting of the UN Sub-Committee of Experts, there was an initial discussion on this topic, in which the majority supported the option of introducing a new UN number, because this would transfer the system chosen for battery powered equipment to battery powered vehicles as well. Following an in-depth discussion in an ad hoc working group, the UN Sub-Committee of Experts adopted a proposal from the International Air Transport Association (IATA), which included the following points in particular:

- Inclusion of three new UN numbers (UN 3556, UN 3557 and UN 3558) to include vehicles powered by lithium batteries as well as those powered by sodium-ion batteries.

- Parts of the vehicle may be removed from the frame so that they fit into the packaging better. The exception to this is the battery, which must remain in the vehicle.

- Vehicles are not subject to the marking and labelling provisions of Chapter 5.2 if they are not completely enclosed in packagings that prevent easy identification.

- Inclusion of a new packing instruction that allows packing with non-design type approved packagings and contains the requirements for unpackaged carriage.

- Special provision 360, which is assigned to UN Nos. 3091 and 3481 (Lithium batteries in equipment), will refer to the new UN Nos. 3556, 3557 and 3558 instead of the former UN No. 3171.

- The former UN No.3171 now only applies to vehicles and equipment powered by wet batteries, batteries containing metallic sodium or batteries containing sodium alloys and carried with these batteries installed.

Fire suppression devices that contain a pyrotechnic material

Aerosol extinguishing systems offer significant advantages over traditional extinguishing systems,

including improvements in space and weight. Aerosol systems are also being used in areas where fire protection was previously considered to be prohibitively expensive. They are also preferred because compared to other fire suppression alternatives, they do not have environmental or safety disadvantages in occupied spaces.

These devices are being used in buses, trains, HGVs, ships and planes, electrical operating rooms, server rooms and data centres, and in dangerous goods storage facilities. Because they are particularly effective in combating lithium battery fires, they are also used in battery storage systems (e.g. UN 3536) and as an additional safety device in packagings in which lithium batteries, especially damaged or defective batteries, are carried. Some electric vehicle manufacturers are also considering using them in e-cars.

These devices are usually activated by a pyrotechnic substance, which disperses a fire extinguishing agent (or aerosol).

Up to now, many competent authorities have classified these under UN No. 3268 Safety devices, electrically initiated. However, as special provision 280, which applies to UN 3268, specifies that the equipment is safety equipment for vehicles, vessels or aircraft, uncertainty has arisen as to whether extinguishing systems used in buildings may be carried under this UN number.

Following a proposal from the Council on the Safe Transportation of Hazardous Articles (COSTHA), the UN Sub-Committee of Experts took the following decisions:

- Two new UN numbers will be included for fire suppressant dispersing devices. UN No. 0514 applies to articles meeting the criteria for Division 1.4, Compatibility Group S, UN No. 3559 to articles meeting the exclusion criteria for Class 1.
- A definition of fire suppressant dispersing devices is included in the glossary of terms for Class 1.
- A new special provision sets out when assignment to UN No. 0514 or UN No. 3559 must be made. A differentiation is made from UN No. 3268 Safety devices, electrically initiated.
- A reference to the new UN numbers is included in special provision 280 applicable to safety devices, electrically initiated.

Packing

Use of recycled plastics material

The last meeting of the UN Sub-Committee of Experts discussed whether it was necessary to expand further the use of recycled plastics material also in the production of dangerous goods packagings, thus taking into account the global initiatives to limit the negative impact of human activities on the environment (e.g. the European Commission's "Green Deal", the United Nations goals relating to the circular economy and sustainable development) (see Bulletin 4/2022, p. 29-30). At the last meeting and during the current meeting, ad hoc working groups were held to amend the definition of recycled plastics material so that not only plastics from industrial packagings, whose origin and use are very well known, but also plastics from packagings, whose origin and use are less well known, e.g. from household collections, may be used.

The UN Sub-Committee of Experts decided to make the following amendments to the recently amended definition of recycled plastics material:

- In addition to plastics material from used industrial packagings, other plastics material may also be used for recycled plastics.
- Particular emphasis will be placed on ensuring that each batch of recycled plastics material has a homogeneous composition with properties within the prescribed specification range.
- The quality assurance programme must record which plastics the recycled plastics material was obtained from. It must also be known how and for which filling substances these plastics were previously used.
- As the use of recycled plastics material is permitted not only for packagings, but also for certain intermediate bulk containers (IBCs), these are explicitly mentioned in the definition.
- In the Note, the mandatory application of standard ISO 16103:2005, which no longer corresponds to the current state of the art, is no longer prescribed.

