

PRINCE EDWARD ISLAND COMMERICAL VEHICLE DRIVER'S HANDBOOK

a study guide for professional drivers.



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE HIGHWAY SAFETY DIVISION



Prince Edward Commercial Vehicle Driver's Handbook

The PEI Commercial Vehicle Driver's Handbook has been put together to act as a study guide for individuals preparing to obtain a Class1, Class 2, Class 3, or Class 4 driver's license. As such, this guide focuses on entry level skills necessary to operate tractor semi-trailer vehicles, passenger buses, full size vans, dump trucks and taxis.¹

This Handbook does not replace the need for professional-level commercial driver training, or sector specific training and certification required under various provincial or federal laws.

This study guide should be used in conjunction with the PEI Driver's Handbook and the following legislation and standards:

- *Motor Vehicle Transport Act* and Regulations (Transport Canada)
- Highway Traffic Act and Regulations (Government of PEI)
- Roads Act and Regulations (Government of PEI)
- Canada Motor Vehicle Safety Standards (Transport Canada)
- National Safety Code (CCMTA)

¹ This handbook is not a study guide for individuals preparing to obtain a Class 2 School Bus Driver's License as instruction materials provided by the Department of Education and Early Years. For further information, please contact the the Public Schools Branch, Transportation Services at (902) 368-6990 or Toll-free at (902) 280-7965.

Published by: Department of Transportation and Infrastructure PO Box 2000 Charlottetown, PE Canada C1A 7N9

Prepared by: Highway Safety Division

May 2023

Cover Design: Creative Services

Printing: Document Publishing Centre/King's Printer

Available Online at: https://www.princeedwardisland.ca/en

Copyright

This document is based on an edited version of *A Study Guide for Professional Drivers* and has been reproduced with the written permission of the Nova Scotia Department of Public Works. A full list of resources used to compile this Handbook can be found on page 64.

This handbook is a study guide for both beginner and experienced commercial drivers. For official purposes, please refer to the Prince Edward Island <u>*Highway Traffic Act* and Regulations</u>.

Information in this Handbook is accurate as of May 1, 2023.

Table of Contents

PEI License Class	iv
Chanter 1: Professional Driver's License Requirements	1
Introduction	<u>1</u>
Federal and Provincial Legislation	1
Commercial Driver Training	2
New Residents	2
Medical Reporting	2
Air Brake Endorsement	3
Application Process	
Road Test	
Carriers Operating in the US	
"M" Endorsement	5
Code "W"	5
Chapter 2: PEI Classified Licensing System	8
Chapter 3: Good Driving Habits	14
Attitude Towards Driving	
Emotional Attitude	
Seatbelts	
Following Distance	
Tailgating	
Intersections	
Danger Zones	
Alleys, Lanes and Side Roads	
Overtaking and Passing	
Curves and Jack-knifing	17
Cruising Speed	18
Engine Operation	
Coasting	18
Downgrades	19
Braking	19
Traffic Tempo	
Backing	22
Parking	23
Disabled Vehicles	23
Chapter 4: Roundabouts	25
Chapter Et Leads and Coupling	20
Vahiela Dimonsions	20 20
Height	20 28
Width	20 28
Length	
Snecial Permits	
Weight and Scales Enforcement	
Weight Distribution	
Coupling a Tractor Trailer	
Hooking up a Train or Pup-Trailer	
Connecting Vehicles	30
Chapter C. National Sofaty Code	22
Chapter D. National Safety Code	
Floetronic Logging Davico	
Lieutonic Logging Device	

Hours of Service	
Commercial Vehicle Inspection Program	
Cargo Securement	
Chapter 7: Pre-trip Vehicle Inspection	
Circle Check	
Pre-trip Inspection – Air Brake Inspection	
Pre-trip Inspection – Vacuum Assisted Brake Vehicles	
Pre-trip Inspection – Buses	
In-service Inspection	
Pre-trip Inspection – Trailer	
Chapter 8: Professional Driver Practices	
Putting a Vehicle into Motion	
Shifting	
Steering Manoeuvres	
Chapter 9: Passenger-Carrying Vehicles	
Safe Driving Practice	
Right Turns	
Leaving the Curb	
Passing Parked Cars	
Distractions	
Driver's Vision	
Fires in Vehicles	
Passenger-Carrying Vehicles	
Taxi Cabs	51
Chapter 10: Transporting Dangerous Goods	53
Training Requirements	53
Classifying Dangerous Goods	53
In Case of an Emergency	53
The Marks of Safety	54
Chapter 11: Highway Signs	
Basic Sign Shapes and Meaning	58
Common Traffic Signs	
Resources	64



Tractor Semi-trailer

	Classes of PEI Driver's Licenses	Minimum	Allows the License Holder to Operate
		Age	
1		18	any combination of truck-tractor and semi-trailer with fifth wheel and air brakes includes
2			 buses having a seating capacity of over 24 passengers
		Bus: 18 School Bus: 21	 school buses having a seating capacity of over 24 passengers
		SCHOOL DUS: 21	• includes all vehicles in classes 3, 4, 5, 8 and 9
3			• any truck-trailer combination over 14,000 kg gross mass (does not include any truck-tractor towing semi-trailer
		18	a truck tractor without a trailer
		01	special mobile equipment
			• includes any vehicle in classes 5, 8, and 9
4			ambulance
		10	 taxicab or motor vehicle used in ride-sharing service
		10	 van or bus with a capacity fewer than 25 passengers
			• includes vehicles in classes 5, 8, and 9
S			• a passenger car or truck with two axels (other than Class 4 vehicles)
	1		 any motor vehicle not exceeding 14,000 kg gross mass (excluding an ambulance, taxi, motorcycle, bus or a truck-tractor)
		16	• includes vehicle in classes 6, 8, and 9
			• a combination of vehicles consisting of a passenger car or a truck with two axles, and a towed vehicle with a registered gross vehicle weight under 4,500 kg gross mass
9		11	motorcycle
		10	• includes motor vehicle which the holder of a class 8 and 9 may operate
7	1	16	• light vehicle, motorcycle or moped if getting instruction for that class of vehicle (5, 6 or 7)
8		16	moped or motor assisted bicycle
		10	
6	100 miles	14	• any farm tractor
	Air Brake Endorsement		Air brake endorsement permits the holder to drive vehicles equipped with air brakes in the class of vehicle for which the person is licensed and the person holds a valid driver's license that is endorsed with the letter "A" by the Registrar.

Commercial Vehicle Driver's Handbook

			E
	Medical Kequirements	Overall requirements	I est rees
		 successfully completed a driver's education program 	Class I Road Test
	Must meet medical and vision standards.	 be at least 18 years and 9 months or 19 years of age 	860
1	Medical renort required on initial annlication	 have held a valid driver's license for two years 	
	and periodically thereafter – this means the	 air brake exam completed and passed (if required) 	
	medical certificate must be approved prior to the road test.	 must have valid registration, insurance, inspection and valid PEI driver's license prior to road test. 	
		Bus and School Bus	Class 2
	For school bus drivers, the medical must be approved prior to driver training.	 successfully completed the GDL Program 	KOAU LESU S60
c		• be at least 18 years and 275 days or 19 years of age / School Bus: 21	
4	Based on the age of the driver, medical report valid for six months from the date completed	 have held a valid driver's license for two years / School Bus: 5 years 	
	by physician.	 air brake exam completed and passed prior to road test 	
	Must obtain authorized instruction within this	 must have valid registration, insurance, inspection and valid PEI driver's license prior to road test 	
	six-month time frame.	 must be 18 years of age and held a Class 5 for one year 	Class 3 Dood Tost
		 must have exited Stage 2 of the GDL Program 	S40
2		 air brake exam completed and passed prior to road test 	
		 must have valid registration, insurance, inspection and valid PEI driver's license prior to road test 	
		 successfully completed the GDL Program 	Class 4 Bood Tost
4		• must be 18 years and 275 days or 19 years of age and have held a valid driver's license for two years	\$40 S40
		 must have valid registration, insurance, inspection and valid PEI driver's license prior to road test 	
	Medical report required when requested.	 successfully completed Stage 1 of the GDL Program 	Class 5 Bood Tost
5		 be at least 17 years of age or age 16 with 275 days 	\$20 \$20
		 for the road test, present valid registration and insurance slips for the vehicle; have your valid Instruction Permit; and proof of successful completion of the Novice Driver Course 	
9	Medical report required when requested. Must meet vision standards	• be at least 17 years of age or age 16 with 275 days; must be enrolled in the GDL Program	Class 6 Road Test: \$20
,		 for the road test, present valid registration, insurance, inspection 	
٢	Medical report required when requested. Must meet vision standards	 enroll in either the Novice Driver Program with Highway Safety or a certified driver education program approved by Highway Safety 	Class 7 Novice Driver Course: \$100
-		 present all necessary documents, pay the required fee 	Written Test: \$20 Instruction Permit: \$20
8	Medical report required when requested. Must meet vision standards	• be at least 17 years of age or age 16 with 275 days with a driver education program	Class 8 Road Test: \$20
6	Medical report required when requested. Must meet vision standards	 must be 14 years of age 	Class 9 Written Test: \$20 License: \$20
		-	

Commercial Vehicle Driver's Handbook

>

Chapter 1: Professional Driver's License Requirements _____

Introduction

As an applicant for a professional driver's licence (Class 1, 2, 3 or 4), you will need to know the information given in this Handbook as well as the Driver's Handbook. These manuals contain the basics of safe, professional driving.

Prince Edward Island follows a Classified Driver Licensing System based on Standard 4: Driver Licensing Classification, National Safety Code (NSC)². The purpose of this standard is to designate classes of vehicles for driver licensing and prescribe the fundamental knowledge and skills for the type of vehicle to be safely operated on Canadian roads. All drivers must have a license relating to the specific class of vehicle for which they are operating and have received certified instruction for that class. As a professional driver it is your responsibility to ensure that your vehicle is properly maintained by performing commercial truck inspections in compliance with the Commercial Vehicle Trip Inspection and Records Regulation (PEI Reg EC225/89). Regular annual inspections are required on commercial vehicles with gross mass over 4,500 kilograms, including trucks, truck-tractors, motor homes and buses, to ensure they comply with requirements mandated in the newest version of National Safety Code, Standard 11. All buses must be inspected at least once every six months.

This handbook contains information about driver's license qualifications, how to be a safe driver and other topics that will assist you in preparing for your tests. If you are an experienced driver, this guide can act as a refresher for your responsibilities and provide a reference for new laws and changes that have been made to previous legislation. Laws, policies and procedures change from time to time and as such it is your responsibility to keep up to date with these changes.

Operating commercial vehicles or vehicles equipped with air brakes requires special knowledge and skill, and the cost of a mistake can be very high. When large vehicles are involved in crashes, the damage — to vehicles, cargo and human lives — can be catastrophic. Almost all these crashes are preventable, and you can help ensure they don't happen. The Department of Transportation and Infrastructure, the Highway Safety Division and the commercial transport industry are working together to reduce the number and the severity of traffic-related collisions. Skill and ability alone aren't enough. You also need a professional attitude when you sit behind the wheel. Your safety and the safety of others will depend on your knowledge, attitude and actions.

An applicant from another province who holds a Class 1, 2, 3, or 4 license must submit a Prince Edward Island medical examination report, provided by the Registrar of Motor Vehicles, before the license may be exchanged. In addition, an applicant holding an out-of-province school bus license must pass a re-examination in a school bus before a license will be issued.

This manual is for general information only. For specific information, see the *Highway Traffic Act* and regulations and/or the *Roads Act* and regulations.

Federal and Provincial Legislation

In Canada, motor carrier safety is a shared responsibility between the federal government and the provinces and territories. Federal and provincial laws require all drivers of commercial vehicles in Canada to maintain a stringent safety program for their vehicles. The National Safety Code (NSC) is a set of 16 standards that outlines minimum operational and performance requirements for all aspects of commercial vehicles, drivers and motor carrier safety. Information regarding the NSC and commercial vehicle safety may be obtained by contacting:

- National Safety Code Auditor: (902) 368-5231
- Borden-Carleton Scale House: (902) 437-8534

² National Safety Code, Canadian Council of Motor Transport Administrators: https://www.ccmta.ca/en/national-safety-code

Commercial Driver Training

Becoming a safe commercial driver requires both education and practical experience. Driver training instructors must meet Government of Prince Edward Island licensing and testing standards before they receive a licence to provide commercial driving instruction. Check that the driver training school licence and the licence of each driver training instructor employed by the facility is displayed at the school's office.

New Residents

New residents to Prince Edward Island may operate a motor vehicle in PEI with their valid out-of-province licence for up to four months before getting a PEI driver's licence. Depending on your home jurisdiction and whether PEI has a license exchange agreement with that jurisdiction, testing requirements may be waived if you surrender a valid and equivalent class driver's licence from your home jurisdiction.

Applicants that are exchanging their out-of-province commercial driver license to a PEI commercial license will be required to complete a new medical if Highway Safety is unable to validate that a medical has been completed in the surrendering jurisdiction. For further information on new resident drivers, call Driver Records at 902-368-5210 or email: driverrecords@gov.pe.ca.

Medical Reporting

Canada abides by the <u>Canadian Council of Motor Transport Administrators</u> (CCMTA) Medical Standards (Standard 6) as a guideline in establishing the basic minimum medical and visual qualifications for safe driving. In the United States, the <u>Federal Motor Carrier Safety Regulations</u> outlines the requirements for commercial vehicle operators to drive in the United States.

Drivers applying for Class 1, 2, 3 or 4 licence must file a mandatory Driver's Medical Certificate with the Registrar of Motor Vehicles. The medical report is valid for 12 months from the date your physician completes it, your certified instruction must be obtained within this time frame. In addition, periodic medical reports must be filed based on the age of the driver. If however, the medical exam took place more than 1 year prior to the application, a new medical exam is required for all commercial classes.

Commercial drivers (Class 1, 2, 3 and 4 licence holders) are required to file a satisfactory medical report on application, every 5 years to age 45, at least every 3 years from age 46 to 65 and annually thereafter.

