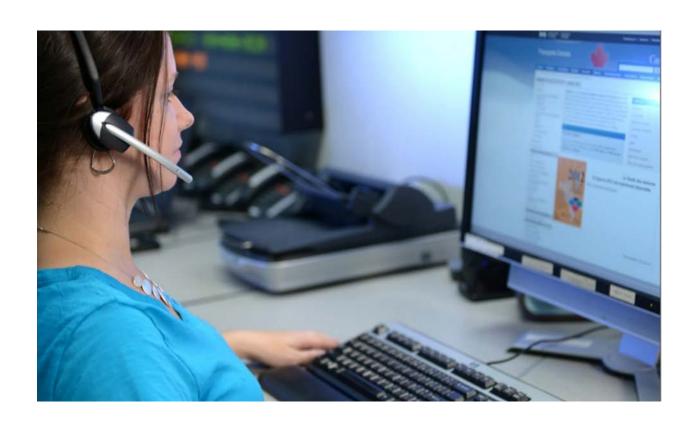


# Transportation of Dangerous Goods





# Guidebook for Reporting Dangerous Goods Incidents



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This publication is also available in French under the title "Guide pour la déclaration des incidents impliquant des marchandises dangereuses".

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#### **INTRODUCTION**

This guidebook is for any person involved in any way with the transport of dangerous goods. During such activities, incidents may occur that may lead to spills.

In these cases, the Transportation of Dangerous Goods Act, 1992 (TDG Act) provides that any person who has the charge, management or control of a means of containment (you, i. g. a driver, a company representative, a shipmaster, a train operator etc.) shall report any release or anticipated release (e.g. spills, accidents), loss or theft of dangerous goods that is or could be in excess of a quantity or concentration specified by regulation from the means of containment if it endangers, or could endanger, public safety.

A person may, for six months from the day these Regulations appear in the Canada Gazette, Part II, continue to comply with the *Transportation of Dangerous Goods Regulations* (TDGR) as they read the day before. When the six months have passed, everyone must comply with the amended Regulations.

**Note:** This guidebook is for reference only, and has no legal force or effect. Consignors, carriers and consignees are responsible for consulting the TDGR to determine exact requirements. If there is a conflict between the guidebook and the TDGR, the TDGR takes precedence.

#### TYPES OF REPORTS TRANSPORT CANADA REQUIRES

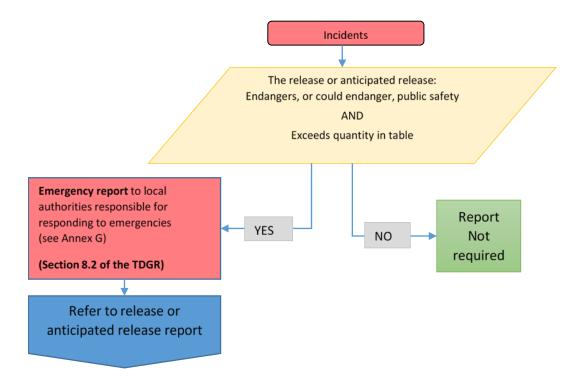
Part 8 of the TDGR (Reporting Requirements) requires a number of different report types. When certain conditions are met, persons subject to the TDGR must submit one of the report types below.

This guidebook presents the conditions for each type of report for reference only. To be certain whether or not <u>you</u> need to make a report, please consult Part 8 of the TDGR.

- 1. Reports for the Transport of Dangerous Goods by Road, Rail and Marine
  - a. Emergency Report Road, Rail or Marine Transport (Section 8.2 of the TDGR)
  - Report of a Release or Anticipated Release Road, Rail or Marine Transport (Section 8.4 of the TDGR)
  - c. 30-Day Follow-Up Report (Section 8.6 of the TDGR)
- 2. Reports for the Transport of Dangerous Goods by Air
  - a. <u>Dangerous Goods Accident or Incident Report Air Transport</u> (Section 8.9 of the TDGR)
  - b. <u>30-Day Follow-Up Report</u> (Section 8.11 of the TDGR)
  - c. Undeclared or Misdeclared Dangerous Goods Report (Section 8.14 of the TDGR)
- 3. Reports Relating to Security All Modes of Transport
  - a. Loss or Theft Report (Section 8.16 of the TDGR)
  - b. <u>Unlawful Interference</u> Report (Section 8.18 of the TDGR)

# MUST I MAKE AN EMERGENCY REPORT BY TELEPHONE (ROAD, RAIL OR MARINE TRANSPORT)?

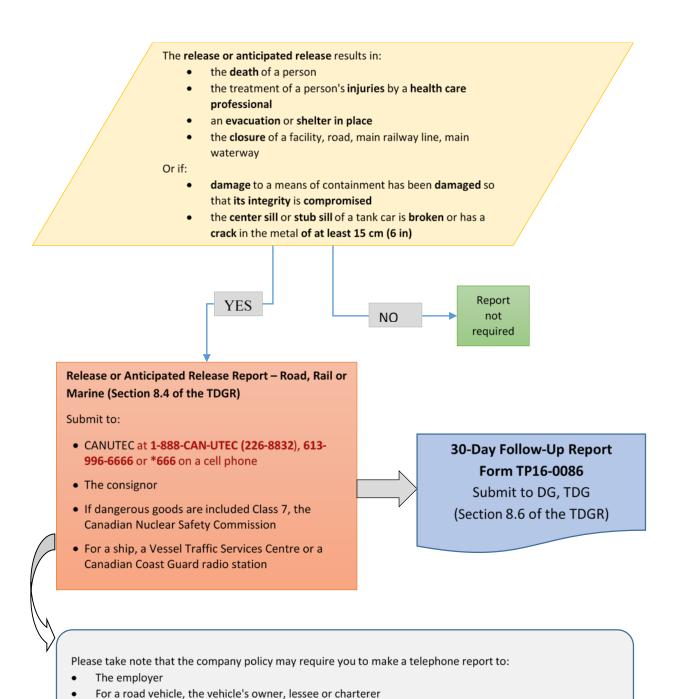
The flowchart below should help <u>you</u> answer this question (Section 8.2 of the TDGR). <u>Annex G</u> contains a list of local authorities responsible for responding to emergencies. For a list of information to provide, please refer to <u>annex A</u> (Section 8.3 of the RTDG).



Class	Packing Group or Category	Quantity	
1	II	Any quantity	
2	N/A	Any quantity	
3, 4, 5, 6.1 or 8	l or II	Any quantity	
3, 4, 5, 6.1 or 8	III	30 L or 30 kg	
6.2	A or B	Any quantity	
7	N/A	A level of ionizing radiation greater than that set out in Section 39 of the " Packaging and Transport of Nuclear Substances Regulations (2015)"	
9	II or III, or without packing group	30 L or 30 kg	

### WHEN SHOULD I MAKE A RELEASE OR ANTICIPATED RELEASE REPORT - ROAD, RAIL OR MARINE TRANSPORT BY TELEPHONE?

The flowchart below should help you answer this question (Section 8.4 of the TDGR). For a list of information to provide, please refer to annex A (Section 8.5 of the RTDG).



#### MUST I MAKE A TELEPHONE REPORT - TRANSPORT BY AIR?

The flowchart below should help <u>you</u> answer this question (Section 8.9 of the TDGR). For a list of information to provide, please refer to annex A (Section 8.10 of the RTDG).