Portable tanks

Carriage of alkali metal dispersions in portable tanks

Owing to the increased global demand for lithium, the need has arisen for the international transport of alkali and alkaline earth metal dispersions (slurries comprised of metal powder and hydrocarbon solvent) in portable tanks. Technological innovations allow alkali metals incorporated in liquid dispersions to be seamlessly incorporated into manufacturing processes and directly printed onto components such as lithium battery

anodes. This allows more efficient use of rare earths in cell production.

Alkali or alkaline earth metal dispersions (UN 1391) and alkali or alkaline earth metal dispersions, flammable (UN 3482) are substances of Class 4.3, packing group I. While carriage in RID/ADR tanks is permitted, carriage in portable tanks is currently excluded.

As set out in special provisions 182 and 183, the group of alkali metals includes the elements lithium, sodium, potassium, rubidium and caesium and the group of alkaline earth metals includes the elements magnesium, calcium, strontium and barium. The pure substances lithium, sodium, potassium, magnesium, calcium, strontium and barium are permitted for carriage in portable tanks. In contrast, rubidium and caesium are not permitted as pure substances for carriage in portable tanks because they are the most reactive elements of the alkali metal family. On contact with air, hydrogen is formed and heat is released.

The UN Sub-Committee of Experts approved the carriage of UN Nos. 1391 and 3482 in portable tanks. As with other liquids of Class 4.3, packing group I, tank code T 13 was chosen. The special provision for portable tanks TP 7, which is also assigned, requires that the air be eliminated from the vapour space of the tank. The new special provision TP 42 excludes the carriage of caesium and rubidium dispersions in portable tanks.

Other topics

Carriage of non-flammable, non-toxic gases in limited quantities

Gases without a subsidiary hazard, i.e. non-flammable and non-toxic gases, may be carried in quantities not exceeding 120 ml per inner packaging and 30 kg per outer packaging in accordance with the provisions of Chapter 3.4 for limited quantities. The idea behind the provisions on limited quantities is that selected dangerous goods packed in small quantities and in resistant packagings present a lower risk during transport than the same goods packed in larger quantities. On this basis, an exemption from certain provisions, such as not having to affix danger labels, is considered acceptable.

A gas cartridge of carbon dioxide (CO_2) with a capacity of 125 ml usually weighs about 45 g. Assuming that the outer cardboard packaging weighs about 0.5 kg, about 650 cartridges could be packed in one outer packaging according to the limited quantity provisions.

The current special provision 653 of RID/ADR/ADN allows an exemption from the provisions of RID/ADR/ADN beyond the provisions for limited quantities for four gases without subsidiary hazards (UN 1006 Argon, compressed, UN 1013 Carbon dioxide, UN 1046 Helium, compressed and UN 1066 Nitrogen, compressed) if the test pressure capacity product of the gas cylinder is not more than 15.2 MPa·litre (152 bar·litre). The gross mass of the package may not exceed 30 kg. The UN number of the gas carried must be marked on the cylinder within a diamond-shaped area placed on the top. Similar exemptions also exist in the national dangerous goods regulations of the United States of America and Canada.

According to the table in Chapter 3.2, for all non-toxic gases carried in aerosols of UN No. 1950 or in gas cartridges of UN No. 2037, a quantity limit of 1 litre per inner packaging and 30 kg per package is stipulated for carriage in limited quantities. Normal gas cylinders have a higher pressure compared to aerosols and gas cartridges, but they are much more resistant. A CO_2 cylinder with a capacity of 1 litre weighs about 2 kg, which would limit the number of cylinders per package to 14.

The UN Sub-Committee of Experts adopted a proposal from the Council on Safe Transportation of Hazardous Articles (COSTHA) to include a new special provision in the UN Model Regulations, which expands on special provision 653 of RID/ADR/ADN. In addition to the test pressure capacity product of the gas cylinder of a maximum of 15.2 MPa·litre (152 bar·litre), this special provision specifies a maximum capacity of 1000 ml. In all other respects however, reference is made to the applicable provisions of Chapter 3.4, which means that the limited quantity mark is to be affixed instead of the UN number.

There was no support for the original proposal to extend this special provision to all non-flammable, non-toxic gases. The new special provision will not apply to carriage by air.

Terms “activity concentration” and “specific activity”

In RID/ADR/ADN 2.2.7.1.3, the “specific activity of a radionuclide” is defined as the activity of the radionuclide per unit mass of that nuclide. The specific activity of a material means the activity per unit mass of the material in which the radionuclides are essentially uniformly distributed.

Both the IAEA Regulations for the Safe Transport of Radioactive Material and RID/ADR/ADN use the terms “specific activity” and “activity concentration” as synonyms, but RID/ADR/ADN does not define the term “activity concentration”.

This may not be a problem for radioactive material experts, but for users of RID/ADR/ADN, which covers all possible dangerous

goods, problems of understanding might arise.

