

**Guidelines for
Long Combination Vehicles (LCVs)
in the Province of New Brunswick**

Department of Transportation
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Table of Contents

1.0 Program overview	1
2.0 Submission of application	1
3.0 Permissible LCV configurations, operating routes and turning template requirements	2
4.0 Permit general conditions.....	5
5.0 Permit operating conditions.....	6
6.0 Freight conditions.....	12
7.0 The APTA LCV Driver's Certificate	12
8.0 Reportable Collision/incident reporting procedures.....	13
Appendix 1: Information Required to Support LCV Application	14
Appendix 2: LCV A-train configuration	18
Appendix 3: LCV B-train configuration	20
Appendix 4: LCV Double Stinger-Steer Auto Carrier.....	22
Appendix 5: Overview of the APTA LCV Driver's Certification Program.....	25
Appendix 6: Example of LCV Driver's Certificate	30
Appendix 7: List of LCV refuge areas - Highway on-ramps only	31
Appendix 8: NB LCV Accident Reporting Form.....	33

NOTE:

This document is subject to change. Please check the New Brunswick Department of Transportation and Infrastructure (NB DTI) website for the latest updates at:

<http://www2.gnb.ca/content/gnb/en/departments/dti/trucking.html>

1.0 Program overview

Between 2004 and 2008, Long Combination Vehicles (LCV) operated on New Brunswick highways under a pilot project. As of 2008, New Brunswick began permitting operations on 4 lane highways. Since that time, LCV's have proven to be a successful transportation method, and have become an important part of our industry in Atlantic Canada.

LCVs provide economic benefits to both industry and consumers, reduce fuel consumption, greenhouse gas emission and provide for safe movement of goods.

This program is evolving in cooperation with the provinces of Nova Scotia Quebec and Ontario to provide for the free movement of LCV's amongst the 4 provinces, provided the conditions of the movement within each respective province is met.

A harmonization agreement is in the final stages of completion and this guidebook may be updated once a final agreement is in place.

2.0 Submission of application

The completed application, containing all information as required in *Appendix 1* is to be submitted to:

Asset Management Branch
New Brunswick Department of Transportation
P.O. Box 6000
Fredericton NB E3B 5H1

The original application and attachments must be mailed, couriered or hand delivered. E-mail versions of the original applications will not be accepted. However, amendment documentation and clarifications to the original application can be submitted via Fax to (506) 444-4488 or e-mail to special.permits@gnb.ca

Inquiries regarding your application may also be made by e-mail to special.permits@gnb.ca

2.1 Permit fee

The current annual permit fee for LCV operations on New Brunswick highways is \$50 per power unit and is subject to change. The fee is to be

made payable to the New Brunswick Minister of Finance upon approval of the application.

2.2 Application Requirements

The information required in the application is provided in Appendix 1. All information listed must be provided in the application for the LCV operation. Issuance of a permit implies that the carrier will provide all records related to their LCV operations to NBDTI, upon request.

3.0 Permissible LCV configurations, operating routes and turning template requirements

A-Train LCV's must be configured as per Appendix 2.

B-Train LCV's must be configured as per Appendix 3.

Double Stinger-Steer Auto Carrier LCVs must be configured as per Appendix 4.

- 31 The A-Train LCV must be configured with two semi-trailers of minimum length 12.2 m (40ft) to maximum length of 16.2 m (53ft) (Van trailers or containers only). The position of lead and rear trailer may be any combination of the two; however the heaviest trailer must always be in the lead position. Operation is restricted to pre-approved routes.
- 32 The B-Train LCV must be configured with two semi-trailers; the lead trailer of minimum length 12 m (39 ft) to maximum length of 14.6 m (48ft) (Van trailers or containers only). The rear trailer may have a minimum length 12.2 m (40ft) to maximum length of 16.2 m (53ft) (Van trailers or containers only). The lead trailer must be heavier or equal to the rear trailer. Operation is restricted to pre-approved routes.
- 33 The Double Stinger-Steer Auto Carrier LCV must be configured with two non-enclosed semi-trailers designed to carry vehicles each with of a maximum length of 14.6 m (48 ft). The fifth wheel assemblies must be mounted on a drop frame located behind and below the center of the rearmost axle of the tractor and the lead trailer. The lead semi-trailer has a triple axle unit with the rearmost axle liftable by use of manual controls located on the trailer. The axle must be deployed at all times when operating as an LCV. The second trailer has a tandem axle.
- 34 Applications for container chassis configuration will be considered, provided they meet all other specifications.
- 35 The A-train LCV combination may be split with the tractor pulling one semi-trailer plus the dolly for purposes of repositioning the dolly to nearby staging areas or terminals. This combination must comply with the current New Brunswick regulation for Vehicle Dimensions and Mass with the exception

of overall length, which must not exceed 27.5 m. The allowable GVW of this combination is that of the tractor-trailer without dolly, plus 2,000 kg.

- 36 All conditions of the LCV permit apply to dolly repositioning as outlined in section 3.4, except that: Holiday restrictions do not apply, the LCV pictogram is not required, and the dolly does not require functioning brakes.
- 37 LCV units will be permitted to operate on New Brunswick, Route 2 between the New Brunswick/Nova Scotia border and the New Brunswick/Quebec border. Limited operation of LCV's on 2-lane highways to proposed staging areas or interim stopping locations will only be permitted for very short distances and is subject to approval from both the appropriate municipality if applicable, and NBDTI.
- 38 LCV units will be permitted to operate on New Brunswick, Route 1 between the junction of Routes 1 and Route 2 at River Glade, New Brunswick to an approved staging area (proposed by the applicant) near the Canada/U.S. border at Calais.
- 39 LCV units will also be permitted on Route 95 from the Route 95/Route 2 interchange at Woodstock to a pre-approved staging area (proposed by the applicant) near the Canada/U.S. border at Houlton.
- 310 Limited operation of LCV's on 2 lane highways will only be permitted for very short distances and is subject to approval from both the appropriate municipality (if applicable) and DTI.
- 311 **Turning Template Requirements** The applicant must provide turning template and various LCV turning radii and plan survey details (to scale). The templates submitted must demonstrate that the LCV can safely maneuver ramps and intersections throughout the entire 2-way routing involved. Templates are required to show how the LCV tracks while exiting/entering a ramp, intersection or private property (i.e. terminal, staging area or intermediate stop area). The template must clearly show the path of the LCV including its off-tracking details as well as location of the traffic lanes, pavement and shoulder edges, traffic sign posts, guide rail, lighting posts or masts, lane dividers or barriers and other potential obstacles. If the templates and drawings show conflicts with obstacles or traffic, the applicant must provide details on how they intend to resolve the situation.

