

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Committee of Experts and the

Working Party on the Transport of Dangerous Goods

Geneva, 12-16 September 2022

Item 8 of the provisional agenda:

Accidents and risk management

30 August 2022

Contribution to the work of the informal working group on the improvement of TDG occurrence reporting

Submitted by the European Union Agency for Railways (ERA)

Summary

Executive summary: Following the progress report of the informal working group on the improvement of the Transport of Dangerous Goods (TDG) occurrence report, the Agency is aiming at contributing to the completion of the work already accomplished by this group in line with its terms of reference.

Related documents: See Annex I to this document and informal document 9

Background

1. In the context of the continuing integration and opening of the Single European Rail Area, the Common Safety Methods on the Assessment of Safety Level and Performance of Railway Operators (CSM ASLP) aims to strengthen the management of safety-related information. In this context the collection of safety information on the occurrence of accidents and incidents, their causes, their outcomes and the management of the associated risk control measures play a key role to support an improved risk-based decision-making approach by all railway actors. The process of adoption of the CSM ASLP Regulation by the European Commission is progressing and may occur before the end of year 2022.

2. In relation with the reporting of TDG railway occurrences several legal requirements are to be considered, on the one hand, the reporting of occurrences in accordance with RID section 1.8.5, and on the other hand the reporting of the railway occurrences based on the European Union (EU) Directive 2016/798 (Safety Directive) and the future CSM ASLP Regulation.

3. Both sets of law will be applicable for EU Member States for reporting railway TDG occurrences. A thorough review of the related legislative requirements has been made during the whole development phase of the CSM ASLP and this document aims at highlighting the possible remaining point of discussions for ensuring easy and non-duplicated reporting of information by railway actors while improving the reporting quality as initiated by the UNECE/OTIF working group on the improvement of TDG occurrence reports.

4. This document takes fully into account the work already achieved by the UNECE/OTIF working group set up in 2018 with the following terms of reference (ECE-TRANS-WP15-AC1-2018-GE-INF31r1e):

- (a) Clarify the purpose of reporting information on accident, and identify the use of the reported information (1.8.3.6, 1.8.5...);

- (b) Clarify the participants responsible for sending the report and/or complementary information;
- (c) Examine anonymity issues;
- (d) Study the relevant information necessary according to the different possible use, such as: lessons learnt from single occurrences, lessons learnt from repeated occurrences, risk assessment, and propose relevant improvements to RID/ADR/ADN;
- (e) Propose measures to facilitate the collection of the report by competent authorities and transmission of relevant information to UN and OTIF secretariats;
- (f) Exchange of experience from competent authorities on methods used to ensure the accuracy of accident reporting;
- (g) Take into account relevant input including the contributions provided by the transport of dangerous goods workshop for Risk management, in particular the list established by workgroup A and the “input parameter table” for the harmonised risk estimation model;
- (h) Take into account the relevant IT tools, including the coordination with the development of common occurrence reporting system” (COR).

Review of work progress per item

5. The above terms of reference request to take into account the coordination of legislative developments with relevant IT tools and the COR projects which have been integrated in the CSM ASLP Regulation under adoption process.

6. Below a review of the legislative coordination is reported, suggesting a few improvements to ensure full consistency and complementarity for the fulfilment of the agreed terms of reference.

Item a) Clarify the purpose of reporting information on accident, and identify the use of the reported information (1.8.3.6, 1.8.5...)

The UNECE/OTIF working group generally agreed that the work on improving the report should aim at:

- learning lessons for single occurrences (especially for very severe and typical accidents);
- learning lessons for frequently occurring events, even if they do not seem important individually;
- collecting the relevant data for future risk analysis.

The CSM ASLP, is fully in line with the above aims, it will establish legal requirements to railway operators for sharing information on occurrence and organize collective learning in the following ways:

- In depth learning on serious and significant accident occurrences and on their scenarios and causal factors (structured list of reportable event types);
- Learning on less significant but recurring accident occurrences (report of events less severe than significant or serious events);
- Learning on incidents occurrence having the potential to directly give raise to accidents (accident causes, causal factors...). Learning on the successful and/or failing risk control measures with the aim to improve the prevention or mitigation of incidents and accidents.

In summary, for this item both the proposed improvement of the 1.8.5 reporting and the reporting required by the future CSM ASLP will serve the same collective learning purpose.

Possible further improvements of the current achievement should be to better align reporting criteria which are not completely aligned for the moment, as indicated below:

As further improvement, it is suggested to provide RID reports in two steps:

- Within 72 hours, the ‘simple report’ part
- Within 2 months, the ‘detailed report’ part

as the CSM ASLP will require.

The above improvement proposals should be discussed and finalized by the UNECE/OTIF working group, using the Annex II as a basis.