The UN Sub-Committee of Experts decided to add a comment to the definition of specific activity indicating that the term “activity concentration” is used as a synonym.

Implementation of the UN Model Regulations

The UN Model Regulations are revised every two years in order to reflect technical progress. They are designed in such a way that they can be used as a basis for the further development of national regulations for the transport of dangerous goods. This means that global harmonisation can be achieved. For the Contracting States to RID, ADR and ADN, this continuous adaptation is ensured by the ad hoc working group on the harmonisation of RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods, which prepares the decisions of the RID/ADR/ADN Joint Meeting in this area.

Outside the scope of RID, ADR and ADN, however, it is apparent that the national provisions of individual countries are based on different editions of the UN Model Regulations. In addition, it can be seen in some countries that the provisions for the different modes are based on different editions of the UN Model Regulations. These inconsistent provisions create logistical challenges for those involved in international and multimodal transport and lead to unnecessary costs.

The UN Sub-Committee of Experts welcomed the information compiled by the experts from the United States of America on contact details of competent authorities and the editions of the UN Model Regulations implemented in different countries, which can be found under https://www.phmsa.dot.gov/international-program/international-list-competent-authorities-andor-contacts-transport-dangerous-goods.

Delegates were asked to visit the website and provide the United States of America with any further details they were aware of so that the information available could be kept up to date.

Next session

The 62nd session of the UN Sub-Committee of Experts will be held from 26 to 30 June 2023 in Geneva. This will be the first session of the 2023/2024 biennium, at which work on the 24th revised edition of the UN Model Regulations will start.

Jochen Conrad

CALENDAR OF OTIF'S MEETINGS IN 2023

DATE	EVENT	ORG	LOCATION
20 - 24 March	RID/ADR/ADN Joint Meeting	UNECE	Berne - Switzerland (HYBRID MEETING)
18 - 20 April	Ad hoc Committee on Legal Affairs and International Cooperation		Berne - Switzerland (HYBRID MEETING)
25 April	Administrative Arrangements meeting (OTIF, European Commission (DG MOVE), ERA)		Berne - Switzerland
24 - 25 May	137th session of the Administrative Committee		Berne - Switzerland (HYBRID MEETING)
13 - 14 June	15th session of the Committee of Technical Experts		Berne - Switzerland (HYBRID MEETING)
13 - 14 June	RID Committee of Experts' working group on tank and vehicle technology (20th session)		Berne - Switzerland (HYBRID MEETING)
16 June	Working Group WG TECH. 49th Session		Berne - Switzerland (HYBRID MEETING)

EVENTS WITH OTIF PARTICIPATION IN 2023

DATE	EVENT	ORG	LOCATION
16 March	3rd workshop on harmonisation of requirements regarding dangerous goods in TSI WAG and RID"	ERA	(VIDEO-CONFERENCE)
21 March	Meeting with the Secretary of State at the Ministry of Infrastructure	Ministry of Infrastructure	Warsaw - Poland
23 March	CIM Committee	CIT	Berne - Switzerland
29 - 30 March	Railway Interoperability and Safety Committee (RISC)	European Commission	Brussels - Belgium (HYBRID MEETING)
4 April	Topical working group freight, subgroup digital automatic coupler	ERA	(VIDEO-CONFERENCE)
5 - 6 April	High Level Regional Conference on Accelerating Rail Digital Transformation in Asia and Pacific	UNESCAP	New Delhi - India
26 - 28 April	Ad hoc Working Group on Harmonization of RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods	UNECE	Geneva - Switzerland

EVENTS WITH OTIF PARTICIPATION IN 2023

DATE	EVENT	ORG	LOCATION
8 - 12 May	42nd session of the Working Group VI: Negotiable Multimodal Transport Documents	**UNCITRAL***	**New-York - USA**
15 - 19 May	Working Party on the Transport of Dangerous Goods, WP.15 (113th session)	**UNECE**	**Geneva - Switzerland**
23 - 25 May	Working Group on Annex 2 to SMGS "Provisions for the Carriage of Dangerous Goods"	**OSJD**	**Warsaw - Poland**
24 - 26 May	International Transport Forum – Summit 2023	**ITF - OECD**	**Leipzig - Germany**
21 - 22 June	Railway Interoperability and Safety Committee (RISC)	**European Commission**	**Brussels - Belgium** (HYBRID MEETING)
26 - 30 June	UN Sub-Committee of Experts on the Transport of Dangerous Goods (62nd session)	**UNECE**	**Geneva - Switzerland**
24 - 27 August	Group of Experts on Annex 2 to SMGS "Provisions for the Carriage of Dangerous Goods"	**OSJD**	**Warsaw - Poland**

***UNCITRAL - United Nations Commission On International Trade Law**

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Thank you for your continued interest.
The Bulletin editor

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