Commercial Vehicle Safety & Compliance

Presented for:

Infrastructure Health & Safety Association™
A Health & Safety Ontario Partner

May 7, 2015
Purpose

- To provide an overview of MTO’s commercial truck and bus safety and enforcement program.
Program Objective

- Support road safety by reducing collisions and fatalities involving Commercial Motor Vehicles (CMV)
Operating Environment

**Trade:**
- Annually, $1.2 trillion worth of goods is moved by trucks – expected to double in the next 30 years.
- Ontario’s two-way trade with the U.S. totals ~$280 billion per year
- ~ 80% of Ontario’s trade with the U.S. moves by truck

**Traffic Growth and Density:**
- 1.4 million registered commercial vehicles
  - 267,800 trucks and 33,000 buses
  - 585,000 commercial drivers
- More than 6.7 million trucks cross the Ontario/U.S. border last year
Strategic Approach

- **Maintaining Relevant Safety Standards** – Developing and continuously improving the driver, vehicle and carrier standards to improve road safety.

- **Risk Based Detection** – Utilise programs aimed at better identification of low and higher risk carriers to more effectively direct enforcement resources and remedial programs (e.g. CVOR system, directing enforcement resources along known bypass routes).

- **Deterrence** – Imposition of strong deterrent measures to encourage compliance (e.g. increased fines and aggressive legislation e.g. CMV Impoundment).

- **Incentives** – Introduction of meaningful incentives to reward industry investments in safety (e.g. MTO contracts for safe carriers, pre-clearance, CVOR Renewal etc.).
Program Impacts

- Over a 70% reduction in the number of reported wheel separations since the mid-90’s (215 in 1997).
- 78% of trucks inspected during 2014 RoadCheck were found to be in compliance.
- Approximately 121,000 trucks, buses and drivers are inspected by MTO annually.
- More than 28,000 charges laid.
- 715 facility audits of carriers.
- Over 2,300 unsafe commercial vehicles impounded since 1998.
- Between 2000 and 2010, the large truck population in Ontario grew by 36.0%, while the number of fatal collisions involving large trucks decreased by 28% during the same period.
2014 - Inspections By Agency (total = 121,087)
RoadCheck Compliance Comparison

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<tr>
<td>Ontario</td>
<td>71.2</td>
<td>75.1</td>
<td>77.6</td>
<td>77.6</td>
<td>77.1</td>
<td>79.9</td>
<td>76.2</td>
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<td>81.9</td>
<td>81.5</td>
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<td>82</td>
<td>82.6</td>
<td>78.5</td>
<td>77.9</td>
</tr>
</tbody>
</table>
Fatalities Involving Large Trucks

Preliminary 2011 Fatalities = 100

Commercial Vehicle Safety
Key Enforcement Activities

- On-road inspections (TIS and area patrol)
- Facility Audits
- Commercial vehicle impoundment
- School bus and motor coach inspections
- Weight and dimensions enforcement
- Dangerous goods inspections
- Issuance of oversize/overweight permits
- Motor Vehicle Inspection Station investigations and audits
- Promote education and awareness
- Respond to public enquiries and liaise with local constituency offices
- Emerging issues (speed limiters, tow trucks, aggregate enf.)
**Deployment**

**Detection Strategy:** Enforcement resources are deployed strategically using a risk-based, time sensitive approach:

- high volume corridors,
- at the gateways inbound to Ontario and inbound to large urban areas (Toronto, Ottawa),
- where the potential for personal injury and fatalities is relatively higher,
- where current out-of-service rates and non-compliance are known to be higher,
- where commercial vehicle collision rates are relatively higher, and
- at known truck bypass routes, problem industry sectors and in specific geographic areas.
Carrier Safety & Enforcement Program

Field Resources Include:

- 4 Regions
- 13 Districts
- 340 Transportation Enforcement Officers
- 32 fixed truck inspection stations (TIS)
  - Includes 15 Commercial Vehicle Impoundment Program stations
- 69 lay-by locations
- 2 Mobile TIS (staffed seasonally)
- ~ 180 enforcement vehicles
What is a Commercial Motor Vehicle?