8. Item c) Examine anonymity issues

In the course of the CSM ASLP developments the data protection applicable within the EU has been thoroughly applied. As a result, the CSM ASLP will establish clear and strict ‘sharing rules’ for each data item required for reporting. Those rules are fully consistent with the treatment of personal data as indicated in the cover sheet of the occurrence reporting in accordance with RID which reads: “(The competent authority shall remove this cover sheet before forwarding the report)”.

TDG Competent Authorities are clearly identified by the CSM ASLP and within the EU they are also required to protect personal and specific interest data in accordance with the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679).

No further improvement needs were identified in this area.

9. Item (d) Study the relevant information necessary according to the different possible use, such as: lessons learnt from single occurrences, lessons learnt from repeated occurrences, risk assessment, and propose relevant improvements to RID/ADR/ADN

This point has been fully taken into account from the starting development of the CSM ASLP. The different type of reports and the supporting processes, including the setting of the Group of Analysts aims at totally fulfilling point (d). It integrates the required information and involve the necessary actors in the field of dangerous goods, as follows:

- The RID occurrence report is supplementing the information needed for learning on railway occurrences in general;
- The TDG Competent Authorities are given a clear role by the CSM ASLP allowing them to request a review of the information reported by operators when needed;
- As any other parties, the TDG CA will be entitled to report their own report, if needed, in addition to the ones required to the railway operators involved in an occurrence;
- Other interested parties will be entitled to provide reports on voluntary basis.

As further improvement, it is advised that RID requires the sharing of RID occurrence reports (to the exclusion of GDPR data) with the other parties to effectively support collective learning, as it will be required by the CSM ASLP information sharing rules.

Within the EU sharing of information will be systematically between the relevant parties, in accordance with the sharing rules established by the CSM ASLP Regulation, including information related to TDG occurrences.

The sharing of information will be protected and secured by the ‘Information Sharing System’ (ISS) also established in accordance with the CSM ASLP Regulation.

10. Item (e) Propose measures to facilitate the collection of the report by competent authorities and transmission of relevant information to UN and OTIF secretariats

The CSM ASLP will require the setting of the Information Sharing System by the Agency who will be required to manage this system and will provide access to the information shared with it, including for TDG competent authorities, in accordance with the CSM ASLP rules for sharing safety information.

Access may also be given to non-EU parties, as it was established in the past for other information systems managed by the Agency.

Further development towards a multimodal tool may also be feasible in the context of RID/ADR/ADN, as the TDG reports should be harmonized and could also use an adapted – multimodal-ISS, offering the same level of functionalities and data protection.

The possibility to give access to non-EU parties, and /or to develop a multimodal-ISS, based on the rail-ISS, may be further investigated by DG MOVE and the Agency, also in cooperation with the UNECE and OTIF.

11. Item (f) Exchange of experience from competent authorities on methods used to ensure the accuracy of accident reporting

The CSM ASLP will set up the Group of Analysts and will request this group to propose any efficient safety-related improvements, including on the quality of shared safety data and information, based on an analysis of the collected data and CSM ASLP review process. As a result, the Group of Analysts may propose harmonized improvement of the CSM ASLP requirements, including the improvement of the reporting content.

When concerning TDG carriage, such Group of Analysts proposals may also be discussed with the Joint Coordination Expert Group of DG MOVE/OTIF and with UNECE/OTIF Joint Meeting to ensure full multimodal consistency of the proposed improvements.

12. Item (g) Take into account relevant input including the contributions provided by the transport of dangerous goods workshop for risk management, in particular the list established by workgroup A and the “input parameter table” for the harmonized risk estimation model

During the process of development of the CSM ASLP the Agency took a particular attention on the definition of the occurrence reporting information to be collected in order to enable the setting of useful correlations and statistical inference that could feed the risk management framework. A full railway taxonomy has been developed that will be used in the CSM ASLP Regulation.

The working group on the improvement of occurrence report also developed a harmonized multimodal RID/ADR/ADN report that could be adopted for biennium 2025.

To ensure full consistency with the railway taxonomy of the CSM ASLP, several (minor) improvements of the railway dataset have been identified and are proposed in annex II of this document. Basically, the content remains similar to the harmonization proposed by the UNECE/OTIF working group, however it is organized in a slightly different manner and railway terms are fully aligned where needed.

Those improvements will ensure a full consistency with the CSM ASLP taxonomy for the general railway terms and a full complementarity of the CSM ASLP with RID updated reports, as suggested in item b).

As a further improvement, and in addition to the reporting of operation volumes (train.km ; ton.km...) required by the CSM ASLP, it would be useful that RID requires the reporting of DG volume of transport per class of DG and per type of containment (small/medium/large). It would support an easier implementation of the Risk Management Framework with the future risk management platform (see March 2022-INF 22). For a single operator, those type of data are classified by the CSM ASLP, as protected commercial data, and the ISS will apply specific – protected- sharing rules.