Vision Standard

The following vision standards apply to all professional drivers. Applicants and holders of Class 1, 2, 3, 4, and Restricted 4 licences must have:

- a visual acuity that is not poorer than:
 - \circ 20/30 with both eyes open and examined together
 - o 20/100 in the weaker eye, with or without corrective lenses (glasses or contact lenses)
- a horizontal visual field with both eyes open and examined together of at least:
 - o 150 continuous degrees along the horizontal meridian
 - o 20 continuous degrees above and below fixation

Hearing Standard

The ability to communicate is of paramount importance for the operation of certain commercial vehicles that transport dangerous cargo as well as emergency vehicles and those transporting passengers. If a hearing impairment exists, an audiogram report may be required. Drivers with hearing loss may compensate for this impairment by using hearing aids which then must be worn in order to meet the hearing standard and maintain the driving license.

With respect to Standard 6 of the NSC, a driver may be eligible for Class 2 or 4 driver licence, and Classes 1, 3 and 5 licence when engaged in the transportation of dangerous goods when:

perceives a forced whispered voice at not less than 5 (1.5 metres) feet with or without the use of a hearing aid; or

• has a hearing loss no greater than 40dB averaged at 500, 1000, and 2000 Hz in their better ear. (*Source: National Safety Code, Standard 6, page 146.*)

For driving in the United States, a person is physically qualified to drive a commercial vehicle if that person: perceives a forced whispered voice at not less than five feet with or without the use of a hearing aid or if tested by use of an audiometric device, does not have an average hearing loss greater than 40 decibels at 500Hz, 1000HZ and 2,000 Hz with or without a hearing aid when the audiometric device is calibrated to the American National Standard Z24.5-1951.³

According to the United States Federal Motor Carrier Safety Administration (FMCSA), for the whisper test:

- the individual should be stationed at least 5 feet from the examiner with the ear being tested turned toward the examiner;
- the other ear is covered;
- using the breath which remains after a normal expiration, the examiner whispers words or random numbers such as 66, 18, 23, etc.;
- the examiner should not use only sibilants (s-sounding test materials);
- the opposite ear should be tested in the same manner.

For more information contact Driver Records: driverrecords@gov.pe.ca

Air Brake Endorsement

Obtaining an air brake endorsement is a two-step process. Before obtaining a Class 1, 2, 3 license, applicants must successfully pass a written air brake knowledge exam followed by a practical air brake inspection test for all air brake equipped vehicles. Known as an "A" endorsement, all applicants must:

- make an appointment with Highway Safety for a written air brake knowledge test
- pass the written test and pay test fee
- provide a medical
- make an appointment with Highway Safety for the road test
- successfully demonstrate knowledge of the air brake system during the pre-trip inspection
- pass the road test
- pay road test fees and license

Note: To prepare for your air bake test, we highly recommend studying the air brake manual which is available at Parts for Trucks on Brackley Point Road.

Application Process

Before you begin the application process for a Class 1, 2, 3, or 4 driver's license, you must meet these prerequisites:

- be at least 18 years of age;
- hold or have held a valid Class 5 driver's license for at least two years;
- successfully complete Stage 3 of the GDL Program (resident of PEI or other Canadian province or territory);
- successfully complete the Licensed Driver Education Course (from a non-reciprocity country)
- have an acceptable driving record.

Road Test

You must take a road test for the class of vehicle you wish to drive if you have never been licensed for that class of vehicle, or you hold a licence from outside Canada or another jurisdiction whose licences are not exchangeable. To be eligible for a road test, applicants must:

- submit a Driver's Medical Certificate;
- pass a vision screening test for the classification sought;
- provide proof of an air brake endorsement;

³ <u>Code of Federal Regulations, Section 391.41(b)(11)</u>.

- provide valid vehicle registration, insurance and inspection;
- ensure the vehicle is in good working condition with all seat belts in good working order.

If you are applying for a commercial license in the Class 1, 2, 3 or 4 categories, you will be required to conduct a pre-trip inspection in addition to the road test. You must communicate and demonstrate to the driver examiner:

- a pre-trip inspection of the vehicle
- the appropriate uncouple/couple procedures for Class 1 vehicles
- an inspection of the vehicle's air brake system for units equipped with air brakes.

The pre-trip inspection part of your road test is your opportunity to show that you know how, when and why you must complete a trip inspection. Under Canada's National Safety Code, pre-trip inspections must always be done before the first run of the day. Even if you conducted a pre-trip inspection earlier in the day, your driver examiner will ask you to do a pre-trip inspection as part of your road test.

Each pre-trip inspection and road test is allowed a certain amount of time. You should be able to complete the inspection and road test within that time. If a vehicle does not pass the pre-trip inspection, or you do not successfully complete the pre-trip inspection, the road test will not proceed. Note: A written air brake exam is required prior to a road test for all air brake equipped vehicles. An appointment fee applies.

Road Test Vehicles

You need to provide an appropriate vehicle when you take your road test. Make sure that the vehicle meets safety standards, and that valid registration, licence and insurance papers are in the vehicle. The vehicle must be representative of the licence class. The following are typical vehicles accepted for road tests:

Class 1 Road Test

An applicant must provide a tractor semi-trailer combination, fifth wheel with air brakes. The applicant must have an air brake "A" endorsement.

Class 2 Road Test

An applicant must provide a bus with a seating capacity exceeding 24 passengers. If the vehicle is equipped with air brakes, the applicant must have an air brake "A" endorsement.

Class 3 Road Test

Vehicle used in road test must be a tandem-axle straight truck in good working condition, minimum registered weight of 14,000 kg, or a two-axle truck hauling a trailer with a registered weight of 4,500 kg or more. If the vehicle provided for the road test is equipped with air brakes, the applicant must have an air brake "A" endorsement.

Class 4 Road Test

For the road test, the applicant must provide a full-size passenger van or cargo van with a seating capacity of less than 25 passengers. If the vehicle is equipped with air brakes, the applicant must have an air brake "A" endorsement.

Check with a Highway Safety Office for specific vehicle requirements. If the vehicle's carrying a load, make sure that it's properly secured and won't escape, shift or sway. Commercial vehicles used for road tests may not contain the following:

- dangerous goods or explosives
- unbaffled liquids or dry bulk
- livestock
- oversized loads.

The load must not exceed the vehicle's GVWR or licensed GVW, and in the case of a Class 1 or heavy trailer endorsement road test, must meet minimum weight and load requirements.

Carriers Operating in the US

A Prince Edward Island Class 1, 2, 3 or 4 driver's license is recognized as a Commercial Driver's License (CDL) in the United States. The Canadian classified licensing system and related guidelines, as set forth in the Canadian National Safety Code, were determined equivalent to those of the US as part of a reciprocity agreement implemented in 1988.

Interstate drivers in the US must be at least 21 years of age. Commercial drivers from Canada under this age will have to wait until they are 21 before they will be allowed to enter the US in the capacity of a commercial driver.

Medical Requirements for Commercial Drivers Operating in the United States

In the United States, a commercial motor vehicle means any self-propelled or towed motor vehicle used on a highway in interstate commerce to transport passengers or property. This means the vehicle:

- 1) has a gross vehicle weight rating or gross combination weight rating, or gross vehicle weight or gross combination weight, of 4,536 kg (10,001 pounds) or more, whichever is greater; or
- 2) is designed or used to transport more than 8 passengers (including the driver) for compensation; or
- 3) is designed or used to transport more than 15 passengers, including the driver, and is not used to transport passengers for compensation; or
- 4) is used in transporting material found by the Secretary of Transportation to be hazardous under 49 U.S.C. 5103 and transported in a quantity requiring placarding under regulations prescribed by the Secretary under 49 CFR, subtitle B, chapter I, subchapter C.

If you are a PEI commercial driver holding a valid Class 1, 2, 3, or 4 driver's licence and you operate a commercial vehicle in the Unites States, you must:

- meet defined medical standards;
- file medical reports on an ongoing basis;
- have a medical confirmation letter, even if you only drive once or twice a year;

This applies if your commercial vehicle has a weight/rating of 4,536 kg (10,001 pounds) or more, according to the Gross Vehicle Weight Rating, Gross Combination Weight Rating, Gross Vehicle Weight or Gross Combination Weight.

"M" Endorsement

In Canada, a Class 5 driver's license does not require a medical exam and is not considered a commercial driver's license. However, the driver of a Class 5 vehicle, operating in the United States for a commercial purpose, must have a commercial medical if the vehicle or vehicle combination weighs or has a rated capacity (Gross Vehicle Weight Rating) over 4,536 kg. If you hold a valid PEI Class 5 driver's license and operate a commercial vehicle in the US, you are required to carry proof of medical qualifications when operating in the US. As well, you are required to meet the same medical reporting cycles as the holders of a Class 1, 2, 3 or 4. PEI Class 5 drivers that meet those requirements will have an "M" endorsement on the front of their PEI driver's license.

Code "W"

As part of the Canada/United States Medical Reciprocity Agreement, Prince Edward Island and all other Canadian jurisdictions require a "W" identifier code to appear on a driver's license and driving record of driver's who are <u>not medically eligible</u> to operate a commercial vehicle outside of Canada. This code applies to commercial drivers with a Class 1, 2, 3, or 4 driver's license with one or more of the following conditions:

- established medical history or clinical diagnosis of epilepsy and/or seizures;
- unable to meet minimum hearing requirements to transport dangerous goods;
- monocular vision.⁴

⁴ On September 24, 2019, the medical reciprocity agreement between the U.S. and Canada was amended to remove the prohibition for cross-border operation for CMV drivers with insulin-treated diabetes mellitus, provided the commercial driver has been physically gualified by a medical examiner based on the updated medical gualification standard.

If you fail to have proof of medical fitness to operate a commercial vehicle based on the weight/rating above, you may be fined or placed out-of-service by United States enforcement officials.

As a professional driver, always consult the official statute for the interpretation and application of all laws. Copies of Prince Edward Island Acts and Regulations can be found on the government's website: <u>https://www.princeedwardisland.ca/en/legislation/all/all/a</u>

As an applicant for a professional driver's licence, you will need to know the information provided in the Commercial Vehicle Driver's Handbook and the Prince Edward Island <u>Driver's Handbook</u>.



Tractor Semi-trailer (tridem axle)

For your information:

Copies of the National Safety Code (NSC) can be found here: https://www.ccmta.ca/en/national-safety-code

Copies of the U.S. Federal Motor Carrier Safety Administration Regulations, Hazardous Materials Regulations, or Federal Motor Vehicle Safety Standards can be obtained here: <u>https://www.fmcsa.dot.gov/regulations</u>

prohibition for cross-border operation for CMV drivers with insulin-treated diabetes mellitus, provided the commercial driver has been physically qualified by a medical examiner based on the updated medical qualification standard.

at the second
1 Stateman Care
THE SECOND STREET
and a second sec

	VEHICLE CLASS	VEHICLE TYPE	MINIMUM AGE
Class 1		 semi-trailer trucks, combinations of truck tractor and trailer, fifth wheel with air brakes 	18
Class 2		 buses carrying more than 24 passengers, including school buses 	Bus: 18 School Bus: 21
Class 3		 trucks exceeding 14,000 kg GVW or any combination of such vehicles any special mobile equipment gooseneck trailers. 	18
Class 4*		 motor vehicle used as a taxi, ambulance, or bus carrying 24 passengers or less 	18
Class 4-R		 taxi and vehicles used in ride- sharing business must have less than 10 persons including the driver 	21
Class 5*		 light passenger vehicles towed vehicle not exceeding 4,500 kg GM 	16
Class 6 & Class 6-R		• 2-wheel and 3-wheel motorcycles and 550 cc restriction. License class is restricted to the type of motorcycle used in road test	16
Class 7		 motor vehicles in Classes 5 and 6 when accompanied by a licenced driver for that class of vehicle. 	16
Class 8		• moped	16
Class 9		• farm tractor	14

Chapter 2: PEI Classified Licensing System _

* Successful completion of a driver education program. Parental consent required for all licenses if the applicant is under the age of 18

CLASS 1 DL

Permits the operation of:

- tractor semi-trailer combinations
- all types of vehicles in Classes 3,4, Restricted 4, 5, and 8

Does not permit the operation of:

• vehicles with air brakes without appropriate endorsement

Minimum requirements:

- age 19, or 18 years and 275 days;
- held a valid driver's license for two years;
- successfully completed the GDL program;
- pass written test and practical pre-trip inspection test on air brake operation;
- meet prescribed medical and optical standards at time of application and periodically thereafter;
- pass a practical pre-trip and a road test in a Class 1 vehicle.



CLASS 2 DL

Permits the operation of:

- vehicles having seating capacity of more than 24 passengers, including school buses.
- all types of vehicles in Classes 3, 4, Restricted 4, 5 and 8

Does not permit the operation of:

- vehicles with air brakes without appropriate endorsement
- Class 1 vehicle (except as a learner)

Minimum requirements:

- age 19, or 18 years and 275 days;
- held a valid driver's license for two years;
- successfully completed the GDL program;
- pass written test and practical pre-trip inspection test on air brake operation;
- meet prescribed medical and optical standards at time of application and periodically thereafter;
- pass a practical pre-trip and a road test in a Class 2 vehicle.





9

CLASS 3 DL

Permits the operation of:

- any single vehicle in excess of 14,000 kg and combination of vehicles, other than tractor semi-trailer combination;
- any truck-trailer combination exceeding 14,000 kg gross mass;
- any truck tractor without a trailer, and any special mobile equipment;
- vehicles in Classes 5 and 8.

Does not permit the operation of:

- vehicles with air brakes without appropriate endorsement;
- truck-tractor towing a semi-trailer;
- truck and pony trailer over 4,500 kg unless tested in this configuration;
- Class 1 or 2 vehicles (except as a learner);
- public passenger vehicles (unless driver is 19 years of age or older).

Minimum requirements:

- age 18;
- pass written test and practical pre-trip inspection test on air brake operation;
- meet prescribed medical and optical standards at time of application and periodically thereafter;
- pass a practical pre-trip and a road test in a single vehicle exceeding 14,000 kg G.V.W.





CLASS 4 DL

Permits the operation of:

- vehicles with a capacity less than 25 passengers;
- includes taxi, ambulance and van/bus;
- all types of vehicles in Classes 5 and 8;

Does not permit the operation of:

- vehicles with air brakes without appropriate endorsement
- Class 1, 2, or 3 vehicles (except as a learner)
- public passenger vehicles (unless driver is 19 years of age or older).

Minimum requirements:

- successfully completed the GDL Program;
- pass required written test;
- meet prescribed medical and optical standards at time of application and periodically thereafter;
- pass a practical pre-trip and a road test in any Class 4 vehicle



CLASS 5 DL

Permits the operation of:

- single vehicle not exceeding 14 000 kg G.V.W. or a combination of such vehicles and not exceeding 14,000 kg where the towed vehicle in that combination does not exceed a G.V.W. of 4 500 kg
- Class 8 vehicles.