The template drawings must be stamped by a Professional Engineer licensed to practice in the Province of New Brunswick.

NOTE: Refuge areas listed in Appendix 6 are not to be used as rest areas or to access food and washroom facilities. Applicants may submit turning

templates to include access to such facilities in their application.

4.0 Permit general conditions

Permit conditions are divided into two sections: general conditions and operating conditions.

4.1 General conditions

- 4.1.1 Permits will be valid for a period not exceeding one year only and must be renewed by the applicant each year. (Note: DTI may cancel a permit at any time for permit violations by the carrier or for safety reasons).
- 4.1.2 The LCV operating permit will be valid for the specific operation of an LCV A-Train, B-Train, or Double Stinger-Steer Auto Carrier configured as per Appendices 2, 3 or 4.
- 4.1.3 The carrier will be required to provide specific information regarding each power unit and trailer at time of permit application.
- 4.1.4 The total length of an LCV must not exceed 40 metres and gross vehicle weight must not exceed 63,500 kg for the A-Train and B-Train configurations or 55,000 kg for the Double Stinger-Steer Auto Carrier configuration.
- 4.1.5 The converter dolly must be registered when it is the rear most vehicle, unless the LCV carrier is originating from, and registered in Ontario and Québec. Converter dolly must be equipped with functioning tail, brake and turn signal lights as well as two red reflectors and have rear impact protection as required by Transport Canada, when it is the rear most vehicle. A converter dolly may have its service brake system disabled to prevent wheel lock-up when being operated on a highway without carrying a trailer.
- 4.1.6 Carriers must supply detailed information on all routes from origin to destination including staging areas, exits to/from the route for refueling, loading, staging or other reasons. Limited operation of LCV's on 2 lane highways will only be permitted for very short distances and is subject to approval from both the appropriate municipality (if applicable) and DTI.
- 4.1.7 The carrier must provide turning templates and scaled plan surveys as described in Section 3.10 above for the LCV's entrance and exit movements through all interchanges, ramps, and private property facilities for staging, interim stops, origin and destination. See section 3.10 for turning template requirements.

- 4.1.8 Permission for limited distance travel on 2-lane highways will require the carrier to obtain and submit written approval from the municipal jurisdiction, where applicable. DTI must also approve such travel. In addition, if the carrier intends to stop at a location on private property (i.e. a business property) for interim stops or staging, the carrier is to provide written confirmation from the property owner authorizing use of the location for the LCV. In these cases, municipal (where applicable) and DTI approval is also required.

5.0 Permit operating conditions

5.1 Operating Conditions:

- 5.1.1 Maximum speed of LCV units will be 90kph.
- 5.1.2 The LCV unit must not exit from the specified route except for emergencies or for enroute inspections using the designated refuge areas listed in Appendix 6. No parking is permitted on any Off Ramp.
- 5.1.3 Where practical, the LCV unit is expected to travel in right-most lane of highway. It is left to the professional discretion of the driver whether to move to left hand lane when needed to accommodate obstructions, or slow-moving vehicles.
- 5.1.4 The mass of the lead trailer must always be greater than that of the rear trailer.
- 5.1.5 If the lead or rear trailer is not fully loaded, it must be loaded such that the front of the trailer is heavier.
- 5.1.6 LCV's are prohibited from operating on public Holidays, as identified in the *Days of Rest Act*. Dolly Repositioning is not subject to this restriction.
- 5.1.7 Time of day restrictions for travel in or near urban areas will be set relative to morning and evening peak hour traffic flows. (If staging areas are used near the urban locations and the staging areas are adjacent to a four-lane divided highway, these restrictions may not apply depending on the traffic volume on the four-lane divided section of the network bypassing the urban area).

- 5.1.8 LCV'S operating on municipal roads, may have specific restrictions to travel, as set by the respective municipalities.
- 5.1.9 The LCV unit may travel with both trailers empty or with rear trailer empty and front trailer partially or fully loaded providing heavy cross winds are not forecast in the weather conditions or not occurring along the route during the particular trip.
- 5.1.10 The driver must activate 4-way flashing lights when speed of the unit travelling on the arterial network drops to 70kph or below.
- 5.1.11 LCV's must not run in a convoy mode that is, less than 300m between LCV units.
- 5.1.12 DTI will attempt to accommodate LCV's during construction and maintenance activities; however, LCV's are not automatically approved for detours without a permit. In some cases, LCV's must be split to accommodate detours.

5.2 Vehicle Requirements:

- 5.2.1 The tractors used to move LCV units must develop a minimum torque of 1650 lb-ft and have a minimum horsepower of 460 hp.
- 5.2.2 An LCV combination must be equipped with a functioning and accurate electronic on-board device that records speed, time and date at regular intervals not exceeding 5 minutes in length. The speed recording device must be a Global Position Satellite (GPS) or similar tracking system and must display in a legible table, including rows and columns. Tachograph and tachograph charts are not acceptable speed recording devices. Data from this device must be retained for at least 90 days and be capable of producing a report indicating the vehicle's speed at specified dates and times.
- 5.2.3 A reflectorized rigid or flexible placard as specified in 5.2.3.1 must be attached to rear trailer of each LCV such that it does not cover required reflectorized trailer markings or lights.

5.2.3.1 LCV Pictorial image placard specifications as depicted below (Acceptable in QC, NB, NS, ON)

- Colour: Background - Yellow 3M # 3931 or equivalent, minimum High-Intensity retro reflective
- Lettering: 5 cm to 10 cm high, series E black.
- Material: The sign panel must be fabricated of High-Intensity retro reflective material
- Position: At the rear of the last semi-trailer, mounted so that it is clearly visible by following drivers and must not obstruct lights or other safety devices. The sign must be removed when not in use.
- Sign size: 30 cm by 230-245 cm



- 5.2.4 Retro-reflective tape as per Transport Canada's standards must be present on the unit. (CMVSS 108)
- 5.2.5 Light Emitting Diode (LED) lighting must be present at the rear and along the sides of all trailers and power units, effective model year 2011. The lighting must meet or exceed Transport Canada standards. (CMVSS 108)
- 5.2.6 Anti-sail (rigid) mud flaps/splash guards must be placed on the rear axle of the power unit and on the rear axle of all axle groups of the trailers and convertors (dollies). They must remain in a rigid downward position at all times. Stinger-steer auto carrier trailers are exempt from the mud flap requirement as the structure and body of the trailer encloses the wheels.
- 5.2.7 All lighting and conspicuity devices must be frequently checked to ensure they are kept clean.
- 5.2.8 The trailers of an A-train LCV shall be joined together by means of no-slack pintle hook(s), equipped with an air or hydraulic ram. The no-slack ram is to be incorporated in either the pintle hook or the pintle hook eye of the coupling apparatus.