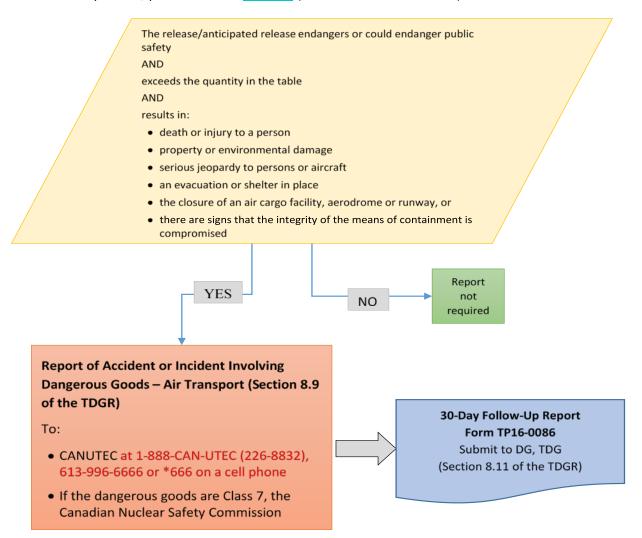


Table		
Class	Quantity	
1, 2, 3, 4, 5, 6, 8 or 9	Any quantity	
7	An emission level greater than the level set out in Section 39 of the "Packaging and Transport of Nuclear Substances Regulations"	

## MUST I MAKE AN <u>UNDECLARED OR MISDECLARED</u> DANGEROUS GOODS REPPORT?

The flowchart below should help <u>you</u> answer this question (Section 8.14 of the TDGR). For a list of information to provide, please refer to <u>annex A</u> (Section 8.15 of the RTDG).

Discovery of dangerous goods that have none of the documentation or dangerous goods marks set out in Parts 1 to 6 and Part 8 of the ICAO Technical Instructions after it's been accepted for transport.

### Report of Undeclared or Misdeclared Dangerous Goods (Section 8.14 of the TDGR)

• CANUTEC at 1-888-CAN-UTEC (226-8832), 613-996-6666 or \*666 on a cell phone

### WHEN SHOULD I MAKE A LOSS OR THEFT REPORT (ALL MODES OF TRANSPORT) BY TELEPHONE?

As soon as possible after discovering the loss or theft of dangerous goods referred to in items 1, 2 and 3 while they were being imported, offered for transport, handled or transported, a report must be made to the following persons (Section 8.16 of the TDGR):

- CANUTEC, at **1-888-CAN-UTEC** (**1-888-226-8832**) or **613-996-6666** or \*666 on a cell phone
- If dangerous goods are Class 1 (Explosives) or listed in Item 1 below, a Natural Resources
   Canada inspector at 613-995-5555
- If dangerous goods are Class 7 (Radioactive Materials), the Canadian Nuclear Safety
   Commission
  - 1. Any quantity of one of these dangerous goods:
    - ➤ UN1261, NITROMETHANE,
    - ➤ UN1357, UREA NITRATE, WETTED with not less than 20% water by mass,
    - > UN1485, POTASSIUM CHLORATE,
    - > UN1486, POTASSIUM NITRATE,
    - > UN1487, POTASSIUM NITRATE AND SODIUM NITRITE MIXTURE,
    - ➤ UN1489, POTASSIUM PERCHLORATE,
    - ➤ UN1495, SODIUM CHLORATE,
    - ➤ UN1498, SODIUM NITRATE,
    - ➤ UN1499, SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE,
    - ➤ UN1511, UREA HYDROGEN PEROXIDE,
    - > UN1796, NITRATING ACID MIXTURE with more than 50% nitric acid,
    - UN1826, NITRATING ACID MIXTURE, SPENT, with not more than 50% nitric acid,
    - UN1942, AMMONIUM NITRATE with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance,
    - ➤ UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary),
    - ➤ UN2015, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED with more than 60% hydrogen peroxide; or HYDROGEN PEROXIDE, STABILIZED,
    - UN2031, NITRIC ACID, other than red fuming,
    - ➤ UN2032, NITRIC ACID, RED FUMING,
    - ➤ UN3149, HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE with acid(s), water and not more than 5% peroxyacetic acid, STABILIZED,
    - ➤ UN3370, UREA NITRATE, WETTED, with not less than 10% water by mass;

- 2. **Any quantity** of dangerous goods in the following primary and subsidiary classes:
  - > Explosives included in Class 1.1, 1.2 or 1.3,
  - Toxic gases included in Class 2.3,
  - Organic peroxides included in Class 5.2, Type B, liquid or solid, temperature controlled,
  - Toxic substances included in Class 6.1 and Packing Group I,
  - Infectious substances included in Class 6.2,
  - Radioactive materials included in Class 7;
- 3. A gross mass of **450 kg or more**, in the case of dangerous goods in the following primary and subsidiary classes:
  - Explosives included in Class 1.4 (except for 1.4S), 1.5 or 1.6,
  - Flammable gases included in Class 2.1,
  - > Flammable liquids included in Class 3,
  - > Desensitized explosives included in Class 3 or 4.1,
  - Substances liable to spontaneous combustion, pyrophoric solids or liquids, included in Class 4.2 and Packing Group I or II,
  - ➤ Water-reactive substances included in Class 4.3 and Packing Group I or II,
  - Oxidizing substances included in Class 5.1 and Packing Group I or II,
  - ➤ Corrosives included in Class 8 and Packing Group I or II.

For a list of information to provide, please refer to annex B (Section 8.17 of the RTDG).

# WHEN SHOULD I MAKE AN <u>UNLAWFUL INTERFERENCE</u> REPORT (ALL MODES OF TRANSPORT) BY TELEPHONE?

As soon as possible after the discovery of unlawful interference with dangerous goods listed in item 1, while they were being imported, offered for transport, handled or transported, (Section 8.18, TDGR) a report must be made to:

- CANUTEC, at 1-888-CAN-UTEC (1-888-226-8832) or 613-996-6666 or \*666 on a cell phone
- In the case of dangerous goods included in Class 1, Explosives included in Class 1.1, 1.2, 1.3, 1.4
   (except for 1.4S), 1.5 or 1.6, or those referred to in Item 1 below, a Natural Resources Canada
   inspector at 613-995-5555
- In the case of dangerous goods included in Class 7, Radioactive Materials, the Canadian
   Nuclear Safety Commission
  - 1. One of these dangerous goods:
    - ➤ UN1261, NITROMETHANE,
    - ➤ UN1357, UREA NITRATE, WETTED with not less than 20% water by mass,
    - ➤ UN1485, POTASSIUM CHLORATE,
    - > UN1486, POTASSIUM NITRATE,
    - ➤ UN1487, POTASSIUM NITRATE AND SODIUM NITRITE MIXTURE,
    - ➤ UN1489, POTASSIUM PERCHLORATE,
    - ➤ UN1495, SODIUM CHLORATE,
    - ➤ UN1498, SODIUM NITRATE,
    - ➤ UN1499, SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE,
    - > UN1511, UREA HYDROGEN PEROXIDE,
    - ➤ UN1796, NITRATING ACID MIXTURE with more than 50% nitric acid,
    - UN1826, NITRATING ACID MIXTURE, SPENT, with not more than 50% nitric acid,
    - UN1942, AMMONIUM NITRATE with not more than 0.2% total combustible material, including any organic substance calculated as carbon, to the exclusion of any other added substance,
    - ➤ UN2014, HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary),
    - ➤ UN2015, HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED with more than 60% hydrogen peroxide; or HYDROGEN PEROXIDE, STABILIZED,
    - UN2031, NITRIC ACID, other than red fuming,
    - ➤ UN2032, NITRIC ACID, RED FUMING,
    - ➤ UN3149, HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE with acid(s), water and not more than 5% peroxyacetic acid, STABILIZED; and
    - ➤ UN3370, UREA NITRATE, WETTED, with not less than 10% water by mass.

