

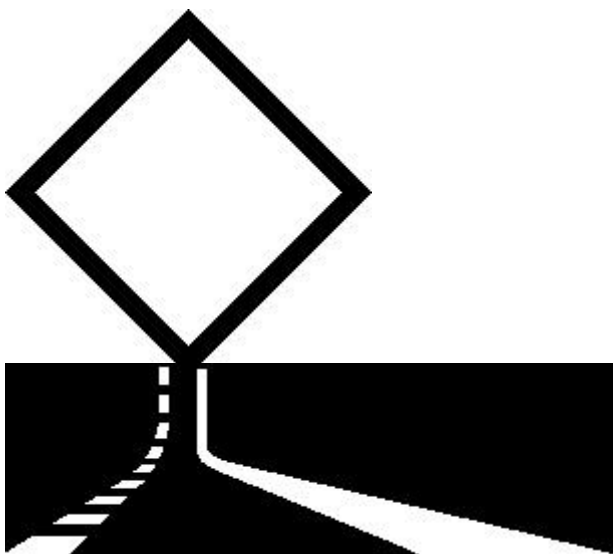
# DG

**A Technical Publication  
From the Co-ordination  
And Information Centre**

# **Transportation of Dangerous Goods for the Construction Industry**

November 2009

**Dangerous Goods  
And Rail Safety**



**Government  
of Alberta** ■  
Transportation

This material is meant as a guide to certain parts of the Transportation of Dangerous Goods Regulations and is not meant to be a substitute for them. It is the responsibility of handlers, offerers and transporters of dangerous goods to consult the Regulations for the exact requirements. The Coordination and Information Centre of Alberta Transportation can provide accurate information regarding the Regulations 24 hours a day.

### **Co-ordination and Information Centre**

**Alberta Transportation  
Dangerous Goods and Rail Safety Branch  
Main Floor, Twin Atria Building  
4999 – 98 Avenue  
Edmonton, Alberta, T6B 2X3**

**Tel. Edmonton: (780) 422 – 9600  
Tel. Province-wide: 1 (800) 272 – 9600  
Fax: (780) 427 – 1044**

**These telephone lines are recorded to assist in responding to the emergency (natural/manmade) and/or inquiry regarding dangerous goods and to ensure that the information is accurate. Direct any questions regarding the recording to the Compliance Officer responding to your call or contact the Manager of the CIC at 780-427-8660. *Legal Authority: Dangerous Goods Transportation and Handling Act, Section 13(1).***

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## **INTRODUCTION**

On August 15, 2002 the new federal Transportation of Dangerous Goods (TDG) Regulations came into effect. The purpose of this legislation is to promote safety in handling, offering for transport and transporting of dangerous goods.

Dangerous Goods and Rail Safety Branch of Alberta Transportation has the responsibility of administering the legislation by road in the Province of Alberta. In order to assist shippers and carriers with the legislation, the Dangerous Goods and Rail Safety Branch has a 24 hour, seven day emergency and information centre. The Co-ordination and Information Centre (CIC) can be reached at 422-9600 in Edmonton or toll free at 1-800-272-9600 in Alberta.

## **DOCUMENTATION**

### **Consignor Responsibilities**

A consignor (shipper) is defined in the TDG Regulations as “a person named in the shipping document as the consignor, or imports or who will import dangerous goods into Canada, or has possession of dangerous goods immediately before they are in Transport”. It is the responsibility of the consignor to prepare and give a shipping document to the carrier [Section 3.1].

### **Carrier Responsibilities**

A carrier is defined in the TDG Regulations as “a person who, whether or not for hire or reward, has possession of dangerous goods while they are in transport”. A carrier must not take possession of a shipment of dangerous goods unless they have a shipping document for the dangerous goods.

If the dangerous goods are passed to another person, the carrier must provide a copy of the shipping document to that other person who could be another carrier or the consignee (final receiver) of the dangerous goods.

### **Location of the Shipping Document**

The driver of a power unit must ensure that a copy of the shipping document is kept in a pocket mounted on the driver's door, or within the driver's reach. If the driver leaves the power unit he or she must place the document in the door pocket, on the driver's seat or on a location that is clearly visible to anyone entering the power unit through the driver's door [Section 3.7]

After unloading a shipment of dangerous goods or disconnecting a cargo unit (for example, a trailer) from a power unit, the carrier must place the shipping document in a waterproof receptacle attached to or near the means of containment containing the dangerous goods. This is necessary if the shipment is left in an unsupervised area or possession of the dangerous goods has not been transferred to another person (Section 3.10).

### Information on the Shipping Document

The information on a shipping document must be easy to identify, legible and printed in indelible ink. The shipping document must be prepared in English or French [Section 3.4]. The table below describes the minimum required information on a shipping document.