5.2.9 For any stinger-steer LCV combination, the tractor fifth wheel and the

structure to which it is mounted must be rated for at least 100,000 lbs (45,360 kg) pulling capacity.

5.2.10 Note: See Appendices 2, 3 ,4 for schematics of vehicle configurations.

5.3 LCV Driver Certification

The Atlantic Provinces Trucking Association (APTA) is the sole coordinating body for all LCV driver training in NB. – see appendix 5 for an overview of the APTA Driving Certification Program

The APTA is responsible to issue an annual LCV Driver's Certificate to all drivers operating LCV units. The Driver's Certificate is to be valid for a period of 12 months after the date of issue and must be in the possession of the driver at all times when operating an LCV. The certificate must be presented when requested by a peace officer.

The Driver's Certificate will be issued by the carrier after confirmation has been received that the driver has:

- 5.3.1 A valid class 1 driver's license or equivalent with air endorsement.
- 5.3.2 A minimum of five (5) years of tractor trailer driving experience. (Experience on multi-trailer units would be an asset).
- 5.3.3 Passed the Atlantic Provinces Trucking Association's (APTA) Longer Combination Vehicles Driver Training Course (see appendix 4).
- 5.3.4 A driver's abstract dated not more than one month prior to the issue date of the Drivers Certificate that shows no driving related criminal code convictions in the prior 36 months, no more than 2 moving violations in the prior 12 months, and no more than 3 moving violations in the past 36 months.
- 5.3.5 Notes:
 - 5.3.5.1 The driver instructor must be certified as a Driver Trainer and be qualified to instruct the APTA Longer Combination Vehicle Driver Training Course.
 - 5.3.5.2 The date of conviction and the date of assessment will be the dates used to determine time periods.
 - 5.3.5.3 The APTA will keep a list of all drivers holding valid LCV Driving Certificates and must make it available to NBDTI when requested.

- 5.3.5.4 The carrier must be able to produce to DTI all documents to support driver's qualifications, upon request
- 5.3.5.5 A driver-in-training who meets: the driver's license requirements; driving experience; and abstract requirements may operate an LCV vehicle while accompanied by a driver who holds a valid LCV Driver's Certificate.
- 5.3.5.6 Note: See Appendix 6 for example of LCV Driver's Certificate
- 5.3.5.7 Section 5.3, notwithstanding, DTI will accept those LCV drivers with Quebec Drivers Licenses containing "T" Endorsements, without additional requirements. All Ontario LCV drivers operating in New Brunswick must hold a valid ATPA Driver Certificate. An OTA trained and certified LCV driver is eligible for an APTA certificate without further training or testing.

5.4 Carrier Qualifications

- 5.4.1 Carriers with Unsatisfactory Carrier Safety Ratings will be disqualified from operating LCV's in New Brunswick. Carriers with Conditional Carrier Safety Ratings may be disqualified from operating LCV's in New Brunswick.

5.5 Weather conditions

The current road report for the Province should be noted but final operational decisions should not be based entirely on that report. The latest weather forecasts from Environment Canada should be taken into consideration before a decision to operate LCVs is rendered. It will be necessary for carriers to provide their drivers with specific weather restriction data. **Note:** New Brunswick has a network of highway cameras connected to the Internet. These cameras can show real-time weather conditions. Drivers and dispatchers should make use of this tool. The following link is the site where these cameras are listed:

<http://www.gnb.ca/0113/cameras/cameras-e.asp>

Road and weather condition information, including road construction, is available through New Brunswick's 511 Traveller Information service. The information can be accessed as follows:

On-line at www.nb511.ca

By phone:
511 (within New Brunswick)
1-800-561-4063 (from outside New Brunswick)

Weather forecasts and current conditions are available through Environment Canada and can be accessed as follows:

On-line at www.weather.gc.ca

By phone:

Bas Caraquet Region – (506)-726-5286
Bathurst Region – (506)-548-3220
Edmundston Region – (506)-739-1814
Fredericton Region – (506)-451-6001
Miramichi-Chatham Region – (506)-773-7045
Moncton Region – (506)-851-6610
Saint John Region – (506)-636-4991

LCV units shall not operate when weather systems include:

- a) freezing rain, sleet, hail, fog
- b) heavy snowfall accumulations resulting over short time periods
- c) highway surface is partially snow covered, fully snow covered, snow packed, icy, or there is a road closure.
- d) visibility is less than 500 m (due to blowing snow, rain, or other conditions)
- e) blizzard like conditions exist
- f) slippery road conditions exist such as ice or snow covered
- g) heavy cross winds are present throughout the haul route or at specific sections of the haul route. (This factor is especially important when empty trailers form part of the LCV configuration).

LCV units must not be dispatched when adverse weather conditions are expected or known to be present on the route during the hours of travel. It is appropriate to consult additional resources regarding road and weather conditions other than the ones described above, to support the decision of whether it is appropriate to operate an LCV. All carriers are required to carefully evaluate the risk of changing weather conditions that have the potential to affect visibility and road conditions.

The carrier, at time of application for the permit, is to provide DTI with a copy of their instructions to drivers relative to weather conditions and vehicle operations.

NOTE:

In cases where a driver commences a run under acceptable weather conditions and encounters unexpected inclement weather, **the unit must exit the highway at the first designated refuge area – Highway on ramps only.** It may be necessary for the driver to reduce speed to the nearest refuge area. (List of refuge areas are presented in Appendix 5)

6.0 Freight conditions

- 6.1** The carrier shall indicate on the permit application the type of freight to be transported, and whether it is being transported in a van or a container.
- 6.2** LCV must not carry any dangerous goods of Class 1 or Class 7 (explosives or radioactive products).
- 6.3** LCV must not carry livestock.
- 6.4** Where product is subject to movement anti-skid mats may be required.
- 6.5** The load on the LCV must be assembled to prevent cargo movement. The National Safety Code Standard 10 - Cargo Securement – will apply.

7.0 The APTA LCV Driver's Certificate

The LCV Driver's Certificate is to be issued by the APTA and will be valid for one year. If a driver holding a APTA LCV Driver's Certificate ceases to be employed by a carrier, the carrier shall inform the APTA to ensure that the driver's name be removed from the list of current LCV drivers. The LCV Driver's Certificate must show the following information:

- Driver's name;
- Company's name;
- Date of issue and expiry date;
- Signature and printed name of the person issuing certificate.

An example of a Driver's Certificate is presented in Appendix 6.