Does not permit the operation of:

- a motorcycle or a bus carrying passengers;
- vehicles with air brakes without appropriate endorsement;
- Class 1, 2, 3, or 4 *except* as a learner;
- meets the medical standards for operating a Class 1, 2, 3 or 4 vehicle and the driver's license is endorsed with the letter "M" by the Registrar.

Minimum requirements:

- 17 years of age, or 16 and 275 days with a driver education program;
- successfully completed the GDL Program;
- meets current medical and vision standards;
- for a Class 5 driver;
- pass a road test in a Class 5 vehicle.



CLASS 6 AND CLASS 6 RESTRICTED

MOTORCYCLES

Permits the operation of:

- 2-wheel and 3-wheel motorcycles and motorcycle under 550 cc;
- Class 8 vehicles.

Road Test

- If your road test is completed on a motorcycle under 550 cc, a Restricted Class 6 is issued allowing the operation of motorcycles under 550 cc.
- If your road test is completed on a 3 wheeled motorcycle, a Restricted Class 6 is issued allowing the operation of only operate 3 wheeled motorcycles.

Does not permit the operation of:

- Class 1, 2, 3, 4, Restricted 4 and 5 vehicles *except* as a learner; and where
- the holder of the valid Class 6 is accompanied by an experienced driver of a Class 1 5 licenses;
- the holder of the valid Class 6 meets the medical standards to operate a motor vehicle that are required of a Class 1, 2, 3, 4 or 5; and,
- the Class 6 driver's license is endorsed with the letter "M" by the Registrar.

Class 6 Restricted

• restricted to operating motorcycles under 550 cc or 3-wheeled motorcycles depending on the type of cycle used for the road test.

Minimum requirements:

- 17 years of age, or 16 and 275 days with a driver education program; (if under 18, parental consent required);
- pass required written or oral tests;
- pass road test in a Class 6 vehicle;
- meet current medical and vision standards.



CLASS 7 DL

INSTRUCTION PERMIT

Permits the operation of:

- a motor vehicle in Classes 5, 6, 8 and 9 when accompanied by a licenced driver for that class of vehicle.
- accompanying driver must hold a valid license in the class of vehicle being operated for at least 4 years.

Does not permit the operation of:

• Class 1, 2, 3, 4 vehicles

Minimum requirements:

- age 16, if under 18, consent of parent or guardian is required (consent form can be found in the Co-Pilot brochure)
- successfully complete:
 - vision screening
 - written knowledge test
 - o signs test
- may be required to file medical and optical reports
- must complete Novice Drivers Course if not registered in a certified driver education program

CLASS 8 DL

MOPED

Permits the operation of:

• moped (motor-assisted pedal bicycle)



Does not permit the operation of:

• any other class of vehicle except as a learner at age 16.

Minimum requirements:

- 17 years of age or 16 and 275 days with a driver education program;
- successfully complete vision screening, rules and signs tests;
- medical and optical reports may be required.

CLASS 9 DL

FARM TRACTOR

_	Permits the operation of:Farm tractors
	 Does not permit the operation of: Any other class of vehicle except as a learner at age 16.
	Minimum requirements:
	 age 14 with consent of parent or guardian; if under 18, must be under supervision;
	 successfully complete vision screening, rules of the road and signs tests; medical and optical reports may be required.

1 × 2
and the second sec
A STATE PORT AND A STATE
the succession of the second
and the second

Chapter 3: Good Driving Habits —

Attitude Towards Driving

To qualify as a safe motor vehicle driver, you must not only respect the law, you must understand the need for traffic regulations. You must observe the laws and regulations covered under the Highway Traffic Act and realize that there may be other drivers who do not know or always obey the laws. As a professional driver, you must practice defensive driving techniques by being willing, at all times, to yield to other vehicle operators and pedestrians. For more about defensive driving see under Chapter 7, School Buses.

Emotional Attitude

Worry or anger can distract your attention from driving. Safe driving demands your complete attention at all times. You cannot control your vehicle if you are not in control of yourself. Drowsiness and fatigue are two of the most dangerous hazards. Do not drive for excessively long periods without a break. Taking a break will help relieve the monotony that far reduces your alertness and attention – both essential for safe driving.

Seatbelts

Seat belts reduce the chances of injury and death by 50 percent. Properly buckled in with both lap and shoulder belts, you can walk away from accidents that would otherwise be deadly.

- Most injuries and deaths result from moderate-speed accidents that occur close to home.
- Many people think they can protect themselves in a collision. But even in a low-speed crash, you have thousands of pounds of force working against you.
- In a collision, unbelted occupants of a motor vehicle can seriously injure other passengers by striking them or crushing them against the motor vehicle's interior.
- Fire and submersion in water are rare in accidents. But even in such cases, seat belts are an advantage because they help you to remain conscious and thus get free from the motor vehicle.
- Properly adjusted seat belts protect the lives of pregnant women and the children they carry.
- Seatbelts keep the driver behind the wheel and in control of the vehicle.

Following Distance

As a driver you should be constantly on the defensive to prevent a rear-end collision with other vehicles. This applies not only to the vehicle you are following, but also the vehicles following you.

A collision from behind may not always be avoidable, but you can reduce the chances of it occurring. Make sure that your own stops are smooth and gradual. To do this, practice these simple but effective driving habits:

- Look well ahead at the traffic to pick out clues that indicate speed changes and stops in traffic pattern.
- Look ahead for traffic control devices and lights to anticipate light changes before reaching intersections. Traffic lights that have been green for some time before you reach the intersection could change at any time.
- Maintain an adequate following distance from the vehicle ahead so you can complete a smooth, gradual stop, even if the vehicle ahead makes a panic stop.



Tailgating

Drivers of commercial vehicles such as buses, trucks, and tractor trailers must rely on outside mirrors for rear vision. A tailgater often sits in the blind spot behind the commercial vehicle and therefore may not be visible. It may not be possible to avoid a rear- end collision with such an irresponsible driver. However, if your stop is gradual, the speed of impact will be considerably less than if you stop suddenly.

The tailgater is usually a person who lacks patience as well as foresight. This lack of patience could be caused by your vehicle's speed and your driving. By watching your rear-view mirrors, you can often protect tailgaters by helping them pass your vehicle. They are easier to deal with if they are ahead of you. Don't let a tailgater put their accident on your record.

When approaching an upgrade where a passing lane is provided, use the right lane if you are driving a vehicle traveling slower than the normal traffic speed. If such lanes are not provided, allow the traffic that has built up behind your vehicle to overtake you at the earliest safe opportunity. Signed hills now recommend the use of four-way flashers for speeds under 70 km/h.

Intersections

The basic right-of-way rules are explained in the Prince Edward Island Driver's Handbook. Because intersections are hazardous, a knowledge of the right-of-way rules is essential for all drivers. As a defensive driver you should not depend on other drivers to obey these rules. To avoid intersection accidents, follow these rules:

- Never enter a limited view intersection at a speed at which you cannot stop safely.
- Do not assume you have the right-of- way, even when it is reinforced by traffic signs or traffic lights. Look left and right before entering any intersection. Look for and expect the violator to run the sign or lights.
- Be alert and anticipate a change of a green light to avoid running through an amber or red light. When getting the green "Go" light, check right, left and ahead for the "late runners" before proceeding.
- Do not depend on other drivers to signal or execute their turns correctly.
- It is not good practice to pass another vehicle on the approach to an intersection.

The *Highway Traffic Act* prohibits turning or making lane changes when doing so is unsafe or will affect the travel of another vehicle. In addition, a driver must not change lanes if it means crossing a solid line. This rule also speaks about approaching intersections in the appropriate lane if you intend to turn. It would make sense to approach the intersection in the lane that you intend to use to travel through it as well. As a professional driver you should not use the size of your vehicle to "bluff" for the right-of-way. Give the right-of-way rather than taking it. You must give all your attention to each and every intersection, laneway, or driveway.

Danger Zones

The danger zone of any vehicle can be described as the area directly in front of the vehicle in which the vehicle cannot stop. If another vehicle or a pedestrian should enter the danger zone, you cannot stop your vehicle in time; it is not physically possible.

In Diagram 1, the danger zone is shown as red. As the speed of the vehicle increases, the danger zone increases. If the road conditions are less than ideal (such as rain, snow, ice, or gravel) the danger zone is larger. When you fail to reduce your vehicle's speed to suit road conditions, the danger zone increases further. Commercial vehicles, like passenger vehicles, can reduce their danger zones by reducing their speed.

Danger zones can also be reduced if you form the habit of "covering the brake" any time you recognize a potential danger. In Diagram 2 and 3, the driver recognizes that the approaching intersection may be dangerous. The line of cars to the right of the driver may hide hazards from view; the driver removes their foot from the accelerator and places it over the brake. When the hazard comes into view, the driver's reaction

time has been reduced because the brake has been covered; and speed has been gradually reduced because pressure on the accelerator has been reduced. Stopping distance has been reduced and now the driver has a better chance of stopping before the crosswalk, rather than across the intersection. Note: The distance in the diagrams below are approximations only for illustration.



Distances vary according to the weight of the vehicle, condition of the brakes, and the condition of the road surface. If the weight of your vehicle is doubled, you require double the braking force to stop it. If the speed is doubled, you require four times the braking force to stop your vehicle. If both the weights and the speed are doubled, you require eight times the braking force to stop your vehicle.

Alleys, Lanes and Side Roads

If you drive from an alley, lane or side road onto a highway, you must stop your vehicle before you reach the sidewalk or the sidewalk area. You must yield the right-of-way to pedestrians in that area, and to motor vehicles on the highway.

Overtaking and Passing

Overtaking and passing another vehicle should be attempted only when you are sure you have the time and space to do so safely. If it is necessary to overtake and pass another vehicle, you should take the following precautions:

- 1. Check ahead to ensure there is adequate clear distance to pass safely.
- 2. Check behind to see that no other vehicle is attempting to overtake and pass your vehicle.
- 3. Signal your intention to pass an move into the passing lane by using your turn signal indicator.
- 4. Gain adequate passing speed before moving out into the passing lane.
- 5. Sound your horn whenever it is reasonably necessary to do so and when passing another vehicle.⁵

⁵ The driver of a vehicle that is overtaking another vehicle shall sound a clearly audible signal by horn to alert the driver of the other vehicle, if

- 6. When you have passed the vehicle, use your turn signal indicator to signal your intention to move right to the driving lane.
- 7. Move into the right lane only when you are sure you are well ahead of the vehicle passed and you can move back safely.

A courteous professional driver who is about to be overtaken and passed moves as far to the right as is reasonable and makes it easy for the other vehicle to pass safely.

On occasion, drivers of commercial vehicles are guilty of breaches of driving etiquette that can irritate the motoring public. Such a breach occurs when one commercial vehicle tries to pass another, and the speed differential is so slight that a considerable time is needed to execute a pass. In doing this, the passing vehicle occupies the fast traffic lane when it is not necessary. This causes the traffic following it to reduce speed, resulting in "bunching." Bunching on freeways and fast highways is hazardous.

Passing on the Right

Passing on the right is permitted only:

- when overtaking another vehicle making a left turn;
- upon a one-way roadway;
- on streets and highways where there are one or more unobstructed lanes available to traffic moving in the direction of travel of the vehicle.

Centre Line Markings

Centre line markings are intended for your protection. A solid line at the left of your lane means it is unsafe to pass. A broken line means you may pass if the way ahead and to the rear is clear. The centre line of a highway is often referred to as "lifeline". Never put your life on the line. Keep as far to the right of the centre line as is reasonable.

Being Passed

Large commercial vehicles have a louder exhaust resonance than passenger vehicles. Their size and highway noise often give the impression of traveling at higher speeds than they actually are. This can make other drivers hesitant to pass large vehicles. However, do not direct drivers following you to pass; let them make their own driving decisions. You may be encouraging a driver with limited experience to overdrive their ability.

Do not encourage the traffic following you to overtake your vehicle when it would require them to cross over no- passing lines. When the driver following you does make a move, help them complete the pass – don't increase your speed. If you think the other driver may not have sufficient space to pass, reduce your speed. Large commercial vehicles traveling at high speed create varying degrees of air turbulence that can be hazardous to smaller passenger vehicles (see diagram below).

A car riding directly in front of the truck, alongside the saddle tank area, or at the immediate rear of the trailer is in an area of air turbulence. Be alert for drivers who ride in these areas; they may be forced off a narrow roadway or drawn to the side of your vehicle.

Curves and Jack-knifing

A vehicle moving in a straight line develops a force called momentum. The higher the speed, the greater is this force. When a vehicle enters a curve, it must overcome the force of momentum to change its direction from the straight line it has been traveling. When a vehicle travels around a curve, it develops another force called centrifugal force. Centrifugal force tends to push outwards from the center of the curve and tries to keep the object on its original straight line. The greater the speed at which an object travels around a curve, the greater is the centrifugal force developed. The degree of control you have over your vehicle is determined by the amount of traction your vehicle's tires have with the road surface.

necessary. This does not apply to a horse and buggy as neither are considered motor vehicles on PEI roadways.



Entering a curve too fast can produce a skid or a roll-over; applying brakes in a curve can cause a skid or jackknife. To avoid rolling, skidding, or jack-knifing, reduce your speed before the curve. Enter the curve at a speed that will not require braking. This will permit you to apply gradual power in the curve. The application of a small amount of power in a curve counteracts the centrifugal force.

For the safe negotiation of curves, here are some tips to follow:

- Spot the curve soon enough, heeding any curve sign warnings and the suggested speed. Adjust your speed to existing conditions.
- Slow down before entering the curve.
- Apply power to the wheels when in the curve, as conditions permit.

Cruising Speed

Cruising speed is obtained by selecting the proper gear in relation to the engine rpm. A vehicle is in the correct gear if it can be accelerated without causing the engine to lug. Lugging simply means you have not selected the proper gear that will allow the engine to pull the vehicle without labouring and at a low rpm. Drivers trained on the matters of engine rpm and gear shifting have extended the life of their motors thousands of miles and have decreased fuel consumption.

Engine Operation

The operation of an engine for efficiency, economy, and trouble-free mileage depends on you, the driver, and the care you take selecting the gear that allows the engine to operate at a speed within its efficiency range. Most manufacturers recommend an engine speed of 85 per cent of engine-governed speed.