13. Item (h) Take into account the relevant IT tools, including the coordination with the development of “common occurrence reporting system” (COR)

With the improvements suggested in points a) to g) the point h) would be fully implemented and would ensure an efficient and well-managed reporting system, implementing the CSM ASLP and RID in a non-duplicated, complementary, and consistent manner.

Annex II to this document suggest a draft RID occurrence report including the necessary amendments capturing all the work developed by the UNECE/OTIF work group and the CSM ASLP working party.

The Information Sharing System will be able to support the implementation of both reporting CSM ASLP Regulation and RID occurrence report, facilitating the implementation of the reporting obligations by the requested actors.

Proposed way forward

The Agency will be happy to supplement or amend this document with any clarification the UNECE/OTIF working group would need.

The Agency volunteers to continue the development of a fully consistent proposal to implement improvements on TDG occurrence reporting in the 2025 versions of RID/ADR/ADN, starting from the draft Annex II to this document, in cooperation with the informal working group on the improvement of RID/ADR/ADN occurrence report.

Depending on the progress of future work, including the adoption of the CSM ASLP Regulation, a first formal proposal for amending RID and the harmonized reports for ADR/ADN may be presented at the Joint Meeting Spring 2023 session.

Annex I

List of meetings and reports analysed for preparing this document

September 2019

Progress report of the UNECE/OTIF Informal working group on the improvement of occurrence report

See Joint Meeting/September 2019/INF.11

December 2019

Coordination meeting of the CSM ASLP working party and of the UNECE/OTIF Informal working group on the improvement of occurrence report

see Joint Meeting/September 2022/INF.9

September 2020

Progress report of the UNECE/OTIF Informal working group on the improvement of occurrence report

See ECE/TRANS/WP.15/AC.1/2020/55 and September 2020/INF.47

May 2021

CSM ASLP ERA Recommendation, Impact Assessment and Consultation report

see:

[Recommendation adopted by ERA Executive Director](#) (151.27 KB)

[CSM Regulation recommended for adoption](#) (1.46 MB)

[Impact Assessment](#) (674.97 KB)

[Accompanying report](#) (632.78 KB)

May 2022

Progress reports on CSM ASLP developments at RID Standing Group

See paragraphs 3 to 13 of RID_CE_GTP_2022-INF_08 ([INF.8](#))

2022

European Commission draft delegated act of the CSM ASLP Regulation

(will be published under a new informal document as soon as it is available)

Annex II

Proposal for alignment of RID with consideration of the harmonized TDG multimodal proposal of the UNECE/OTIF Informal working group on the improvement of occurrence report (amendments to September 2020/INF.47 – RID part)

The amendments to the proposal reported in INF.47 of September 2020 Joint Meeting in addition with the newly proposed amendments are highlighted in red.

Draft for RID

Report on occurrences during the carriage of dangerous goods in accordance with RID section 1.8.5

Simple report (shall be submitted within 72 hours after the time of occurrence)

Simple report – Cover sheet	
<p>Note: Within the EU, this part of the report in accordance with RID 1.8.5 is considered fulfilled if a simple report in accordance with Regulation (EU) 2022/XXXX has already been submitted to the Information Sharing System (ISS).</p>	
<p>Company reference number:</p>	
<p>Reporter reference number:</p>	
<p>Date of the report:</p>	
<p>Company:</p>	
<p>Address:</p>	
<p>Contact name: Telephone: Fax:</p>	
<p>Email address:</p>	

(The competent authority shall remove the above cover sheet before forwarding the report to another entitled party)

Simple report – Railway common part	
<p>Note: Within the EU, this part of the report in accordance with RID 1.8.5 is considered fulfilled if a simple report in accordance with Regulation (EU) 2022/XXXX has already been submitted to the ISS.</p>	
<p>Occurrence Identification Numbers</p>	
Information Sharing System ID	: _____ (ISS OCC ID)
Occurrence ID in Reporter's system ID (if applicable)	: _____