For a list of information to provide, please refer to annex B (Section 8.19 of the RTDG).

### **OVERVIEW**

#### WHY USE THIS GUIDEBOOK?

This guidebook aims to familiarize <u>you</u> with report requirements and to help you prepare the 30-Day Follow-Up Report using the Transportation of Dangerous Goods Incident Report Form (form) if the person required to report wishes to use it.

**Please note:** While the 30-Day Follow-Up Report is a TDGR requirement, using the form is voluntary. We created this form to help you meet the 30 days follow up report requirements. It provides space for all information required under Section 8.7 and 8.12 of the TDGR. The form and guide will also offer spaces to provide voluntary information that will be used by Transport Canada for research and evaluation. The guide tells you clearly when the information is to be provided voluntarily.

**Remember:** This guidebook is for reference only and has no legal force or effect. Consignors, carriers and consignees are responsible for consulting the TDGR to determine exact requirements. If there is ever a conflict between the guidebook and the TDGR, the TDGR takes precedence.

#### MIRRORS THE FORM

The form is easy to complete, and the guidebook follows the same format to make it easy for you to find sections where you may need advice or assistance.

To better understand the form's definitions and basic concepts, we strongly suggest you read "Understanding Part 8, TDGR Reporting Requirements".

#### **PROVIDES RESOURCES**

Throughout the guidebook we provide information and tips for completing the form. Each section also includes links to:

- The relevant section of the TDGR; or
- Any other available information or resources.

#### UNDERSTANDING PART 8, TDGR REPORTING REQUIREMENTS

Before you start to complete the form, we suggest you become familiar with:

- the terms most often used in the incident report involving dangerous goods; and
- various important concepts to understand TDGR Part 8 reporting requirements.

You can find the **official definitions** in <u>Section 1.4</u> of the TDGR or in the <u>TDG Act</u>, both of which have force of law. Undifined words have the same meaning as in the dictionary.

#### What is an aerodrome?

The online tool "Termium Plus" defines an aerodrome as:

A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft. [Definition officially approved by ICAO.

#### What is an air cargo facility?

An air cargo facility is used to receive or transfer cargo that is transported or to be transported by aircraft.

#### What is an anticipated release?

Anticipated release means that, for example:

- a) An incident has occurred and dangerous goods will likely have to be transferred to another means of containment;
- b) A means of containment is damaged to the extend that its integrity is compromised and dangerous goods could be released; or
- c) A means of containment is lost in navigable waters.

#### For example:

- Package of lithium batteries with signs of overheating.
- > Rail tank car with a dent in the side.
- Gas cylinder with a damaged valve.
- Container of infectious material with damaged outer packaging.
- Waves breaking over the deck in a storm swept a container out to sea.

#### What is **CANUTEC**?

CANUTEC means the Canadian Transport Emergency Center of the Department of Transport. It is operated by Transport Canada's Transportation of Dangerous Goods (TDG) Directorate.

In the event of an emergency involving dangerous goods, call CANUTEC at **1-888-CAN-UTEC (226-8832)**, **613-996-6666** or **\*666** on a cellular phone. CANUTEC's emergency response advisors provide immediate advice over the phone about the actions to take and to avoid during a dangerous goods emergency. They can also send technical information to local authorities responsible for responding to emergencies by e-mail or fax during an incident.

#### What is meant by closure?

#### **Facility**

In the transport of dangerous goods, a facility closure refers to the **full or partial** closure of any facility where dangerous goods are handled.

#### For example:

- A release occurs on loading dock No. 10 of a plant. The plant closes one dock for the day for cleaning, though the plant's other departments continue operations.
- A derailment occurs in the yard of a plant. The lines are closed for a few hours while responders transfer the cargo to another tank car and place the first car back on the rails.

#### Railway Line

In the transport of dangerous goods, a railway line is considered closed when traffic is impossible for any period of time (whether for a few minutes, a few hours or a few days) due to a release or anticipated release of dangerous goods.

#### For example:

- A train carrying dangerous goods derails on the main railway line, causing a release due to damage on a tank car. Trains cannot use the line until the site is cleaned up.
- A tank car carrying dangerous goods is involved in a collision at a level crossing. Transportation routes are closed until the site is cleaned up.

#### Road

In the transport of dangerous goods, a road closure is any change in the traffic patterns of a private or public roadway including its **full or partial** closure, whether due to the release of dangerous goods or their transfer in the event of an anticipated release.

#### For example:

- After a release occurs on the westbound Autoroute 417, one westbound lane is temporarily closed while the two eastbound lanes remain open to traffic.
- A tank truck is on its side in a ditch on a rural road and the dangerous goods are transferred to a second tank truck. After creating a buffer zone with pylons, traffic is allowed through one lane at a time.
- A train derails, and a release occurs on the railway lines near a road. The road is closed to all traffic to protect the publice, secure the perimeter and do cleanup.

#### Waterway

In the transport of dangerous goods, a waterway closure refers to the **full or partial** closure of a waterway where dangerous goods are transported.

#### What is a compliance mark?

The TDG Act defines a compliance mark as:

A symbol, device, sign, label, placard, letter, word, number or abbreviation, or any combination of those things, that is to be displayed on a means of containment used or intended to be used in importing, offering for transport, handling or transporting dangerous goods to indicate compliance with a safety standard that applies under the regulations

#### For example:



#### What is a consignor?

Under the TDGR, a consignor:

Means a person in Canada who:

- a) Is named in a shipping document as the consignor;
- **b)** Imports or who will import dangerous goods into Canada;
- **c)** If paragraphs (a) and (b) do not apply, has possession of dangerous goods immediately before they are in transport.

A person may be both a consignor and a carrier of the same consignment, for example, a manufacturer who also transports the dangerous goods he or she produces.

#### What are dangerous goods?

Under the TDG Act, dangerous goods:

Means a product, **substance** or organism included by its nature or by the regulations in any of the **classes** listed in the schedule to the **Act.** 

Schedule to the Act

Class 1

Explosives, including explosives within the meaning of the "Explosives Act"

Class 2

Gases: compressed, deeply refrigerated, liquefied or dissolved under pressure

Class 3

Flammable and combustible liquids

Class 4

Flammable solids; substances liable to spontaneous combustion; substances that on contact with water emit flammable gases

Class 5

Oxidizing substances; organic peroxides

Class 6

Poisonous (toxic) and infectious substances

Class 7

Nuclear substances, within the meaning of the "Nuclear Safety and Control Act", that are radioactive

Class 8

Corrosives

#### Class 9

Miscellaneous products, substances or organisms considered by the Governor in Council to be dangerous to life, health, property or the environment when handled, offered for transport or transported and prescribed to be included in this class

In these Regulations the words "Class 7, Radioactive Materials" are used rather than the words that are used in the schedule to the Act, "Class 7, Nuclear Substances within the meaning of the Nuclear Safety and Control Act, that are radioactive" so that the Regulations are more easily read in conjunction with international documents incorporated by reference in them.

#### What is a dangerous goods mark?

The TDG Act defines a dangerous goods mark as:

A symbol, device, sign, label, placard, letter, word, number or abbreviation, or any combination of those things, that is to be displayed to indicate the presence or nature of danger on dangerous goods, or on a means of containment or means of transport used in importing, offering for transport, handling or transporting dangerous goods.

#### For example:

Placard showing the primary class and UN number for gasoline:



#### What is an ERAP?

#### The **TDGR** defines an ERAP as:

A plan that outlines what is to be done if there is an accident involving certain **dangerous goods** and that is in accordance with Part 7, Emergency Response Assistance Plan.