Most manufacturers fit engines with governors to control engine speed to its efficient maximum. By knowing the governed speed of an engine, and observing the engine tachometer, you should be able to select gears that will keep the vehicle operating at its peak efficiency. The engine is protected from excessive rpm by the governor when it is accelerated; however, no such control exists when the vehicle is running downhill. Care must be taken so that the engine never exceeds the governed rpm when descending a hill.

Coasting

Descending hills with the transmission in neutral, or in gear with the clutch pedal depressed, is a dangerous practice. As the momentum increases in this situation, it is difficult to place the transmission in gear; to engage the clutch would cause extensive damage to the transmission and drive train. When travelling down grade, no driver of a vehicle shall cause the vehicle to coast with the gears of the vehicle in neutral or the clutch disengaged.

Downgrades

All downgrades should be traversed within the governed range of the vehicle under normal operating conditions. However, if the hill is steep, you should reduce the gear ratio to help brake the vehicle. Should the momentum result in the engine coming close to the maximum rpm, apply the brakes with sufficient force to bring the vehicle speed in line with the manufacturer's rpm. This will ensure that you can keep the vehicle under control. If, as you reach the bottom of the hill, you realize you have to climb another hill immediately, release the brakes, change the gear to a higher gear and pick up speed. As you approach the new hill, watch the tachometer and make the desired gear shifting changes so that this new hill can be traversed in a gear ratio that allows the motor to always pick up and not lug. Main shaft failure can be attributed to coasting a loaded vehicle with the clutch disengaged and with the transmission in gear.

If, for example, you are coasting a loaded vehicle with the clutch pedal depressed and you re-engage the clutch to slow the vehicle by engine compression, the sudden deceleration caused by inertia and compression in the engine will shock the load and may damage various units of the driveline.

Braking

Knowing how much time and distance it takes to apply your brakes to completely stop your vehicle can help avoid errors in judgment that can lead to a collision. Three timing factors determine a driver's capacity to stop: Perception, Reaction, and Braking.

Perception time refers to how long it takes to recognize a situation and understand that you need to stop. A well rested driver can take about three-quarters of a second to recognize a hazard. Drivers with less experience often take longer to realize a danger exists. Perception distance is how far a vehicle travels during this time.

Reaction time is how long it takes to respond to a situation by moving your foot from the accelerator pedal to the brake pedal. The average reaction time is three-quarters of a second. Pushing brake pedal on a vehicle with airbrakes has about a half-second delay. Reaction distance is how far a vehicle travels during this time.

Braking time is how long it takes a vehicle to stop after the brakes are applied. Braking distance is how far the vehicle travels during this time.

The Need for Space

You need space in front of your vehicle in case you must stop suddenly, or unexpectantly. According to Transport Canada, driver inattention and speed are the most significant contributing factors⁶ for fatal CMV crashes involving fatalities. The general rule when driving behind any vehicle is to allow at least 2-seconds between your vehicle and theirs. To determine how much space you need if hauling a trailer, add 1 extra second for each estimated 3-meters (10 feet) of trailer or truck bed length. For example, if you are driving a single-steer tractor trailer combination (16.2 meter trailer), allow 5 – 5.5 seconds between you and the vehicle ahead.



Image source: ICBC Drive Commercial Vehicle Manual

⁶ Transport Canada, Commercial vehicles safety in Canada, 2012-2018.

In order to stop a moving vehicle, a driver needs to perform three actions:

- See a hazard
- Think decide to stop
- **Do** place foot on the brake pedal until vehicle stops

The function of any braking system is to slow the motion of a moving vehicle. Heavy commercial vehicles take more time and more distance to stop than smaller vehicles. More braking force is needed to overcome their weight and forward motion.

Stopping Distance

The distance a **commercial vehicle needs to stop** is affected by the following four factors:

- <u>Brake condition</u>: All the brakes on a vehicle must share the task in the same way. If one or more brakes are not properly aligned or maintained, the remaining brakes will have to generate more friction. This means that it will take longer to stop the vehicle.
- <u>Traction</u>: Traction is the friction between the road surface and the area where the tire contacts that surface. The amount of traction a vehicle has depends on:
 - the condition of the road
 - how much tire contact there is with the road surface
 - the condition and inflation pressure of the tires
 - the gross vehicle weight (GVW) of the vehicle

The more traction the vehicle has, the less time and distance it will take to stop. There is the most traction just before all the wheels lock up. There is less traction when the wheels are skidding.

- <u>Weight (GVW)</u>: A heavy vehicle, even though it has better traction, needs more time and distance to stop. When the weight is doubled, the amount of force needed to stop the vehicle is doubled, and it will take about twice as long for that vehicle to stop.
- <u>Speed</u>: The greater the speed, the more time and distance are needed to stop. Doubling the vehicle speed means that four times the braking force is required to bring the vehicle to a stop. If both the speed and weight are doubled, the amount of force required to stop the vehicle will be increased by eight times

Degree of Brake Application

Bringing a vehicle to a stop on a level roadway usually requires only a single application of the braking system. The degree of application is determined by the speed, weight, and degree of emergency. A good rule of thumb: the heavier the load and the faster the speed of the vehicle, the greater the power needed to stop.



Image source : https://www.sgi.sk.ca/air-brake/-/knowledge base/air-brake/stopping-distance

For a gradual stop, ease the amount of brake application once the speed of the vehicle has been decreased sufficiently. You can perfect your stops by practicing the amount of brake application release to prevent a jerkback at the stop. This braking skill, coupled with looking ahead to time your stops, maintaining safe following distances, and setting your speed in relation to your seeing distance, ensures a smooth stop every time. To proceed down a slight grade, control the speed of your vehicle by "snubbing" the brakes. That is, brake at intervals, checking your vehicles speed, and then release the brakes. This avoids overheating the brakes and prevents brake fade.

To stop on an icy road surface, lightly snub the brakes; this will keep the wheels from locking. A slowly revolving wheel on an icy surface will give you more effective traction and steering control than locked wheels.

To descend a steep grade requires a different technique. If you allow the speed to increase and then attempt to check the speed by the "snubbing" action, the brakes could generate excessive heat. On a long, steep downgrade, repeatedly applying the brakes on an airbrake- equipped vehicle could seriously decrease the main air reservoir. Therefore, to proceed down the steep grade, select the lower gear ratio appropriate to your vehicle's weight, condition of the road, and speed, and brake steadily to hold your vehicle to a lower speed. This will reduce more heat build-up in the brakes more than intermittent applications at higher speeds. To determine the safe speed to travel down a steep grade, remember: you must drive at a speed that allows you control of your vehicle under all conditions.

The driver who attempts to justify speeding or going too fast because of going downhill is neither a professional nor a defensive driver. As a professional driver, you use brakes and gear selection to control your vehicle.

Combination Braking

In a combination of vehicles (such as a truck-tractor or tractor with a semi- trailer unit) equipped with an air brake system, the trailer brakes are applied along with the tractor brakes by using the foot control valve. This is often referred to as "balanced braking." The application pressure of the trailer brakes is equal to the application pressure of the tractor brakes. Trailer brakes can be applied independently of the tractor brakes by using the hand control valve. If you wish, you may increase the amount of application on the trailer brakes during a foot valve application by using a higher application with the hand valve. Trailers equipped with electric or vacuum brakes are operated in a similar manner.

Caution must be exercised in braking when your vehicle is negotiating a curve or traveling on wet or icy surfaces. Over- braking can result in jack-knifing or skidding.

Water on Roadways

If water enters the brake drums, your braking efficiency is reduced. Avoid going through large amounts of water whenever possible. When you must run through water, place a slight drag on the brakes to reduce the amount of water admitted to the drums and shoes. During excessively wet conditions, or after passing through water, test the brakes. It may be necessary to drag the brakes slightly for a short distance to dry them out and restore normal braking. Always reduce your speed before driving through large pools of water on the roadway.

It does not take a lot of water to cause hydroplaning. Hydroplaning can occur at speeds as low as 30 mph (48 km) if there is a lot of water. Hydroplaning is more likely if tire pressure is low or the tread is worn. (The grooves in a tire carry away the water; if they aren't deep, they don't work well.)

To prevent hydroplaning

- Check your tires for wear and inflation regularly;
- Reduce your speed even more when facing standing water and puddles;
- Drive in the tracks of preceding vehicles.

Traffic Tempo

You must set your speed according to the existing conditions, but at the same time fit your vehicle's speed to match the traffic tempo. If you drive faster than the traffic flow, you are increasing your chances of an accident. By doing so, you reduce your safe following distances, and thus lose your stopping space in front. In addition, you tend to make more lane changes to thread your way past the vehicles ahead, increasing your chances of collision.

Your driving decisions are also increased because you are creating more driving problems and are also increasing the odds that you will make a wrong decision. Faster driving results in faster mental fatigue. Reading the traffic pattern ahead requires that you scan the full picture ahead and to the sides by moving your eyes. The faster you push through traffic, the more rapid the scanning process, which builds tension and fatigue. If you travel appreciably slower than the tempo of the traffic, you increase your accident potential from behind and from the sides. Vehicles overtaking and cutting in are continually occupying your stopping space.

Backing

Backing becomes dangerous if you neglect to ensure the way is clear during the entire maneuver. A human life is worth more than the few extra moments it takes to be sure the way is clear.

Investigations of backing accidents often indicate that they were caused by a failure to observe. You should plan ahead to avoid unnecessary backing and to minimize backing distance. You can reduce your chance of having a backing accident if you follow these simple rules:



- 1. It's good practice to turn on your 4-way flashers and sound your horn.
- Whenever possible, plan your approach so that you can view the area into which you will be backing.
 Use a guide whenever possible. The Guide should stand where he has a clear continuous view of the
- backing path your vehicle will follow and yet still is visible to you throughout the maneuver.
- 4. Don't back the vehicle to the blind side when backing to the view side is possible.



5. Always back out of traffic rather than into traffic. The left driver in the following diagram backed out of traffic. When he leaves the laneway, he will be able to observe traffic readily. The driver on the right has taken the easy way out of traffic, but now faces the problem of backing into traffic to leave the laneway.



- 6. Before backing a vehicle without a guide, you must:
 - set the park brake
 - step out of the vehicle and look at the backing area for hazards
 - check for clearances and obstacles above, below, and to the sides, to the rear, and to the front of the vehicle
 - enter the cab; if no guide is present, sound horn before moving
 - Observe both mirrors while backing dead slow. If the backing distance is long, stop at intervals and recheck behind, above, below, to the sides, and ahead
 - Make a series of short backing maneuvers rather than one long one

Parking

To ensure that a unit will stay in position when parked, take the following precautions:

- 1. Set the parking brake in the power unit.
- 2. Place the transmission in the lowest forward or reverse gear.
- 3. If the vehicle is equipped with a two- speed axle, the axle must be in low range.
- 4. If the vehicle is equipped with an auxiliary transmission, the transmission must be in low range.
- 5. If the vehicle is on a grade, turn the front wheels in the proper direction. Block unit if necessary. Tractor-trailer units should have the front wheels set so that if the vehicle moves the trailer will roll off the road.
- 6. Never use the trailer hand valve to hold a parked unit which is to be left unattended.

Disabled Vehicles

When a disabled commercial motor vehicle is left on the highway during the time that lights are required, a lighted fuse or electric lantern shall be immediately placed on the roadway at the traffic side of the motor vehicle. As soon as possible, three lighted flares or three electric lanterns shall be placed on the roadway, one at approximately 30 m in advance of the vehicle, one at approximately 30 m to the rear of the vehicle.



Tractor Semi-trailer A Train Double

	<u> </u>
	A CONTRACT OF
the first state of the	the second s
	and a second
	and the second
CONTRACTOR / PC	and a second
	and a second and a s

Chapter 4: Roundabouts -

A roundabout is a circular intersection designed to manage traffic in a simple and effective manner. Vehicles move in a counter-clockwise motion around a raised, circular island.

Maneuvering through intersections can be challenging for trucks, and these challenges become even more pronounced when the load is exceptionally large or heavy. Oversize/overweight (OSOW) vehicles are particularly sensitive to how intersections are designed. Roundabouts are generally designed to accommodate large vehicles. When large trucks with wide turning needs enter the intersection, the roundabout will have a truck apron with a low curb around the center island. It might be colored red or some other color to set it off from the island. The apron allows truck drivers to roll the trailer's rear wheels over the low curb as they drive through the roundabout. The low curb discourages other drivers from using the apron, helping to keep their speeds slow and consistent.

Stay close to the left side of the entry as you approach the roundabout. As you pass through the roundabout, your trailer tires may roll over the truck apron. As you exit, stay close to the left side of the exit. At a multilane roundabout, you may need to occupy the entire circular roadway to make the turn. Signal your intention in advance and claim both lanes when you approach the roundabout.

- 1. Check the overhead signs and make sure of your preferred exit and make sure you're in the appropriate lane.
- 2. Slow down as you approach the roundabout and yield to traffic already circulating. Taking it slow will allow time to make the correct navigational decision. Roundabouts rely on the yield principle to facilitate the safe movement of traffic.
- 3. When there is a gap on your left, enter the roundabout turning right. Do not stop once you are inside the roundabout.
- 4. When a large truck enters a multi-lane roundabout, straddle two lanes because you're going to require more space.
- 5. If going straight through or turning left, choose the lane that will keep the traffic on your sight-side straddle the inner and middle lanes.
- 6. If turning right, straddle the outer and middle lanes.
- 7. For safety reasons, you should never attempt to pass a large truck or bus on the approach to or within a roundabout as they need to straddle both lanes to make it through the roundabout to their exit.
- 8. Be aware of pedestrians and yield to pedestrians if there is a crosswalk area in the roundabout.
- 9. Do not stop unnecessarily and do not pass other vehicles while in the roundabout.
- 10. The recommended speed in a roundabout is 30 km/h.
- 11. Always signal before exiting the roundabout.
- 12. Continue to check all mirrors until you clear the roundabout and reach the exit.



The following roundabout images are sourced from: <u>Durham Region, Road Traffic Safety</u> and the online video "Large vehicles in roundabouts", developed by the Region of Durham, Ontario: <u>https://www.youtube.com/watch?v=jlUDrP1-dVc</u>.

Turning Right



Going Straight Through



Turning Left



Turning Left Roundabout Image: Government of PEI.

