

GLOBAL
HazMat Inc.

CHEMICAL HAZARDS IN YOUR WORKPLACE



TDG- Transportation of Dangerous Goods

Lac Megantic incident July 6, 2013



TDG- Transportation of Dangerous Goods

Some changes to TDG since July 6, 2013

- ➔ Mandatory proof of classification of Dangerous Goods
- ➔ New United Nations numbers (UN)
- ➔ Increase in Transport Canada officers, level of enforcement, and onsite penalties
- ➔ New packaging regulations (TP14850) for small packaging

TDG- Transportation of Dangerous Goods

- ▶ What are Dangerous Goods?

Dangerous goods are solids, liquids, or gases that can harm people, other living organisms, property, or the environment.

- ▶ These are comprised of 9 Classes each specific to a different hazard.
- ▶ They are subject to the Canadian Transportation of Dangerous Goods Regulations. Dangerous goods are more commonly known as **hazardous materials**.
- ▶ What Do You Have in Your Municipality?

TDG- Transportation of Dangerous Goods

WHAT WOULD A MUNICIPALITY HAVE AS A DANGEROUS GOOD???????

- ▶ Safety Flares
- ▶ Aerosols
- ▶ Compressed Gases
- ▶ Refrigerant Gases
- ▶ Paints
- ▶ Fuels (gasoline, diesel fuel)
- ▶ Solvents
- ▶ Adhesives
- Flammable Absorbents
- Fertilizers
- Water Treatment Chemicals
- Narcotics or Drugs
- Biohazardous Materials
- Cleaning products
- Acid or Caustic Batteries
- Water Metres/ Lithium Batteries

TDG- Transportation of Dangerous Goods

Who's Who

Consignor/Shipper/Generator

- ▶ means a **person** in Canada who is named in a **shipping document** as the consignor;
- ▶ **imports** or who will **import dangerous goods** into Canada; or
- ▶ if paragraphs (a) and (b) do not apply, has possession of **dangerous goods** immediately before they are **in transport**.

TDG- Transportation of Dangerous Goods

Who's Who

Carrier

- ▶ means a **person** who, whether or not for hire or reward, has possession of **dangerous goods** while they are **in transport**

TDG- Transportation of Dangerous Goods

Who's Who

Consignee/Receiver

means a **person** who has possession of **dangerous goods** once they have been accepted and stored

TDG- Transportation of Dangerous Goods

A person is adequately trained if the person has a sound knowledge of all the topics listed in paragraphs (a) to (m) that relate directly to the person's duties and to the dangerous goods the person is expected to handle, offer for transport or transport:

- ▶ (a) the classification criteria and test methods in Part 2, Classification;
- ▶ (b) shipping names;
- ▶ (c) the use of Schedules 1, 2 and 3;
- ▶ (d) the shipping document and train consist requirements in Part 3, Documentation;
- ▶ (e) the dangerous goods safety marks requirements in Part 4, Dangerous Goods Safety Marks;
- ▶ (f) the certification safety marks requirements, safety requirements and safety standards in Part 5, Means of Containment;
- ▶ (g) the emergency response assistance plan requirements in Part 7, Emergency Response Assistance Plan;

TDG- Transportation of Dangerous Goods

- ▶ **(h)** the report requirements in Part 8 (Reporting Requirements);
- ▶ **(i)** safe handling and transportation practices for dangerous goods, including the characteristics of the dangerous goods;
- ▶ **(j)** the proper use of any equipment used to handle or transport the dangerous goods;
- ▶ **(k)** the reasonable emergency measures the person must take to reduce or eliminate any danger to public safety that results or may reasonably be expected to result from an accidental release of the dangerous goods;
- ▶ **(l)** for air transport, the aspects of training set out in Chapter 4, Training, of Part 1, General, of the ICAO Technical Instructions for the persons named in that Chapter and the requirements in Part 12, Air, of these Regulations; and
- ▶ **(m)** for marine transport, the requirements of the IMDG Code and the requirements of Part 11 (Marine) of these Regulations.