Shipping Document Information	When Required	Where in The Regulations
Date	Always	3.5(1)(b)
Name and address of consignor	Always	3.5(1)(a)
Description of goods in the following order		3.5(1)(c)
a. Shipping name	Always	3.5(1)(c)(i)
b. The technical name of the most dangerous substance related to the primary classification	If Provision 16 of Schedule 2 applies	3.5(1)(c)(i)(A)
c. The words "Not Odorized"	For liquefied petroleum gas that has not been odorized	3.5(1)(c)(i)(B)
d. Primary classification	Always	3.5(1)(c)(ii)
e. Compatibility group	For Class 1	3.5(1)(c)(iii)
f. Subsidiary classifications	If Any	3.5(1)(c)(iv)
g. UN number	Always	3.5(1)(c)(v)
h. Packing group	If Any	3.5(1)(c)(vi)
The quantity in the International System of Units (SI) <sup>1, 2</sup>	Always	3.5(1)(d)
Net explosives quantity	For Class 1	3.5(1)(d)
The number of containers <sup>2</sup>	For dangerous goods in small containers requiring safety labels	3.5(1)(e)
The words "24-Hour Number" followed by a phone # where the consignor can be reached <sup>3</sup>	Always	3.5(1)(f)
Emergency Response Assistance Plan (ERAP) number and telephone number to activate it	If Required	3.6(1)
The control and emergency temperatures	For products in Classes 4.1 and 5.2	3.6(3)

**Note:**

1. If the quantity of dangerous goods is less than 10% of the container's capacity then the words "Residue – Last Contained" followed by the shipping name of the dangerous goods last contained in the means of containment may be used to describe the quantity. This does not apply to Class 2 gases in small containers and Class 7 radioactive substances [Section 3.5(4)].
2. If the quantity of dangerous goods or the number of small means of containment changes during transport, the carrier must show on the shipping document or on a document attached to the shipping document the change in the quantity of dangerous goods or the number of small containers [Section 3.5(5)].
3. A consignor can also use the telephone number of an agency that is competent to give the technical information on the shipment. For example, it is possible to use CANUTEC as a source of technical information provided that the consignor has received permission in writing from CANUTEC [Section 3.5(2)].

**Multiple Deliveries**

If the quantity of dangerous goods or the number of small means of containment changes during transport, the carrier must show the change in the quantity or the number of small means of containment. The change must be shown on the shipping document or on a separate document attached to the shipping document [Section 3.5(5)].

How the carrier shows the change in the quantity is the carrier's choice. The carrier can change the number used to describe the quantity, or show additions or subtractions from the number used to express the quantity.

If the dangerous goods being transported never varies (for example, the transport unit is a fuel truck that always transports diesel to refuel road equipment), the carrier may use a permanent document that contains all the information required by the TDG Regulations, and attach a separate record sheet to show changes in the amount of dangerous goods being transported.

## **SAFETY MARKS**

Safety marks are the placards, labels and package markings, which identify dangerous goods shipments. Anyone who offers for transport, transports or imports dangerous goods must display the safety marks required by the TDG Regulations [Section 4.1]. A person must not display a safety mark on a means of containment if that safety mark is misleading as to the contents or potential danger [Section 4.2].

A person must not load or pack dangerous goods into a large means of containment (over 450 L in volume) unless the means of containment displays the safety marks that will be required when the loading or packing is complete [Section 4.3].

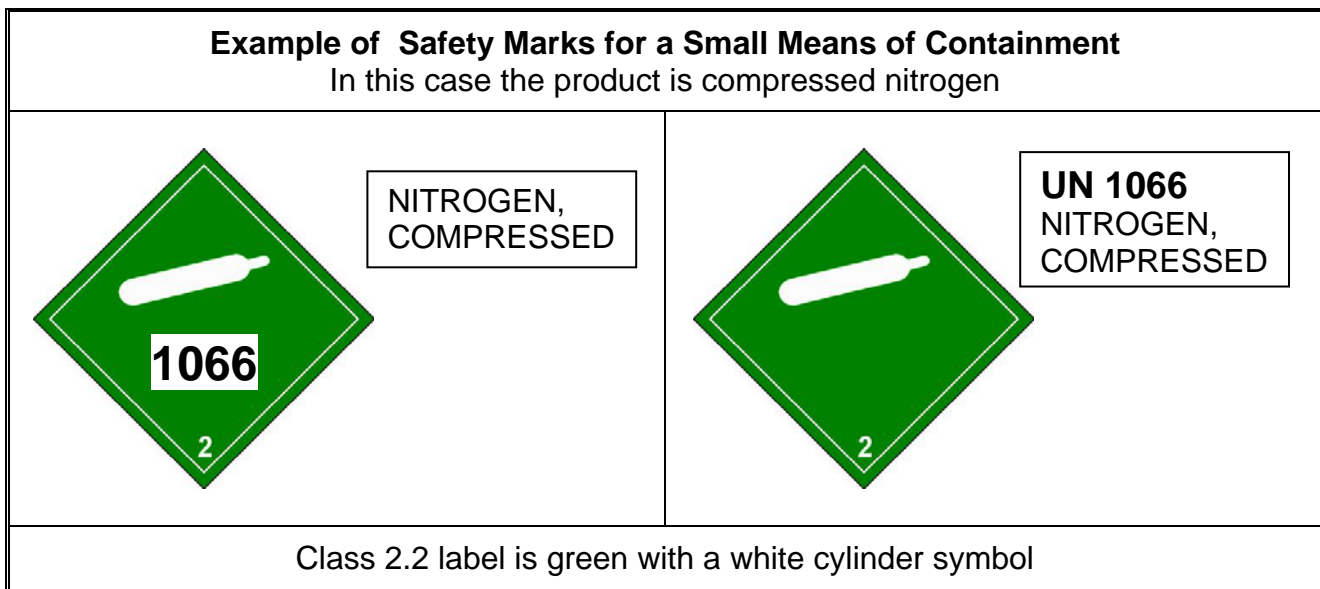
The consignor must ensure that each package of dangerous goods is properly labeled and marked and that all necessary placards are provided to the carrier [Section 4.4].

