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**CIRCULAR NO. DG-01**

**INSTRUCTIONS FOR THE SAFE HANDLING OF CARS**

**LOADED WITH DANGEROUS GOODS DELAYED IN TRANSIT ON RAILWAY PROPERTY**

**Note:** This update of the *RAC Circular DG-01* is based on the “final draft” submitted to Transport Canada’s TDG General Policy Advisory Council in February 2005 by the Working Group mandated to review and modify as required the Railway Association of Canada Circular DG-01.

**It should be noted RAC Circular DG-01 applies to loaded cars only.**

1. **GENERAL**

These instructions apply to Cars loaded in bulk with dangerous goods that remain in excess of five (5) and no more than 30 sequential calendar days in the same designated site on railway property.

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

1. **EXCEPTIONS**

Cars loaded with Molten Sulphur UN 2448 and cars that have been emptied and that still contain residues of dangerous goods (identified on the shipping document as a residue\*\*) are not subject to these guidelines.

**\*\* Residue :** means the **dangerous goods** remaining in a **means of containment** after its contents have been emptied to the maximum extent feasible and before the **means of containment** is either refilled or cleaned of **dangerous goods** and purged to remove any vapours.

1. **DANGEROUS GOODS TO BE MOVED AS EXPEDITIOUSLY\*\* AS POSSIBLE**

The following must not be held in excess of five days:

(a) Class 4.1 - PG I;

(b) Class 4.3 - PG I;

(c) Class 4.1 - PG II self-reactive substances that are temperature controlled;

(d) Class 5.2 temperature-controlled substances.

With respect to these dangerous goods, where non-daily train service exists, consignments shall be forwarded on the first available train

*\*\* Expeditiously means no longer than 48 hours.*

1. **RADIOACTIVE MATERIALS AND EXPLOSIVES**

Cars loaded with Class 1 Explosives or Class 7 radioactive materials must be moved as expeditiously as possible. Railway and/or local police must coordinate additional security for cars loaded with Class 1 Explosives that are held in excess of 48 hours.

**5. SITE SELECTION RESPONSIBILITY**

An appropriately trained railway officer, such as a Risk Management, Dangerous Goods and/or Environmental Officer, after consultation with the local fire department, shall be designated to select tracks to be used to hold Cars containing dangerous goods that remain in a location in excess of five (5) calendar days (120 hours).

The railways shall implement the processes identified herein:

1. Prepare a site-specific Emergency Plan. The Emergency Plan shall be based on a standard template (**Appendix #1**), and require consultation with the local fire

department and/or police department.

1. Annual updates should be provided, with names and contacts revised as required.
2. Any material change in the site shall require an updated plan.
3. Provide a list of approved sites and a copy of the Emergency Plan to the Clerk of the municipality (meaning local jurisdiction/authority) by registered mail or confirmed electronic communication.

The notification shall include the current approved clearance distances and advice to the municipality on the possible consequences of allowing development or re-development of any properties within the clearance distances.

**6. PRIMARY SELECTION CRITERIA**

A dangerous goods holding track shall be located at least the following distances from

residences and places of assembly such as schools, hospitals, recreation centres, and so on: *\*\* see table next page*

**Class and Specific Distances**

|  |  |
| --- | --- |
| **Dangerous Goods Classification** | **Distance** |
| **1**  except (1.4) | 500 m |
| **1.4** | 100 m |
| **2.1** | 100 m |
| **2.2** | 50 m |
| **2.3** (Anhydrous Ammonia UN 1005) | 250 m |
| **2.3** (Chlorine UN 1017) | 450 m |
| **3** | 50 m |
| **4** | 100 m |
| **5.1** | 50 m |
| **5.2** | 100 m |
| **6** | 100 m |
| **7** | 50 m |
| **8** | 100 m |
| **9** | 50 m |

If the distances specified cannot be attained, a visual walk-around ground level inspection shall be performed every 24 hours.