- **Highway Traffic Act – Section 1**
  - “Commercial Motor Vehicle” means a motor vehicle having permanently attached thereto a truck or delivery body and includes ambulances, hearses, casket wagons, fire apparatus, buses and tractors used for hauling purposes on the highways;”
The “On-Road” Inspection Process

- Commercial vehicles with a gross weight of 4,500 kg or more are required to enter TISs when directed by signals and signage on the highway.

- Officers select vehicles for inspection based on:
  - Year/type of vehicle
  - Mechanical condition
  - Load characteristics
  - Safety requirements
  - Permitting/licensing requirements
  - Weight/dimensional compliance

- MTO enforcement officers also patrol bypass routes to detect trucks avoiding inspection stations.
The Inspection Process

- Commercial vehicles are inspected to North American standards set out by the Commercial Vehicle Safety Alliance (CVSA).
- Vehicles selected for inspection may be subject to either a Level 1, Level 2 or Level 3 CVSA inspection.
- A Level 3 inspection involves an inspection of the driver’s license; hours of service; seat belt; vehicle inspection report; and HM requirements.
- A Level 2 inspection involves inspection of the driver’s documentation and a walk-around inspection of the vehicle and load to observe any obvious safety violations and document check.
- A Level 1 inspection involves a more in-depth inspection including items from a Level 3 as well as a full physical examination of the commercial vehicle.
- Any defects or non-compliance found by an officer are recorded on a report and forwarded to St. Catharines for inclusion on the carrier’s safety record.
The Inspection Process (cont’d)

- Where an inspection reveals no violations, the driver and vehicle is allowed to proceed.
- In cases where violations are detected, enforcement officers may issue a warning or charge the driver, owner or operator of the vehicle.
- Vehicles that are found to have out-of-service vehicle defects must have the defects repaired before proceeding.
- A commercial vehicle found to be critically defective would be impounded for 15 days. Second and third incidents with the same commercial vehicle over a two-year period carry a 30 and 60 day impound period, respectively.
Carrier Services

- The MTO offers a variety of services to the commercial vehicle industry in Ontario.
- MTO responsible for the administration of:
  - Commercial Vehicle Operator’s Registration (CVOR)
  - Over-weight/over-dimensional (O/O permits)
  - Motor vehicle inspections station (MVIS) licensing and inspection certificates, and mandatory vehicle branding
Hours of Service (O. Reg. 555/06)
Hours of Service (O. Reg. 555/06)

Applies to a commercial motor vehicle as defined by HTA section 16(1).

Exemptions from Regulation

Does not apply to:

- A driver while driving a pick-up truck that,
  a) is being used for personal purposes without compensation; and
  b) is not carrying, or towing a trailer that is carrying, commercial cargo or tools or equipment of a type normally used for commercial purposes.
What is a “Pick-up truck”?

Means a commercial motor vehicle that,

a) has a manufacturer’s gross vehicle weight rating of 6,000 kilograms or less, and

b) is fitted with either,

i. the original box that was installed by the manufacturer, which has not been modified, or

ii. a replacement box that duplicates the one that was installed by the manufacturer, which has not been modified.
Hours of Service

Driver Responsibilities:

- Must not drive after being on-duty for:
  - 70 hours in 7 consecutive days;
  - 120 hours in 14 consecutive days provided driver has 24 hours off-duty within the 14 day period.
Hours of Service

Driver responsibilities:

- Driver cannot drive after:
  - 13 hours driving time within a single day or work shift
  - 14 hours on-duty time within a single day or work shift
  - 16 hours elapsed time from end of last 8 or more consecutive hours off-duty.

Note: “on-duty” means any time driver performs activities for an operator as an employee except for time during which operator relieves the driver from responsibility.
Hours of Service

Driver’s Daily Log
18. (1) A driver is not required to keep a daily log for a day if the driver,

   (a) on the operator’s instructions, drives a commercial motor vehicle solely within a radius of 160 kilometres of the location at which the driver starts the day; and

   (b) returns at the end of the day to the same location from which he or she started.

