

# Meet your neighbour

The railway in your community



Canada's economy relies on trade, domestic and international in scope. And Canada's railways play a critical role in serving that economy. We are a round-the-clock network business – moving freight and passengers through communities across Canada and the continent.



The Railway Association of Canada  
[www.railcan.ca](http://www.railcan.ca)

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**M**ore than 60 per cent of Canada's freight moves by rail, and 51 million commuters and passengers. Canada's railways are part of the solution to the nation's transportation problems. Each focuses on what it does best.

The railways' vision for the future is based on safe, secure freight and passenger rail corridors that reduce road congestion, fuel consumption and pollution, enhance Canada's competitiveness in world markets, and improve Canadians' quality of life.

We move the equivalent of 11 million truckloads of freight a year over sophisticated rail networks than span North America. One train can take up to 280 tractor-trailers, or 1,000 automobiles, off congested highways.

The goods that trains carry are used every day by each one of us – from the cereal we eat in the morning

to the cars we drive to work. Fast, efficient transportation affects everything – from individuals who manufacture the finished goods, to the prices consumers pay for the products.

We are committed to having a minimal impact on the environment, and are on track to being Kyoto-compliant. Because trains run on steel wheels on steel rails, friction is minimal. And freight or passenger cars can be coupled together to maximize the train's weight to power requirements. As a result, trains are very fuel-efficient. They not only generate fewer emissions than other modes of transport, but they also conserve fuel.

As Canada becomes an increasingly urbanized society, railways and people are living closer together as residential development grows around rail facilities, and as railway operations and service requirements respond to customer and consumers changing requirements.

Knowing some basic facts about railway operations can help neighbours understand why the railway operates the way it does, and the measures it takes to accommodate residents' concerns.

### **What it takes to make a train**

Trains are made up of individual cars, coupled together. This normally occurs in a rail yard, or terminal. Rail yards have several interconnected tracks designed for easy processing of rail cars as trains are assembled. There are two types of rail yards – automated hump yards, and flat switching yards.

In a hump yard, where large numbers of rail cars are sorted into trains every day, rail cars are gathered and moved onto a low hill. Individual cars, or groups of them, are released to designated classification tracks below, depending on their ultimate delivery destination. A mechanical device



## Innovative Transportation Solutions Link Canada's Communities

known as a “retarder” squeezes the car’s wheels to regulate its speed for smooth coupling. Flat yard switching is carried out by locomotives and crews that push and pull freight cars into various tracks to assemble trains.

Railways operate around the clock to meet the needs of a complex network of customers, industries and other transportation connections. Depending on those customer requirements and connection times with other modes such as trucks and ships, the switching, humping and general yard activity can occur at any time of the day or night. Imagine the impact on consumers, businesses and trade if traffic was restricted to daylight transportation.

With residential areas growing around rail yards, our operating employees make every reasonable effort to minimize the impact of yard noise on people living nearby.

However, there are times when switching or hump operations may create an unavoidable disturbance.

### **Why locomotives idle?**

There can be various reasons a stopped locomotive continues to idle. Although locomotives are always scheduled to return to a main yard after an assignment, they may stop and idle while:

- Building up and maintaining sufficient compressed air pressure to complete brake tests on the train
- Maintaining air pressure to ensure brakes are applied on any incline
- Waiting to pick up connecting rail cars from another train;
- Waiting for a customer to release product from their own industrial track;
- Waiting for signals permitting operation over the track ahead, or;
- Waiting for an oncoming train to operate past and clear the track ahead.

In most cases, complaints of idling equipment are due to locomotives left in industrial areas where former warehouses or vacant properties have been converted into housing. Knowing that residents in these areas do not maintain 24-hour schedules, train crews are instructed to park engines, whenever possible, in locations that minimize disruption to neighbours.

Most locomotives are equipped with an automatic shut-off mechanism that activates when left idling for a period of time with no evidence of moving. The automatic shut-off will only work when the outside temperature is in the range of five degrees Celsius or above, depending on the type of engine. When below five degrees C, locomotives remain idling because, unlike your car, we cannot add antifreeze.

### **Why trains whistle?**

Train whistles are vital safety features to protect motorists, pedestrians and train crews from collisions at public road and pedestrian crossings. Train whistles are also used to alert people and wildlife on or around the tracks that a train is approaching.

Canadian railways are part of a federally, or provincially, regulated transportation system that must operate under strict guidelines and rules. All federal Canadian railways are governed by the Canadian Rail Operating Rules (CROR) under the authority of the Railway Safety Act of 1988.

These rules apply in every residential and industrial location where Canadian railways operate. According to the CROR, train whistles must be sounded:

- At every whistle post along the railway right of way;
- At least one-quarter mile from every public crossing at grade (except within limits prescribed in special instructions) to be prolonged or repeated according to the speed of the train until the crossing is fully occupied by the locomotive or rail cars;
- At frequent intervals when view is restricted by weather, track curvature and other conditions;
- To alert people or animals on or near the track.

The rules apply 24 hours a day, seven days a week. Whistles must be sounded even if public crossings are protected with flashing lights, bells and crossing arms. Communities may apply for whistle cessation at crossings that meet federal safety regula-

tions, as outlined in the amended Railway Safety Act (section 23.1).

Communities that want information about the process can contact their local railway, the Railway Association of Canada, or Transport Canada.

### **Blocked crossing?**

Trains are not permitted to block a highway/railway crossing for more than five minutes if the train is standing still when road or pedestrian traffic needs to cross the crossing. If a train is shunting, moving back and forth over the crossing to deliver or pick up additional rail cars, it is also required to clear the crossing after five minutes if the train crew can see traffic waiting to cross.

Crews are required to free the crossing immediately if an emergency vehicle needs to pass. It is both illegal and extremely dangerous to attempt to beat a train over a highway/railway crossing, or to ignore crossing protection warning signs or signals.

### **How is the track maintained and inspected?**

The railway's track maintenance procedures are governed by stringent internal and external standards, including Transport Canada's Track Safety Rules. Railway employees patrol the track regularly, and identify and correct items needing repair.

Transport Canada officials also inspect the track. As well, electronic inspections are performed by track evaluation rail cars, and by other special equipment that uses ultrasonic techniques to detect possible internal faults in the rails, which are promptly corrected.



### **Does the railway use pesticides?**

Control of vegetation is another key area of safety and safe track maintenance. It is essential that locomotive engineers and the public have as clear as possible sightlines at crossings and other restricted locations. A clear line of sight helps ensure motorists, pedestrians, and locomotive engineers remain vigilant and sooner prepared to react. If left unattended, vegetation can cause the track to shift, which can lead to derailments. Your railway has a vegetation management program that targets weeds in problem areas.

The products and application techniques used are carefully and continuously monitored, and meet both health and environmental safety standards. The land on both sides of the track is maintained with careful consideration of the environment.

### **Additional information?**

If you want to know more about the role rail plays, and can play, in your community and Canada's economy, speak to your railway representative or visit the Railway Association of Canada website at [www.railcan.ca](http://www.railcan.ca).