

Transportation of Dangerous Goods – What You Need to Know



WHAT IS IT?

Transportation of Dangerous Goods (TDG) in Canada refers to the control and regulation of the transportation of hazardous materials to ensure safety and prevent incidents during transit. This is crucial for protecting public health, safety and the environment.

The primary legislation governing TDG in Canada is the Transportation of Dangerous Goods Act, 1992. The Act sets out the legal framework and the responsibilities for those involved in transporting dangerous goods. To enforce the Act, the Transportation of Dangerous Goods Regulations (TDG Regulations) are applied. These regulations specify the requirements for handling, offering for transport and transporting dangerous goods.

Key components of the TDG Regulations include:

- Classification
- Packaging
- Placarding
- Emergency Response Assistance Plans (ERAPs)
- Documentation
- Labeling
- Training
- Safety marks and means of containment

These regulations are enforced by Transport Canada which conducts inspections, investigations, and enforcement to ensure compliance.

A few notable examples of TDG incidents include Lac-Mégantic Rail Disaster (2013) in Lac-Mégantic, Quebec, Mississauga Train Derailment (1979) in Mississauga, Ontario, Burnaby Sulphuric Acid Spill (2007) in Burnaby, British Columbia, and Montreal, Maine and Atlantic Railway Oil Spill (2013) in Nantes, Quebec.



GENERAL CONCERNS

- **Accidents and Incidents:** The potential for accidents during transportation, such as spills, leaks, explosions or fires poses significant risks to public safety.
- **Human Error:** Mistakes in classification, packaging, labeling and documentation can lead to dangerous situations during transport.
- **Spills and Contamination:** Accidental release of dangerous goods can lead to soil, water and air pollution, causing long-term environmental damage.
- **Complexity of Regulations:** The extensive and detailed nature of TDG regulations can make compliance challenging, especially for smaller companies.
- **International Harmonization:** Ensure that domestic regulations are harmonized with international standards to facilitate cross-border transportation while maintaining safety.
- **Preparedness:** Ensure that ERAPs are in place and effective for dealing with incidents involving dangerous goods.
- **Coordination:** Coordinating between various agencies and responders during an incident ensures a swift and effective response.

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- **Keeping up with Innovations:**
Ensure that regulations keep pace with technological advancements in packaging, tracking and transportation methods.
- **Adoption of New Technologies:**
Encouraging the adoption of technologies that enhance safety, such as advanced tracking systems, automated handling equipment and improved containment methods.
- **Community Engagement:** Engage with communities along transportation routes to address concerns and build trust.

Other Major Concerns:

- **Adequate Training:** Ensure that all personnel involved in the transportation of dangerous goods are adequately trained and knowledgeable about the regulations and safety procedures.
- **Awareness:** Raise awareness among stakeholders about the risks and best practices for handling dangerous goods.
- **Theft and Sabotage:** The potential for dangerous goods to be stolen or used maliciously poses significant security risks.
- **Tracking and Monitoring:** Implement effective systems for tracking and monitoring dangerous goods during transit to prevent unauthorized access or diversion.

These concerns necessitate ongoing vigilance, continuous improvement in safety practices and effective regulatory oversight to ensure the safe and secure transportation of dangerous goods.



RESPONSIBLE PARTIES

Several parties are responsible for ensuring the safe transportation of dangerous goods. Each party has specific responsibilities to ensure compliance with the TDG Act and Regulations. These parties include:

- **Consignor (Shipper):** Ensure that dangerous goods are correctly classified and dangerous goods are packaged properly according to TDG standards. Report any incidents involving dangerous goods that occur during transportation.
- **Carrier (Transporter):** Safely handle and transport the dangerous goods in accordance with the TDG Regulations. Ensure that the necessary shipping documents accompany the dangerous goods throughout transportation. Ensure that employees involved in transporting dangerous goods are adequately trained and certified.
- **Consignee (Receiver):** Ensure that dangerous goods are received and handled safely upon arrival. Verify that the necessary shipping documents are present and correct upon receipt of the dangerous goods.
- **ERAP Holder:** Maintain and implement an ERAP for certain dangerous goods that require immediate assistance in case of an incident. Ensure that the ERAP is readily available and can be activated when needed.

Each of these parties must work together to ensure the safe transportation of dangerous goods, from the point of origin to the destination, following the TDG regulations.

Resources

- ESC Webinar: [Get to know the TDG Program](#)
- ESC Webinar: [A Case Study: Transition to digital TDG Documentation](#)
- CCOHS: [Transportation of Dangerous Goods \(TDG\) Fact Sheets](#)
- Transport Canada: [CANUTEC](#)
- Justice Law Website: [Transportation of Dangerous Goods Regulations SOR/2001-286](#)
- Transport Canada: [Guide for reporting dangerous good incidents](#)