8.0 Reportable Collision/incident reporting procedures

DTI will use the incident information provided on its collision/incident reporting form as completed by the appropriate police officer. However, to complete a full analysis of a LCV Collision/incident, additional data must be provided to the

Project Development and Asset Management Branch - DTI, by the carrier within 48 hours of the Collision/incident. This information will be subject to the same confidentiality agreements as the form completed by the police. A form called LCV Collision/incident Reporting Form will be provided.

Reportable Collision/incidents include vehicle and property damage greater than \$1,000 or any severity of injury to occupant(s). Note that the dollar amount at which a collision/incident is reportable is set by provincial legislation and is subject to change. Incidents that occur in the carrier's yard or terminal do not require reporting of damage.

Example: A report to DTI would be required if an LCV ran off the road with or without any sustained damage to the LCV or damage to property, or injuries to one or more persons.

The information to be provided includes, but is not limited to:

1. Description of LCV unit
2. GVW of unit at time of Collision/incident
3. Cargo type
4. Description of load and placement of load on each trailer of the LCV unit.
5. Copy of on-board speed record at time of accident
6. Copy of LCV Driver's Certificate
7. Description of vehicle trip (e.g. origin and time of trip start, route to destination)
8. Copy of driver's log book for this trip
9. Tractor and trailers registration number
10. Driver's description of weather along route and at Collision/incident site
11. Driver experience on LCV's, estimated number of trips and total distance driven on LCV's

Appendix 1: Information Required to Support LCV Application

The following information must be included in the application for the LCV operating permit.

1.1 Operation details

- Registered owner of the power unit(s) and trailers:
- Carrier name:
- Contact person:
- Telephone:
- Fax:
- E-Mail Address:
- Street Address:
- City:
- Postal Code
- Province or State:
- Insurance Company:
- Policy Number:

1.2 Vehicle data

Vehicles (Number of vehicle types to be operated)
Power Units (Tractors)
Trailers (A-train configuration)
Trailers (B-train configuration)
Trailers (Double Stinger-Steer Auto Carrier configuration)

1.2.1 Power unit details (Include information for each power unit to be operated)

Year
Make
License Plate Number
Province or State
Full Serial Number
Horsepower
Torque
Speed recording device
Vehicle Length (ft. or m)

1.2.2 General route details

Origin
Destination
One-way or return trip
Highway numbers of desired routing
Highway Exit number (leaving from origin)
Highway Exit number(s) for other intermediate stops
Highway Exit number (arriving at destination)
Frequency (Daily, weekly, etc.)
Number of LCV's on route
Arrival and departure times (Approx.)

1.2.3 Specific operating details to include

1.2.3.1 Origin terminal

- Describe route including map from origin terminal to entrance ramp of four-lane divided highway
 - Include street names and intersections.
 - If travelling within a municipality, written evidence of municipal endorsement of the route must be provided.
 - If the location requires use of private business facilities or property, written evidence of endorsement from property owner must be provided.
- Each turning movement required for LCV operation must be fully described in the permit application and include turning template drawing details.
 - Any modifications required to accommodate LCV operation at intersections are the responsibility of applicant carriers, including arranging permissions from local authorities (municipal and provincial governments). Written evidence of these endorsements must be provided at time of application.

1.2.3.2 Intermediate stops

- Describe route including map from exit ramp of four-lane divided highway to/from intermediate stopping locations
 - Include street names and intersections.
 - If travelling within a municipality, written evidence of municipal endorsement of the route must be provided.
 - If the location requires use of private business facilities or property, written evidence of endorsement from property owner must be provided.

- Each turning movement required for LCV operation must be fully described in the permit application and include turning template drawing details.
 - Any modifications required to accommodate LCV operation at intersections are the responsibility of applicant carriers, including arranging permissions from local authorities (municipal and provincial governments). Written evidence of this agreement must be provided at time of application.

NOTE: Refuge areas listed in Appendix 5 are not to be used as rest areas or to access food and washroom facilities. Applicants may submit turning templates to request access to such facilities.

1.2.3.3 Destination terminal

- Describe route including map from exit ramp of four-lane divided highway to destination terminal
 - Include street names and intersections.
 - If travelling within a municipality, written evidence of municipal endorsement of the route must be provided.
 - If the location requires use of private business facilities or property, written evidence of endorsement from property owner must be provided.
- Each turning movement required for LCV operation must be fully described in the permit application and include turning templates drawing details.
 - Any modifications required to accommodate LCV operation at intersections are the responsibility of applicant carriers, including arranging permissions from local authorities (municipal and provincial governments). Written evidence of this agreement must be provided at time of application.

1.2.3.4 Note: These details (1.2.4.1; 1.2.4.2 & 1.2.4.3) must also be provided for the route from origin to destination for the return trip.

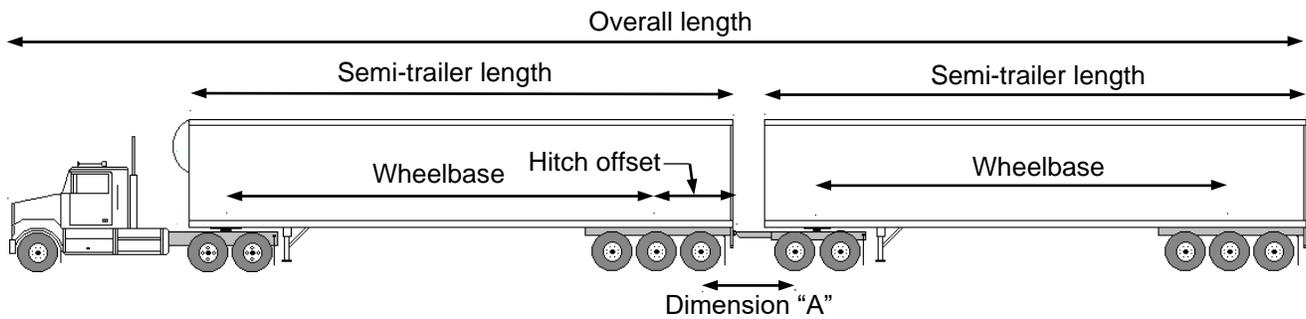
1.3 Driver Information (Include information for each driver to be registered)

Name
Driver's License Number
Class of Licence
Endorsements
Restrictions
Driving experience on articulated vehicles (years & km)
Completion date of Longer Combination Vehicles Driver Training Course (M,D,Y)

Please be aware that information you provide may be subject to an audit in accordance with appendix 5.