Emergency Vehicles

If an emergency vehicle enters the roundabout, vehicles already in the roundabout should continue to the exit and then pull over to the left of the road when it is safe to do so. If you are approaching a roundabout and see an emergency vehicle behind you, enter the roundabout and continue safely to the nearest exit and then pull over to the left of the road when it is safe to do so, allowing the emergency vehicle to pass. Do not stop inside the roundabout because you may block the emergency vehicle.

Notes



Chapter 5: Loads and Coupling _

Vehicle Dimensions

Vehicles are limited to height, width, length, and weight in accordance with the Prince Edward Island *Highway Traffic Act* and the *Roads Act*. Permits may be issued for vehicles carrying oversize or overweight loads. Regardless of licensing or permits issued, you must obey all posted signs that list the dimensions or weight of loads on any portion of the highway. To avoid damaging your vehicle and its load, and possibly injuring other users of the highways, pay attention to warning signs.

Height

The maximum height of a vehicle on highways is 4.15 m unless otherwise indicated.⁷ A permit is required when the height exceeds 4.15 m. Permits will be issued for non-divisible loads only. This means that you cannot have two pieces of equipment piled one on top of the other that exceed 4.15 m (total) in height.

Please ensure that you have the vehicle information for the power unit and trailer to acquire any permits. Permits can be obtained from the Borden-Carleton Scale House: 902-437-8534 (24-hour line). You must know the total height of your vehicle and load at all times. Overhead clearances are posted before underpasses and tunnels. In some areas, overhead check bars and warning devices are installed to that you can test your clearance before entering the limited area.

During winter months, a snow build-up on the highway can reduce your overhead clearance. Pay attention to low overhead clearances that may not be posted, for example:

- fire escapes in alleyways
- boulevard tree limbs overhanging the roadway
- service station and store canopies
- low wires across residential driveways
- repair shop and warehouse doors

Width

Width clearances can also pose problems if you are not familiar with the width of your vehicle. The maximum legal width of a vehicle and its load is 2.6m. A permit is required once the width exceeds 2.6m. The traffic authority may, at its discretion, issue a permit to exceed these dimensions. Safety chains or wrappers that extend out not more than 10cm beyond the sides of the vehicle are not considered in the overall width of the vehicle. Exercise caution at narrow bridges and road construction areas if you drive a large vehicle.

Length

Length is another factor to consider when driving a large vehicle. The driver of a truck, for example, that has an "overhang" over the rear axle must exercise caution in narrow roadways and alleys when negotiating right turns. Allowance must be made for the "overhang" to avoid striking objects such as poles, parked cars, buildings, etc. As a professional driver, you must exercise caution in limited clearance areas. The legal lengths of vehicles vary according to the type of vehicle. Refer to the PEI Vehicle Weights and Dimension Regulations under the *Roads Act* for the appropriate configurations.

Special Permits

Subject to the weight and load restrictions imposed under the *Roads Act*, the Registrar of Motor Vehicles may issue special permits to operate a vehicle or combination of vehicles having a length of more than 27.5 m.

Weight and Scales Enforcement

A weight scale is located in Borden-Carleton at the point of entry to the Province. Two message boards are posted in advance of the scales for in-bound commercial vehicles, directing drivers to bypass or drive over the scales. The axle or axle groups are weighted, tires may be measured, and the dimensions of the vehicle and its

⁷ Stinger Steer Automobile or Boat Carriers are permitted a height to 4.3 m. The driver must ensure there is a safe clearance under any physical overpass, including structures and utility lines. Vehicles or boats being transported on a Stinger Steer Carrier may reach but not exceed 4.3 m in height with load.

load may be measured during this procedure. Whether the scales are permanent or portable, you must report as directed by posted signs or at the request of Peace Officers authorized by the Minister of the Department of Transportation and Infrastructure. All staff working at the permanent or portable scales are certified Peace Officers and are empowered to enforce weight regulations of equipment and the licensing of vehicles and drivers.

Weight Distribution

The weight distribution of cargo has a definite bearing on the handling characteristics of the vehicle, as well as on the life of the tires, frame, springs, axles, and bearings. Even though the total load may not be over the total carrying capacity of the vehicle, poor distribution of weight could overload an axle or set of tires. Undue stress could be placed on the frame, resulting in permanent damage and steering misalignment. Distribution of weight depends on the nature of the load. The loading of one piece of cargo that compromises the full load will present different problems from a load made up of several pieces of cargo. The following examples can be referred to as general rules for loading; however, they do not cover all situations.

A heavy concentrated load should be placed near the rear and on its long side, if at all possible. Most of the load should be over the rear axle to get proper tire loading and prevent bending of the frame.	
A very heavy concentrated load should not be loaded against the cab as the distribution of load may cause the frame to bend, perhaps permanently. It will also overload the front tires and may even blow out a worn tire. Hard steering will also result, and the load may be top heavy.	
This loading distributes an equal weight on all rear tires and eliminates twisting and stress on the frame. Uniform crosswise loading also prevents axle housing and wheel bearing overloading.	
A very heavy load should not be loaded on one side. This overloads one spring and the tires at that side. This loading could cause the brakes to lock on the wheels at the light side and cause flat spots on the tires or a skid on a wet surface.	
The proper place for the concentrated load illustrated is just ahead of the rear axle with the longest side on the floor.	
This type of loading should never be permitted. The frame bends, the rear wheels are very much overloaded, and enough weight is taken from the front tires to make steering almost impossible.	
A tractor trailer combination is the proper vehicle for use in service like this. By using the proper vehicle, damage to the truck and tires, and even serious accidents, can be avoided.	0 00 00
This type of loading results from using the wrong vehicle for the job – the load is extended beyond frame with added stress on the rear wheels. On rough roads, such loading can pivot the truck on its rear wheels, taking the front wheels entirely off the road.	

Coupling a Tractor Trailer

Before coupling the semi-trailer, inspect the condition of the king pin as well as the king pin plate. Also ensure that the wheel chocks are firmly in place behind the trailer wheels to prevent the trailer from moving. On air brake equipped vehicles the air lines should be connected before the fifth wheel contacts the plate on the trailer. It's important to check the trailer height during coupling so that no gap exists between fifth wheel and trailer. More than ever, you must be ready to adjust for changing conditions well ahead of time in order to take defensive or appropriate action to avoid trouble.
Power should be applied when pulling on a straight stretch while underway (a steady pull, as opposed to intermittent application and reduction of power), keeping a small amount of reserve power always available. Should the rear trailer start to fishtail or whip, apply trailer brakes lightly and increase power. Drivers in 'train" operations, as well as those driving semi-trailers, should avoid sudden lane changes or turns and speeds too fast for conditions. These actions can cause severe whipping or possible jack-knife situations.

Regular vehicle checks should be made of the complete unit, paying attention to the hook-up of the rear trailer, including:

- the hitch on the rear of the lead trailer
- the safety catch on the hook
- the safety chains or cables
- airlines between the trailers make sure these are secured and don't sag down too low

Hooking up a Train or Pup-Trailer

- 1. Park the rear trailer and set trailer brakes, position the converter dolly in front of the rear trailer so it is in line with the king pin.
- 2. Hook up the tractor and lead trailer according to previous tractor-trailer hook-up instructions.
- 3. Back the tractor and trailer in line with, and up to, the converter dolly
- **4.** Before hooking up to the converter, make a thorough trailer hitch inspection. Watch for cracks or breaks in the weld, loose bolts, weak lock springs, and bent or distorted cross members where the trailer hook is attached.
- **5.** Hook and secure the converter dolly tongue in the pintle hook by hand. Fasten safety latch and chain. Ensure that safety pin is fastened (if so equipped). This is extremely important. This action will ensure the high degree of safety required by the trucking industry and by other users of highways. "Train-drivers" should check the safety latch on trailer hitch each time they stop for a vehicle check.
- **6.** Inspect safety chains and cables before attaching them. When fastening them to the lead trailer, cross them so that if the converter dolly tongue breaks loose it will be held suspended off the roadway while you attempt a safe stop.
- **7.** Connect the air hoses between the two units, ensuring that all air lines, especially on the converter dolly, are well secured and not sagging too low.

Connecting Vehicles

Drawbars or coupling devices must be in accordance with the Prince Edward Island Highway Traffic Act. The regulations require that the device be of enough strength to hold the vehicles together. When a coupling device is used (other than the fifth wheel coupler of a semi-trailer unit), an auxiliary chain or metal cable of equal strength to the coupling device must also be used. The trailer must not swerve or whip unreasonably when being towed by a motor vehicle. If it does whip or swerve, slow down and stop to determine the cause.



Tractor Semi-trailer B Train Double

5 C2 -
- Sectory
and the second sec
and the second

Chapter 6: National Safety Code -

National Safety Code

The National Safety Code (NSC) is a set of 16 standards developed by the member jurisdictions of the Canadian Council of Motor Transport Administrators (CCMTA) in consultation with the motor carrier industry. The NSC applies to all people responsible for the operation of commercial vehicles which include trucks, buses, power units and trailers. The NSC is designed to encourage trucking safety, promote efficiency in the motor carrier industry, and achieve consistent safety standards across Canada.

Carriers are responsible for ensuring their drivers and vehicles meet these standards. You will need to understand NSC regulations to perform your job safely. These regulations will help you protect your life and the lives of others, as well as your livelihood. NSC applies to you if you drive a motor vehicle that's used to transport people or freight for any business purpose.

The following vehicles are included in the <u>National Safety Code</u> program:

- commercial vehicles licensed with a GVW more than 4,500 kg;
- vehicles operating under the *Highway Traffic Act* including semi-trailers, dump trucks, taxis, buses and ambulances;
- commercial vehicles that have a seating capacity of 10 or more passengers, including the driver.

Electronic Logging Device

Electronic logging devices (ELD) automatically record driving time in commercial motor vehicles. ELD's ensure federally regulated commercial carriers operating in Canada – including carriers entering Canada from the United States, continue to drive within their hours of service resulting in reduced fatigue for drivers, improved administrative efficiency for drivers and carriers, and ultimately safer roads.

Transport Canada amended the *Motor Vehicle Transport Act*, Commercial Vehicle Drivers Hours of Service Regulations, on June 3, 2019 to mandate the use of electronic logging devices by federally regulated commercial truck and bus operators. The new requirement came into force on June 12, 2021 with jurisdictions committing to a period of progressive enforcement. These changes made it mandatory for commercial motor vehicle drivers who cross provincial/territorial borders to use ELDs to record their hours of service (HOS). To give industry, the provinces and territories enough time for carriers to purchase and install certified ELDs, industry was advised that the federal regulations would not be enforced until January 1, 2023.

Exemptions

As of January 1, 2023, ELD's are mandatory for those carriers operating outside a 160 km radius of their home base.⁸ In collaboration with Transport Canada, CCMTA has advised commercial carriers to research ELD device options and ensure any procured ELD is a certified device as approved by Transport Canada.

If you operate within 160 km of your home base (and return each day to that home base) you are not required to complete a RODS and therefore don't require an ELD. See section 77(3) of the Regulations for additional requirements. However, if you drive outside of the 160 km at any time, you will require an ELD.

You also don't need an ELD if you operate:

- a vehicle manufactured before model year 2000 (model year 2000 or newer vehicles but with a pre-2000 engine are not exempt);
- under a rental agreement no longer than 30 days that is not extended for the same vehicle;
- for a motor carrier that is operating under a federal permit issued by a provincial director; or
- for a motor carrier that is operating under an exemption granted under section 16 of the Motor Vehicle Transport Act.

⁸ Driving within a 160 km radius of where you began your day and return to the same location where you began (there is no limit to the total number of kilometres travelled within that radius for that day).

Hours of Service

Drivers of commercial vehicles must maintain a daily logbook to record their number of on-duty hours, driving time and off-duty hours to insure the driver has proper rest times and does not exceed permissible driving hours within a specific reporting cycle. These logbooks must be available to a Peace Officer upon their request.

Drivers of commercial vehicles that operate within a radius of 160 km of their home terminal and return each day to begin a minimum of 8 consecutive hours off-duty, are exempt from maintaining daily logbooks. This is as long as records are maintained for each day showing on duty hours.

As a professional driver, you are responsible for ensuring you operate within hours-of-work. You are required to keep accurate records of work hours. When applicable, you must ensure that you keep accurate and complete logbooks and retain all supporting documents. Keep in mind that the <u>Commercial Vehicle Drivers Hours of</u> <u>Service Regulations</u> limit the amount of driving time allowed while on duty.

Supporting documents include bills of lading, shipping documents, toll/bridge receipts and fuel and accommodation receipts for expenses incurred along the route.

On-duty time refers to the period when you begin work or when a carrier requires you to be ready to start work except where the driver is waiting to be assigned to work, and ends when the driver stops work or is relieved of responsibility by the motor carrier.

You're on duty whenever you drive or when you're:

- inspecting, servicing, repairing, conditioning or starting a commercial vehicle;
- travelling as one of two drivers when you're not resting in the sleeper berth;
- participating in the loading or unloading of a commercial vehicle
- inspecting or checking the load;
- waiting for the vehicle or load to be checked at a customs office, weigh scale or by a peace officer;
- waiting at an en-route point because of an accident or other unplanned occurrence or situation;
- performing any other work as a carrier or while employed by a carrier;
- waiting for a commercial vehicle to be serviced, loaded or unloaded, when a carrier, who employs or otherwise engages you, asks you to do so.

Off-duty time means any period other than on-duty time. Off-duty regulations protect you and everyone else who shares the road with you.

- Off-duty time includes any time you spend in a sleeper berth in a commercial vehicle;
- All drivers must take a minimum of 10 hours off duty every day;
- Off-duty time other than the mandatory eight consecutive hours may be distributed throughout the day in blocks of 30 minutes or more;
- The total amount of off-duty time that you take in a day must include at least two hours of off-duty time that does not form part of a period of eight consecutive hours of off-duty time;
- All drivers must take 24 consecutive hours off duty every 14 days.

Commercial Vehicle Inspection Program

On Prince Edward Island, regular annual inspections are required on commercial vehicles with gross mass over 4,500 kilograms, including trucks, truck-tractors, motor homes and buses, to ensure they comply with requirements mandated in the newest version of <u>National Safety Code</u>, Standard 11. All buses must be inspected at least once every six months. The Commercial Vehicle Inspection Program is not a replacement for the ongoing preventive maintenance carried out by vehicle owners, but rather sets the standards for owners' maintenance programs. Commercial vehicle inspection includes a compulsory brake component measurement of drum diameter/lining thickness that must be recorded and documented at least once every twenty-four (24) months. For information about inspection standards for a commercial vehicle, visit the Canadian Council of Motor Transport Administrators (CCMTA) and download the National Safety Code Standards.