The carrier is responsible for ensuring that the safety marks are and remain displayed during transport. The carrier is also responsible for providing and displaying new safety marks or removing unnecessary safety marks if the contents of the shipment change [Section 4.5].

### **Small Means of Containment**

A small means of containment has a capacity of 450 L or less. A small container must display the dangerous goods label(s), the shipping name and the UN number of the product [Sections 4.10 to 4.12]. The label is at least 100 mm on each side. If the container is too small or it has an irregular shape, the label can be reduced in size up to a dimension of 30 mm on each side [Section 4.7(2)]. If the label is reduced in size to 30 mm, the UN number, shipping name and label may be displayed on a tag affixed to the means of containment [Sections 4.10(4) and 4.11(3)].

The UN number for a dangerous goods label can be placed inside the label or next to the label as shown below [Section 4.8(1)(b)]. If the UN number is inside the label the letters “UN” must be omitted.



### Large Means of Containment

Placards representing the hazard class(es) of the dangerous goods being transported are placed on all four sides of a large means of containment (greater than 450 l) or transport units.

Each side of a placard must be at least 250 mm in length. Except for the DANGER placard, all placards have a line running 12.5mm inside the edge. If the large means of containment has an irregular shape or its size is too small, the placard can be reduced in size but the dimensions must never be less than 100 mm on each side [Section 4.7(3)].

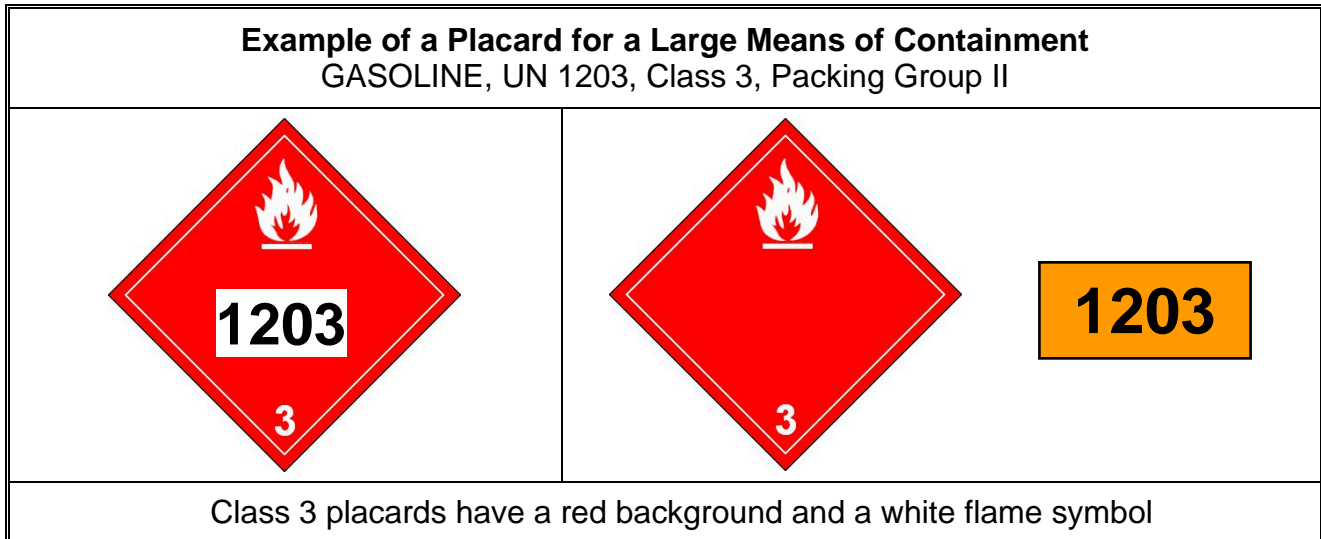
Placards and UN numbers must be displayed in accordance with the following table if:

- the dangerous goods have a total gross mass greater than 500 kg;
- the dangerous goods are a liquid or a gas in direct contact with the large means of containment;
- the dangerous goods are in a quantity or concentration for which an Emergency Response Assistance Plan is Required;
- the dangerous goods are included in Class 7, Radioactive Materials, for which a Category III Yellow Label is required; or
- the dangerous goods are included in Class 1.1, 1.2, 1.3 or 1.5 and are not subject to special provision 85 or 86 and exceed 10 kg net explosives quantity or are subject to special provision 85 or 86 and the number of articles exceeds 1000 [Section 4.15(1)].