TDG- Transportation of Dangerous Goods

Key parts of TDG that apply to Municipalities

- ▶ Are all of the required employees adequately trained as per TDG Part 6
- ▶ Do all Dangerous Goods products and wastes have analytical or SDS
- ▶ Do you have a certification statement and a consignors certification
- ▶ Do you have a 24 hour number that complies with TDG part 3.5(1)(f)
- ▶ Have all Dangerous Goods been properly documented (BOL or Manifest)
- ▶ Are all appropriate labels and markings on the packaging
- ▶ Have all Dangerous Goods been properly packaged as per TDG Part 5 and TP14850
- ▶ Do you have an Equivalency Certificate and understand it

TDG- Transportation of Dangerous Goods

Emergency Measures training in Part 6 and Reporting Requirements in Part 8

Have workers been adequately trained to know what to do in the case of a Dangerous Goods incident or accident?

Are workers familiar with and understand the TDG Reporting Quantities and the Reporting requirements?

TDG- Transportation of Dangerous Goods

Special Cases or Exemptions

150 KG Exemption (1.15 of TDG)

- Transported by the purchaser, user or retailer to purchaser or user

500 KG Exemption (1.16 of TDG)

Limited Quantity (1.17 of TDG)

Operation of a Means of Transport (1.27 of TDG)

Instrument or Equipment Exemption (1.29 of TDG)

TDG- Transportation of Dangerous Goods

► Equivalency Certificate(s)

- A special permit that allows an organization to be exempt from portions of the TDG Regulations.
- An Equivalency Certificate must be applied for through Transport Canada
- It must be strictly followed including all terms and conditions such as training workers on how to use and understand the Equivalency Certificate
- It must be renewed prior to 3 months of its expiry

TDG- Transportation of Dangerous Goods

► Equivalency Certificates

Examples of how this permit would apply to a municipality

- a. Waste or recyclable automotive batteries
- b. Household hazardous waste pickups
- c. Paint and Paint Related Material accepted in tub skids or IBC's (Totes)

Hazardous Waste

Who's Who

Hazardous Waste Generator

- ▶ means a **person** or organization who is named in a **shipping document** and/or in Part A of a hazardous waste manifest as the generator;

Hazardous Waste

Who's Who

Hazardous Waste Carrier

- ▶ means a person who, whether or not for hire or reward, has possession of hazardous waste while they are in transport

Hazardous Waste

Who's Who

Hazardous Waste Receiver

means a person who has possession and accepts hazardous waste once they have been received from a transporter and is stored.

The receiver may require a RS approval

Hazardous Waste

What is defined as a Waste in general in B.C.:

- ▶ air contaminants
- ▶ litter
- ▶ effluent
- ▶ refuse
- ▶ biomedical waste
- ▶ hazardous waste or
- ▶ any other substance prescribed by the Lieutenant Governor in Council or the minister under section 22, or, if either of them prescribes circumstances in which a substance is a waste, a substance that is present in those circumstances

Hazardous Waste

Hazardous Waste means:

- dangerous goods if they are no longer used for their original purpose, and meet the criteria for class 2, 3, 4, 5, 6, 8, or 9 of the Transportation of Dangerous Goods Regulations, including those that are recycled, treated, abandoned, stored or disposed of, intended for recycling, treatment, or disposal or in storage or transit before recycling, treatment, or disposal
- PCB wastes
- biomedical wastes
- wastes containing dioxin
- waste oil
- waste asbestos
- waste pest control product containers and wastes containing pest control products, including wastes produced in the production of treated wood products using pest control products

Hazardous Waste

- leachable toxic waste
- waste containing tetrachloroethylene
- wastes listed in Schedule 7
- waste containing polycyclic aromatic hydrocarbon, or
- on site media that is stored ex situ unless the on site media is stored for one of the following purposes:
 - transport from the contaminated site within 60 days, or a different period approved by the director, from the date when the on site media was physically removed or excavated from where it originated
 - remediation activities that involve the handling, management or treatment of contamination in accordance with the Contaminated Sites Regulation, or another approved purpose

Hazardous Waste

Registration (BCG), Schedule 6

Biomedical waste	100
Waste containing dioxin	5
Waste oil or waste oil contaminated with lead	5000
Waste asbestos	1000
Waste pest control products and wastes containing pest control products	100
Leachable toxic waste	500
Waste containing tetrachloroethylene	200
Waste containing polycyclic aromatic hydrocarbon	5
Waste listed in Schedule 7	100
Pest control product containers	500

Hazardous Waste



▶ Batteries that are hazardous waste	2000
▶ Class 2.1	500
▶ Class 2.2	1000
▶ Class 2.3	50
▶ Class 3	500
▶ Class 4.1	1000
▶ Class 4.2	100
▶ Class 4.3	100

