

## Transportation of Dangerous Goods (TDG)

### Transportation of Dangerous Goods (TDG) - Emergency Response (Road)

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#### What does TDG consider an “emergency”?

The Transportation of Dangerous Goods (TDG) Regulations define “emergency” as “immediate danger to public safety that requires the use of dangerous goods to avert or mitigate the danger; or arises directly or indirectly from the dangerous goods.”

A TDG emergency may include incidents such as:

- a traffic incident that may cause the dangerous good to catch fire, explode, or spill
- vehicle problems that may cause the dangerous good to catch fire or explode (e.g., damage to the cooling system)
- failure of the means of containment (MOC) which results in the release of the dangerous good into the environment

Note: The information below is provided as guidance only. Always check with Transport Canada and the [TDG Act and Regulations](#) to ensure compliance.

Please also see the following documents in this series for road transportation of dangerous goods:

- [Transportation of Dangerous Goods \(TDG\) – Overview \(Road\)](#)
- [Transportation of Dangerous Goods \(TDG\) - Training \(Road\)](#)
- [Transportation of Dangerous Goods \(TDG\) - 9 Classes](#)
- [Transportation of Dangerous Goods \(TDG\) - Classification \(Road\)](#)
- [Transportation of Dangerous Goods \(TDG\) - “Special Case” and “Special Provision” Exemptions \(Road\)](#)
- [Transportation of Dangerous Goods \(TDG\) - Dangerous Goods Marks \(Road\)](#)
- [Transportation of Dangerous Goods \(TDG\) - Means of Containment \(Road\)](#)
- [Transportation of Dangerous Goods \(TDG\) - Segregation of Means of Containment \(Road\)](#)

- [Transportation of Dangerous Goods \(TDG\) - Shipping Documents \(Road\)](#).
  - [Transportation of Dangerous Goods \(TDG\) - Reporting Requirements \(Road\)](#).
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## Are there specific requirements for certain dangerous goods?

Yes. [Part 7 of the TDG Regulations](#) outlines requirements that are specific for dangerous goods that are a high risk to public safety. When high-risk, dangerous goods are being transported at or above a certain threshold, Part 7 requires the consignor to prepare an Emergency Response Assistance Plan (ERAP).

Note that for dangerous goods that are not covered in Part 7 of the TDG Regulations, the TDG Act also specifies a “duty to respond” and “duty to take reasonable emergency measures,” which read:

Duty to respond: Any person who has the charge, management or control of a means of containment shall report to every person prescribed for the purposes of this subsection any actual or anticipated release of dangerous goods that is or could be in excess of a quantity or concentration specified by regulation from the means of containment if the release endangers, or could endanger, public safety. [TDG Act, S. 18(1)]

Duty to take reasonable emergency measures: Every person required to make a report shall, as soon as possible in the circumstances, take all reasonable emergency measures to reduce or eliminate any danger to public safety that results or may reasonably be expected to result from the release. [TDG Act, S. 18(2)]

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## Is there more than one type of emergency response plan?

In practice, yes. These plans relate to:

- Dangerous goods that **MUST** have an Emergency Response Assistance Plan (ERAP) when they are transported above a certain threshold. These dangerous goods are specified in Part 7 and Schedule 1 of the TDG Regulations. They will be referred to as “ERAP dangerous goods” in this document.
  - Dangerous goods that do **NOT** require a formal Transport Canada-approved ERAP. These dangerous goods will be referred to as non-ERAP dangerous goods in this OSH Answer. It is good practice to develop a response plan to follow in the event of a spill, fire, release, etc.
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## How do I know if the dangerous good has an Emergency Response Plan (ERAP)?

When dangerous goods have an emergency response assistance plan (ERAP), this will be indicated on the shipping paper as follows:

- Inclusion of an ERAP reference number
- Inclusion of an ERAP telephone numbers. This is an emergency number at which [technical and emergency response advice](#) is provided by the person who has the ERAP as soon as possible. This person is an expert in the dangerous goods and means of containment that require the ERAP and can provide assistance on actions to be taken to respond to a release or anticipated release.