Report ID			
ID in the Information Sharing System	:	_____	(ISS Report ID)
Report ID in Reporter's system (if applicable)	:	_____	
A) Date and location of occurrence			
Year :	month :	day :	Local Time :
<input type="checkbox"/> Country: <input type="checkbox"/> Region: <input type="checkbox"/> Department: <input type="checkbox"/> Town: Location name: Location code: Geographical coordinates (Default norm EPSG:3857): <input type="checkbox"/> Latitude: <input type="checkbox"/> Longitude:			
<u>Nature of operation performed at the time of the occurrence:</u>			
<input type="checkbox"/> Carrying <input type="checkbox"/> Moving <input type="checkbox"/> Stationary <input type="checkbox"/> Shunting <input type="checkbox"/> Loading/Filling <input type="checkbox"/> Unloading/emptying <input type="checkbox"/> Other (explain):			
Accident involving dangerous goods unit/cargo <u>in combination with a railway accident</u> (with or without loss)			
<input type="checkbox"/> Yes <input type="checkbox"/> No			
B) Reporter's company category			
<input type="checkbox"/> <i>Report on behalf of a company</i> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Carrier</i> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Railway undertaking</i> <input type="checkbox"/> <i>Railway infrastructure manager</i> <input type="checkbox"/> <i>Entity in Charge of Maintenance</i> <input type="checkbox"/> <i>Tank-wagon operator</i> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Railway undertaking</i> <input type="checkbox"/> <i>Keeper</i> <input type="checkbox"/> <i>Other</i> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Consignor</i> <input type="checkbox"/> <i>Packer</i> <input type="checkbox"/> <i>Consignee</i> <input type="checkbox"/> <i>Loader</i> <input type="checkbox"/> <i>Filler</i> <input type="checkbox"/> <i>Tank-container/portable tank operator</i> <input type="checkbox"/> <i>Unloader</i> <input type="checkbox"/> <i>Other company type (free text input)</i> 			
<input type="checkbox"/> <i>Report on personal behalf (not on behalf a company/legal entity)</i>			

C) Description of the occurrence	
<ul style="list-style-type: none"> <input type="checkbox"/> Collision (train or wagon(s)): <ul style="list-style-type: none"> <input type="checkbox"/> Front to front collision <input type="checkbox"/> Front to end (rear end collision) <input type="checkbox"/> Side collision <ul style="list-style-type: none"> <input type="checkbox"/> right side <input type="checkbox"/> left side Other: <input type="checkbox"/> Collision with obstacle within the clearance gauge <ul style="list-style-type: none"> <input type="checkbox"/> with object fixed on or near the track <ul style="list-style-type: none"> <input type="checkbox"/> with buffer stops <input type="checkbox"/> with part of infrastructure (equipment) <input type="checkbox"/> with overhead contact lines <input type="checkbox"/> with bridge pillars <input type="checkbox"/> with other fixed object <input type="checkbox"/> with object temporarily present on or near the track <ul style="list-style-type: none"> <input type="checkbox"/> with animals <input type="checkbox"/> with rocks <input type="checkbox"/> with landslides <input type="checkbox"/> with trees <input type="checkbox"/> with lost parts of railway vehicles <input type="checkbox"/> with lost or displaced loads <input type="checkbox"/> with vehicles and machines or equipment for track maintenance <ul style="list-style-type: none"> <input type="checkbox"/> Moving <input type="checkbox"/> Stationary <input type="checkbox"/> with road vehicles (not at level crossing) <ul style="list-style-type: none"> <input type="checkbox"/> Moving <input type="checkbox"/> Stationary <input type="checkbox"/> with other temporary objects 	<ul style="list-style-type: none"> <input type="checkbox"/> Derailment <ul style="list-style-type: none"> <input type="checkbox"/> on a continuous track <input type="checkbox"/> on a switch <input type="checkbox"/> on a crossing (other than level-crossing) <input type="checkbox"/> Level-crossing accident <ul style="list-style-type: none"> <input type="checkbox"/> with one or more crossing vehicles <input type="checkbox"/> with crossing users (e.g. pedestrians) <input type="checkbox"/> with objects temporarily present on or near the track, if lost by a crossing vehicle or a user <input type="checkbox"/> Accidents to persons involving rolling stock in motion (not at level-crossing) <input type="checkbox"/> Fire or explosion <ul style="list-style-type: none"> <input type="checkbox"/> in rolling stock <input type="checkbox"/> in fixed installations <input type="checkbox"/> Suicides and attempted suicides <ul style="list-style-type: none"> <input type="checkbox"/> suicide <input type="checkbox"/> attempted suicide <input type="checkbox"/> Other accident <ul style="list-style-type: none"> <input type="checkbox"/> Electric shock <input type="checkbox"/> Cargo falling from a height <input type="checkbox"/> Dangerous goods occurrence not related to another type A event <input type="checkbox"/> Other