(2) Subsection (1) does not apply to a driver who is driving under a permit issued under section 191 of the Act.
(3) If a driver is not required to keep a daily log for a day pursuant to subsection (1), the operator shall keep a record for the day showing,

(a) the date, the driver’s name and the location at which the driver starts and ends the day;

(b) the cycle the driver is following;

(c) the hour at which each duty status starts and ends and the total number of hours spent in each duty status; and

(d) the number of hours of on-duty time and the number of hours of off-duty time, within the meaning of this Regulation, that the driver accumulated each day during the 14 days immediately before the start of the day, for which the driver was exempt from this Regulation and not required to keep a daily log.
Multiple Deliveries and Pickups

(4) For the purpose of clause (3)(c), if the driver is on duty within a municipality such that a number of periods of driving time are interrupted by a number of periods of other on-duty time of less than one hour each, the periods of driving time may be combined and the periods of other on-duty time may be combined.
Commercial Motor Vehicle Inspection Requirements
O. Reg. 199/07
“Daily Inspections”
The Carrier’s Role – Pre-Trip Inspections

- Vehicle maintenance and timely repairs.
- Clear company policies that provide direction to the driver that support legislation and carrier maintenance practices.
- Train drivers in vehicle inspection.
- Train dispatchers to respond appropriately when a driver reports a major defect that requires immediate repair.
- Establish inspection practices that correspond to vehicle type and configuration.
- Provide drivers with the inspection reports and the appropriate schedule.

Commercial Vehicle Safety
The Driver’s Role Pre-Trip Inspections

- Trip inspection is designed to act as a fail-safe with regard to the carrier’s maintenance efforts.
- Each inspection assesses the vehicle’s roadworthiness.
- Drivers are expected to perform inspections for visible evidence of defective or degraded vehicle components.
- Drivers should be able to distinguish between minor and major defects.
The Driver’s Role

- Drivers are expected to have major defects, which pose a safety risk, repaired immediately.
- Drivers are expected to record minor defects and advise the carrier.
- Drivers will have an ongoing responsibility to monitor the mechanical condition of the vehicle throughout its operation.
Defects

- Defects have been divided into two categories to allow carriers and drivers to respond based on how serious a safety risk is posed by the defect.
  - **Minor** defects are related to vehicle maintenance. Minor defects in many cases are linked to Regulation 611.
  - **Major** defects pose an imminent safety risk. Major defects are closely linked to the CVSA out-of-service criteria.
Trucks

Commercial Vehicle Safety
Daily Pre-Trip Inspection Requirements

- Conduct a full inspection every 24 hours.
- Monitor the condition of the vehicle throughout the trip.
- Identify & respond to defects.
- Record & report defects to the carrier.
- Complete and carry a daily report.
- Carry an itemized defect list.
Daily Requirements

- Air Brake System
- Cab
- Cargo Securement
- Coupling Devices
- Dangerous Goods
- Driver Controls
- Driver Seat
- Electric Brake System
- Emergency Equipment & Safety Devices
- Exhaust System
- Frame & Cargo Body
- Fuel System
- General
- Glass & Mirrors
- Heater/Defroster
- Horn
- Hydraulic Brake System
- Lamps & Reflectors
- Steering
- Suspension System
- Tires
- Wheels, Hubs & Fasteners
- Windshield Wiper/Washer
A daily vehicle inspection report must include:

- License plate number & jurisdiction
- Operator’s name
- Date & time of inspection
- City, town, village or highway location of inspection
- Name & signature of person conducting the inspection
- Signature of current driver
- Odometer reading
- List of defects, or a statement that no defects were found
The Inspection Report