Commercial vehicle owners and operators are responsible for following highway safety regulations and

ensuring their vehicle is well maintained and operating within its design limits. Exceeding the manufacturer's weight rating could cause the vehicle frame to break or lead to premature failure of brakes or axle components. Overweight vehicles increase damage to asphalt road surfaces, especially during spring weather conditions. Detailed information and the form for certifying the correct axle rating are available in <u>Vehicle Weights and Dimensions Regulations</u> (Part 1 and Schedule 5). To confirm where and when seasonal weight restrictions are in effect, refer to Seasonal Weight Restrictions.

Commercial Vehicle Enforcement Officers conduct roadside inspections on commercial vehicles at scale facilities and other locations throughout the province to ensure drivers and vehicles follow all mandatory requirements. These inspectors are certified to conduct inspections under the Commercial Vehicle Safety Alliance. For more information, visit the <u>Commercial Vehicle Safety Alliance (CVSA</u>).

Cargo Securement

It is important to ensure that all cargo carried by a commercial vehicle is properly secured according to the requirements of National Safety Code Standard 10, adopted in Prince Edward Island's <u>Commercial Vehicle</u> <u>(Cargo Securement) Regulations</u>.

Commercial trucks registered over 4,500 kg are required to ensure the cargo they carry is secure:

- No carrier shall permit a driver to operate a commercial vehicle on a highway for the carrier unless any cargo carried by the commercial vehicle is contained, immobilized or secured in accordance with the requirements of the Cargo Securement Standard; the commercial vehicle is equipped with a cargo securement system; and the cargo securement system, and its individual components, meet the requirements of the Cargo Securement Standard.
- Every driver of a commercial vehicle shall comply with any duty or requirement imposed on the driver under the Cargo Securement Standard.
- No driver shall operate a commercial vehicle where the cargo transported in or on the vehicle is not contained, immobilized, or secured in accordance with the Standard as it relates to the particular type of commercial vehicle.
- The driver of a vehicle shall inspect the vehicle to confirm that the vehicle's tailgate, tailboard, doors, tarpaulins and spare tire, and other equipment used in its operation, are secured; ensure that the cargo does not interfere with the driver's ability to drive the vehicle safely; and, ensure that the cargo does not interfere with the free exit of a person from the cab or driver's compartment of the vehicle.

For your information:

Transport Canada: Electronic Logging Device (ELD) https://tc.canada.ca/en/road-transportation/electronic-logging-devices

Approved ELD units can be found here: https://www.tc.gc.ca/en/services/road/electronic-logging-devices.html

Commercial Vehicle Drivers Hours of Service Regulations (Transport Canada): https://laws-lois.justice.gc.ca/eng/regulations/SOR-2005-313/FullText.html

PEI Commercial Vehicle (Cargo Securement) Regulations: https://www.princeedwardisland.ca/en/legislation/all/all/h

PEI Commercial Vehicle Trip Inspection and Records Regulations: https://www.princeedwardisland.ca/en/legislation/all/all/h

PEI Commercial Vehicle Hours of Service Regulations https://www.princeedwardisland.ca/en/legislation/all/all/h

<u> </u>
 A 10-
1. States
and the second
and the second
and the second

Chapter 7: Pre-trip Vehicle Inspection _____

Vehicle Condition

You should always inspect your vehicle and your equipment before a trip, no matter how efficient and thorough the maintenance policy of your company or the vehicle owner may be. Critical parts and components wear out and may fail to operate properly during the trip. The result could be a serious accident. As a driver, you should know which equipment must be inspected before and periodically during a trip. You must be able to determine if any equipment or component is showing signs of failure or improper operation.

By investing a few minutes to check your vehicle over before starting out, you can often avoid costly delays enroute and reduce the risk of an accident. Carrying out an efficient and thorough pre-trip inspection within a minimum of time can be done by following the systematic check procedures explained in the following pages.

Every driver of a commercial vehicle is required to carry out a pre-trip vehicle inspection per Schedules 1 – 4 as outlined in the *Highway Traffic Act* and the Commercial Vehicle (Trip Inspection and Records) Regulations.

A commercial vehicle is defined as a vehicle with a gross mass exceeding 4,500 kg; a bus that has a seating capacity of more than ten passengers including the driver; or a school bus.

The inspection will occur once every 24 hours that the vehicle is in service and take place prior to the first trip of the day. Please refer to the Commercial Vehicle (Trip Inspection and Records) Regulations for details pertaining to each inspection schedule.

Pre-trip Inspection

According to section 7 of the Regulations, a person conducting an inspection of a commercial vehicle in accordance with **Schedule I, II or III** shall prepare an inspection report, in writing, or in an equivalent electronic format, that contains the following information:

- (a) the licence plate, VIN or unit number(s) of the vehicle(s);
- (b) the carrier's name;
- (c) the date(s) and time(s) of inspection;
- (d) the city, town, village or highway location where the inspection was performed;

(e) a statement signed by the person conducting the inspection and by the person driving the vehicle (if different than the person inspecting the vehicle) that the vehicle(s) identified on the report has (have) been inspected in accordance with the applicable requirements;

- (f) the legible printed name of the person(s) conducting the inspection;
- (g) the signature(s) of the person(s) conducting the inspection;
- (h) the odometer reading(s) (if equipped).

A person conducting an under-vehicle inspection of a motor coach in accordance with **Schedule IV** shall prepare an inspection report, in writing, or in an equivalent electronic format, that contains the following information:

- (a) the licence plate, VIN or unit number(s) of the vehicle(s);
- (b) the carrier's name;
- (c) the date(s) and time(s) of inspection;
- (d) the location(s) where the inspection was performed;

(e) a statement signed by the person conducting the inspection and by the person driving the vehicle (if different than the person inspecting the vehicle) that the vehicle(s) identified on the report has (have) been inspected in accordance with the applicable Schedule IV requirements;

- (f) the legible printed name of the person(s) conducting the inspection;
- (g) the signature(s) of the person(s) conducting the inspection;
- (h) the odometer reading(s) (if equipped).

Circle Check

If a driver believes or suspects that there is a safety defect, the driver shall record the defects on an inspection report and report the defects to the carrier prior to the next required inspection. If the defect is identified as a major defect according to the Regulations, the defect is to be recorded; immediately reported to the carrier; and the vehicle is not to be operated on a highway. The carrier will ensure that all reported commercial vehicle defects are rectified prior to the next required inspection or within a timeframe specified by the jurisdiction of travel.

The circle check covers the various components of a vehicle, namely:9

1. Coupling devices	8. Headlights and lights	15. Seat
2. Frame and cargo body	9. Tires	16. Suspension
3. Heater/defroster	10. Doors, including Emergency door	17. Fuel system
4. Driver controls	11. Windows	18. Exhaust system
5. Steering	12. Roof hatch (if equipped)	19. Electric brake system
6. Windshield wiper/washer	13. Glass and mirrors	20. Hydraulic brake system
7. Emergency material	14. Wheels, hubs and fasteners	21. Pneumatic brake system
		22. Passenger transport

The following diagrams provide a general overview of how to make a systematic circle check before taking out a truck or bus. Details of the check can, of course, be varied according to the type of vehicle.

Class 1 Circle Check



⁹ This list of principle components of a circle check is primarily sourced form: Circle Check Guide, the Société de l'assurance automobile, du Québec Les Publications du Québec, 2018. URL: https://saaq.gouv.qc.ca/fileadmin/documents/publications/circle-check-guide.pdf

Class 2 Circle Check







Class 4 Circle Check



Pre-trip Inspection – All Vehicles

Engine Compartment

- Check oil and coolant levels.
- Check all belts for cracks and adjustment.
- Check for fuel, oil and coolant leaks.

In Cab

- Set parking brake. Check mirrors to make sure they are secure and clean.
- Shift transmission to neutral. For diesel, check engine stop control for proper position and be certain to set to the run position.
- Start engine and check oil pressure, charging rate, and unusual engine noises.
- Check operation of horn and windshield wipers
- Turn on all lights and operate left turn signal.

Walk Around Circle

- Check headlights, front clearance lights, and left front turn signal.
- Check wheels and tires on left side of vehicle for security, tread wear, and inflation.
- Check side clearance lights and reflectors at rear of vehicle.
- Check taillights, license plate light, left rear turns signal, and rear clearance lights.
- Check rear doors for security (or tailgate).
- Check wheels and tires on right side of vehicle.
- Check side clearance lights and reflectors.
- Switch headlights to other beam and check operation.
- Switch to right turn signal and check operation front and rear.
- Have helper apply brakes or use a prop to hold the brake pedal down and check operation of brake lights.

Enter Cab

- Release parking brake
- Move vehicle ahead
- Apply brakes and check operation
- Check steering for excessive slack

Emergency Equipment

- Check flares
- Check fire extinguisher
- Check tools
- Check jack and spare wheel

Pre-trip Inspection – Air Brake Inspection

- Check for audible air leak
- Check for slow air pressure build-up rate
- Inspect if pushrod stroke of any brake exceeds the adjustment limit
- Inspect if air loss rate exceeds the prescribed limit
- Inspect for inoperative towing vehicle (tractor) protection system
- Inspect for low air warning system fails, or system is activated
- Check for inoperative service, parking or emergency brake

Pre-trip Inspection - Vacuum Assisted Brake Vehicles

In addition, inspect the following:

In Cab

- Start engine and warm up
- Depress foot brake firmly; engine should not stall
- Stop Engine
- Apply foot brake and start engine. Brake pedal should draw down slightly if booster is operating

Pre-trip Inspection – Buses

- Carry out inspections as described, plus:
 - Check all interior lights for operation.
 - Check aisle and stairwell lights.
 - Check operation of four-way flashers.
 - Check operation of warning lights (school buses).
 - Check all seat and handrails for security.
 - Check operation of emergency door and emergency door alarm.
 - Check operation of all windows and roof hatch (if equipped).
 - Check emergency door warning system (school buses).
 - Check interior for loose objects.
 - Check emergency equipment, fire axes, and first aid kit.

In-service Inspection

Vehicles used in "over the road" operations should be inspected at regular intervals throughout the trip. As a suggested interval (E.G. 300 km), stop the vehicle clear of the traveled portion of the road and check:

• wheel nuts for tightness

- tires and condition (inflation and overheating)
- Coupling devices
- security of load
- operation of all lights

Pre-trip Inspection – Trailer

- Ensure king pin is locked in fifth wheel (semi-trailer).
- Ensure pintle hook is secure and safety chains are on (full trailer).
- Check that air brake glad hands are correctly joined.
- Ensure light cord is properly connected.
- Check that landing gear is wound right up and the handle is stowed.
- Check all wheels and wheel nuts for security.
- Check tires, inflation, and tread wear.
- Check all lights for operation.
- Check reflectors.
- Apply brakes and check for operation and air leaks.
- Move vehicle forward and check that trailer brakes are fully released.

Mirrors

Before starting a trip, be certain your mirrors are clean, in good condition, tight, and properly adjusted. They should also be maintained in that condition throughout the trip.

Operators of Class 1, 2, 3 and 4 vehicles depend on their mirrors to observe traffic conditions behind them far more than drivers of passenger cars. It is vital that these mirrors be maintained in good condition at all times. A convex mirror affords the operator a much better and clearer view of traffic immediately alongside and behind him than does the ordinary mirror. Learn to use a convex mirror whenever maneuvering in confined spaces, or when there is a chance that other traffic or pedestrians may get in the way.

Tires and Pressure

The degree of control you have over a vehicle depends on the amount of traction between the tires and the road surface. Tire pressure and tire conditions are, therefore, important factors in safe vehicle operations. As you drive, the casings of the tires under the load flex. This flexing causes internal friction, which generates heat. Tires dissipate heat to the atmosphere. If the correct tire size with the proper air pressure is used according to the load carried, the heat build-up will reach a heat balance temperature for which the tire is designed. The cooling rate will be in balance with the heating rate.

If the tires are under-inflated, overloaded for their size, and subject to too much speed, the flexing action is increased. This will produce a heat build- up rate exceeding the cooling rate and the tire will overheat. As the heat builds up, it causes air pressure within the tire to increase to pressures higher than those for which the tire was designed.

If the tire temperature reaches 225°F (107.2°C) or greater, the tire will deteriorate because it is nearing the vulcanizing temperature of around 290° F (143.3°C).

Bleeding Pressure

If the tire has the correct pressure when it is cool, the heat build-up, which is normal, will cause the pressure within the tire to increase and reduce the amount of wall flexing, controlling the heat build-up. If you bleed the pressure down while the tire is warm, you upset the cooling balance and the tire

will generate more heat. Never bleed down a warm tire. Pressure should be checked and adjusted when the tires are cool.

Tire Pressure and Tire Wear

Tire pressure affects tire wear and steering control. An over-inflated tire will cause centre tread wear. An over- inflated tire also has less tread surface in contact with the road surface, which reduces its traction.

An under-inflated tire causes wear on the outer edges of the tread surface. On a wet road surface, an under-inflated tire will not squeeze the water out from under the tire surfaces as effectively as a correctly inflated tire will. If the tire is under-inflated, it has more chance of riding upon a film of water, which is called hydroplaning.



Tractor Semi-trailer C Train Double

6.00
1 - Maria -
the second s
and the second se
a construction of the second sec
the second s

Chapter 8: Professional Driver Practices -

Putting a Vehicle into Motion

Gasoline Powered, not Governed

Start in low gear, using only enough power to place the vehicle in motion. Don't rev the engine in the gear to maximum rpm but shift to the next higher gear. Progress through each higher gear, increasing vehicle speed and engine rpm together. As each shift is completed, engage the clutch smoothly to avoid shock to the drive train, load and passenger.

Gasoline or Diesel, with Engine rpm Governed

Start in low gear and accelerate to governed rpm. Shift to next higher gear and progress through each higher gear, shifting when engine reaches its governed rpm. As each shift is completed, engage the clutch smoothly to avoid shock to the drive train, load, and passenger.

Shifting

Shifting with an Engine Tachometer

Most engine manufactures recommend 85 per cent of governed engine speed to be the most efficient for normal operation of a unit. Your tachometer will indicate when you should change gears.