D) Deemed cause of the occurrence	
<p><u>Operation failures:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Failure to operate the infrastructure <ul style="list-style-type: none"> <input type="checkbox"/> Improper routing <input type="checkbox"/> On track plant incorrectly outside possession <input type="checkbox"/> Pushed switch <input type="checkbox"/> Other failure to operate the infrastructure <input type="checkbox"/> Failure to operate a train or rail vehicle(s) <ul style="list-style-type: none"> <input type="checkbox"/> Signal passed at danger when passing a danger point <input type="checkbox"/> Signal passed at danger without passing a danger point <input type="checkbox"/> Runaway <input type="checkbox"/> Over-speeding <input type="checkbox"/> Loading irregularity <ul style="list-style-type: none"> <input type="checkbox"/> Improper securing arrangement <input type="checkbox"/> Inadequate blocking and bracing <input type="checkbox"/> Other loading irregularity <input type="checkbox"/> Train composition Failure <input type="checkbox"/> Train available for boarding or alignment outside platform <input type="checkbox"/> Passenger entrapment in door <input type="checkbox"/> Train departure with open door <input type="checkbox"/> Long stop in tunnel <input type="checkbox"/> Severe brake/snatch <input type="checkbox"/> Brake not correctly set for load <input type="checkbox"/> Brake not checked <input type="checkbox"/> Other failure to operate a train or rail vehicle(s) <input type="checkbox"/> Other un-coded operation failure <p><u>Technical failure of the infrastructure:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Failure of the track <ul style="list-style-type: none"> <input type="checkbox"/> Broken rail <input type="checkbox"/> Track buckle and other track misalignment <ul style="list-style-type: none"> <input type="checkbox"/> Gauge spread <input type="checkbox"/> Track twist <input type="checkbox"/> Improper rail fastening and joints <input type="checkbox"/> Other track buckle and other track misalignment <input type="checkbox"/> Wrong-side signalling (infrastructure) failure <input type="checkbox"/> Switch and crossing failure <input type="checkbox"/> Failure of the level crossing equipment <input type="checkbox"/> Disorder of earthworks/embankment failure <input type="checkbox"/> Other failure of the track <input type="checkbox"/> Structures failure <ul style="list-style-type: none"> <input type="checkbox"/> Tunnel failure <input type="checkbox"/> Viaduct failure <input type="checkbox"/> Culvert failures <input type="checkbox"/> Rail bridge structural failure <input type="checkbox"/> Over line bridge (e.g. pedestrian) failure <input type="checkbox"/> Station structure failure <input type="checkbox"/> Platform failure <input type="checkbox"/> Other structures failure <input type="checkbox"/> Other failures of the infrastructure <ul style="list-style-type: none"> <input type="checkbox"/> Power supply equipment failure <input type="checkbox"/> Train detection equipment failure <input type="checkbox"/> Overhead contact line failure <input type="checkbox"/> Loss of ventilation <input type="checkbox"/> Other <input type="checkbox"/> Other un-coded technical failure of the infrastructure 	<p><u>Technical failure of the vehicles:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Failure of the wheelset <ul style="list-style-type: none"> <input type="checkbox"/> Broken wheel on rolling stock in service <input type="checkbox"/> Broken axle on rolling stock in service <input type="checkbox"/> Hot axle box <input type="checkbox"/> Suspension system failure <input type="checkbox"/> Other failure of the wheelset <input type="checkbox"/> Failure of the braking system <ul style="list-style-type: none"> <input type="checkbox"/> Brake not operating with the expected performance <input type="checkbox"/> Other failure of the braking system <input type="checkbox"/> Other failures of the vehicle <ul style="list-style-type: none"> <input type="checkbox"/> Wrong side signalling (vehicle) failure <input type="checkbox"/> Losing of vehicle parts <input type="checkbox"/> Traction motor failure (electrical) <input type="checkbox"/> Diesel engine failure <input type="checkbox"/> Coupling failure <input type="checkbox"/> Doors failure <input type="checkbox"/> Loss of ventilation <input type="checkbox"/> ERTMS/ATP/APC odometry error <input type="checkbox"/> Twisted underframe <input type="checkbox"/> Train detection equipment failure <input type="checkbox"/> Other <input type="checkbox"/> Other un-coded technical failure of the vehicles <p><u>Other:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Fire external to railway system in proximity of rail infrastructure, <input type="checkbox"/> Unauthorised presence of staff/employees on railway system <input type="checkbox"/> Unauthorised presence of other third parties on the railway system <p><u>External direct or indirect causes:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Landslides <ul style="list-style-type: none"> <input type="checkbox"/> Rock/stone fall <input type="checkbox"/> Earthquake <input type="checkbox"/> Vegetation <input type="checkbox"/> Flooding <input type="checkbox"/> Other <ul style="list-style-type: none"> <input type="checkbox"/> Environmental relevant factors <ul style="list-style-type: none"> <input type="checkbox"/> Fog <input type="checkbox"/> Frost <input type="checkbox"/> Ice <input type="checkbox"/> High winds <input type="checkbox"/> Storm <input type="checkbox"/> Snow <input type="checkbox"/> Heat <input type="checkbox"/> Other (explain): (text)

Simple report – TDG specific part

Note: Within EU, this part of the report in accordance with RID 1.8.5 shall be submitted to the ISS as a supplement to a simple report in accordance with Regulation (EU) 2022/XXXX.