The separation distance of a holding track from a mainline is:

**Class 1, 2, 3, 6 and 7 = 15 metres Class 4, 5, 8, and 9 = 8 metres**

**7. ADDITIONAL SELECTION CRITERIA**

In selecting the holding track where practicable, consideration should be given to the proximity to:

1. busy highways
2. bridges and overhead highway structures;
3. power lines, transformers, underground gas lines or other sources of ignition;

d) environmentally sensitive areas and/or conditions including inland waters and water area with marine life;

1. fueling and repair facilities;
2. roadways to provide easy access for inspections and emergency response;
3. an emergency water source;
4. occupied boarding cars; and
5. an active main line.

**8. MAINTENANCE AND USE OF HOLDING TRACKS**

Any combustible materials such as vegetation, litter and/or sources of ignition including

smoking, the use of welding or other equipment with an open flame, the use of tools generating sparks, or other fires hazards shall not be less than 8 metres from the centerline of the track where cars containing flammable gases, flammable liquids or explosives are being held.

**9. INSPECTION**

Railways must provide or make arrangements to provide a visual walk-around inspection every **48 hours** after the *fifth day* (120 hrs) cars have been held to ensure there is no loss of containment. The inspection shall be performed by any person who is trained or under the direct supervision of a person who is trained under the Transportation of Dangerous Goods Regulations, knows where to look for loss of containment and if found, knows who to contact for immediate remedial action, if necessary.

1. The inspection record shall be identified as *“Cars Inspected as per RAC Circular* *DG- 01*” and include the time, date, location, track, initials or name of inspector and car number. ***(see example of inspection record in Appendix 2)***
2. The record of the walk around inspection must be kept for a period of 2 years for audit purposes.
3. Checks should include audible and visual indications of loss of containment.

The inspection record for each car must, at a minimum contain:

* Date of last inspection
* Car initial and number
* Dangerous Goods Class of the residue last contained
* Storage track number
* Track location
* Lessor/owner
* Inspectors signature
* Placard condition
* Leak/ damage check
* Car condition and securement

**10. TRAINING**

All persons working on the site for the purposes of inspecting railcars must be trained to ensure the person is competent to conduct the inspection.

Training is to include:

* Tank fittings, how they work and what is an abnormal situation.
* Tank qualifications marking, labelling & placarding.
* Emergency response procedures when a leaking tank car is identified.
* Company mitigation procedures for car leaking or damaged.
* Car handling and securement.

**11. DOCUMENTATION**

Any person, consignors, or their representatives, must ensure correct documentation for residue cars is provided to the storage facility.

**12. SAFETY MARKS**

Tank cars in storage must display the applicable placard.

**\*Disclaimer\*:** This Circular should be used as a guide. It is highly recommended and incumbent upon all parties to adhere to all applicable Provincial requirements for their operations under existing Provincial Railway legislation. Requirements for all Provincial regulations may not be addressed in this Circular.

**Appendix #1**

**Site Specific Emergency Plan: Standard Template**

Emergency Plan information for (name or railway) Railway property in the municipality of (insert municipality name) used for the safe handling of cars loaded with dangerous goods delayed in transit.

Provided in Accordance with the Railway Association of Canada Circular No. DG-01 “*Instructions for the Safe Handling of Cars Loaded with Dangerous Goods Delayed in Transit on Railway Property”*

As part of the railway’s commitment to working with our community partners, this Site Specific Emergency Plan is provided to communities to advise them of the criteria used to minimize the possibility of incidents involving cars loaded with dangerous goods that may be delayed in transit in the community.

The (NAME of RAILWAY) has developed detailed Emergency Response Plans for all our operations.

This plan provides information specific to the site of our operations in your municipality

where dangerous good cars may be found from time to time as a result of delays in movement to the final destination.

1. In accordance with *RAC Circular DG-01* this information is directed to the Clerk of the municipality for distribution to appropriate parties / agencies. Please provide a copy of this plan to the Fire Chief of your Fire Department and / or your municipal Emergency Planning official, to assist them in developing appropriate

responses to possible incidents at this site.