#### What is a **facility**?

In the transport of dangerous goods, a facility is a permanent or temporary building (or part of a building) used for the handling of dangerous goods.

#### What is **handling**?

Under the **TDG** Act, handling:

Means loading, unloading, packing or unpacking **dangerous goods** in a **means of containment** for the purposes of, in the course of or following transportation and includes storing them in the course of transportation.

#### What is a means of containment (MOC)?

The **TDGR** defines a means of containment as:

Means a container or packaging, or any part of a **means of transport** that is or may be used to contain goods.

For more information on means of containment, please see Part 5 of the RTDG (force of law) and visit the Containers section of Transport Canada's Transportation of Dangerous Goods Web site.

#### What is a means of transport?

Under the TDG Act, a means of transport is:

A road or **railway vehicle, aircraft, ship**, pipeline or any other contrivance that is or may be used to transport persons or goods.

#### What is a release?

Under the TDG Act, a release means:

in relation to dangerous goods,

(a) a discharge, emission, explosion, outgassing or other escape of dangerous goods, or any component or compound evolving from dangerous goods, from a means of containment being used to handle or transport the dangerous goods, or

**(b)** an emission, from a **means of containment** being used to handle or transport **dangerous goods**, of ionizing radiation that exceeds a level or limit established under the Nuclear Safety and Control Act;

Any smoke or gases coming from lithium batteries constitutes a release.

#### For example:

- A tank is punctured in an accident and gasoline drizzles out.
- ➤ A test tube containing infectious material falls to the ground and breaks during preparation for transport.
- A pallet of damaged lithium batteries releases hydrogen and catches fire.
- Gases endanger public safety while venting the container.

#### Who needs to report (i.e. you)

The *Transportation of Dangerous Goods Act, 1992* (TDG Act) provides that any person who has the charge, management or control of a means of containment (e. g. a driver, a company representative, a shipmaster, a train operator etc.) shall report any release or anticipated release (e.g. spills, accidents), loss or theft of dangerous goods that is or could be in excess of a quantity or concentration specified by regulation from the means of containment if it endangers, or could endanger, public safety.

#### What is a runway?

A runway is a defined rectangular area on a land aerodrome prepared for aircraft landing and take-off.

#### What are undeclared or misdeclared dangerous goods?

Undeclared or misdeclared dangerous goods are those:

- Whose safety marks are incorrect on or missing from the means of containment, or
- Not identified according to the rules for shipping documents.

**Note:** For air transport, only dangerous goods that have been accepted by the air carrier must be reported.

#### For example:

#### **Undeclared Consignment:**

- Hair spray or perfume in a "care package".
- A box of 16 cans of spray paint from one seller to another.

#### Misdeclared Consignment:

- ➤ Shipment containing a battery charger and lithium batteries (UN3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT instead of UN3480, LITHIUM ION BATTERIES, etc.).
- The information identifying the dangerous goods (either on the shipping document, or the safety marks on the means of containment) has been purposely altered.

#### What is unlawful interference?

Here are some examples you could consider as an unlawful interference:

- ➤ A cylinder valve is purposely damaged or altered.
- The dangerous goods in a container do not match the safety marks displayed on it (ammonia in propane cylinders for making of illegal drugs, etc.).
- ➤ A means of containment is purposely damaged or altered.
- > The composition of dangerous goods in a container is purposely altered to lower their value.
- > Shipping document information is purposely altered.
- A means of containment (tank, etc.) is vandalized.

#### **30-DAY FOLLOW-UP REPORT**

#### WHEN MUST I MAKE A WRITTEN 30-DAY FOLLOW-UP REPORT?

When the person who has the charge, management or control of a means of containment or their company:

- Have had to make a release report or anticipated release report road, rail or marine transport by telephone (see "Must I Make a Report?").
- Have had to make an accident or incident of dangerous goods report—air transport (see "Must I Make a Report?").
- Must make an addition or amendment to a 30-day follow-up report.

#### WHO SHOULD MAKE THE 30-DAY FOLLOW-UP REPORT?

The person who made a report referred to in sections 8.4 and 8.9 (or his employer) must complete the 30-day follow-up report and submit it in writing to the Director General of the TDG Directorate within 30 days after the date of said release report, anticipated release report or accident or incident of dangerous goods report – air transport. You can send the 30-day follow-up report by mail, by fax or byemail to:

Transportation of Dangerous Goods Directorate
Transport Canada
Place de Ville, Tower C, 9th Floor
330 Sparks Street
Ottawa, Ontario

K1A 0N5

Fax: 613-993-5925 Email: dor-rcd@tc.gc.ca

### FORM (TP16-0086) - DETAILED BREAKDOWN OF EACH SECTION

The following sections provide information and examples to help <u>you</u> complete the form. But if you have questions about what to include in the form, please e-mail our TDG Safety Research and Analysis team at <u>dor-rcd@tc.gc.ca</u>.

**Note:** All reporting requirements for the 30-day follow-up report are listed in the TDGR under Sections 8.7 and 8.12. While the TDGR <u>requires</u> you submit the 30-day follow-up report, <u>using the form is</u> voluntary.

#### PART I REPORT TYPE

#### BOX 1 - REPORT TYPE (CHECK A BOX) (TDGR 8.7R) AND 8.12P))

#### Box A) Release Report - Road, Rail or Marine Transport

If this is your first submission or an update or amendment to a 30-day follow-up report for a release report, check box "A".

#### Box B) Anticipated Release Report - Road, Rail or Marine Transport

If this is your first submission or an update or amendment to a 30-day follow-up report for an anticipated release report, check box "B".

#### **Box C) Accident or Incident Report – Air Transport**

If this is your first submission or an update or amendment to a 30-day follow-up report for an accident or incident report for dangerous goods transported by aircraft or in an aerodrome or air cargo facility, check box "C".

#### **Date**

Please enter the date of the release report. Anticipated release report or the accident or incident report - air in the following format: YEAR-MONTH-DAY.

#### For example

You would record January 2, 2016 as 2016-01-02.

#### PART II CONTACT INFORMATION

# BOX 2 – INFORMATION ON THE PERSON COMPLETING THE REPORT (TDGR 8.7(A) AND 8.12(A))

In the top row of the second box, select your role or your organization's role in the shipment of the dangerous goods.

**Note:** It is possible for you to be consignor, consignee and carrier/aircraft operator at the same time.

#### Remember that in the transportation cycle:

**The consignor\*** is the person who handles or offers dangerous goods for transport.

**The consignee\*** is the intended receiver of the dangerous goods the consignor has offered for transport.

**The carrier\*** is the person or company that accepts possession of, handles and transports dangerous goods from the consignor (person offering them for transport) to the consignee (person who will receive them).

**The aircraft operator\*** is a person certified to operate a commercial air service.

\* This definition is provided for information purposes only; see the official definition in section 1.4 of the TDGR.

Be sure to provide accurate contact information so we can reach you for more details if necessary. **Please include your e-mail address**.

## BOX 3 – INFORMATION ON THE CONSIGNOR, CONSIGNEE AND CARRIER/AIR OPERATOR (TDGR 8.7(B) AND 8.12(B))

Though the person in one or all of these fields may be the same as that in Box 2, we ask that you please fill them out as fully as possible.

Information on the various parties involved in the shipment of dangerous goods helps our analysts understand how the goods were transported and lets us contact the parties for more details if needed.

#### PART III INCIDENT INFORMATION

#### BOX 4 - TIME AND DATE OF INCIDENT (TDGR 8.7(C), 8.7(D), 8.12(C) AND 8.12(D))

The TDGR requires in the case of a release or of an anticipated release of dangerous goods, the date and time of the release. We recognize that some incident involving dangerous goods are discovered after the incident. In these cases please take all measures necessary to identify the date and time to the best of your knowledge.