E) Deemed cause of the occurrence – TDG specific part

Related to DG carried:

- incompatible products
- incompatible material of the containment with the product carried
- self-ignition
- polymerization

Faulty load securing:

- improper securing arrangement
- inadequate blocking and bracing

Human performance (causal factor):

- External events - Security**
 - deliberate action
 - Other – External events - Security**
- Dynamic staff factors**
 - Intention: Expectation / Intention while acting /Decision model / Error type**
 - deliberate action
 - Other – Intention**
 - Attention / Vigilance/ Concentration**
 - inattention
 - carelessness (driving, shunting)
 - Other – Attention / Vigilance/ Concentration**
 - Fatigue**
 - sleepiness
 - Other – fatigue**
 - Stress (incl. emotions & psychosocial factors)**
 - Situational awareness (incl. self-awareness - situational self-knowledge)**
 - effect of alcohol
 - effect of narcotic drugs
 - Other – situational awareness**
- Static Staff Factors**
 - Experience: Familiarity / Individual experiences - job history**
 - lack of experience
 - inadequate training
 - Other – experience**
 - Fit to work (matching to the requirements of the tasks/activities, health)**
 - medical treatment
 - medical emergency
 - Other – fit to work**
- Static Task Factors**
 - Task instructions - Quality of procedures and rules**
 - non compliance with procedures
 - Other - task instructions, quality of procedures and rules**
- Other**

Related to TDG procedure:

- improper preparation for transport
- inadequate maintenance
- inadequate procedures
- overfilled
- over pressurized
- valve open

Failure of the DG containment or its equipment:

- Electrical system failure
- Mechanical system failure
- Broken component or device
- Defective component or device
- Missing component or device
- Abrasion
- Exterior corrosion
- Interior corrosion
- Damaged lining
- Other failure of the DG containment or its equipment**

Detailed report (shall be submitted within 2 months after the time of occurrence)

Detailed report – Railway common part

Note: Within the EU, this part of the report in accordance with RID 1.8.5 is considered fulfilled if a detailed report in accordance with Regulation (EU) 2022/XXXX has already been submitted to the Information Sharing System (ISS).

A) Railway operation context

Speed (or impact speed) of train/wagon at the moment of the occurrence (estimated): _____ **(km/h)**

(if carriage operation) Train number:
 Locomotive/Wagon Register Number:
 Total number of wagons involved in the occurrence:

<p><u>Weather conditions:</u></p> <p>Temperature: °C</p> <ul style="list-style-type: none"> <input type="checkbox"/> Dry <input type="checkbox"/> Clear <input type="checkbox"/> Rain <input type="checkbox"/> Snow <input type="checkbox"/> Fog, mist, smoke <input type="checkbox"/> Sleet, hail <input type="checkbox"/> Storm <input type="checkbox"/> Lightnings <input type="checkbox"/> High winds <input type="checkbox"/> Unknown <input type="checkbox"/> Other: 	<p><u>Surface conditions:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Dry <input type="checkbox"/> Slippery <input type="checkbox"/> Leaves <input type="checkbox"/> Snow <input type="checkbox"/> Frost <input type="checkbox"/> Ice <input type="checkbox"/> Slush <input type="checkbox"/> Wet, Damp <input type="checkbox"/> Flooded <input type="checkbox"/> Unknown <input type="checkbox"/> Other: 	<p><u>Light conditions:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Daylight <input type="checkbox"/> Twilight sunrise <input type="checkbox"/> Twilight sunset <input type="checkbox"/> Darkness street light lit <input type="checkbox"/> Darkness street light unlit <input type="checkbox"/> Other:
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<p><u>Infrastructure:</u></p> <p>Line category:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Open line <input type="checkbox"/> Station/Terminal <ul style="list-style-type: none"> <input type="checkbox"/> Station <input type="checkbox"/> Siding <input type="checkbox"/> Marshalling yard [shunting] <input type="checkbox"/> Other: <input type="checkbox"/> Single track <input type="checkbox"/> Double track <input type="checkbox"/> Multiple Track (more than 2) 	<p>Specific structures:</p> <ul style="list-style-type: none"> <input type="checkbox"/> In Tunnel (Y/N) ; <input type="checkbox"/> On a Bridge (Y/N) <input type="checkbox"/> entry area <input type="checkbox"/> on/inside <input type="checkbox"/> exit area <input type="checkbox"/> At a level crossing <li style="padding-left: 20px;">Level crossing type:
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B) Consequences – Railway common part	
Death and injury of <u>passengers</u> in DG company personal : <input type="checkbox"/> Death: (total number of persons) <input type="checkbox"/> Serious Injuries: (total number of persons) <input type="checkbox"/> Minor Injuries: (total number of persons)	Severity of injuries in Abbreviated Injury Scale (optional): AIS ≥ 3 : (total number of persons) AIS < 3 : (total number of persons)
Death and injury of <u>employees</u> in DG company personal : <input type="checkbox"/> Death: (total number of persons) <input type="checkbox"/> Serious Injuries: (total number of persons) <input type="checkbox"/> Minor Injuries: (total number of persons)	Severity of injuries in Abbreviated Injury Scale (optional): AIS ≥ 3 : (total number of persons) AIS < 3 : (total number of persons)
Death and injury of <u>trespassers</u> in DG company personal : <input type="checkbox"/> Death: (total number of persons) <input type="checkbox"/> Serious Injuries: (total number of persons) <input type="checkbox"/> Minor Injuries: (total number of persons)	Severity of injuries in Abbreviated Injury Scale (optional): AIS ≥ 3 : (total number of persons) AIS < 3 : (total number of persons)
Death and injury of <u>other persons</u> in DG company personal : <input type="checkbox"/> Death: (total number of persons) <input type="checkbox"/> Serious Injuries: (total number of persons) <input type="checkbox"/> Minor Injuries: (total number of persons)	Severity of injuries in Abbreviated Injury Scale (optional): AIS ≥ 3 : (total number of persons) AIS < 3 : (total number of persons)
Detailed report – TDG specific part	
Note: Within EU, those parts of the report in accordance with RID 1.8.5 shall be submitted to the ISS as a supplement to a detailed report in accordance with Regulation (EU) 2022/XXXX.	
A) Context of occurrence - TDG specific information	
Infrastructure: Railway segments/Environment: Gradient (if known the average value for the line section): (%) <input type="checkbox"/> Countryside/Rural <input type="checkbox"/> Urban area <input type="checkbox"/> Industrial area	