1. An annual update of this plan will be provided, with names and contacts for responsible railway staff, revised as required.

|  |  |
| --- | --- |
| Date: | Location: |
| Railyard: (insert name) | Track(s): (insert track ID #’s) |
| Local Authority: | (insert local contact name) |
|  | (insert local contact name) |
| Railway Company: (insert Railway name) | |
| Railway Contact Name: | |
| Railway Contact phone number: | |
| Railway Emergency phone number: | |
| Clearance distances met: | (Yes or No) |
| **\*Above is per Primary Selection Criteria – item 6 of RAC Circular DG-01** | |
| Comments: | |

*Map of Railway Property subject to this Plan is attached.*

To assist in pre-planning emergency response to this location, the following is the current list of known dangerous goods and shipper’s information that may be delayed at this location. Other shipments of dangerous goods cars may also be present from time to time, as this list is not all-inclusive.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Shipper** | **UN#** | **Shipping Name** | **Class** | **PG** | **24 hr #** | **ERAP # and Phone number** |
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**Emergency Actions:**

In the event of an incident involving cars containing dangerous goods at this location, the railway emergency response plan is activated as follows:

1. Railway to be notified immediately by calling (insert railway # here)

2. If possible, without risk to first responders, attempt to identify the dangerous good that has been released. (Placards, ERAP, Railway manifest, railway employees with knowledge of the incident)

1. Notify the **Canadian Transport Emergency Centre** of Transport Canada **CANUTEC** at 613-996-6666, 1-888-226-8832 (1-888-CAN-UTEC) or \*666
2. Provide as much information as possible on the nature of the emergency to both the Railway and to CANUTEC
3. Advise CANUTEC and the Railway of the name of the Incident Commander and contact information so they can work with him/her to mitigate the incident.
4. Follow recommendations for evacuation, containment, or other actions
5. Railway will immediately dispatch responders to the site who will work with the municipal first responders (Fire, Police, etc.) as part of an Incident Management System utilizing the Incident Command / Unified Command system.
6. Railway will advise the shipper and request assistance if required
7. Shipper may activate the Emergency Response Assistance Plan ERAP if required

**Additional Information to Assist Municipalities in Emergency Planning**

The (insert railway name) can provide additional information and training to assist

municipalities along our rail lines to help them prepare for emergency incidents involving

our operations.

Please contact (railway contact name) for additional information and the availability of training and information programs that are available.

**APPENDIX # 2: DG-01 INSPECTION RECORD (example)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| (insert company name or logo) | | **DANGEROUS GOODS CAR INSPECTION REPORT** | | |
| **LOCATION:** |  | |
| **RAC Circular RAC DG – 1: Safe handling of cars loaded with Dangerous Goods delayed on Railway Property** | | | | |
| **The following cars have been visually inspected and no exception to the integrity of the cars has been noted** | | | | |
| **CAR**  **INITIAL** | **CAR #** | **U.N.**  **NUMBER** | **PRIMARY**  **CLASS** | **TRACK & Other INFORMATION** |
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**APPENDIX #3: DG-01 INSPECTION FORM**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| (insert company name or logo) | | | **DANGEROUS GOODS CAR INSPECTION REPORT** | | | | |
| **LOCATION:** |  | | | |
| **RAC Circular RAC DG – 1: Safe handling of cars loaded with Dangerous Goods delayed on Railway Property** | | | | | | | |
| **The following cars have been visually inspected and no exception to the integrity of the cars has been noted** | | | | | | | |
| **CAR**  **INITIAL** | **CAR #** | | **U.N.**  **NUMBER** | **PRIMARY**  **CLASS** | **TRACK & Other INFORMATION** | | |
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| **EXCEPTIONS** | | | | | | | |
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| **INSPECTED BY:** | |  | | | | **DATE:** |  |
| **(TRAINED, QUALIFIED and CERTIFIED UNDER TDG)** | | | | | | | |