Note that both the 24-hour and the ERAP telephone numbers must be available when the dangerous goods are in transport.

When the dangerous goods in transport require an ERAP, the ERAP telephone number may be the same as the 24-hour number. If this is the case, the phone number may be shown on the same line on the shipping document as the ERAP reference number.

For example:

## What is an Emergency Response Assistance Plan (ERAP)?

An emergency response assistance plan (ERAP) describes how the consignor of higher-risk dangerous goods will respond to support first responders in the event of a transportation incident. Generally speaking, the ERAP will:

- List the mode of transport used, the frequency of transport, the means of containment, and the geographical area where the dangerous goods are shipped.
- Describe the equipment and procedures the shipper has available to support a response to incidents involving high-risk, dangerous goods.
- Outline the information about the ERAP response personnel (such as technical advisors, team leaders, and response teams)
- Describe the specialized response capabilities (e.g., measures that can be taken, persons responsible for taking those measures, etc.)
- Estimate the time required to respond (e.g., reach the location of the release, steps required to deploy personnel and equipment, etc.)
- Include information on emergency preparedness for specific scenarios (i.e., release, release of less than 1% of the dangerous good in a means of containment, more than 50% of the dangerous good in a means of containment, and exposure to fire)
- Include an ERAP telephone number that must also be included on the shipping documents.
- Include the type of training the response personnel will be provided with. Training includes all formats of learning, education, and hands-on learning. Examples of hands-on exercises include:
  - live or inert product transfer
  - setting up flares safely
  - personal protective equipment (PPE) donning and doffing
  - decontamination drills

The ERAP may be used along with emergency plans from other organizations (such as local or provincial authorities). Always confirm with these authorities or other agencies that they have the capacity to assist or respond appropriately to the hazards of the specific dangerous goods being shipped in their area. Creating and implementing an incident management system will help to coordinate these plans.

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## What dangerous goods must have an ERAP?

The dangerous goods that must have an ERAP are identified in Column 7 of [Schedule 1](#) and in [Part 7](#) of the TDG Regulations.

Transport Canada has published [guides](#) about ERAPs, including a "[Guide to find out if you need an emergency response assistance plan.](#)"

Column 7 of Schedule 1 lists the specific threshold (ERAP Index) when an ERAP is required. This threshold varies for different dangerous goods. For example, the ERAP Index for "UN1076, Phosgene, Class 2.3(8)" is 25 L while that for "UN1075, Liquefied Petroleum Gases, Class 2.1" is 3000 L. See the Table below for these examples (the ERAP Index values are highlighted in green). If a shipment contains a quantity of a dangerous good below its ERAP Index, a formal ERAP is not required.

Schedule 1: Requirements for UN1075 & UN1076

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Column 1	Column 2	Column 3	Column 4	Column 5	Column 6 a	Column 6 b	Column 7	Column 8	Column 9
UN Number	Shipping Name and description	Class	Packing Group/ Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger Carrying Vessel Index	Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index
UN1076	PHOSGENE	2.3 (8)		23	0	E0	25	Forbidden	Forbidden
UN1075	LIQUEFIED PETROLEUM GASES; or PETROLEUM GASES, LIQUEFIED	2.1			0.125 L	E0	3 000	110	Forbidden

## Who prepares the ERAP?

ERAPs should be prepared by a competent person who has knowledge about that dangerous good as well as safety and emergency response. They can be created by producers, manufacturers, distributors, or carriers of dangerous goods. If the organization does not have the expertise to prepare an ERAP, industry associations, consulting firms (with expertise in TDG), or similar organizations should be contacted for assistance. Note that when a carrier transports ERAP dangerous goods below the ERAP threshold from multiple consignors, the total quantity of dangerous goods can accumulate so that an ERAP is required. In this case, the carrier must prepare an ERAP. Once the carrier's ERAP is approved, they need to affix the ERAP reference number and ERAP telephone number on the shipping documents that apply to those consignments.

Part of an ERAP is to document a potential incident analysis. See Transport Canada's "[Potential incident analysis format example](#)".