All transmissions have a known "split" between gear ratios. If you are familiar with the transmission you are using, you will know the drop in revs required to make a clean shift. Shifting down is also made easier by using the tachometer. By reversing the above procedure, knowing the "split" or rpm difference between the gear, you will be able to increase the engine revs to make a clean downshift.

Shifting Up Through the Gears - Main Transmission

In each gear, sufficient speed must be built up to avoid labouring the engine in that gear; speed must be sufficient so that the engine will not be laboured when the next higher gear is reached. Double-clutching (depressing the clutch twice with each change of gears) must be used on most manual-shift truck transmissions. Shifting is faster and smoother when you use this double- clutch procedure.

Shifting Down

Be alert to changing conditions that may require to reduce speed and shift to lower gear. Don't wait until the engine starts to labour before shifting down. For dangerous downgrades, gears should be down-shifted to make use of engine- braking. A good driver will downshift before passing the crest of a hill since it is dangerous to downshift past that point. If you miss a gear, you're in trouble. Also, if your brakes fail on a level road, shift to a lower gear and use engine compression to help stop the vehicle.

Your knowledge and ability to select and shift gears, as would be required in the normal operation of the vehicle, will be observed during the road test.

Steering Manoeuvres

The degree of sharpness a vehicle will navigate depends on two factors: the turning radius of the front wheels

and the amount of off-track of the rear wheels. The number of degrees the front wheels will pivot to the left or to the right (turning radius) varies in different makes and types of vehicles.

The wheel on the inside of the turn must pivot sharper to travel on the shorter radius than the wheel on the outside of the turn.

The rear wheels of the vehicle do not pivot and therefore will not follow the same path as the front wheels. The greater the distance



44

(wheelbase) between the front wheels and the rear wheels of the vehicle, the greater the amount of off-track. The off-track path is a shorter radius than the path of the front wheels.

The combination vehicle, such as a semi-trailer unit, has an off-track of the rear wheels of the tractor unit, and a greater off-track again by the rear wheels of the semi-trailer.

The combination unit of truck-tractor and pup trailer has different turning characteristics than that of the semi- trailer type. These units have a turning radius and off-track pattern with each unit, but the amount of off-track depends on the length of the draw bar and the wheelbase of the units.



On the open highway you must lead your turning arc of the front wheels according to the sharpness of the curve and the amount of off-track of your vehicle. A curve to the right requires keeping the front wheels close to the centre line to prevent dropping the rear wheels off the pavement or breaking the pavement shoulders. A curve to the left requires keeping the front wheels close to the right edge of the pavement to prevent the rear wheel from crossing into the other traffic lane.



Negotiating narrow bridges that have a curved approach requires the driver of larger units to exercise caution and skill. You must be familiar with the amount of off-track of your vehicle and adjust your speed and approach accordingly.

Right angle turns at intersections with vehicles that have an appreciable amount of off-track, require you to lead your turning arc in accordance with the amount of off-track. Running the rear wheels of the unit over curbs and sidewalks not only causes tire damage but is hazardous to pedestrians. Power poles, signposts, or lamp

standards mounted close to the curbing at intersections are fixed object hazards.



If the streets are narrow, you will have to proceed well into the intersection before beginning your turn. It may be necessary to travel over the centre line of the street you are entering or into the second traffic lane. When you have to do so because of the limited width of the street, proceed with extreme caution and ensure you can make the movement safely.

When you have to "block" off the traffic lane (e.g., you have an extra-long trailer making a turn off a narrow road onto a partially blocked street) ensure that smaller vehicles, motorcycles, or cyclists are not attempting to proceed in on your right. The most dangerous point is reached when your tractor is at the sharpest point of the turn in relation to the trailer, as the right rear-view mirror vision is limited.

Steering Backwards

Control of a single unit is maintained in the same manner as control of a passenger vehicle. When you are backing a tractor with a semi-trailer, turn the front wheels of the tractor in the opposite direction to that in which you want to move the rear of the trailer. Depending on the amount of change in direction, the tractor must follow in a track related to the track of the trailer, otherwise your vehicle will jack-knife. The tracking pattern for a normal right angle would be an "S" shaped curve.





U Turns Avoid making a U turn. Drive around the block instead.

Votes	
	<u> </u>
	<u> </u>
	and the second se
	and the second
	and the second second second second

Chapter 9: Passenger-Carrying Vehicles —

Safe Driving Practice

The prime consideration for the professional driver is safe operation of the vehicle. This must take precedence over schedules or any other factor that might contribute to a less than safe operation.

The professional driver operating a Class 2 or Class 4 vehicle must also consider the comfort of passengers.

A bus driver must develop handling skills in accordance with the characteristics of the vehicle. A knowledge of the turning radius, amount of off-track of the rear wheels, overhang past the rear wheels, and width of the vehicle are important factors to know in perfecting vehicle handling skills.

Many passenger accidents have been attributed to:

- improper parking at a loading zone
- picking up or discharging passenger in an unsafe location (i.e., in traffic)
- sudden stops or starts with standing passengers
- sharp turns at excessive speed
- improper operation of bus doors

Right Turns

When making a turn to the right, avoid running over or scuffing the curbing with the rear tires. To execute a sharp turn to the right (particularly with a forward control vehicle), position the bus 1.5 m out from the curb as you approach the intersection. Proceed straight until you can see the curb line of the side street through the front entrance door (see diagram).

By entering a turn at a low speed, you will be able to make a smoother turn with less effort. To make a right turn into a very narrow street, you will have to proceed well into the intersection before commencing your turn. You may also have to travel over the centre line as the turn is made. When such movement is necessary, use extreme caution and ensure that you can make the turn safely.

Leaving the Curb

Don't rely on the side mirror to check that traffic is clear before pulling out. Also glance over your left shoulder to make sure the way is safe. You must use your signal lights to indicate when you are leaving the curb. Only use them when you are ready to proceed from the curb. Leaving the curb with a bus that has an overhang over the rear wheels requires you to use caution to avoid striking pedestrians, poles, or signposts located close to the curb. Cars parked close to the front of the bus and vehicles approaching in the opposite direction must also be assessed before you move your vehicle.

Passing Parked Cars

Passing parked cars requires the driver to be constantly alert for hazards: cars pulling out without warning, sudden opening of doors on the traffic side, or pedestrians stepping out from between cars.

Watch for warning clues:

- front wheels turned out
- driver sitting behind the wheel
- exhaust from tail pipes
- brake light



Distractions

As a driver of a passenger vehicle you must not collect fares or take on or discharge passengers while the vehicle is in motion. You cannot engage in unnecessary conversation with passengers while driving the vehicle.

Driver's Vision

Your view ahead, and to the right and left, must not be obscured in any way. At all times you must have full movement of your arms and legs, and ready access to emergency equipment. No passenger can sit to the left of the driver. In the case of a sedan-type vehicle, more than two passengers besides the driver may be seated on the front seat only if there is adequate room for the driver to operate the vehicle safely.

Fires in Vehicles

Fighting a fire efficiently requires quick thinking and fast action based on training. Each day you should inspect the fire-fighting equipment on your vehicle. Be aware of the types of fires that can occur on your vehicle. Also, remember the following

- Water spreads gasoline or oil fires. Use extinguishers, sand, or dirt to smother such fires.
- Use chemical extinguishers only enough to smother flames; keep some in reserve for flare-ups.
- Shut off switches and disconnect battery cables of vehicles involved in accidents to prevent fires caused by leaking fuel, etc.
- For a fire on a combination unit, disconnect the tractor from the trailer and separate the units a safe distance apart if you are sure you can do so safely.
- Whenever possible, fight fires with the wind at your back (lessens the chance of asphyxiation).
- For an underhood fire, remember don't throw hood open. Raise hood very slightly to fight the fire. If the hood cannot be raised, direct extinguisher from underneath the vehicle or through radiator.
- Have someone call the fire department if possible. Warn others of the danger of explosion by gasoline or inflammable loads and tell them to keep back a safe distance.
- Don't risk you own life. Gasoline fires can spread rapidly and explode.

About Fire Extinguishers

Where required by legislation, all commercial vehicles shall be equipped with a fire extinguisher that is approved, secure, charged, of correct type and ready for use. Under the *Highway Traffic Act*, any vehicle transporting any type of explosive as a cargo or part of a cargo upon a highway, shall be equipped with not less than two fire extinguishers, filled and ready for immediate use, placed at a convenient point on the vehicle so used.

Multi-purpose dry chemical extinguishers marked (B.C.) extinguish grease, oil, gasoline, and electrical fires. If the cylinder is marked A.B.C., it will also extinguish class "A" fires such as paper or cloth. The operator can use this extinguisher without fear that the contents will pose a health hazard or cause bodily injury.

Carbon tetrachloride on open flames generates phosgene gas, which is dangerous to health. Avoid using this type of extinguisher in closed areas. When using CO2 extinguishers (carbon dioxide), don't remain in an enclosed space as there is a danger of suffocating. The chemical in methylbromide extinguishers may cause blistering of the skin. Rinse off with water if it comes into contact with skin.

Emergency Vehicles

As the name implies, an emergency vehicle is operated when there is danger to life or property. An emergency vehicle is any vehicle that is used for any one of the following purposes: police duty, fire fighting, and ambulance service.

Passenger-Carrying Vehicles

As a driver of an emergency vehicle, you can exceed speed limits when responding to an emergency. This includes police pursuit of a suspected law-violator. However, this privilege should be exercised with extreme care. The speeding emergency vehicle is not always clearly visible or discernible to other motorists or pedestrians. A deaf person cannot hear a siren, and a blind person cannot see flashing lights. When exceeding the speed limit or disregarding other traffic rules, signs, and signals, your flashing lights and siren must be on.

Response of other drivers to Emergency Vehicles

The *Highway Traffic Act* requires that drivers of other vehicles give the right- of- way to an emergency vehicle that is displaying flashing red or blue lights and is sounding a siren or other warning device. Such drivers are obligated to drive parallel to the right-hand side of the roadway, as close to the edge as circumstances permit, and stop. When a vehicle is within an intersection it must clear the intersection and stop on the other side until the emergency vehicle has passed.

As well, no driver of any vehicle, other than an emergency vehicle, shall follow an emergency vehicle closer than 150 m or drive or park within 150 m of the place on the same highway on which fire apparatus has stopped in answer to a fire alarm.



Regarding approaching or passing an emergency vehicle, under section 151.1 of the *Highway Traffic Act:*

- (4) No person shall drive a motor vehicle on a highway at a speed greater than half the posted speed limit when approaching or passing an emergency vehicle or tow truck that is stopped on the highway with its emergency lights in operation.
- (5) Where

a) the driver of a motor vehicle approaches an emergency vehicle or tow truck that is stopped on a highway with its emergency lights in operation;

(b) there are two or more lanes of traffic on the same side of the highway on which the emergency vehicle or tow truck is stopped; and

(c) the driver of the motor vehicle is travelling in the same lane that the emergency vehicle or tow truck is stopped in or in a lane that is adjacent to the emergency vehicle or tow truck,

the driver shall, in addition to reducing speed as required by subsection (1), move into another lane if the movement can be made in safety.

(6) Nothing in subsection (1) or (2) prevents a driver from stopping his or her motor vehicle and not passing the stopped emergency vehicle or tow truck if the driver can stop the motor vehicle in safety and stopping is not otherwise prohibited by law. 2004, c.5,s.1; 2018, c.48,s.3.

These laws were passed to help operators of emergency vehicles carry out their responsibilities with a minimum of delay. However, you should not presume that all drivers will always comply with the law. Sometimes a driver has difficulty identifying the direction from which an emergency vehicle is approaching, particularly at intersections, and may inadvertently drive into your path. At other times, particularly during cold weather when all windows are closed, drivers have difficulty hearing the siren and may not react as quickly as they might normally.

When roads and traffic conditions are severe, exercise extra care. It is far better to take a few extra minutes to arrive at your destination safely than to be involved in an accident.

Taxi Cabs

For the most part, vehicles used as taxicabs do not differ significantly in structure from ordinary passenger cars. The skills required to operate them are essentially the same as those required to operate any other kind of passenger car. Unlike the driver of any other vehicle, however, the taxi driver is constantly exposed to the risk of collision. Generally, taxicabs are operated 24 hours a day in high traffic density areas. The average number of kilometers traveled by the taxicab drivers for one year is approximately four times the average mileage driven by drivers of passenger cars.

Drivers of taxicabs must contend with many problems. Taxicab drivers are:

- frequently called to attend emergency situations
- urged by a passenger to hurry in order to catch a plane or arrive at a meeting on time
- exposed to and must cope with unruly and sometimes drunk passengers, etc.
- The resulting pressures require that taxicab drivers know how to operate their vehicles skillfully and have a thorough knowledge of the street systems so that they can plan their destination routes quickly.

Examination of the driving records of taxicab drivers shows two things:

- Some taxicab drivers have an exceedingly high incidence of accidents. This is attributable, in part, to the high exposure rate mentioned earlier.
- Taxicab drivers are frequently charged and convicted of speeding and failing to obey traffic control devices.

While the higher involvement rate in accidents is somewhat understandable, it is difficult to justify why some taxicab drivers commit traffic violations frequently, causing them to lose their Driver's Licenses and their jobs. Studies have shown that it is virtually impossible to pick up time in heavy traffic areas. Experiments carried out in other cities have shown that the time saved by a driver driving as fast as traffic conditions allow and disregarding other regulations, compared to a driver driving within the speed limit and observing all traffic rules, is a matter of a few minutes - scarcely worth the increased accident risk or the possibility of getting a traffic ticket.

Vehicle Check for Taxi Drivers

It is a good practice to check the condition of your vehicle before taking it out for the day. If you detect any defects or inoperative equipment, don't take it out until the defect or inoperative equipment has been repaired. During the working day, if you detect any malfunction of the safety equipment, call your dispatcher at once and report the nature of the defect. The vehicle should be taken in for repairs as soon as possible. If the defect is serious, you should not attempt to drive your vehicle, have it towed instead.



	and the second sec
	and the second states of the second
and the second se	and considered and the state of the
	and a second second second second second

Chapter 10: Transporting Dangerous Goods ____

Dangerous goods means a product, substance or organism that, because of its quantity, concentration, or physical or chemical characteristics may pose a real hazard to human health or the environment—such as gasoline, heating oil, paints, medication, household cleaning products and other materials used in homes and industrial activities.¹⁰

When transporting dangerous materials, ensure all shipping documents¹¹ are complete, correct and readily available in the cab; these documents must accompany the dangerous goods shipment. Report immediately any incident related to your dangerous goods cargo, like spills, leaks, fires, explosions or damaged containers to the nearest police agency or the Provincial Emergency Program. Your rapid action may help prevent an incident from becoming serious.