#### For example

- A tank carrying flammable liquid Class 3, leaked during a journey that began at 8 am and ended around 13 pm.
- A tank car carrying a corrosive liquid left an installation at 14 pm July 22, and arrived on July 23 at 00 h 05, emptied of its content due to a valve failure.

In the case of an anticipated release, provide the date and time of the incident that led to the anticipated release. Please write dates in the following format: YEAR-MONTH-DAY.

#### For example

You would record January 2, 2016 as 2016-01-02.

We also ask that you record incident's time, at the incident location, using the 24 hour system and indicating the time zone where it occurred.

#### For example

- ➤ If a box of vials containing Class 6.2 Infectious Substance fell and released its contents during loading at 9 p.m. at a Montreal facility in winter, you would record it as having occurred at 2100 hours (EST).
- ➤ If you discover at 2 pm that a tank truck transporting a Class 3 flammable liquid between Winnipeg and Sandy Lake in July has leaked while en route, you would record that the incident was to have occurred at 1400 hrs (CDT).

## BOX 5 – GEOGRAPHIC LOCATION OF INCIDENT (TDGR 8.7(C), 8.7(D), 8.12(C) AND 8.12(D))

#### **GPS** Position

While we ask you provide this position in latitude by longitude coordinates, we will accept a military grid reference with at least eight figures and includes the grid zone designation.

#### For example

An incident occurring at 330 Sparks St. in Ottawa, Ontario would have:

- the GPS coordinates 31.399305 and -85.93379 (latitude and longitude); or
- a military grid reference of 18TVR 4484 2976.

#### Tip

If you do not have access to this information, you can use free online tools such as Google Earth to find the GPS position in latitude and longitude. If you are unsure how to do this, you can find tutorials on Web sites such as http://www.latlong.net/ $^{\pm}$ .

#### Address\*

While your GPS position is a good indicator of your location, we also ask for the address.

\* This information is requested for statistics and research and research and is not required pursuant to Part 8 of the TDGR.

#### For example

If you have a spill on a long stretch of uninhabited road (let's call it Nowhere Rd.), you may provide the approximate location as follows:

23 km east of Nothingsville on Nowhere Rd, Nothingsville, Ontario (postal code unknown)

#### **Rail Information**

If you were transporting dangerous goods by rail, be sure to include the nearest milepost (or mileage) and the subdivision of line where the incident occurred or was discovered.

#### **BOX 6 – GEOGRAPHIC AREA\***

Please check only **one** box. This information helps us assess the type of damage that has occurred or may have occurred as a result of the spill.

\* This information is requested for statistics and research and is not required pursuant to Part 8 of the TDGR.

#### BOX 7 – MODE OF TRANSPORT (TDGR 8.7(E))

Check only **one** box. The mode of transport should be the type of vehicle/mode of transport by which the dangerous goods were carried, on which they were loaded, or from which they were unloaded.

#### For example

A pallet, if left on a loading dock overnight to be loaded onto a tractor trailer the next day, would still be considered "road" transport.

 $<sup>^\</sup>dagger$  Transport Canada has no affiliation with this Web site. It is cited only as an example of existing free online services.

#### **BOX 8 - MARINE TRANSPORT\***

If the incident occurred on a ship or other water going vessel, please include:

- The exact position of the vessel at the time of the incident
- The next location where the vessel will be anchored or docked

#### **BOX 9 - PHASE OF TRANSPORT\***

Please check only one box to indicate if the dangerous goods were being transported, loaded, unloaded or stored at the time of the incident.

#### BOX 10 - TYPE OF INCIDENT (TDGR 8.7(K) AND 8.12(J))

It is possible for more than one incident to occur in the same event. For instance, a rail car can derail and overturn and then be struck by another object or vehicle. To provide an accurate account, select **all** incident types that apply in this case.

### BOX 11 - TYPE OF RELEASE (TDGR 8.7(K), 8.7(L), 8.12(J) AND 8.12(K))

The TDGR requires to specify if there was an explosion or a fire. TC recognises that multiple releases can occur in the same incident.

#### For example:

A rail car that overturns after derailing may cause a spill, then catch fire, and explode soon after.

You can also use this box to indicate that you based your report on an anticipated release, meaning you believed at the time that a release of dangerous goods was imminent.

**Note:** The release report and follow-up report would still be required.

For a definition of accidental release, please see "Understanding Part 8, TDGR Reporting Requirements" or Section 1.4 of the TDGR.

<sup>\*</sup>This information is requested for statistics and research and is not required pursuant to Part 8 of the TDGR.

stThis information is requested for statistics and research and is not required pursuant to Part 8 of the TDGR

# BOX 12 – INFORMATION ON THE DANGEROUS GOODS (TDGR 8.7(F), 8.7(G), 8.7(H) 8.12(E), 8.12(F) AND 8.12(G))

Under <u>Part 3 of the TDGR</u>, all shipments or consignments of dangerous goods MUST travel with the appropriate shipping documents. You may use these documents and the information in <u>Schedule 1</u> of the TDGR to fill in the box.

#### Enter all dangerous goods involved in a release or an anticipated release.

If you need extra space, you may attach other sheets of paper to the form. Remember to include the packing group or category of the shipment. Consult Schedule 1 of the TDGR if necessary.

#### BOX 13 - MEANS OF CONTAINMENT (TDGR 8.7(G), 8.7(I) AND 8.12(H))

Refer the definition of "means of containment" in the Overview section and in <u>Section 1.4 of the TDG</u>

Regulations.

#### You must:

- Properly complete each section of the box.
- Indicate the exact quantity of each dangerous good in each means of containment.
- Indicate the exact type of container (you can find types and definitions in Part 5 of the TDGR).
- Indicate gross mass/capacity so TC will know the means of containment's *current* fill level.

#### You may also:

 Provide compliance marks\* (all containers or other means of containment approved for the transport of dangerous goods must have a compliance mark in accordance with <u>Part 5 of the</u> <u>TDGR</u>).

**Note:** This does not include placards on the means of containment. It refers to the compliance marks that should be stamped or otherwise permanently marked on the means of containment. We have included container-specific forms in <u>Annex E</u>. Please use these to ensure you collect the right data and submit them with your follow-up report when applicable.

### BOX 14 – DESCRIPTION OF DAMAGE TO MEANS OF CONTAINMENT (TDGR 8.7(J) AND 8.12(I))

Among other things, damage can include a punctured tank wall, a degraded container seam, or a container rupture from an explosion.

The TDGR requires that you indicate the location of damage on the means of containment. Since there is no standard way to do this, it is up to you to determine the best method.

<sup>\*</sup>This information is requested for statistics and research and is not required pursuant to Part 8 of the TDGR

#### **Examples**

If the wall of a rail tank car is punctured and torn in a collision, indicate the puncture's location on the side, end, top or bottom, relative to one of the car's main features. For instance, you could say the puncture is located 1.4 meters above the B end coupler, with the tear extending 45 centimetres upwards.

If damage is located on or near a prominent feature, you could simply indicate this part of the container (valve, coupler etc.).

When indicating the damaged part of the container, it is important that you be as precise as possible. You may need to include diagrams.

#### BOX 15 - INCIDENT-RELATED COSTS (TDGR 8.7(S) AND 8.12(Q))

Take all necessary measures to provide a cost estimate to the best of your knowledge of:

- material loss of dangerous goods;
- damage to means of containment/carrier;
- damage to property, regardless of ownership (repairs);
- emergency response operations; and
- cleanup.

The form will automatically calculate the total of all listed costs.