1.4 Weather Conditions – copy of instructions to drivers relative to weather conditions and LCV operations

Appendix 2: LCV A-train configuration

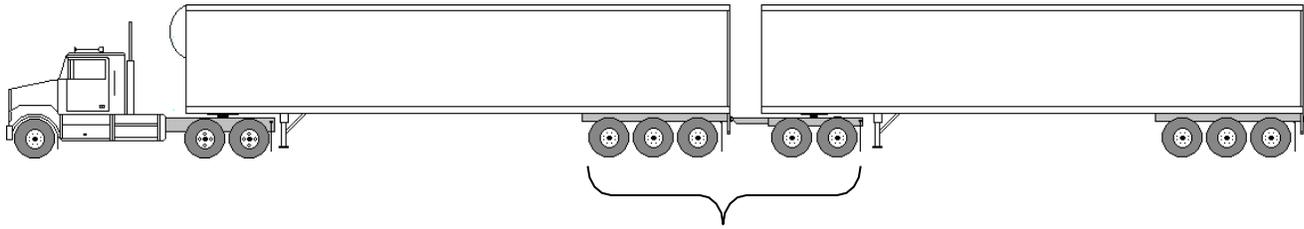


DIMENSION PARAMETERS	LIMITS
Overall	
Length of combination and load	Maximum 40 metres*
Width of vehicle and load	Maximum 2.6 metres
Height of Vehicle and Load	Maximum 4.15 metres
Tractor	
Interaxle Spacing	Minimum 3.0 metres
Tandem Axle Spread	1.2 metres to 1.85 metres
Wheelbase	Maximum 6.2 metres
Lead Semi-trailer	
Length	Minimum 12.2 metres*, Maximum 16.2 metres*
Wheelbase	
If length < 14.5 metres	
with tandem axle	Minimum 10.0 metres, Maximum 12.5 metres
with tridem axle	Minimum 9.0 metres, Maximum 12.5 metres
If length >= 14.5 metres	
with tandem axle	Minimum 11.45 metres, Maximum 12.5 metres
With tridem axle	Minimum 10.9 metres, Maximum 12.5 metres
Tandem Spread	1.2 metres to 1.85 metres
Tridem Spread	2.4 metres to 3.7 metres
Hitch Offset	
with tandem axle	Maximum 2.8 metres
with tridem axle	Maximum 3.4 metres
i) Converter Dolly	
Tandem Spread	1.2 metres to 1.85 metres
Drawbar Length	Not controlled
Track Width	2.5 metres to 2.6 metres
Second Semi-trailer or Full Trailer	
Length	Minimum 12.2 metres*, Maximum 16.2 metres*
Wheelbase	
If length < 14.5 metres	
with tandem axle	Minimum 10.0 metres, Maximum 12.5 metres
With tridem axle	Minimum 9.0 metres, Maximum 12.5 metres
If length >= 14.5 metres	
	Minimum 10.2 metres, Maximum 12.5 metres

Tandem Spread	1.2 metres to 1.85 metres
Tridem Spread	2.4 metres to 3.7 metres
Effective Rear Overhang	Maximum 35% of Wheelbase
Track Width	2.5 metres to 2.6 metres
Dimension "A"	See next page

Note: 6X2 tractor axle configuration systems are not approved for use with LCV's

Appendix 2: LCV A-train configuration (continued)

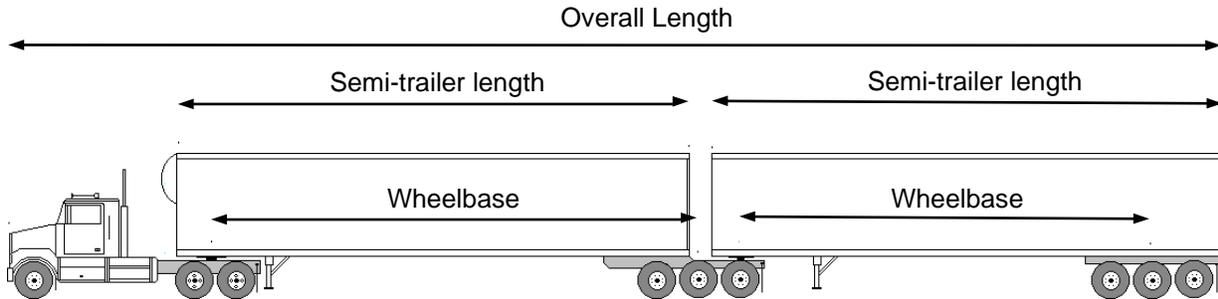


Mass Limitation 1

MASS PARAMETERS	LIMITS
Axle Mass Limits	
Steering Axle	Max 5,500 kilograms
Single Axle	Max 9,100 kilograms
Tandem Axle	
Axle Spread 1.2 metres to 1.85 metres	Max 18,000 kilograms
Tridem Axle	
Axle spread 2.4 m to less than 3.0 m	Max 21,000 kilograms
Axle Spread 3.0 m to less than 3.6 m	Max 24,000 kilograms
Axle Spread 3.6 m 3.7 m	Max 26,000 kilograms
Mass Limitation 1 (2 or 3 axles) (If Dimension "A" is less than 3 metres) Sum of Axle Masses of Lead Semi-trailer Plus Mass of Converter Dolly Axles	For 2 axle group: Maximum 18,000 kilograms For a 3-axle group: Maximum 24,000 kilograms
Mass Limitation 1 (4 axles, tandem - tandem) (If Dimension "A" is less than 5 metres) Sum of Axle Masses of Lead Semi-trailer Plus Mass of Converter Dolly Axles	Maximum 36,000 kilograms, less 1000 kilograms for every 0.5 m or portion of 0.5 m that Dimension "A" is less than 5 m
Mass Limitation 1 (5 axles, tandem - tridem) (If Dimension "A" is less than 5.5 metres) Sum of Axle Masses of Lead Semi-trailer Plus Mass of Converter Dolly Axles	Maximum 36,000 kilograms, less 1000 kilograms for every 0.5 m or portion of 0.5 m that Dimension "A" is less than 5.5 m
LCV number of axles	LCV Maximum Gross Vehicle Weight
7 Axle	57,500 kilograms
8 or more Axles	63,500 kilograms
Note:	
<ul style="list-style-type: none"> In all cases, the weight of lead semi-trailer of the configuration must be equal to or heavier than the weight of second trailer or semi-trailer. 	