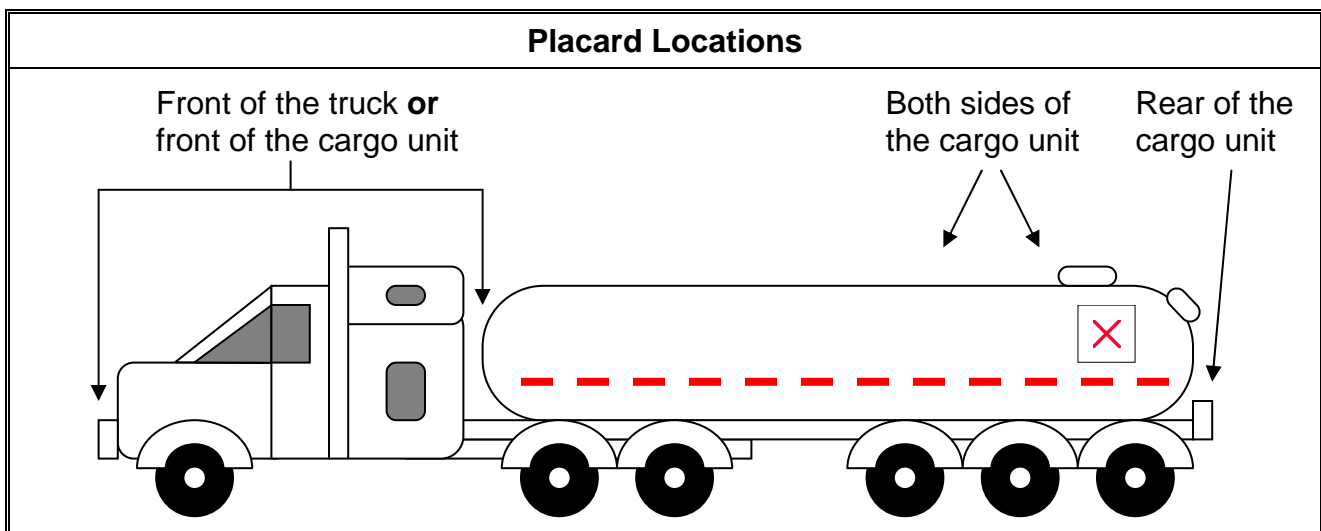
**Table: Placards and UN Numbers**

Item	Description	Placards Required	Un Numbers Required
1.	Dangerous Goods have the same UN number and an ERAP is not required for them	Primary class placard	(a) UN number if the dangerous goods are a liquid or gas in direct contact with the large means of containment; and  (b) if not required in paragraph (a), the UN number may be displayed if the dangerous goods are in a quantity greater than 4000 kg and are offered for transport by one consignor.
2.	Dangerous goods have the same UN number and an ERAP is required for them	Primary class placard	UN Number
3.	Dangerous goods have different UN numbers and an ERAP is not required for any of them	(a) primary class placard for those Class 1 dangerous goods that meet any of the conditions in subsection (1);  (b) primary class placard for those Class 7 dangerous goods that meet any of the conditions in subsection (1); and  (c) for the remaining dangerous goods that meet any of the conditions in subsection (1), the primary class placard for each of those dangerous goods except that, if two or more different primary class placards are required, the DANGER placard may be displayed in place of those primary class placards.	None
4.	Dangerous goods have different UN numbers and an ERAP is required for at least one of them	(a) primary class placard for each of the dangerous goods for which an ERAP is required;  (b) primary class placard for those Class 1 dangerous goods that meet any of the conditions in subsection (1);  (c) primary class placard for those Class 7 dangerous goods that meet any of the conditions in subsection (1); and  (d) for the remaining dangerous goods that meet any of the conditions in subsections (1), the primary class placard for each of those dangerous goods except that, if two or more different primary class placards are required, the DANGER placard may be displayed in place of those primary placards	UN number for each of the dangerous goods for which an ERAP is required
5.	Dangerous goods have different Un numbers and an ERAP is required for each of them	Primary class placard for each of the dangerous goods	UN number for each of the dangerous goods

The UN number must be displayed in the centre of the placard or on an orange panel next to the placard. The letters “UN” are not displayed [Subsection 4.8(2)]. The example below shows how a placard and UN number can be displayed.





Placards must be displayed on each side and each end of a large means of containment. They may be displayed on the frame of the means of transport or the frame directly attached to the large means of containment. The placard may also be placed at the front of a truck instead of the front of a cargo unit attached to the truck if the placard is not visible. The placards must be visible from all four sides of a large means of containment, or moved to an appropriate position where they are visible [Section 4.15(3)].