Record all costs in Canadian Dollars (CAD).

#### **PART IV - CONSEQUENCES**

#### **BOX 16 - CONSEQUENCES OF THE INCIDENT\***

Please indicate the types of consequences the incident caused, checking all boxes that apply.

**Human** consequences would cause or lead to injury, death, the evacuation of an area, or sheltering in place.

**Property** consequences would cause or lead to any property damage or destruction, regardless of who owns or operates it. This also applies if the incident leads to the evacuation of a facility or the closing of a road, main waterway or main railway line.

**Environmental** consequences would cause or lead to environmental and ecosystem damage in the area. Environmental effects can relate to land, air or water.

<sup>\*</sup> These information are requested for statistics and research and are not required pursuant to Part 8 of the TDGR

#### For example

- A chemical spill seeps into groundwater that sustains a local ecosystem.
- A toxic plume of smoke, vapours or fumes affects air quality or damages plants or animals.

### BOX 17 – EVACUATION OF PEOPLE AND BUILDINGS/SHELTER IN PLACE (TDGR 8.7(O) AND 8.12(M))

**Note:** The TDGR requires that you provide the number of people evacuated or sheltered in place and the duration of the evacuation or shelter in place. Any other information may be voluntarily given for statistics and research.

If there was an evacuation during or after the reported incident, check the YES box in the Evacuation section.

If people were sheltered in place during or after the reported incident, check the YES box in the Shelter in Place section.

If <u>you</u> checked YES for either of these options, follow the form's instructions and indicate the number of people evacuated or sheltered in place for four location categories:

- Private residences;
- Public buildings;
- Workplaces; and
- Public outdoor spaces such as parks, etc.

#### Example

Imagine a burning container created a cloud of smoke that forced the evacuation of a roughly 30-acre area over a three-hour period. Within these 30 acres were 21 homes, a community center, about a dozen local restaurants, and people in the streets nearby. Emergency responders estimate they evacuated some 35 people from their homes, 52 people from the community center, and 216 people from local restaurants. While not known for certain, they estimate that 40 people were on the streets at the time of evacuation.

Was there an evac	uation as a result of	the incident?	Yes	)
	Private homes	Public buildings	Workplaces	Public (outdoor) areas
People	35	52	216	+/- 40
Buildings	21	1	12	N/A

Size of evacuation area

121,406 m2

Time required for evacuation

3 hours

#### BOX 18 - INJURIES AND DEATHS (TDGR 8.7(P) AND 8.12(N))

Dangerous goods incidents are hazardous for the goods themselves, and because their release often involves an accident that may be dangerous in its own right. To help us understand the risks of transporting dangerous goods, this section explores the impact of dangerous goods incidents on human health and safety.

**Note:** The TDGR requires that you provide the number of deaths and the number of persons who sustained injuries that required immediate medical treatment by a health care provider. Any other information may be voluntarily given for statistics and research.

Please carefully read the description for each injury type.

#### Minor injury

A minor injury requires immediate first aid at the scene but no immediate follow-up at a hospital or by a physician.

#### For example

- A person has a minor cut, but doesn't need stitches.
- A person becomes dizzy after inhaling fumes from a release, but the symptoms disappear when the person is away from the scene.

#### Moderate injury

A moderate injury requires a trip to the emergency department or to the plant infirmary of a facility that provides emergency health care, but does not require a hospital stay.

#### For example

- After suffering burns to his hands from an accidental release of dangerous goods he was delivering, an employee goes to the plant infirmary where health care professionals bandage his hands.
- A driver loses control of his tank truck and suffers a gash to his forehead from the windshield. His gash requires a visit to the emergency room for stitches and a few hours of observation.

#### Major injury

A major injury requires a stay in hospital.

#### For example

A person suffers burns after a train derailment where a tank car carrying dangerous goods explodes, and must stay in hospital for several days.

#### Cause of injury

In this section it is important to identify the cause of each category of injury.

If injuries are the result of:

- Exposure to dangerous goods, report the number of injuries caused by the goods in question.
- The accident, record them in the "attributed to accident" row.

**Please note:** To protect victims' privacy, we wish to know only the **number** of injured or dead. Do not include details of injuries or the names or identities of victims.

# BOX 19 – INFRASTRUCTURE CLOSURE AND TIME REQUIRED (TDGR 8.7(m) and 8.12(l))

Since dangerous goods can threaten a larger area than the incident scene, authorities must often immediately shut down and quarantine the zone. This section of the form concerns the impact of dangerous goods incidents on nearby infrastructure.

To complete this section, please select **all** options that apply. It is possible for a single incident, however severe, to result in the closure of all listed infrastructure types.

For each infrastructure, indicate the number of hours it was closed.

#### For example

A road several kilometers from a railway line may close for a few hours if a spill on the line poses a danger to automobile traffic. And while the railway line may be shut down for days, the road may only close for a few hours.

#### BOX 20 - GEOGRAPHIC LOCATION OF CLOSURE (TDGR 8.7(N) AND 8.12(L))

#### **GPS** Position

We ask you to provide this position in latitude by longitude coordinates, but will accept a military grid reference with at least eight figures and includes the grid zone designation.

#### For example

An incident occurring at 330 Sparks St. in Ottawa, Ontario would have:

- the GPS coordinates 31.399305 and -85.93379 (latitude and longitude); or
- a military grid reference of 18TVR 4484 2976.

**Note:** In the military grid reference, the first five characters (18TVR) represent the grid zone.

#### Tip

If you have no access to this information, you can use free online tools such as Google Earth to find the GPS position in latitude and longitude. You can find tutorials for this on Web sites like http://www.latlong.net/ <sup>‡</sup>.

#### Address\*

While your GPS position is a good indicator of your location, we also ask for the address. We understand that incidents can occur in areas where there are no street addresses, so complete this section to the best of your ability.

\* This information is requested for statistics and research and research and is not required pursuant to Part 8 of the TDGR.

#### For example

If you have a spill on a long stretch of uninhabited road (let's call it Nowhere Rd.), you can provide the approximate location as follows:

23 km east of Nothingsville on Nowhere Rd, Nothingsville, Ontario (postal code unknown).

<sup>&</sup>lt;sup>‡</sup> Transport Canada has no affiliation with this Web site. It is cited only as an example of existing free online services.

#### **Rail Information**

If you were transporting dangerous goods by rail, be sure to include the nearest milepost (or mileage) and the subdivision of the line where the incident occurred or was discovered.

#### BOX 21 - ERAP REQUIREMENTS UNDER PART 7 OF TDGR (TDGR 8.7(Q) AND 8.12(O))

The TDGR prescribe when a shipment requires an emergency response assistance plan (ERAP). Some dangerous goods are so hazardous in certain quantities that the TDGR requires consigners or carriers to file approved ERAPs detailing how they will intervene in an emergency or incident.

TC reviews each ERAP **before** the consignment is transported and gives it a reference number. Also, as noted in Part 7, certain consignors and carriers have the same ERAP under agreements with other companies where applicable. This is why it is so important to accurately record the name, number and address of the ERAP holder (or owner).

If the incident involves a consignment for which an ERAP was required, select "Yes" and provide the requested details.

#### BOX 22 - DESCRIPTION OF INCIDENT (TDGR 8.7(K))

This is where you explain what happened in your own words.