Federal and provincial laws are in place for the appropriate containment and safe movement of dangerous goods while ensuring the safety of the public. Laws within Canada state that no person who handles, offers for transport or transports dangerous goods does so unless trained and hold a training certificate, or they work in the presence and under the direct supervision of a person who is adequately trained and holds a training certificate¹².

Training Requirements

Carriers are responsible to make sure their employees have the proper training to work safely with dangerous goods. This usually means a formal in-house training program to earn a Dangerous Goods Training Certificate. This certificate shows that the employee has successfully completed the training.

Carriers can provide their own training or may hire someone to do the training for them. However, in all cases, the employer must be satisfied with the training, and sign the certificate of training indicating that the driver has successfully completed the dangerous goods course. A driver of dangerous goods is required by law to produce a certificate of training, if asked to by a dangerous goods inspector.

Classifying Dangerous Goods

The Dangerous Goods Transportation Act divides dangerous goods into nine classes according to the type of hazard involved. Some of the classes are further divided into divisions that identify the hazards more specifically. Refer to the dangerous goods illustration on the following pages. The regulation lists dangerous goods and describe their shipping name, classification and UN or NA / Product Identification Number. Classification is the responsibility of the manufacturer of the product, or in the case of hazardous waste, the generator of that waste. Classification must be completed before offering the product for shipment.

In Case of an Emergency

Depending on the situation, the following agencies are to be contacted in the event there is a spill, or other type of dangerous occurrence. It is the driver's responsibility to immediately take all reasonable emergency measures to repair, remedy or reduce any danger to life, health, property or the environment whenever there's a dangerous goods incident.

Federal Contacts

- Canadian Transport Emergency Centre (CANUTEC): CANUTEC provides technical advice on dangerous goods. Staff will answer questions about the specific properties of different materials and the best methods for storing and cleaning up specific goods. CANUTEC will also refer you to companies who provide appropriate clean-up services.
- 24-hour emergency information: 613-996-6666 (call collect)

¹⁰ Transport Canada, <u>https://tc.canada.ca/en/corporate-services/policies/transportation-dangerous-goods</u>

¹¹ Shipping documents include includes a bill of lading, cargo manifest, shipping order or waybill.

¹² Transportation of Dangerous Goods Act <u>Transportation of Dangerous Goods (TDG) Regulations</u>, Transport Canada.

- Emergency cellphone number: *666
- Non-emergency number: 613-992-4624 (call collect)

Provincial Contacts

- Department of Environment, Energy and Climate Action
 Office Hours: 1-866-368-5044
 After Hours: 1-800-565-1633
- Local police services (911)

After calling one or both of the above immediately, you must also notify:

- your employer;
- the owner of your vehicle (if applicable);
- the consignor or owner of the goods.

The Marks of Safety

Class	1 – Explosives	
1.1	A substance or article with a mass explosion hazard.	
1.2	A substance or article with a fragment projection hazard, but not a mass explosion hazard.	1.1, 1.2, 1.3 1.1, 1.2, 1.3 1.6 1.6 1.6
1.3	A substance or article which has a fire hazard along with either projection hazard or both, but not a mass explosion hazard.	a minor blast hazard or a minor
1.4	A substance or article which presents no significant hazard; exp package and no projection or fragments of appreciable size or ra	losion effects are largely confined to the ange are to be expected.
1.5	A very insensitive substance which nevertheless has a mass exp	losion hazard like those substances in 1.1
1.6	An extremely insensitive article which does not have a mass exp	olosion hazard.

Class	2 - Gases	
2.1	Flammable gas (red)	
2.2	Non-flammable gas (green)	
2.2	An oxidizing gas (yellow)	2 2
2.3	A poisonous gas (white)	

Class	s 3 - Flammable Liquids	and a second second second
3	A liquid which has a closed-cup flash point less than or equal to 60°C. Commonly used as fuel (example: gasoline, ethanol, fuel oil (diesel)).	

Clas	s 4 - Flammable	
4.1	A solid that under normal conditions of transport is readily combustible, or would cause or contribute to fire through friction or from heat retained from manufacturing or processing, or is a self-reactive substance that is liable to undergo a strongly exothermic reaction, or is a desensitized explosive that is liable to explode if not diluted sufficiently to suppress their explosive properties. Commonly used in lacquers (example: naphthalene). A substance liable to spontaneous combustion, under normal conditions of transport, or when in contact with air, liable to	4.1
	spontaneous heating to the point where it ignites.	4 4.2
4.3	A substance that, on contact with water, emits dangerous quantities of flammable gases or becomes spontaneously combustible on contact with water or water vapour. Commonly used in heat exchangers (valves) (example: sodium).	44.3
Clas	s 5 - Oxidizing Substances and Organic Peroxides	
5.1	A substance which causes or contributes to the combustion of other material by yielding oxygen or other oxidizing substances whether the substance itself is combustible. Commonly used in fertilizers (example: ammonium nitrate).	5.1
5.2	An organic compound that contains the bivalent "-0-0-" structure which is a strong oxidizing agent and may be liable to explosive decomposition, be sensitive to heat, shock or friction or react dangerously with other dangerous goods. Commonly used in automobile body shops as body filler (example: dibenzoyl peroxide).	5.2
Clas	s 6 -Toxic Substances and Infectious Substances	
6.1	A solid or liquid that is toxic through inhalation, by skin contact or by ingestion. Commonly used as a germicide or general disinfectant (example: phenol).	6 6
Clas	s 7 - Radioactive Materials	
7	Radioactive Materials in the Packaging and Transport of Nuclear Substances Regulations. Commonly used in nuclear fuel rods (example: radioactive material - LSA (yellow cake)).	RADIOACTIVE
Clas	s 8 – Corrosives	and the second second second
8	A substance that causes destruction of skin or corrodes steel or non-clad aluminum. Commonly used in batteries and industrial cleaners (example: sulphuric acid and sodium hydroxide).	B

Class	Class 9 - Miscellaneous Products, Substances or Organisms	
9	A substance that does not meet the criteria for inclusion in Classes 1 to 8 but is nonetheless a dangerous good in transport. Examples are dry ice, asbestos and lithium batteries.	

More Safety Marks - Transport Canada

Source: https://tc.canada.ca/sites/default/files/2021-02/tc marks safety eng.pdf



 Arton.
1- Parts
and the second
A DE ANTAL AND A DE ANTAL AND A DE ANTAL
and the second

Chapter 11: Highway Signs -

Highway signs are intended for your guidance and information. They may warn you of conditions on the road ahead that call for special care; they may give instructions on speed limits or restrictions on parking; or they may give information concerning routes and distances. Careful drivers regulate their driving in accordance with these signs.

Along with traffic signal lights, traffic signs provide for the safe and efficient movement of traffic. There are several different types of traffic signs, including regulatory, warning, construction and information signs. The shape and colour of each sign, as well as the message printed on it, carry a message for the driver. For instance, red is used to indicate prohibited manoeuvres while green designates permitted movements. Stop signs always have an eight-sided shape, yield signs are always triangular and speed limit signs are always a vertical rectangle. Each shape carries a distinctive meaning so that if darkness or falling rain or snow obscure the lettering, the safety message can still be identified.

Remember, it is an offense to deface, destroy, or remove traffic signs or signals. The shape of a highway sign indicates its meaning. The driver who becomes familiar with them can understand the signs' messages from their shape.



Basic Sign Shapes and Meaning

7	Traffic Island This sign is placed on traffic islands or similar obstructions and requires you to keep to the right.		
	Two-way Traffic This sign indicates to road users that the section of highway they are approaching is two way, and rules for two-way traffic apply.		
Speed Limitation These signs indicate the maximum speed allowable under ideal conditions. You are required to reduce your speed when your visibility is restricted (i.e., in fog, snow, or heavy rain). On PEI: open highway, 80 km/h unless otherwise posted to a maximum of 90 km/h; residential 50 km/h; business districts 60 km/h; school zones, curves and intersections, as posted.			



Maximum speed limit as posted.



This sign depicts the speed limit ahead.

LANE ARROWS

These signs are mounted above the roadway on the approach to an intersection. Once in the turning lane, the motorist must turn in the direction the arrow indicates.

		1	4		
Indicates Left Turn Only Lane	Indicates Right Turn Only Lane	Straight Ahead or Left Turn Only Lane	Straight Ahead or Right Turn Only Lane	Left or Right Turn Only Lane	
	+++	1	ل ال	1'It	
Two-way left turn	All Movement Permitted	Straight Ahead Only	Side-mounted multiple lane	Side-mounted multiple lane	
Side-mounted multiple lane	Side-mounted multiple lane	No Stopping Either Side	This sign indicates no right turn on red light.		
	P				
Right Turn Permitted	Parking Permitted	No Parking Permitted	No Left Turn	No Littering	

WARNING SIGNS Warning signs are typica road ahead that calls for	lly orange on PEI and di special care on the part	amond shaped. They give warning o of the driver.	f some conditions of the
DETOUR			TAR
Detour Ahead	Road Work Ahead	Survey Crew Ahead	Tar Ahead
CONSTRUCTION			
Construction Ahead	Traffic Control Person	Raised or High Shoulder Ahead	Low Shoulder Ahead
Uneven Lanes	Roundabout	Intersection	Sharp Curve
30 km/h	€		
Right Curve Ahead	Hidden Intersection	Merge	Pavement Ends
		The second se	
Right Lane Ends	Lane Ends Ahead	Horse and Buggy	Narrow Structure Ahead
TRAN	×		
Bridge Opening Ahead	Playground Ahead	School Bus Stop Ahead	Traffic Lights Ahead
			\leftrightarrow
Stop Sign Ahead	Divided Highway Begins	Divided Highway Ends	Bump or Rough Road Ahead

	5.	4		
Road Narrows	Slippery When Wet	Truck	Entrance	School Bus Entrance
	Steep Hill Slow down and shift to lower gear (or gear range if your vehicle has automatic transmission). Engage low gear if the hill is very steep.			
Commercial Weigh Sta	tions			
		2 km		P 🖊
Truck Inspection	Truck Inspe	ction	Truc	k Inspection
Station	Station Adv	ance	St	ation Exit
Hazard Markers				
\approx	These signs mark obst in pairs, such as bridge	ructions alongsi e ends.	de the highway. Th	ey are usually mounted
Keep Keep Right Left	This sign marks an obstruction on the highway such as a traffic island. Traffic moves to the right or left of this sign: e.g., at an interchange exit ramp.			
	This sign indicates a truck route and permissible directions to travel.			
	This sign indicates that a special permit is required to park here.			
Guide Signs	1			×. 0
	248		Ch Ch Ch Ch Sork Ch Ch Ch Ch Ch Ch Ch Ch Ch Ch	Borden – Carleton Confederation Bridge
Trans Canada PEI	Route 248 PEI	North River	Roundabout	Confederation Bridge

Notes	
	<u></u>

Notes	

Resources

The following publications and websites were sourced in the preparation of this document:

Prince Edward Island Driver's Handbook. Department of Transportation and Infrastructure, Highway Safety. 2011. https://www.princeedwardisland.ca/en/publication/drivers-handbook

Prince Edward Island Highway Traffic Act and Regulations https://www.princeedwardisland.ca/sites/default/files/legislation/h-05-highway_traffic_act.pdf

British Columbia Class 1 Mandatory Entry-Level Training Student Guide. ICBC, 2021. https://www.icbc.com/partners/driver-training/Documents/mv7607.pdf

Circle Check Guide, the Société de l'assurance automobile, du Québec Les Publications du Québec, 2018. https://saaq.gouv.qc.ca/fileadmin/documents/publications/circle-check-guide.pdf

Commercial Driver's Guide to operation, safety and licensing trucks, buses, emergency responders and taxis. Government of Alberta, 2020. <u>https://open.alberta.ca/publications/6912275</u>

Commercial Driver's License. American Association of Motor Vehicle Administrators (AAMVA). Sourced online: https://www.aamva.org/topics/commercial-driver-license#?wst=4a3b89462cc2cff2cbe0c7accde57421

Driving Commercial Vehicles, A Guide for Professional Drivers. Insurance Corporation of British Columbia, 2022. https://www.icbc.com/driver-licensing/driving-guides/Pages/Driving-commercial-vehicles.aspx

Federal Motor Carrier Safety Administration. Medical Qualification Requirements

Large Trucks in Roundabouts, Kansas Department of Transportation. https://www.ksdot.gov/roundabouts/trucks.asp

Large Vehicles in Roundabouts, Region of Durham, Ontario. Sourced online: https://www.youtube.com/watch?v=jlUDrP1-dVc

Professional Drivers Manual. Nova Scotia Department of Transportation and Infrastructure Renewal, 2015.

Professional Driver's Handbook. A Guide for the Professional Driver. SGI. 2019. https://sgi.sk.ca/pro-driver/-/knowledge_base/pro-drivers/the-professional-driver

Professional Driver's Manual. Manitoba Public Insurance, 2021. Sourced online: https://www.mpi.mb.ca/Documents/ProfDriverHBookComp.pdf

Saskatchewan Professional Driver's Handbook. A Guide for the Professional Driver. SGI. 2022. https://sgi.sk.ca/pro-driver

The National Safety Code. Canadian Council of Motor Transport Administrators (CCMTA). Sourced online: https://www.ccmta.ca/en/national-safety-code

Transport Canada. *Transportation of Dangerous Goods Act.* 1992 (S.C. 1992, c. 34) and Regulations. https://tc.canada.ca/en/dangerous-goods/transportation-dangerous-goods-canada

Transport Canada. Transportation of Dangerous Goods. The Marks of Safety. https://tc.canada.ca/sites/default/files/2021-02/tc marks safety eng.pdf

Note:

Appreciation is extended to the Driver Qualificaton Officers at Highway Safety responsible for examining commerical vehicles, and the Manager of Regulatory Programs (Commercial Vehicle Enforcement) for their time in reviewing and providing advice on the contents of this manual.

PRINCE EDWARD ISLAND COMMERICAL VEHICLE DRIVER'S HANDBOOK

a study guide for professional drivers.



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY SAFETY DIVISION