For guidance on the preparation, application, and approval process of an ERAP, please see the guides listed in this document or contact Transport Canada:

Transportation of Dangerous Goods  
 Transport Canada  
 330 Sparks St.  
 Ottawa, ON K1A 0N5  
 Help with your ERAP application  
 Email: [ERAPapplications@tc.gc.ca](mailto:ERAPapplications@tc.gc.ca)  
 Tel: 613-220-8749  
 TTY: 1-888-675-6863

## Does the ERAP need to be approved by Transport Canada?

Yes. Once the ERAP is prepared, it must be submitted to [Transport Canada](#) for approval by using the ERAP online services (EOS). When an ERAP is approved, the applicant will receive an ERAP reference number, which must be included on the shipping paper.

Follow the steps as outlined in Transport Canada's [Guide to apply for approval of an emergency response assistance plan](#).

Transport Canada will review the application and return a decision (i.e., interim approval, approval, temporary approval, refusal, or revocation). The length of the approval will also be communicated. The length of the approval can vary depending on various factors such as public safety, shipment frequency, modes of transportation, geographic area, etc.

NOTE: ERAP dangerous goods must only be transported after Transport Canada approves the ERAP and issues the ERAP reference number. If the shipper's ERAP is not approved, Transport Canada will not issue an ERAP reference number. ERAP dangerous goods are not allowed to be transported without an ERAP reference number.

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## Is it a good practice to have a response plan for non-ERAP dangerous goods?

As mentioned, formal ERAPs are required when the dangerous good is listed in Schedule 1 or Part 7 of the TDG Regulations.

While there is no formal process for non-ERAP dangerous goods, it is good practice for consignors who ship them to have a response plan that will be used in case of spills, etc. These plans will help to:

- protect the public from being exposed to dangerous goods
- minimize damage to the environment as per the requirements in the environmental legislation/s
- demonstrate due diligence for various legislation (e.g., health and safety, environment, etc.)

Thus, many consignors provide emergency response information along with the shipping document. This information can be in the form of a safe operating procedure (SOP), information from the Safety Data Sheet (SDS) for the dangerous good, Transport Canada's "[You're not alone! – Practical tools for planning and responding to dangerous goods incidents](#)" document, and the specific pages from the "[Emergency Response Guidebook](#)" (ERG).

The Emergency Response Guidebook identifies the significant potential dangers and gives information and guidance for initial actions to be taken based on the material involved. It was developed for use by first responders (e.g., police, fire, and ambulance services). Transport Canada's "[You're not alone! – Practical tools for planning and responding to dangerous goods incidents](#)," includes quick reference tools that outline the most important considerations and steps to follow during an incident and should be used **with** the ERG. Both of these resources can be used in combination with the company's safe operating procedure for emergencies to determine appropriate safety measures.

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## What should be done in an emergency that involves an ERAP dangerous good?

Call the "ERAP telephone number" on the shipping paper, which will be answered by a competent person. This person will:

- Provide technical and emergency response advice within 10 minutes of the initial request.
- Know when and how to implement the ERAP.
- Monitor the response.
- Send ERAP emergency response resources if required, as per pre-determined measured responses in the plan.

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## What should be done in an emergency that involves non-ERAP dangerous goods only?

Drivers and responders should be trained before transporting or responding to an incident.

Follow company procedures regarding scene management and report the event to the company contact person, enforcement personnel, and emergency responders. Be prepared to inform the responding services of the details of the goods, amounts released (or anticipated release), means of containment, steps taken to secure the area, etc.

For example, there should be a document containing procedures and emergency telephone numbers of those designated to help manage the consequences of a spill involving a load of hazardous materials.

The person who has possession (e.g., driver) of the dangerous good at the time of the incident should:

- Take steps to ensure public safety according to the company's SOP, if safe to do so.
- Call the appropriate authority (e.g., 9-1-1)
- Call (when registered or listed on the shipping documents), CANUTEC at \*666 on a mobile phone, 613-996-6666 or 1-888- CANUTEC
- The 24-hour number found on the shipping document

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