B) TDG specific information about DG vehicle and DG contained									
Total number of wagons <u>carrying Dangerous Goods</u> / total number of DG transport unit(s) involved in the occurrence:									
(For each Dangerous Goods carrying wagon/container involved, indicate the following information)									
Register Number/ Unique vehicle number:									
Type of vehicle/cargo involvement									
<input type="checkbox"/> No physical Impact <input type="checkbox"/> Physical Impact (e.g. during derailment or collision or other...)									
Speed of the DG Vehicle/Cargo at the moment of the impact of the DG containment, if applicable, (estimated): (km/h)									
<table style="width:100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Cargo falling from a height <input type="checkbox"/> on the ground <input type="checkbox"/> submerged in water </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Not rolling over <input type="checkbox"/> Rolling over <input type="checkbox"/> on the track <input type="checkbox"/> outside the track </td> </tr> </table>								<input type="checkbox"/> Cargo falling from a height <input type="checkbox"/> on the ground <input type="checkbox"/> submerged in water	<input type="checkbox"/> Not rolling over <input type="checkbox"/> Rolling over <input type="checkbox"/> on the track <input type="checkbox"/> outside the track
<input type="checkbox"/> Cargo falling from a height <input type="checkbox"/> on the ground <input type="checkbox"/> submerged in water	<input type="checkbox"/> Not rolling over <input type="checkbox"/> Rolling over <input type="checkbox"/> on the track <input type="checkbox"/> outside the track								
<i>UN Number</i> <small>(1)</small>	<i>Class</i>	Label(s) (Col. 5)	<i>Packing group if known</i> <i>(if relevant)</i>	Estimated quantity of loss of products (kg or l) ⁽²⁾	<i>Means of containment</i> ⁽³⁾	Means of containment material ⁽⁴⁾	Type of failure of means of containment ⁽⁵⁾		
Add lines as needed		
(1) For dangerous goods assigned to collective entries to which special provision 274 applies, also the technical name shall be indicated.				(2) For class 7, indicate values according to the criteria in 1.8.5.3.					
(3) Indicate the appropriate number:									
1 Packaging	6 BK 2	12 MGEC	18 Wagon						
2 Large packaging	7 BK3	13 Fixed Tank	19 Tank wagon						
3 Intermediate packaging container (IBC)	8 VC1 9 VC2	14 Portable tank 15 Demountable tank	20 Battery wagon 21 Closed wagon						
4 Pressure receptacle	10 VC3	16 Tank container	22 Open Wagon						
5 BK 1	11 vacuum-operated waste tanks	17 Tank swap bodies	23 Sheeted wagon						
(4) Indicate the appropriate number:				(5) Indicate the appropriate number:					
<input type="checkbox"/> Steel <input type="checkbox"/> Aluminum <input type="checkbox"/> wood <input type="checkbox"/> Fiberboard <input type="checkbox"/> Plywood				<input type="checkbox"/> Plastic film <input type="checkbox"/> Metal <input type="checkbox"/> Paper <input type="checkbox"/> Plastic <input type="checkbox"/> Textile <input type="checkbox"/> glass					
<input type="checkbox"/> Steel <input type="checkbox"/> Aluminum <input type="checkbox"/> wood <input type="checkbox"/> Fiberboard <input type="checkbox"/> Plywood				1 Loss 2 Fire 3 Explosion 4 Structural failure					

