



Railway Association
of Canada

Association des chemins
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CIRCULAR NO. DG-2

Instructions for the Transfer of Dangerous Goods in Bulk on Railway Property

Effective: June 30, 2005



1. GENERAL

These instructions apply to the Loading, unloading or transfer of dangerous good from railway vehicles to trucks, trucks to railway vehicles, and railway vehicles to railway vehicles including tank cars and/or tank trailers.

The various classes and designators referred to are as identified in the Transportation of Dangerous Goods Regulations.

2. EXCEPTIONS

Class 1 materials are to be handled in accordance with the “Handling of Carloads of Explosives on Railway Trackage Regulations” and railway and/or Local police are to advised of such activity.

This circular does not apply to emergency transfers due to overloading, leaking or damaged Freight Cars.

3. SITE SELECTION RESPONSIBILITY

An appropriately trained Railway Officer is responsible for the selection of tracks to be used for the Loading, unloading and/or transferring of dangerous goods. When this has been done, an appropriate Transport Canada Transportation of Dangerous Goods Officer and the Local Fire Department are to be advised accordingly.

If the screening distances as stated in Part 4 cannot be respected, additional safety measures as appropriate are to be applied



4. PRIMARY SELECTION CRITERIA

A dangerous goods transfer track should be Located at Least at the following distances from commercial establishment, residences and other places of assembly such as schools, hospitals or recreation centers:

<u>Class and Specifics</u>	<u>Distance</u>
2.1	100 metres
2.2	50 metres
2.3 (Ammonia, Anhydrous)	250 metres
2.3	450 metres
3 Excluding Inhalation Hazard Materials	50 metres
4.1 Molten Sulphur	100 metres
5.1 Excluding Inhalation Hazard Materials	50 metres
6.1 Excluding Inhalation Hazard Materials	100 metres
8 PG. I Liquids and hydrochloric acid	100 metres
8 Solid material and PG II & III Liquids excluding Inhalation Hazard Materials	100 metres
9	50 metres

5. ADDITIONAL SELECTION CRITERIA

Where possible, a dangerous goods Loading/unloading or transfer track, shall also be:

- Located away or protected from busy highways,
- not Located under a bridge or an overhead highway or commuter rail structure,
- Located away from power Lines, transformers, underground gas Lines or other sources of ignition,
- Located away from sensitive areas of the environment such as a sensitive marine and inland waters, including sewer openings,
- Located away from fueling or repair facilities,
- Located adjacent to a roadway in order to provide easy access for inspections and emergency response,
- Located near an emergency water source,
- equipped with spill trays or other containment devices that will collect any product that may Leak during connecting or disconnecting of Loading or unloading hoses.

Any product that is spilled is to be properly packaged and removed from the site for proper disposal.

The movement of rail cars on immediately adjacent tracks must be of a speed consistent with safety.



6. MAINTENANCE OF TRANSFER TRACKS

Railway infrastructures at the site must be in suitable condition.

7. INSPECTION

Occasional inspections are to be made of the site by railway personnel during operation to insure operators, consignors, or their representatives are complying with these recommendations. The inspections may be performed by any person who is trained under the Transportations of Dangerous Goods Regulations and is familiar with these recommendations.

Railways must provide or make arrangements to provide a visual walk around inspection every 48 hours after the fifth day cars have been held to ensure they are not Leaking. The inspection may be performed by any person who is trained under the Transportation of Dangerous Goods Regulations, knows where to look for leaks and if leaks are found, knows who to contact for immediate remedial action, if necessary.

Written records must be made of all inspections and retained for a period of two years after the cars are released from holding.

8. TRAINING

Any person using the site for Loading, unloading or transferring of dangerous goods shall be trained under Transportation of Dangerous Goods Regulations and be experienced and knowledgeable of safety requirements for the specific Loading, unloading or transfer operation being performed. This is to include knowledge of tank cars and their fittings and of the product or products being Loaded or unloaded as well as the requirements for marking, Labeling and/or placarding.

9. DOCUMENTATION

Any persons, consignors, or their representatives, are to insure correct documentation for Loaded, partially Loaded or residue cars is provided to the carrier and arrangements are made for copies of covering documents to be made available at the site. If requested, emergency response information for the dangerous goods is to be provided to local emergency response personnel.

10. NOTIFICATION

CANUTEC and the appropriate RailWay Officer must be advised immediateLy of any incident, accident or Leakage invoLving dangerous goods.

11. REGULATORY REQRUMENTS

The requirement of Transportation of Dangerous Goods Regulations as follows shall be complied with:

When Loading:



1. When tank cars are loaded and prior to shipping, the consignor or his representative must determine to the extent practicable, including removal for inspection of the frangible discs on safety vents, that the tank, safety appurtenances and fittings are in proper condition for the safe transportation of the Lading.
 2. Tank cars with bottom discharge outlets must have their outlet caps off, or outlet cap plugs open, or secondary valve and plug open during the entire time tanks are being Loaded. After Loading, tanks which permit more than a dripping of the Liquid contents or emission of gases at any Location shall not be offered for transportation
 3. Tank cars equipped with interior heater coils, except when coils are rendered inoperative by blocking off the inlet and outlets, must be loaded with the heater coiled inlet and outlet caps off during the entire time the tanks are being loaded and show no Leakage with caps off.
 4. Sufficient outage must be Left in the tank (consideration must be given to climate, products and manufacturer outage tables). Stencilled load limits and railway track limitations must not be exceeded.
1. When loading or unloading:
 - a) dangerous goods having a primary or subsidiary classification of 2.1, 3, 4, or 5 measures are taken to prevent exposure of the dangerous goods to a source of ignition, intense heat or any source of electrical hazard and to dissipate static electricity,
 - b) the hand brake must be applied and at Least one wheel must be blocked in both directions,
 - c) the track where the dangerous goods are being Loaded or unloaded are protected by Locked switches or Locked derails that are controlled by the person conducting the operation,
 - d) caution signs that meet the requirements of paragraph (2) below are placed on the track or railway vehicle to warn persons approaching the vehicle from either end of the track, caution signs remain clearly visible while a tank car is connected to any Loading or unloading device, or the railway vehicle is being Loaded or unloaded,
 - e) the immediate vicinity of the railway vehicle is kept substantially free of combustible material that are not compatible with the dangerous goods being Loaded or unloaded,
 - f) in the case of a tank car, all closures are secured when the Loading or unloading is completed or is discontinues, except that the heater coils inlet and outlets pipes may be Left open after unloading; and
 - g) the railway vehicle is monitored by direct, remote, or automatic means during Loading or unloading so that any condition or release of dangerous goods from the railway vehicle that could endanger public safety can be promptly identified.
 2. Caution signs referred to in paragraph (1) (d) shall:
 - a) be constructed of metal or other durable material, be Least 30 x 38 cm (12 x 15 inches) in size and



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- b) bear the words “STOP” or “STOP/ARRÊT” in white capital Letters equal to or greater than 10 cm (4 inches) height on a blue background.