Note: 6X2 tractor axle configuration systems are not approved for use with LCV

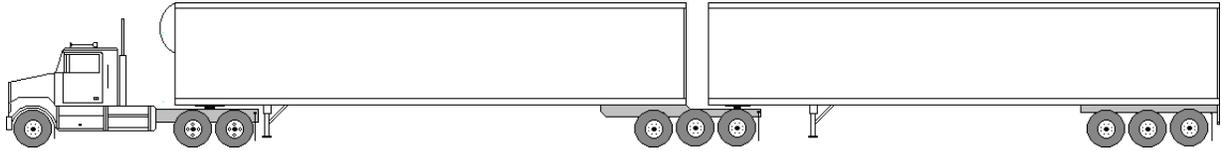
Appendix 3: LCV B-train configuration



DIMENSION PARAMETERS	Limits
Overall	
Length of combination and load	Maximum 40 metres*
Width of vehicle and load	Maximum 2.6 metres
Height of Vehicle and Load	Maximum 4.15 metres
Tractor	
Interaxle Spacing	Minimum 3.0 metres
Tandem Axle Spread	1.2 metres to 1.85 metres
Wheelbase	Maximum 6.2 metres
Lead Semi-trailer	
Length	Minimum 12.0 metres, Maximum 14.6 metres
Wheelbase	Maximum 13.5 metres
Tridem Spread	2.4 metres to 3.7 metres
Track Width	2.5 metres to 2.6 metres
Center of fifth wheel assembly	Maximum 0.3 metres rearward of the center of the rearmost axle on the semi-trailer
Second Semi-trailer	
Length	Minimum 12.2 metres, Maximum 16.2 metres
Wheelbase	Maximum 12.5 metres
Tandem Spread	1.2 metres to 1.85 metres
Tridem Spread	2.4 metres to 3.7 metres
Effective Rear Overhang	Max 35% of Wheelbase
Track Width	2.5 metres to 2.6 metres

Note: 6X2 tractor axle configuration systems are not approved for use with LCV's.

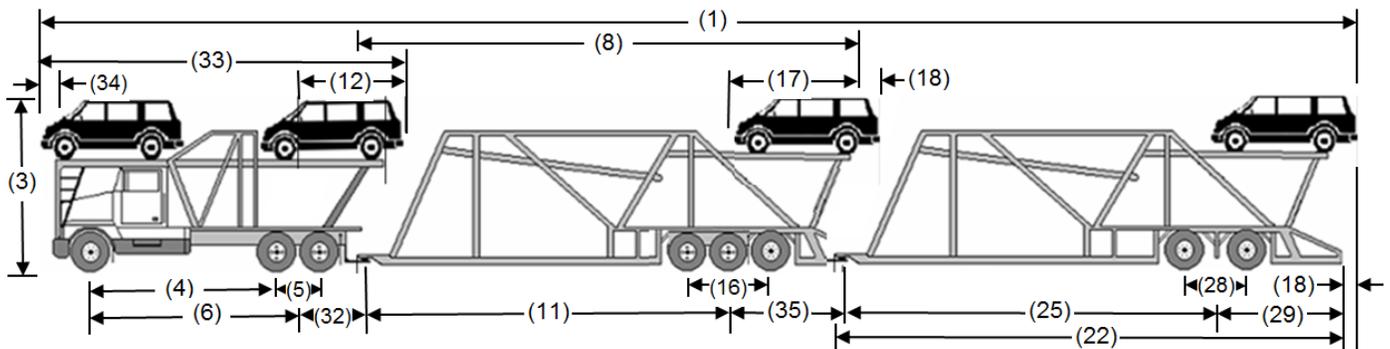
Appendix 3: LCV B-train configuration (continued)



MASS PARAMETERS	Limits
Axle Mass Limits	
Steering Axle	Max 5,500 kilograms
Single Axle	Max 9,100 kilograms
Tandem Axle	
Axle Spread 1.2 metres – 1.85 metres	Max 18,000 kilograms
Tridem Axle	
Axle Spread 2.4 metres to less than 3.0 metres	Max 21,000 kilograms
Axle Spread 3.0 metres to less than 3.6 metres	Max 24,000 kilograms
Axle Spread 3.6 metres to 3.7 metres	Max 26,000 kilograms
LCV number of axles	LCV Maximum Gross Vehicle Weight
7 Axle	59,500 kilograms
8 or more Axles	63,500 kilograms
Notes:	
<ul style="list-style-type: none"> • This configuration may include a tridem axle group on the second semi-trailer • In all cases, the lead semi-trailer of the configuration must be equal to or heavier than the second trailer or semi-trailer. 	

Note: 6X2 tractor axle configuration systems are not approved for use with LCV's.

Appendix 4: LCV Double Stinger-Steer Auto Carrier

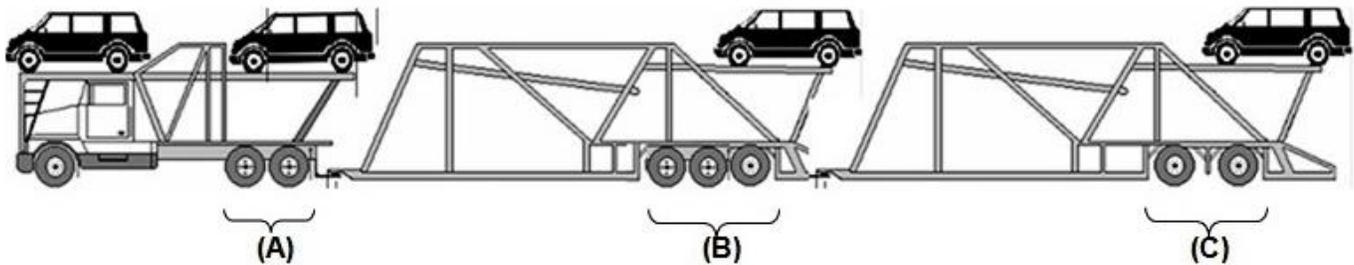


Ref.	Dimension Parameters	Limits
	Overall	
(1)	Length of Combination and Load	Maximum 40 m
(2)	Width of Vehicle and Load	Maximum 2.6 m
	Height of Vehicle	Maximum 4.15 m
(3)	Height of Vehicle and Load	Maximum 4.3 m
	Tractor	
(4)	Interaxle Spacing	Minimum 3.5 m
(5)	Tandem Axle Spread	1.2 m to 1.85 m
(6)	Wheelbase	Not Controlled
(12)	Effective Rear Overhang	Maximum 4.6 m
(32)	Hitch Offset	Maximum 1.9 m
(33)	Length	Maximum 12.5 m
(34)	Front Load Overhang	Maximum 1.0 m
	Lead Semi-trailer	
(8)	Length	Maximum 14.65 m
(11)	Wheelbase	11.35 m to 12.5 m
(16)	Tridem Axle Spread	2.4 m to 2.8 m
(17)	Effective Rear Overhang of Vehicle	Maximum 4.0 m or 42% of wheelbase (whichever is greater)
(18)	Rear Load Overhang	Maximum 1.2 m
(19)	Track Width	2.3 m to 2.6 m
	-trailer with single tires built before 2010	2.45 m to 2.6 m
	-trailer with single tires built after 2009	2.5 m to 2.6 m
	-all other trailers	2.5 m to 2.6 m
(35)	Hitch Offset	Maximum 2.4 m
	Second Semi-trailer	
(22)	Length	Maximum 14.65 m
(25)	Wheelbase	10.0 m to 12.5 m
(28)	Tandem Axle Spread	1.2 m to 3.1 m