C) TDG specific information on containment damages	
<p>Damage type (imminent risk of loss of product):</p> <ul style="list-style-type: none"> <input type="checkbox"/> bent <input type="checkbox"/> gouged or cut <input type="checkbox"/> ripped or torn <input type="checkbox"/> torn off or damaged <input type="checkbox"/> vented <p>Leakage (actual loss of product): <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="color: red;">Category of actual loss from the containment in accordance with TDG RMF definitions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Small release</i> <input type="checkbox"/> <i>Limited release</i> <input type="checkbox"/> <i>Continuous release</i> <input type="checkbox"/> <i>Full release</i> <p>Estimated quantity of lost products:.....<input type="checkbox"/> kg ; <input type="checkbox"/> l</p>	<p>Place of leakage:</p> <ul style="list-style-type: none"> <input type="checkbox"/> cylinder valve <input type="checkbox"/> flange <input type="checkbox"/> gauging device <input type="checkbox"/> hose adaptor or coupling <input type="checkbox"/> inlet (loading) valve <input type="checkbox"/> inner packaging <input type="checkbox"/> inner receptacle <input type="checkbox"/> loading/ unloading lines <input type="checkbox"/> piping or fittings <input type="checkbox"/> pressure relief valve <input type="checkbox"/> sample line <input type="checkbox"/> tank shell <input type="checkbox"/> vacuum relief valve <input type="checkbox"/> vent <input type="checkbox"/> weld or seam <input type="checkbox"/> bursting disk
D) Consequences - TDG specific information on Dangerous phenomena occurred	
<ul style="list-style-type: none"> <input type="checkbox"/> absence of dangerous phenomena <input type="checkbox"/> Fire <ul style="list-style-type: none"> <input type="checkbox"/> Vapour cloud explosion <input type="checkbox"/> Gascloud Fire <input type="checkbox"/> Jet Fire <input type="checkbox"/> Bleve <input type="checkbox"/> Explosion without fire <ul style="list-style-type: none"> <input type="checkbox"/> Over pressurized inside the tank / packaging <input type="checkbox"/> Other <input type="checkbox"/> Toxic vapour cloud <p>(if fire type applicable) the location of fire:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Locomotive <input type="checkbox"/> Axle <input type="checkbox"/> Tank – trailer <input type="checkbox"/> Trailer – semi trailer <input type="checkbox"/> Pressure receptacle <input type="checkbox"/> Transport unit <input type="checkbox"/> Pollution of air <input type="checkbox"/> Pollution of water <input type="checkbox"/> Pollution of soil 	
E) Consequences - Involvement of authorities / evacuations / disruption of service	
<p>:</p> <ul style="list-style-type: none"> <input type="checkbox"/> No <input type="checkbox"/> Yes (which authority): <input type="checkbox"/> Evacuation of persons for a duration of at least 3 hours <input type="checkbox"/> Closure of public traffic routes for a duration of at least 3 hours 	

F) Consequences – Death and Injury

Within DG company personal:

<input type="checkbox"/> Death: (total number of persons)	
<input type="checkbox"/> Serious Injuries: (total number of persons)	Severity of injuries in Abbreviated Injury Scale: AIS >=3: : (total number of persons)
<input type="checkbox"/> Minor Injuries: (total number of persons)	AIS <3: : (total number of persons)
Nature of injury: <ul style="list-style-type: none"> <input type="checkbox"/> Traumatic <input type="checkbox"/> Intoxicated <input type="checkbox"/> Burned <input type="checkbox"/> Radiation 	

Caused by the dangerous substances:

<input type="checkbox"/> Death: (total number of persons)	
<input type="checkbox"/> Injured (total number):	Severity of injuries in Abbreviated Injury Scale: AIS >=3: : (total number of persons)
Days of hospitalization: (total number)	AIS <3: : (total number of persons)
Nature of injury: <ul style="list-style-type: none"> <input type="checkbox"/> Traumatic <input type="checkbox"/> Intoxicated <input type="checkbox"/> Burned <input type="checkbox"/> Radiation 	