Hazardous Waste

▶ Class 5.1	100
▶ Class 5.2	5
▶ Class 6.1	100
▶ Class 6.2	100
▶ Class 8	100
▶ Class 9	500

Hazardous Waste

Licence to Transport (LT)

All Hazardous Waste transporters require a licence to transport waste except:

- ▶ the amount of waste or the transport distance is so small that a manifest is not required
- ▶ the waste is carried solely on a property controlled by the person storing or generating the waste
- ▶ the waste is carried by the person who generated it and the amount is smaller than the registration quantity for the type of waste concerned
- ▶ the waste is not carried by road

Hazardous Waste

Registered Site (RS)

All facilities that accept hazardous waste must be registered under the Hazardous Waste Regulations when the quantity of hazardous waste exceeds Schedule 6 in the Hazardous Waste Regulations. (same as registration quantities for generators)

Hazardous Waste

Shipping Documents for Hazardous Waste

Hazardous Waste requires a Hazardous Waste Manifest/Movement Document:

- 5 kg or more of solid hazardous waste
- 5 L or more of liquid hazardous waste
- any quantity of gases in containers having a total liquid capacity of 5 L or more
- any quantity of solids or liquids containing 500 g or more of polychlorinated biphenyls (PCB) within BC 500 g or more of solids, liquids, or mixtures of these containing 50 mg/kg of PCB outside of BC

Hazardous Waste

Shipping Documents for Hazardous Waste

- Has the generator completed Part A of the manifest/movement document
- Has the generator certified the waste manifest
- Has the generator provided an emergency number or 24 hour number (if waste is a DG)
- Has the generator filed copy 1 of the waste manifest and retained copy 2
- Has the generator received copy 6 of the waste manifest from the registered facility

The image shows a blurred version of a hazardous waste manifest form. It is a complex document with a grid-like structure, containing various fields for data entry. The text is illegible due to the blurring, but the layout suggests a standard regulatory form used for tracking hazardous waste shipments.

WHMIS 2015 (GHS)

	Exploding bomb (for explosion or reactivity hazards)		Flame (for fire hazards)		Flame over circle (for oxidizing hazards)
	Gas cylinder (for gases under pressure)		Corrosion (for corrosive damage to metals, as well as skin, eyes)		Skull and Crossbones (can cause death or toxicity with short exposure to small amounts)
	Health hazard (may cause or suspected of causing serious health effects)		Exclamation mark (may cause less serious health effects or damage the ozone layer*)		Environment* (may cause damage to the aquatic environment)
	Biohazardous Infectious Materials (for organisms or toxins that can cause diseases in people or animals)				

* The GHS system also defines an Environmental hazards group. This group (and its classes) was not adopted in WHMIS 2015. However, you may see the environmental classes listed on labels and Safety Data Sheets (SDSs). Including information about environmental hazards is allowed by WHMIS 2015.

WHMIS 2015 (GHS)

Transition from WHMIS 1988 to WHMIS 2015 (GHS) is in place currently with December 1, 2018 as the date for full compliance and implementation.

WHAT DOES THIS MEAN TO YOU?

WHMIS 2015 (GHS)

- All workers must be trained in WHMIS 2015 (GHS)
- Classification of hazards has increased from 6 classes to 32 classes
There are two groups of hazards
Physical and Health
- The symbols are described as pictograms and are diamond-shaped
- Canada maintained the Biohazard symbol which must remain as a circle
- Canada did not adopt the Environmentally Hazard Pictogram under WHMIS

WHMIS 2015 (GHS)

- ▶ Labels under WHMIS 2015 (GHS) do not require a hatched border
- ▶ Labels must have a signal word, either “Warning” or “Danger”
- ▶ Workplace or Worksite labels are still required in workplaces



WHMIS 2015 (GHS)

- ▶ The acronym MSDS is now a SDS (Safety Data Sheet)
- ▶ A SDS contains 12 mandatory sections and 4 optional (1-11 and 16)
- ▶ Most manufacturers will provide all 16 sections however
- ▶ All SDS are in the same order of information globally



TDG Hazardous Waste WHMIS

Summary of Hazards

- a. All workers that have direct involvement with all 3 Regulations must be trained and knowledgeable in each regulation and the aspects that apply to their job and the hazards they work with.
- b. All 3 Regulations have an impact on hazardous waste
 - if the hazardous waste is also regulated by TDG, that applies as well
 - if hazardous waste is stored at a worksite, OHS, Part 5 regulations apply

QUESTION

AND

ANSWER

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