		2.4 m to 3.7 m
(29)	Effective Rear Overhang of Vehicle	Maximum 4.0 m or 42% of wheelbase (whichever is greater)
(18)	Rear Load Overhang	Maximum 1.2 m
(30)	Track Width	2.3 m to 2.6 m
	-trailer with single tires built before 2010	2.45 m to 2.6 m
	-trailer with single tires built after 2009	2.5 m to 2.6 m
	-all other trailers	2.5 m to 2.6 m

Note: When the trailers are de-coupled and pulled individually behind a tractor, the resulting tractor trailer combination must comply with the dimension and mass requirements of a Stinger-Steer automobile or boat carrier, as described in New Brunswick *Regulation 2001-67 Vehicle Dimension and Mass Regulation* under the *Motor Vehicle Act*.

Appendix 4: LCV Double Stinger-Steer Auto Carrier (continued)



MASS PARAMETERS	Limits
Axle Mass Limits	
Steering Axle	Maximum 5,500 kg
Tandem Axle	
Tractor	Maximum 18,000 kg
Trailer	Maximum 18,000 kg
Tridem Axle	Maximum 21,300 kg
Mass Limitation 1 (A) > (C)	Mass on drive axles (A) must exceed mass on second trailer axles (C)
Mass Limitation 2 (B) > (C)	Mass on lead trailer axles (B) must exceed mass on second trailer axles (C).
Allowable Gross Vehicle Weight (AGVW)	Sum of the actual weight on the front axle plus the allowable masses of all other axles (none of which exceed any limits in this chart). AGVW shall not exceed 55,000 kg.

Appendix 5: Overview of the APTA LCV Driver's Certification Program

The Atlantic Provinces Trucking Association (APTA) is the sole coordinating body for all LCV driver training in New Brunswick.

APTA Database

APTA will maintain a database that contains the names of all LCV drivers, instructors and carrier LCV contacts of companies approved by (DTI) for LCV operations in New Brunswick. The purpose of the database is to ensure all drivers, instructors and carriers are registered and there is a single source of information available to various Government Departments to validate drivers and instructors training certificates.

The responsibility for inputting information into the database for instructors and drivers remains the responsibility of the carrier's primary LCV contact.

Standards for curriculum

The curriculum for LCV training in New Brunswick with the APTA LCV Program is as follows:

- 3 pre-requisite tests (Air Brakes, Vehicle Inspection, Hours of Service)
- In class training, based on the Canadian Trucking Alliance's Longer Combination Vehicles Driver Training Course and that includes the regulatory requirements pertaining to LCV's in New Brunswick, Nova Scotia, Quebec and Ontario,
- Final Exam
- Yard Training (Coupling & De-coupling)
- On-route Training (1,000km of Local & Highway)
- Final Road Test

Standard for Delivery

Certifying LCV Drivers

LCV driver certification is obtained by drivers who meet the entry criteria through the carrier that employs or contracts them to operate LCVs on their behalf. Drivers can only be certified by approved LCV instructors working on behalf of a carrier. There are two categories of drivers; drivers with current valid LCV experience, and drivers that have no experience.

Drivers with Previous LCV Experience

Currently, Drivers holding a valid and current certificate to operate an LCV in another province, having at least 1000 km of LCV driving experience, can be certified to operate an LCV in New Brunswick and Nova Scotia through the carrier that employs them. Additional training is not required; however the carrier must orient the driver on all aspects of the NB and NS permit conditions. Once satisfied the driver meets all the requirements as outline in Section 5.3 of this guide, the carrier primary LCV contact must sign off on the driver and submit information to APTA. APTA will then issue an LCV drivers certificate to the carrier in the name of the driver.

Drivers without Previous LCV Experience

Drivers who do not yet have LCV certification must attend certification training. Certified APTA LCV instructors working for the carrier for whom the driver works will provide classroom and practical instruction. After successful completion of prerequisite knowledge tests, participation in a day of classroom instruction and successful completion of a final knowledge examination, drivers will receive a driver-in-training certificate. During the practical skill development stage the novice LCV driver must be accompanied by a certified LCV instructor approved under the APTA program.

Responsibility of Carriers for LCV Drivers

The carrier must validate all driver qualifications as outlined in section 5.3 of this guide. and provide a signed declaration and supporting documents to APTA. Upon successful completion of all aspects of the training, the driver obtains his/her LCV driver certificate that is valid for one year as long as the driver remains with that carrier. Drivers who move to a different carrier must be

recertified by that carrier. Once satisfied the driver meets all the requirements, the carrier primary LCV contact must sign off on the driver and submit information to APTA, who will then issue an LCV driver certificate to the carrier in the name of the driver.

Certifying LCV Instructors

LCV Instructors will also be certified through the APTA program. The information below outlines two types of instructors. All instructors must be qualified and/or experienced to deliver adult learning.

Previously Qualified LCV Instructors

Instructors holding a valid and current LCV Instructor certificate in another province can migrate to the APTA program through the carrier that employs them or contracts their services. These instructors will attend an orientation session to familiarize themselves with all aspects of the APTA program and obtain certification as Instructors.

New LCV Instructors

Persons wishing to become certified as LCV Instructors, but who have no previous qualifications as an LCV Instructor, must first become qualified as an LCV driver and accumulate a minimum of 10,000 km LCV driving experience. Instructors can then participate in the APTA train-the-trainer program. This involves one day of the classroom instruction and one day of yard training.

Standard for Program Admin

Each LCV approved company will assign a LCV Primary Contact to manage the system and be the key contact for this carrier. A LCV contact administrator can also be assigned to do all the administrative work. An LCV contact will assume the administrative role on behalf of the carrier for LCV instructors and LCV drivers employed or contracted to work for that carrier. The LCV Contact must submit information to APTA and enters data into the online LCV Program Management System and Database (lcv.apta.ca). The LCV Contact has the highest level of database access available to the carrier.

Compliance officers will be able to validate all APTA Driver certificates with the help of this website lcv.apta.ca/validate. They will simply require identifying themselves and enter the certificate number that requires validation.

Audit

DTI must each be able to ensure that driver training and certification meet the oversight requirements set out above.

The APTA and LCV carriers delivering the training must also ensure that they have the capacity to monitor the LCV driver training program and report back to NBDTI.