You can write as much as you like by attaching extra pages, though you must include:

- A detailed chronology of events, including the period up until you discovered the incident and what happened next.
- A detailed description of the reason the means of containment failed (release) or you believed it likely to fail (imminent release). To give a full picture of what occurred, we suggest you include photographs and diagrams.
- A detailed description of what you or other responders did to minimize the effects of the release or imminent release.
- Any other contributing factor or initiating event, such as:
  - weather conditions,
  - condition of road or railway line,
  - accident,
  - imminent danger,
  - etc.
- A description of the physical environment (school, residential, business/commercial, industrial, rural, forest, etc.)
- A description of the road's appearance:
  - flat, straight, inclined or curved (issue for the movement of liquid in tank trucks);
  - intersection, between intersections.

Although not required under the TDGR, we suggest you use the terminology and related codes in the <u>ANNEX F</u> table. If you do so, please attach a copy of this sheet to the end of your report and circle the applicable causes.

Please estimate the length of time over which the release and the incident occurred. It is all right (we recommend it!) to repeat information you have entered on the form up to this point.

Where possible, include the specific time of an event. For example:

- > Time of release;
- > Time of discovery;
- Time of first responder arrival;
- Etc.

Giving a detailed account of your communications with responders and your organization is ideal. This approach helps us understand how the incident was perceived on the ground.

Remember, the more information you can include in this section, the better.

Please email your questions to the TDG Safety Analytics Accidents team at dor-rcd@tc.gc.ca.

#### PART V - DESCRIPTION OF INCIDENT - AIR TRANSPORT ONLY

### BOX 23 - DESCRIPTION OF ROUTE (TDGR 8.12(R), 8.12(S) AND 8.12(T))

This section applies only to dangerous goods incidents that occur during transport or handling (before and after air transport), or to any serious endangerment of an aircraft or the people on board. This includes air cargo facilities, aerodromes and aircraft.

Describe in full detail:

- > The serious endangerment of the aircraft or the people on board;
- > The damage to property or the environment; and
- The route by which the dangerous goods were to be transported, including:
  - the name of the aircraft operator;
  - the name of the aerodromes throughout the route;
  - any air cargo facility where the aircraft would have been loaded or unloaded.

#### **ANNEXES**

#### ANNEX A - INFORMATIONS TO BE INCLUDED IN THE DIFFERENT SAFETY REPORTS

#### EMERGENCY REPORT — ROAD, RAIL OR MARINE (SECTION 8.3)

- The name and contact information of the person making the report;
- ➤ In the case of a release of dangerous goods, the date, time and geographic location of the release;
- In the case of an anticipated release of dangerous goods, the date, time and geographic location of the incident that led to the anticipated release;
- > The mode of transport used;
- ➤ The shipping name or UN number of the dangerous goods;
- ➤ The quantity of dangerous goods that was in the means of containment before the release or anticipated release;
- In the case of a release of dangerous goods, the quantity of dangerous goods estimated to have been released; and
- ➤ If applicable, the type of incident leading to the release or anticipated release, including a collision, roll-over, derailment, overfill, fire, explosion or load-shift.

### RELEASE OR ANTICIPATED RELEASE REPORT — ROAD, RAIL OR MARINE (SECTION 8.5)

- The name and contact information of the person making the report;
- ➤ In the case of a release of dangerous goods, the date, time and geographic location of the release;
- In the case of an anticipated release of dangerous goods, the date, time and geographic location of the incident that led to the anticipated release;
- > The mode of transport used;
- The shipping name or UN number of the dangerous goods;
- The quantity of dangerous goods that was in the means of containment before the release or anticipated release;
- ➤ In the case of a release of dangerous goods, the quantity of dangerous goods estimated to have been released;

- If applicable, the type of incident leading to the release or anticipated release, including a collision, rollover, derailment, overfill, fire, explosion or load-shift; If applicable, the name and geographic location of any road, main railway line or main waterway that was closed;
- > A description of the means of containment containing the dangerous goods;
- > If applicable, an estimate of the number of people evacuated or sheltered in place; and
- ➤ If applicable, the number of deaths and the number of persons who sustained injuries that required immediate medical treatment by a health care provider.

#### DANGEROUS GOODS ACCIDENT OR INCIDENT REPORT — AIR (SECTION 8.10)

- The name and contact information of the person making the report;
- ➤ In the case of a release of dangerous goods, the date, time and geographic location of the release;
- In the case of an anticipated release of dangerous goods, the date, time and geographic location of the incident that led to the anticipated release;
- The name of the aircraft operator, aerodrome or air cargo facility;
- > The shipping name or UN number of the dangerous goods;
- > The quantity of dangerous goods that was in the means of containment before the release or anticipated release;
- In the case of a release of dangerous goods, the quantity of dangerous goods estimated to have been released;
- Ifapplicable, the type of incident leading to the release or anticipated release;
- > A description of the means of containment containing the dangerous goods;
- > If applicable, the number of deaths and the number of persons who sustained injuries; and
- If applicable, an estimate of the number of people evacuated or sheltered in place.

#### UNDECLARED OR MISDECLARED DANGEROUS GOODS REPORT (SECTION 8.15)

- > The name and contact information of the person making the report;
- The name of the aircraft operator, aerodrome or air cargo facility;
- > The names and contact information of the consignor and consignee;
- > The date of the discovery of the dangerous goods;
- The shipping name or UN number of the dangerous goods;
- ➤ A description of the means of containment containing the dangerous goods;
- > The gross mass or capacity of the means of containment and, if applicable, the total number of means of containment; and
- A description of the route by which the dangerous goods were to be transported, including the names of any aerodromes along the route.

## ANNEX B – INFORMATIONS TO BE INCLUDED IN THE DIFFERENT SECURITY REPORTS

#### LOSS OR THEFT REPORTS (SECTION 8.17)

- The name and contact information of the person making the report;
- The names and contact information of the consignor, the consignee and the carrier;
- Information as to whether the dangerous goods were lost or stolen;
- The shipping name or UN number of the lost or stolen dangerous goods;
- The quantity of the lost or stolen dangerous goods;
- > A description of the means of containment containing the lost or stolen dangerous goods; and
- > Theapproximate date, time and geographic location of the loss or theft.

#### UNLAWFUL INTERFERENCE REPORT (SECTION 8.19)

- The name and contact information of the person making the report;
- > The names and contact information of the consignor, the consignee and the carrier;
- > A detailed description of the unlawful interference;
- The shipping name or UN number of the dangerous goods;
- ➤ A description of the means of containment containing the dangerous goods, and the number of means of containment; and
- > The approximate date, time and geographic location of the unlawful interference.

### ANNEX C – CONDITIONS FOR MAKING A RELEASE OR ANTICIPATED RELEASE REPORT

#### 8.4 Report of a Release or Anticipated Release - Road, Rail or Marine Transport

- (1) Subject to Subsection (2), any person required to make an emergency report under Section 8.2 must, as soon as possible thereafter, make a report to the persons listed in Subsection (4).
- (2) Subject to Subsection (3), the person is not required to make a report under Subsection (1) if the release or anticipated release did not result in:
  - a) The death of a person;
  - b) Injury to a person requiring immediate medical treatment by a health care provider;
  - c) An evacuation or shelter in place;
  - **d)** The closure:
    - (i) either of a facility used for loading and unloading of dangerous goods; or
    - (ii) of a road, main railway line or main waterway.
- (3) The person must make the report referred to in Subsection (1) if, as applicable:
  - a) Damage to a means of containment has compromised its integrity; or
  - **b)** A rail tank car's centre sill or stub sill is broken or the metal has a crack of at least 15 cm (6 in).
- (4) For the purposes of Subsection (1), the person must make a report to:
  - a) CANUTEC at 1-888-CAN-UTEC (1-888-226-8832) or 613-996-6666;
  - **b)** The consignor of the dangerous goods;
  - c) In the case of dangerous goods included in Class 7, Radioactive Materials, the Canadian Nuclear Safety Commission; and
  - **d)** In the case of a ship, a Vessel Traffic Services Centre or a Canadian Coast Guard radio station.