## Orientation of Labels and Placards

Labels and placards must be displayed “square on a point”. That is, resting on a corner rather than on a side [Section 4.7(1)]. The example below shows the proper orientation.

<b>Safety Mark Orientation</b>	
Correct	Incorrect
	

### Elevated Temperature Sign

In addition to the requirements for placards and UN numbers in Section 4.15, the elevated temperature sign must be displayed for dangerous goods that are in transport in a large means of containment and that are ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S., Class 3, UN3256, ELEVATED TEMPERATURE LIQUID, N.O.S., Class 9, UN3257, or ELEVATED TEMPERATURE SOLID, N.O.S., Class 9, UN3258. The elevated temperature sign must be displayed on each side and each end of the large means of containment next to each primary class placard for the dangerous goods or, if there is a subsidiary class placard, next to the subsidiary class placard [Section 4.20].

### ELEVATED TEMPERATURE SIGN



Red: Symbol and border

White: Background

Size: Equilateral triangle with sides of at least 250 mm in length

This sign may be displayed on a standard-sized white placard.

## TRAINING

Anyone who handles, offers for transport or transports dangerous goods must have a valid Dangerous Goods Training Certificate or must be under the direct supervision of a trained person [Section 6.1].

A person is adequately trained if the person has sound knowledge of the topics listed below that relate directly to the person's duties [Section 6.2]:

- classification of dangerous goods, shipping names, UN numbers, packing groups,
- shipping documentation,
- safety marks,
- certification safety marks, safety requirements and safety standards,
- emergency response assistance plan requirements,
- reporting requirements,
- safe handling and transportation practices,
- proper use of equipment; and
- emergency measures to take in case of releases.

The employer issues a training certificate when they have reasonable grounds to believe that an employee possesses adequate training. A training certificate must contain the following information [Section 6.3]:

- the name and address of the employer,
- the name of the employee,
- the date when the training certificate expires, maximum of 36 months after being issued,
- the aspects of handling, offering for transport or transporting dangerous goods for which the employee is trained, and
- the signatures of the employer and the employee.

A self-employed person may legally sign his or her training certificate as employer **and** employee. A self-employed person who has reasonable grounds to believe that he or she is adequately trained and who will perform duties to which the training relates must issue to himself or herself a training certificate [Section 6.3(2)]. The employer must keep a record of the training that the employee has received and a copy of his/her training certificate [Section 6.6]. The training certificate must be immediately presented to an inspector on request [Section 6.8].

Sub-contractors are considered to be self-employed if their pay cheque is made out to their company; in this case the same rule applies as for clearly self-employed persons. If the sub-contractor's pay cheque is made out to the **individual** then they are counted as employees of that company and must have a training certificate signed by that employer.

### Certificate of Training

CERTIFICATE OF TRAINING	
_____	
Name of Employee	
has completed training related to the handling/offering for transport/transporting of dangerous goods as indicated on the reverse. This training is in accordance with the requirements of the Transportation of Dangerous Goods Regulations	
_____	
Name of Employer	
_____	
Address	
_____	_____
City	Province
Expires on: _____	Date of Issue: _____
_____	
Employer's Signature	

Class and Division		Training Received
		Classification
		Shipping names
		Use of Schedules 1,2 &3
		Shipping document & train consist
		Safety marks requirements
		Certification safety marks requirements, safety requirements and safety standards
		Emergency Response Assistance Plan requirements
		Accidental release reporting requirements
		Safe handling and transportation practices
		Proper equipment use
		Emergency action requirements
		Air transport
		Marine transport

\_\_\_\_\_

Employee's Signature

## REPORTING REQUIREMENTS

### Immediate Reporting

In case of an accidental release or imminent accidental release of dangerous goods, the person who has possession of the dangerous goods must report immediately. An immediate report is required when the quantities of dangerous goods released exceed the amounts set out in the following table [Section 8.1] or when there is an imminent accidental release of dangerous goods. For more information on reporting requirements, request the CIC information bulletin entitled Reporting an Accidental Release of Dangerous Goods.

Class	Quantity
1	Any quantity that: a) could pose a danger to public safety or 50 kg; or b) is included in Class 1.1, 1.2, 1.3 or 1.5 and is: i) not subject to special provision 85 or 86 but exceeds 10 kg net explosives quantity; or ii) subject to special provision 85 or 86 and the number of articles exceeds 1000.
2	Any quantity that could pose a danger to public safety or any sustained release of 10 minutes or more
3	200 l
4	25 kg
5.1	50 kg or 50 l
5.2	1 kg or 1 l
6.1	5 kg or 5 l
6.2	Any quantity
7	Any quantity that could pose a danger to public safety; or an emission level greater than the level established in section 20 of the <i>Packaging and Transport of Nuclear Substances Regulations</i> .
8	5 kg or 5 l
9	25 kg or 25 l

In Alberta, the report must be made to:

- the local police,
- Alberta Transportation, Dangerous Goods & Rail Safety Branch at 1-800-272-9600,
- the person's employer,
- the consignor of the dangerous goods,
- the owner, lessee or charterer of the road vehicle involved, and

- CANUTEC at (613)996-6666 when the dangerous goods are in Class 1, Class 6.2, or there was an accidental release from a cylinder that suffered a catastrophic failure.