In order to meet these objectives, DTI will require that APTA conduct an audit to confirm compliance with the LCV driver training and certification requirements and provide a report to DTI. All drivers participating in the LCV Program will be audited over a five-year period with 20% of the drivers being audited in any one year. It is expected that approximately 2%- 5% drivers in any year will audited to the detail of logbooks entries and driver abstracts to validate that drivers have met and continue to meet the minimum entrance requirements.

By end of each fiscal year a briefing of the audit will be provided to DTI reporting on that years finding, with a full report compiling the 5-year history once every five years.

Key element of the audit program:

- An independent auditor will be chosen and agreed upon by DTI based on recommendations by APTA .
- The cost of the audit will be borne by industry/APTA.
- The areas to be reviewed will include but not be limited to:
 - Ensuring the training program requirements are met in relation to curriculum, program delivery and administration.
 - Ensuring that all LCV Instructors, Drivers, and Carrier Representatives are certified through the APTA's program.
 - Ensuring that drivers entering the APTA's LCV Driver Certification Program without previous LCV experience have met the entrance requires of section 5.3 of this guide and have participated in the full APTA LCV Driver Training Program for new LCV drivers, which includes classroom instruction and successful completion of a final knowledge examinations, completion of in-yard practical training, 1,000 km (minimum) of LCV driving accompanied by a certified instructor, and their final road test.

- Ensuring that all drivers entering the APTA LCV Program with previous LCV experience have met the entrance requirements of section 5.3 of this guide and be registered and certified, applicable to their experience level, and be able to demonstrate an understanding of the New Brunswick and Nova Scotia LCV Program Conditions and requirements.
- The format of the report back from the independent auditor to NBDTI will be agreed upon by APTA and DTI.
- Based on the audit, DTI may identify areas that require attention the APTA and/or specific LCV carriers.
- In addition, DTI reserves the right to require an audit of any participating carrier at any time, where specific attention is necessary

Appendix 6: Example of LCV Driver's Certificate

 apta ATLANTIC PROVINCES TRUCKING ASSOCIATION	LCV Driver Certificate
Certificate #:	
Driver Name:	
Lic #:	
Effective Date: 2015-01-01 Expiry Date: 2015-12-31	
Driver Signature: _____	
Carrier: _____	
LCV Contact Signature: _____	
LCV Contact: _____	

Appendix 7: List of LCV refuge areas - Highway on-ramps only

Note: WB = Westbound, EB = Eastbound

Note: The following is a list of pre-approved refuge areas that can be used by LCV operators in case of emergency, a breakdown, or unexpected adverse weather conditions. These may also be used for en-route inspections.

Route 2			
Exit/km	Location	WB Refuge (To QC)	EB Refuge (To NS)
	Memramcook weigh scale	Yes	Yes
	Salisbury weigh scale	Yes	Yes
433	Salisbury	Yes	Yes
414	885 - Havelock/Petitcodiac	Yes	No
365	Chipman/Sussex	No	Yes
347	Mill Cove	Yes	Yes
303	Oromocto	Yes	No
297	Nevers Road Lincoln	Yes	Yes
285	New Maryland	No	Yes
275.4	Deerwood Scale	Yes	NA
271	Mazzerole St. Road	No	Yes
253	Kings Landing	Yes	Yes
212	Canterbury/Meductic	Yes	Yes
200	Debec / Dugan Rd.	Yes	Yes
185	Connell Rd Woodstock	No	Yes
172	Hartland	Yes	Yes
99	New Denmark	Yes	No
88	Rte. 130/Limestone ME	No	Yes
83	Grand Falls Portage Road	Yes	No
75	Rte. 108 / 255	No	Yes
58	Rte. 17 St Leonard	No	Yes
56	Grande Riviere St Leonard Irving Mill	Yes	Yes
49.5	Scale WB	Yes	NA
26	Sainte Basile - Principale St	No	Yes
21	Saint Basile – Iroquois St	No	Yes
18	Edmundston Centre	Yes	No
3.4	Weigh scale St. Jacques	NA	No
0	Quebec/NB Border	NA	

NOTE: Refuge areas listed are not to be used as rest areas or to access food and washroom facilities. Applicants may submit turning templates to request access to such facilities.

Appendix 7: List of LCV refuge areas – Highway on ramps only (cont'd)

Route 95			
Exit/km	Location	Refuge	Refuge
There are no refuge areas on Route 95			

Route 1			
Exit/km	Location	WB Refuge (To U.S.)	EB Refuge (To Moncton)
233	Petitcodiac	Yes	Yes
211	Fundy Park	No	Yes
195	Sussex	Yes	Yes
175	Norton	Yes	No
167	Bloomfield	No	Yes
159	Hampton	No	Yes
	Fairvale Scale site	Yes	No
96	Musquash	No	Yes
93.5	Temporary Weigh Scale	NA	Yes
84.8	End of divided highway		

NOTE: Refuge areas listed are not to be used as rest areas or to access food and washroom facilities. Applicants may submit turning templates to request access to such facilities.

Appendix 8: NB LCV Accident Reporting Form



LCV ACCIDENT REPORTING FORM

NB Department of Transportation and Infrastructure
Project Development and Asset Management Branch
PO Box 6000 Fredericton NB E3B 5H1

This form must be completed in addition to Accident Reporting Form that is completed by the police officer at the scene. Ensure that this form is submitted to the NB Department of Transportation and Infrastructure, Project Development and Asset Management Branch within 48 hours of the accident. The information contained here-in is subject to the same confidentiality agreements as the form completed by the police.

All pages must be completed when submitted.

LCV Special Permit No:
Tractor Registration Number:
Trailer (lead) Registration Number:
Trailer (rear) Registration Number:

LCV Company Name:	
Address1:	
Address2:	
City:	Province:
Postal Code:	
Contact person:	
Phone No.:	
Date prepared:	

Date of accident (day-month-year):

Time of accident:

Driver's description Road & Weather conditions at the location and at time accident occurred:

Location of Accident: (describe the location by kilo markers or exit number and direction of travel)

LCV Description (e.g. A or B train configuration):

Trailer combinations: e.g. 48,48 or 53,53 etc

GVW of combination at time of accident:

Cargo Type Description for each trailer:

Description of load and placement of load on each trailer of the LCV unit: draw sketch below (or attach):

Detailed Description of LCV's trip (e.g. origin, start time, route taken)

Driver's experience on LCV's:

Estimate number of trips by driver:

Driver's description and account of accident:

(Provide photos if available)

Attach copy of on-board speed record at time of accident

Attach copy of LCV Driver's Certificate

Attach copy of Drivers log book for this trip