<table>
<thead>
<tr>
<th>Tractor/Truck Code(s)</th>
<th>D</th>
<th>R</th>
<th>NSC #</th>
<th>Inspection Item</th>
<th>Trailer Code(s)</th>
<th>D</th>
<th>R</th>
<th>NSC</th>
<th>Inspection Item</th>
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<td></td>
<td></td>
<td>General</td>
<td>21</td>
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<td></td>
<td></td>
<td>Air Brake System</td>
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<td>2</td>
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<td></td>
<td></td>
<td>Cab</td>
<td>22</td>
<td></td>
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<td></td>
<td>Tires</td>
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<td>6</td>
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<td></td>
<td></td>
<td>Driver Controls</td>
<td>20</td>
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<td></td>
<td></td>
<td>Wheels, Hubs, Fasteners</td>
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<td>15</td>
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<td>Heater/Defroster</td>
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<td>Suspension System</td>
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<td>Horn</td>
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<td>Coupling Devices</td>
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<td>19</td>
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<td></td>
<td></td>
<td>Steering</td>
<td>18</td>
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<td>Lamps/Reflectors</td>
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<td>7</td>
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<td>Lights</td>
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<td>Glare Suppressors</td>
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<td>Frame and Cargo Body</td>
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<td>Windshield Washer</td>
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<td>Cargo Securement</td>
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<td>Emergency lights and Equipment</td>
<td>17</td>
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<td></td>
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<td>Hydraulic Brakes</td>
</tr>
</tbody>
</table>

Minor/Major Defect Code(s) above:

Defects En Route:

☐ Above defects corrected
☐ Above defects need not be corrected for safe operation of vehicle

Authorized Repairer’s Signature

Date

Driver’s Signature

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Commercial Vehicle Safety
Schedules (O. Reg. 199/07)

Schedule 1  Daily inspection of trucks, tractors and trailers
Schedule 2  Daily inspection of buses and of trailers drawn by buses
Schedule 3  Daily inspection of motor coaches
Schedule 4  Under-vehicle inspection of motor coaches
Schedule 5  Daily inspection of school purposes buses
Schedule 6  Daily inspection of school purposes vehicles
Schedules

- An operator may include additional information on a schedule to assist the person who will conduct the inspection.
- An operator may delete a portion of a schedule respecting the inspection of a specific vehicle component if the vehicle to be inspected is not required to have and does not have that component.
### Schedule 1

#### Daily Inspection of Trucks, Tractors and Trailers

<table>
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<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems and Components</td>
<td>Minor Defects</td>
<td>Major Defects</td>
</tr>
<tr>
<td>Part 1. Air Brake System</td>
<td>(a) audible air leak. (b) slow air pressure build-up rate.</td>
<td>(a) pushrod stroke of any brake exceeds the adjustment limit.¹ (b) air loss rate exceeds prescribed limit.² (c) inoperative towing vehicle (tractor) protection system. (d) low air warning system fails or system is activated. (e) inoperative service, parking or emergency brake.</td>
</tr>
<tr>
<td>Part 2. Cab</td>
<td>(a) occupant compartment door fails to open.</td>
<td>(a) any cab or sleeper door fails to close securely.</td>
</tr>
<tr>
<td>Part 3. Cargo Securement</td>
<td>(a) insecure or improper load covering.</td>
<td>(a) insecure cargo. (b) absence, failure, malfunction or deterioration of required cargo securement device or load covering.³</td>
</tr>
<tr>
<td>Part 4. Coupling Devices</td>
<td>(a) coupler or mounting has loose or missing fastener.</td>
<td>(a) coupler is insecure or movement exceeds prescribed limit.⁴ (b) coupling or locking mechanism is damaged or fails to lock. (c) defective, incorrect or missing safety chain or cable.</td>
</tr>
<tr>
<td>Part 5. Dangerous Goods</td>
<td></td>
<td>(a) dangerous goods requirements not met.⁵</td>
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</tbody>
</table>