The information that must be included in the report is:

- the shipping name or UN number of the dangerous goods,
- the quantity of dangerous goods initially loaded into the container,
- the quantity of dangerous goods released,
- a description of the condition of the container and the details of the conditions of transport when the release occurred
- a description of the circumstances that led to a catastrophic failure of a cylinder, if involved in the release,
- the location of the accidental release,
- the number of injuries or deaths, if any occurred,
- an estimate of the number of people evacuated as a result of the accidental release

A report can also include other information not required by the regulations; for example, any cleanup arrangements, involvement of other emergency response agencies like the police, fire department, Alberta Environment, etc.

### **30 Day Follow-up Report**

After submitting an immediate report, the employer of the person who made the immediate report must submit a 30-day Follow-up Report to the Dangerous Goods Directorate of Transport Canada [Section 8.3]. The 30-Day Report must have the following information:

- name, address and telephone number of the place of business of the person submitting the report,
- date, time and location of the accidental release,
- name and address of the place of business of the consignor,
- classification of the dangerous goods,
- estimate of the quantity loaded into the containers before the accidental release and the quantity of dangerous goods released,
- a description of the means of containment involved and a description of the failure or damage including how the release occurred,
- if a catastrophic failure of a cylinder occurred, the cylinder certification markings and a description of the failure,
- number of deaths and injuries resulting from the accidental release,
- an estimate of the number of people evacuated, if any, and
- if an ERAP was activated, the name of the person who responded.

## CONTAINER SPECIFICATIONS

### General Requirements for Small Means of Containment (less than or equal to 450 Litres water capacity)

As of January 1, 2003, all small means of containment used to contain dangerous goods included in Class 3, 4, 5, 6.1, 8 or 9 must be UN standardized means of containment. For small means of containment manufactured or marked in Canada, this is achieved by compliance with Canadian General Standards Board CGSB-43.146 or CGSB-43.150. Non-UN means of containment, such as TC or DOT specification drums made before 2003, may be converted to the UN standards if they meet the requirements in CGSB-43.150 [Section 5.12].

### General Requirements for Large Means of Containment (greater than 450 Litres water capacity)

Regulated dangerous goods must be transported in a tank selected under the Canadian Standards Association CAN/CSA-B621-03 (Selection and Use of Highway Tanks, Portable Tanks, Cargo Compartments, and Containers for the Transportation of Dangerous Goods, Classes 3, 4, 5, 6.1, 8 and 9) (**B621**). These tanks must be manufactured, tested and certified to the specifications outlined in the standard CAN/CSA-B620-03 (Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods) (**B620**).

#### Transitional Provisions

- **Non-specification Tanks**

- Until January 1, 2010, non-specification tanks may be used to carry goods of Class 3, Packing Group III, such as *diesel*, if they:
  - were manufactured before January 1, 2003
  - were inspected, tested and retested and marked in accordance with the applicable requirements for TC406 tanks set out in Clause 5.6.14 (initial pressure test) and Clause 7 of B620-03 except a pressure of 21 kpa (3 psi) may be used, and
  - have permanently attached, by the registered facility conducting the test, a metal identification plate marked with at least the following information: the words “Non-spec Flammable Liquids Tank” and “Not for Dangerous Goods Use after January 1, 2010”; the date of the first inspection made in accordance with the inspection and testing requirement of B621; and the name of the registered facility.

## Intermediate Bulk Containers (IBCs)

Tidy tanks and slip tanks fall under the classification of Intermediate Bulk Containers (IBCs).

Tidy tanks are manufactured according to United Nations standards and they are given a UN code number. For example, UN code 31A (steel), 31B (aluminum), 31N (other metals) and 31H (plastic).

IBCs must be tested, inspected and certified according to the standard CAN/CGSB-43.146-2002 "Design, Manufacture and Use of Intermediate Bulk Containers for the Transportation of Dangerous Goods". The testing must be done by a facility registered with Transport Canada to do so.

The leak test involves pressurizing the IBC to a minimum pressure of 20 kPa for at least ten minutes, then the container is checked for air tightness by applying to it a soapy solution, by an air pressure differential measurement, or by immersing the tank in water. A leak test and inspection must be completed every 60 months.

The visual inspection is performed while the tank is still under pressure. Defective fittings, welds, closures, and other structural components must be noted. Significant gouges or other defects must be noted also.

If the IBC shows any air leakage or damage then it fails the testing and inspection requirements. The certification marks on the IBC must be removed and the container must be identified as unsuitable for dangerous goods transport, unless the container is repaired or refurbished and it passes the leak test and inspection.