### ANNEX D – CONDITIONS FOR MAKING AN ACCIDENT OR INCIDENT REPORT – AIR TRANSPORT

#### 8.9 Dangerous Goods Accident or Incident Report – Air Transport

(1) Subject to Subsection (3), any person required to make a report under Subsection 18(1) of the *Act* for a release or anticipated release of dangerous goods offered for transport, handled or transported to an aerodrome, to an air cargo facility or on board an aircraft must, as soon as possible after the release or the anticipated release, make a report if the quantity of dangerous goods is or could be in excess of the quantity set out in the following table:

#### Table

Class	Quantity
1, 2, 3, 4, 5, 6, 8 or 9	Any quantity
7	A level of ionizing radiation greater than that set out in Section 39 of the "Packaging and Transport of Nuclear Substances Regulations (2015)"

- (2) The report referred to in Subsection (1) must be made to CANUTEC at 1-888-CAN-UTEC (1-888-226-8832) or 613-996-6666 (and for dangerous goods included in Class 7, Radioactive Materials, to the Canadian Nuclear Safety Commission).
- (3) The person is not required to make a report under Subsection (1) if the release or anticipated release did not result in:
  - a) Death or injury to a person;
  - **b)** Damage to property or the environment;
  - c) Signs that the container's integrity has been compromised, including signs of fire, a break or rupture, or fluid or radiation leakage;
  - **d)** Serious endangerment of the aircraft or the people on board;
  - e) An evacuation or shelter in place;
  - f) The closure of an aerodrome, air cargo facility or runway.

#### ANNEX E - CONTAINER SPECIFICATIONS

#### MEANS OF CONTAINMENT - CYLINDERS, SPHERES AND TUBES



#### MEANS OF CONTAINMENT - HIGHWAY TANKS



#### MEANS OF CONTAINMENT - INTERMEDIATE BULK CONTAINERS (IBC)



#### MEANS OF CONTAINMENT - PORTABLE TANKS



#### MEANS OF CONTAINMENT - TANK CARS



#### MEANS OF CONTAINMENT – TC PORTABLE TANKS AND NURSE TANKS



MEANS OF CONTAINMENT - TON CONTAINERS



### MEANS OF CONTAINMENT - SMALL CONTAINERS



ENG 5c Means of Containment -Small C

### ANNEX F - TABLE OF CAUSES / TERMINOLOGY

100 - IMPROPER TURNING	200 - BRIDGE COLLAPSE
101 - FAILURE TO SIGNAL	201 - OBSTACLE IN PATH
102 - FOLLOWING TOO CLOSELY	202 - ROAD/TRACK CONDITION
103 - DISREGARDING TRAFFIC CONTROL DEVICE	300 - OVERFLOW
104 - EXCESSIVE HOURS OF SERVICE	301 - BRAKE FAILURE
105 - FAILURE TO YIELD RIGHT OF WAY	302 - STEERING FAILURE
106 - UNTRAINED PERSONNEL	303 - SUSPENSION FAILURE
107 - ILLNESS	305 - ENGINE FAILURE
108 - DRIVER FELL ASLEEP	306 - ELECTRICAL FAILURE
109 - DRIVING WHILE IMPAIRED	307 - FAULTY SWITCH
110 - EXCESSIVE SPEED	308 - SIGNAL FAILURE
111 - DRIVING TOO FAST FOR ROAD CONDITIONS	309 - TIRE BLOWOUT/WHEEL
112 - INTENTIONAL RELEASE	310 - JOURNAL FAILURE
113 - FAILURE TO FOLLOW AIR REGULATORY	400 - BEARING BURNOUT
SHIPPING PROCEDURES	
114 - INCOMPATIBILITY OF PACKAGE /	401 - HITCH FAILURE
MATERIAL	
	402 - COUPLER FAILURE
115 - LOSS OF CONTROL	501 - METAL FATIGUE
116 - LOOSE FITTINGS / VALVE / DOME COVER	502 - CORROSION
117 - DEFECTIVE FITTINGS / VALVE / DOME	503 - CHEMICAL REACTION
COVER	
118 - IMPROPER LOADING / UNLOADING /	504 - COMBUSTION
HANDLING	
119 - IMPROPER BLOCKING / BRACING	505 - TEMPERATURE
120 - VANDALISM	506 - POWER FAILURE
121 - LOST	507 - WATER DAMAGE
122 - LOST & RECOVERY	508 - INTERNAL PRESSURE
123 - STOLEN	
124 - STOLEN & RECOVERY	
125 - DISCOVERY	
126 - TERRORISM	600 - FAILURE TO DISCONNECT HOSE
	TRANSFER SYSTEM
130 - CARELESSNESS/NEGLIGENCE	
140 - OVERFILL	800 - OTHER
150 - REAR END COLLISION BY THIRD PARTY	900 - UNKNOWN

NOTE: LOADING/UNLOADING/HANDLING OPERATIONS

OVERFILL: During filling operations, human miscalculation or mechanical shut-off valve

failure causing product release from tank

OVERFLOW: When a tank truck on an incline releases the consignment through the dome cover

INITIATING EVENT: What action/lack of action/discovery "instigated" the accident in the first place? OTHER INITIATING EVENT: "Other" initiating event(s) not listed when 800 was entered

CONTRIBUTING FACTORS: In a general sense, the underlying factors contributing to an accident:

10 - HUMAN14 - INFRASTRUCTURE11 - MECHANICAL15 - EXTERNAL12 - EQUIPMENT16 - WEATHER13 - PACKAGING80 - OTHER

# ANNEX G – EMERGENCY PHONE NUMBERS OF LOCAL AUTHORITIES RESPONSIBLE FOR RESPONDING TO EMERGENCIES

Province	Authority	
Alberta	911 (or local police) and relevant provincial authorities (1-800-272-9600) or Canadian Coast Guard (1-800-889-8852)	
British Columbia	911 (or local police) and Provincial Emergency Program (1-800-663-3456) or Canadian Coast Guard (1-800-889-8852)	
Prince Edward Island	911 (or local police) or Canadian Coast Guard (1-800-565-1633)	
Manitoba	911 (local police or fire department) and Department of Conservation (204-945-4888) or Canadian Coast Guard (1-800-889-8852)	
New Brunswick	911 (or local police) or Canadian Coast Guard (1-800-565-1633)	
Nova Scotia	911 (or local police) or Canadian Coast Guard (1-800-565-1633)	
Ontario	911 (or local police) or Canadian Coast Guard (1-800-265-0237)	
Quebec	911 (or local police) or Canadian Coast Guard (1-800-363-4735)	
Saskatchewan	Local police, Spill Control Centre (1-800-667-7525) or Canadian Coast Guard (1-800-889-8852)	
Newfoundland and Labrador	911 (or local police) and Canadian Coast Guard (1-800-563-9089)	
Nunavut Territory	911 (or local police) and relevant authorities (867-920-8130)	
Nunavut Territory and arctic waters (waters north of the Northwest and Yukon Territories)	Canadian Coast Guard (1-800-265-0237)	
Yukon Territory	911 (or local police) and relevant authorities (867-667-7244) or Canadian Coast Guard (1-800-889-8852)	
Northwest Territories	911 (or local police) and relevant authorities (867-920-8130) or Canadian Coast Guard (1-800-889-8852)	
CANUTEC	1-888-CAN-UTEC (226-8832), 613-996-6666, or *666 on a cellular phone	
Canadian Nuclear Safety Commission	CNSC duty officer emergency line (613-995-0479)	
Natural Resources Canada	613-995-5555	