**Commercial Vehicle Safety**
# Schedule 1

## Daily Inspection of Trucks, Tractors and Trailers

<table>
<thead>
<tr>
<th>Note: Grey areas indicate Major Defects</th>
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<tbody>
<tr>
<td>1. Air Brake System</td>
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<tr>
<td>1.1 - audible air leak.</td>
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<tr>
<td>1.2 - slow air pressure build-up rate.</td>
</tr>
<tr>
<td>1.3M - pushrod stroke of any brake exceeds the adjustment limit.</td>
</tr>
<tr>
<td>1.4M - air loss rate exceeds prescribed limit</td>
</tr>
<tr>
<td>1.5M - inoperative towing vehicle (tractor) protection system.</td>
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<tr>
<td>1.6M - low air warning system fails or system is activated.</td>
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<tr>
<td>1.7M - inoperative service, parking or emergency brake</td>
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<tr>
<td>2. Cab</td>
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<tr>
<td>2.1 - occupant compartment door fails to open</td>
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<tr>
<td>2.2M - any cab or sleeper door fails to close securely.</td>
</tr>
<tr>
<td>3. Cargo Securement</td>
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<tr>
<td>3.1 - insecure or improper load covering.</td>
</tr>
<tr>
<td>3.2M - insecure cargo.</td>
</tr>
<tr>
<td>3.3M - absence, failure, malfunction or deterioration of required cargo securement device or load covering</td>
</tr>
<tr>
<td>4. Coupling Devices</td>
</tr>
<tr>
<td>4.1 - coupler or mounting has loose or missing fastener.</td>
</tr>
<tr>
<td>4.2M - coupler is insecure or movement exceeds prescribed limit</td>
</tr>
<tr>
<td>4.3M - coupling or locking mechanism is damaged or fails to lock.</td>
</tr>
<tr>
<td>4.4M - defective, incorrect or missing safety chain or cable.</td>
</tr>
<tr>
<td>5. Dangerous Goods</td>
</tr>
<tr>
<td>5.1M - dangerous goods requirements not met.</td>
</tr>
<tr>
<td>6. Driver Controls</td>
</tr>
<tr>
<td>6.1 - accelerator pedal, clutch, gauges, audible and visual indicators or instruments fail to function properly.</td>
</tr>
<tr>
<td>7. Driver Seat</td>
</tr>
<tr>
<td>7.1 - seat is damaged or fails to remain in set position.</td>
</tr>
<tr>
<td>7.2M - seatbelt or tether belt is insecure, missing or malfunctions.</td>
</tr>
<tr>
<td>8. Electric Brake System</td>
</tr>
<tr>
<td>8.1 - loose or insecure wiring or electrical connection.</td>
</tr>
<tr>
<td>8.2M - inoperative breakaway device.</td>
</tr>
<tr>
<td>8.3M - inoperative brake system</td>
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</tbody>
</table>
Recent Changes to Regulation 199/07

- Regulation 199/07, “Commercial Motor Vehicle Inspections” has been amended to reflect the National Safety Code Standard 13, “Trip Inspections”.
- Additional housekeeping amendments have also been made updating definitions to match other HTA regulations. (See Appendix B for additional information.)
- Beginning January 1, 2015, MTO is providing an education for 1 year.
- If a commercial motor vehicle driver produces an old version of a required schedule, the enforcement officer will note the requirements for a new schedule in the “Remarks” section of the CVIR to inform the operator of the change.
- No charges will be initiated against a driver for carrying an old version of a Regulation 199/07 schedule for a year ending January 1, 2016
Summary of Changes

Regulation 199/07 has been updated to match minor changes made to NSC. These changes include:

1. Clarifies cab or sleeper door must function - corrected from “any door”,
2. Clarifies what is considered “damaged” by providing examples
3. Clarifies that a tire leak that can be felt or heard is a major defect,
4. Removed a test for a motor coach that is considered unsafe – the DD3 brake chamber tug test,
5. Changed an inoperative parking brake from a minor defect to a major defect,
6. Allows a school bus to be moved to a safe location if the overhead warning lights or stop arm are inoperative to transfer children to a safe location or drive the bus for repair
7. Modernizes the following definitions to match other HTA regulations:
   a) Motor coach now referred to as an inter-city bus,
   b) School purposes vehicle, and
   c) House trailer.
Exemptions

- Emergency vehicle while responding to or returning from an emergency
- Commercial motor vehicle while providing relief from natural disaster by transporting passengers or goods
- A 2 or 3 axle truck, bus or tractor not drawing a trailer, that is primarily used to transport primary products of farm, forest, sea or lake and produced by driver or driver’s employer.
Exemptions

- A bus that is operated by or on behalf of a municipality as part of the municipality’s public transit service, either within the municipality or within 25 kilometres of the boundary of that municipality.

- A commercial motor vehicle drawing a house trailer used for personal purposes and is not carrying commercial cargo or tools or equipment of a type used for commercial purposes.