## Tidy Tanks for Diesel Fuel

### Transitional Provisions

- **Non-specification Tanks**

- Until January 1, 2010, non-specification tidy tanks may be used to carry goods of Class 3, Packing Group III, such as **diesel**, if they:
  - were manufactured before January 1, 2003
  - were inspected, tested and retested and marked in accordance with the applicable requirements for TC406 tanks set out in Clause 5.6.14 (initial pressure test) and Clause 7 of B620-03 except a pressure of 21kpa (3 psi) may be used, and

have permanently attached, by the registered facility conducting the test, a metal identification plate marked with at least the following information: the words "Non-spec Flammable Liquids Tank" and "Not for Dangerous Goods Use after January 1, 2010"; the date of the first inspection made in accordance with the inspection and testing requirements of B621; and the name of the registered facility.

## Asphalt Units

TDG regulated Asphalt are those liquids with a flash point less than 60°C. These products are transported using the shipping name **TARS, LIQUID** and include road asphalt and oils, bitumen and cutbacks. They are classified as Class 3, UN 1999, Packing Group II or III and may be transported in a transport tank using the selection criteria in CSA B621-03 or in a non-specification flammable liquid tank marked “Not for Dangerous Goods Use After January 1, 2016”.

Asphalt may be transported in a non-spec tank until January 1, 2010 if the tank:

- has a capacity of 450 L or less
- is a welded metal tank
- is used for the application of liquid tar to pavement, concrete or metallic structures and is fitted with the appropriate application equipment; and
- is designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport and handling there will be no accidental release that could endanger the public.

If the asphalt is not regulated under the TDG Regulations, the tank does not need to be certified for dangerous goods use.

## Elevated Temperature Products

Products that are intended or expected to be at a temperature that is greater than or equal to their flash point at any time while the substances are in transport are regulated under the TDG Regulations even if they do not meet the classification criteria listed in Part 2 of the TDG Regulations for a Class 3, Flammable Liquid (for example, the flash point is greater than 60 degrees C). The UN number and shipping name for the dangerous goods would be UN 3256, ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S. [Section 2.18(1)(b)]. The product is shipped as a Class 3, Flammable Liquid and must be transported in a certified transport tank using the selection criteria in B621-03.

Except for asphalt or tar, elevated temperature products when dangerous goods are offered for transport or transported at a temperature greater than or equal to 100 degrees C if it is in a liquid state, or at a temperature greater than or equal to 240 degrees C if it is in a solid state, is shipped as UN 3257, ELEVATED TEMPERATURE LIQUID, N.O.S. for liquid and UN 3258, ELEVATED TEMPERATURE SOLID, N.O.S. for solid [Section 2.43(b)(iii)]. The products are shipped as Class 9, Miscellaneous Products, Substances or Organisms and require a transport tank that meets the general requirements of Clause 4 of B621 to ensure the means of containment is water tight and will not leak.

## Fuel Trucks (Gasoline and Diesel)

The requirements of the TDG Regulations applying to Diesel Fuel, UN 1202 also apply to a family of flammable liquids in Packing Group III, with no subsidiary classification, and having a flash point exceeding 37.8 degrees C. This may include FUEL OIL, GAS OIL and HEATING OIL LIGHT with the same UN number (UN 1202), KEROSENE, UN 1223, AVIATION, TURBINE ENGINE, UN 1863 and PETROLEUM DISTILLATES N.O.S., UN 1268, all in PG III.

DIESEL FUEL transported in a small means of containment ( $\leq 450\text{L}$  capacity) is exempt from Part 3 (Documentation), Part 4 (Dangerous Goods Safety Marks), Part 5 (Means of Containment), Part 6 (Training), Part 7 (Emergency Response Assistance Plan), Part 9 (Road) and Part 10 (Rail) of the TDG Regulations [Section 1.33].

GASOLINE in a container of 30L capacity or less is exempt provided the container is marked "Limited Quantity" [Section 1.17]

For DIESEL FUEL, the following containers are allowed:

- A tank of specification TC306 or TC406 permanently mounted on the frame of a truck or trailer;
- Until 2010, a non-specification tank that is:
  - manufactured before 2003, and initially inspected, tested and marked in accordance with the requirements applicable to TC406 tanks of clause 5.6.14 of B620;
  - marked with a permanently attached plate with the words "Non-spec Flammable Liquids Tank" and "Not for Dangerous Goods Use" after January 1, 2010, the date of the first inspection or test and the registered facility that performed the initial inspection or test; and
  - inspected and tested periodically in accordance with clause 7 of B620 as though it were a TC 406 tank, by a Highway Tank facility registered with Transport Canada in accordance with the requirements of clause 8 of B620.

For GASOLINE, the following containers are allowed:

- A tank of specification TC306 or TC406 permanently mounted on the frame of a truck or trailer.

UN Standard mobile IBC, a new type of standardized container that meets the requirements for a Code 31A or 31B IBC but is subject to additional design, testing and marking requirements.

Transitional provisions have been included in section 13 of the CAN/CGSB 43.146 standard to allow the use of certain alternative types of containers that were manufactured before January 1, 2003:

- A TC, CTC or DOT specification 57 portable tank or a UN code 31A or 31B IBC built before 2003 that is certified as conforming to ULC ORD-C142.13-1997 may be substituted for a UN standard mobile IBC.
- Until January 1, 2010, a mobile refueling tank built before 2003 that is certified as conforming to ULC ORD-C142.13-1997 may be substituted for a UN standard mobile IBC.

**Generator Sets and Their Fuel Tanks**

If the generator set is operated with diesel fuel, the diesel fuel is only regulated in containers that have a capacity greater than 450 litres. Diesel fuel is not regulated in small containers [Section 1.33].

If the generator set is operated with gasoline and the tank has a capacity of 30 litres or less it is not regulated provided the means of containment is marked with the words "Limited Quantity". The words must be visible and legible and displayed on a contrasting background [Section 1.17]. If the container has a capacity of more than 30 litres, it must be marked with the correct safety marks.

**Painting Units and Spraying Units for Roads**

TDG regulated paint must be transported in a certified transport tank (this also includes the spray unit) using the selection criteria in B621.

## EXEMPTIONS

### **Class 3 Flammable Liquids: General Exemption [Section 1.33]**

The TDG Regulations except Part 8 (Reporting) do not apply to dangerous goods in Class 3, Flammable Liquids, if the dangerous goods:

- have no subsidiary classification,
- have a flash point above 37.8 degrees C and are in Packing Group III; and
- are contained in one or more small means of containment ( $\leq 450$  l capacity) or less that is designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport there will be no accidental release of dangerous goods.

An example of a product that meets the requirements of this exemption is Diesel.

### **UN1202, Diesel Fuel or UN1203 Gasoline Exemption [Section 1.35]**

No documentation, UN numbers posted with the safety marks, or dangerous goods training is required when gasoline or diesel is being transported by road, in one or more containers; and

- the total capacity of all the containers is not more than 2000 litres;
- each container is secured to the road vehicle so that the label or placard displayed on each one is visible from outside the vehicle; and
- each of the containers displays the safety marks required in Part 4 of the TDG Regulations.

If the tank has a capacity greater than 450 litres and not more than 2000 litres, the only requirement is to have one Class 3, Flammable Liquids placard that also contains the UN number of the product attached to the tank that contains the dangerous goods.

Gasoline, UN 1203, in a container with a capacity of 450 litres or less requires a hazard label, the shipping name and the UN number on the container.

Diesel, UN 1202, is not regulated in a container with a capacity of 450 litres or less and does not require any markings.

**Class 2, Gases, in Small Means of Containment Exemption (Section 1.32.3)**

Several gases used for welding and related purposes are exempt from documentation and dangerous goods training requirements of the TDG Regulations when being transported by road. Provided the requirements listed below are followed to the letter, the operator does not require a dangerous goods shipping document or a dangerous goods training certificate if:

- the total quantity is less than or equal to **500 kg gross mass**,
- the dangerous goods are contained in **not more than 5 cylinders**, and
- the **labels for the gases carried** are **visible from outside** the vehicle

This exemption applies only to:

- UN 1001, ACETYLENE, DISSOLVED;
- UN 1002, AIR, COMPRESSED;
- UN 1006, ARGON, COMPRESSED;
- UN 1013, CARBON DIOXIDE;
- UN 1060, METHYLACETYLENE AND PROPADIENE MIXTURE, STABILIZED;
- UN 1066, NITROGEN, COMPRESSED;
- UN 1072, OXYGEN, COMPRESSED; and
- UN 1978, PROPANE.

More than 500 kg in five containers/cylinders of the above gases and all other gases are subject to the full TDG Regulations.

**DANGEROUS GOODS SHIPPING DOCUMENT FOR ROAD TRANSPORT**

<b>DESTINATION (City-Town)</b> Name: Address:			<b>CONSIGNOR</b> Name: Address:			
<b>Name of Carrier</b>		<b>Prepaid</b> <input type="checkbox"/>	<b>Collect</b> <input type="checkbox"/>	<b>Transport Unit Number</b>		
<b>Point of Origin</b>			<b>Shipping Date</b>		<b>Shipper's No.</b>	
<b>REGULATED DANGEROUS GOODS</b>			<b>24-Hour Number:</b>  <b>ERAP Reference _____ and Telephone Number _____</b>			
<b>Shipping Name</b>	<b>Primary Class</b>	<b>Subsidiary Class</b>	<b>UN Number</b>	<b>Packing Group</b>	<b>Quantity</b>	<b>Packages Requiring Labels</b>
This is to certify that the above named articles are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the <i>Transportation of Dangerous Goods Regulations</i> .						
<b>Special Instructions</b>						
<b>NON-REGULATED GOODS</b>						
<b>Packages</b>	<b>Description of Articles</b>				<b>Weight</b>	
Received in apparent good order			_____ <b>Consignee Signature</b>		_____ <b>Shipper's Signature</b>	
Received in Apparent Good Order	_____ <b>Driver's Signature</b>			_____ <b>Driver's No.</b>		

Please note that this sample shipping document contains some information that is not required in the TDG Regulations. The additional information reflects current industry practices.