

MANDATORY ENTRY-LEVEL TRAINING MANITOBA CLASS 1 Lesson 10

Instructor's Guide



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Overview

Purpose/Objectives

This lesson provides instruction on dangerous goods and emergency situations.

After completing this lesson, students should be able to:

- Identify hazardous goods and their classes
- Assess and adapt to dangerous conditions
- Plan ahead, anticipate problems and be familiar with regulations related to emergency equipment
- React in a professional manner to emergency incidents (accidents, fire, etc.)

How long should it take?

Classroom (hours)		In-Yard (hours)		In-Cab (hours)			Total Training Duration (hours)		
Deliver	Apply	Assess	Deliver	Apply	Assess	Deliver	Apply	Assess	
1.0		0.5	0.5	0.5					2.5

Required materials

- Whiteboard or flipchart
- Markers
- Projector
- PPT presentation
- Printed and electronic guizzes
- Pens

Using this document

This document is intended to guide you through the session. It includes the following icons for reference:

- ▶ Direction on what you need to do
- Sample language for what you need to say
- ? Sample wording for what you need to ask
- (i) Extra information to consider



Lesson Outline

Time (Approx. mins)	Topic	Materials	Slides
5	Introduction		1-3
10	Transporting Dangerous Goods		4-7
10	Emergency Equipment		8-11
10	Mechanical Breakdowns		12-15
10	Potentially Hazardous Situations		16-19
5	Reporting Collisions		20-22
5	Wrap up		23-25
30	In-Class Quiz		26
30	Practical In-Yard Training		27
30	Practical In-Yard Assessment		28

Total time = 2.5 hrs

(i) Times are an approximation of what is expected in a 15-student class with active participation. Times also include in-yard demonstration, application, and assessments.

Student Materials

- Lesson 10: Exercise Book
- Textbook
- Professional Driver's Manual



Introductions

Objectives: Introduce the lesson to the students.

Time: 5 minutes

Slide: 1 Type: Presentation

▶ Welcome students and allow time to settle if this is a new day of classroom delivery.



Slide: 2 Type: Discussion

After the last class, you were asked to complete the Lesson 9 Exercise Book.

Do you have any questions about those exercises?

Review the answers for each exercise, using the Lesson 9 -Exercise Book Answer Key.

Pre-Class Assignment

You will have:

 Reviewed the textbook and answered the questions in the Exercise 9.



Any questions about Lesson 9?



Slide: 3 Type: Presentation

- ◀ Upon completing this lesson, you should be able to:
 - o Identify hazardous goods and their classes
 - Assess and adapt to dangerous conditions
 - React in a professional manner to emergency incidents (accidents, fire, etc.)

Learning Objectives

Upon completing this lesson, you should be able to:

- Identify hazardous goods and their classes
- Assess and adapt to dangerous conditions
- React in a professional manner to emergency incidents (accidents, fire, etc.)





Transporting Dangerous Goods

Objectives: This section explains the basics of dangerous goods and the regulations regarding transporting this type of cargo.

Time: 10 minutes

Slide: 4 Type: Presentation

- ◀ After completing this section, you should be able to:
 - o Identify that some cargo is defined through regulations as "dangerous goods"
 - Identify symbols and methods used to identify dangerous goods
 - Explain that dangerous goods can only be handled and transported by those who have been specifically trained and certified

Transporting Dangerous Goods After completing this section, you should be able to:

- Identify that some cargo is defined through regulations as "dangerous goods"
- Identify symbols and methods used to identify "dangerous goods"
- Explain that dangerous goods can only be handled and transported by those who have been specifically trained and certified



Slide: 5 Type: Presentation

- According to the federal Transportation of Dangerous Goods Act, "dangerous goods" is defined as "a product, substance, or organism included by its nature or by the regulations in any of the classes listed in the schedule."
 - Transportation of some goods could pose significant danger if they are not properly secured or contained during transporting. Dangerous goods can be solid, liquid, or in a gaseous form and can harm people, other living organisms, property or the environment. Proper caution must be taken when handling and transporting dangerous goods.

About Dangerous Goods

Dangerous goods:

- Are products, substances or organisms included, by their nature or by the regulations, in any of the classes listed in the schedule
- Can be solid, liquid or gaseous
- Can harm people, other living organisms, property or the environment



➤ You may wish to provide more information on the Transportation of Dangerous Goods Act which can be found here: https://lois-laws.justice.gc.ca/eng/acts/T-19.01/page-1.html



Slide: 6 Type: Presentation

- By regulation, dangerous goods are categorized into nine classes, based on the type of hazard they present:
 - o Explosives
 - o Gases
 - o Flammable Liquids
 - Flammable Solids, Substances Liable to Spontaneous Combustion, and Substances that Emit Flammable Gases on Contact with Water
 - Oxidizing Substances and Organic Peroxides
 - Toxic Substances and Infectious Substances
 - Radioactive Materials
 - Corrosive Materials
 - o Miscellaneous Products or Substances

Some classes of dangerous goods are sub-divided into divisions. All dangerous goods are coded with safety marks, which are labels or placards that identify the type of dangerous good.

- ▶ Refer students to Section 3 of MPI's Professional Driver's Manual to review placards.
- Additional information about dangerous goods can be found in the following Transport Canada Bulletin: https://www.tc.gc.ca/media/documents/tdg-eng/BULLETIN SAFETY MARKS.pdf



Slide: 7 Type: Presentation

- ◀ When hauling dangerous goods, there is a variety of safety measures that must take place:
 - o Placards are signs attached to both ends and sides of a tractor-trailer so they are visible from all angles. In the case of a safety issue involving dangerous goods, placards indicate to responders which specific type of dangerous good is involved.

Dangerous Goods

When hauling dangerous goods, there is a variety of safety measures that must take place:

- Displaying placards (signs) to both ends and sides of a tractor trailer before it is loaded · Shipper is responsible to provide the carrier with the placards
- Permits for Equivalent Level of Safety
- · Dangerous Goods Training Certificate

 - Valid for 3 years
 Renewed when you change employer (carrier)
 - · Signed by the Carrier



- The consignor (i.e., the shipper) is responsible for providing the placards to the carrier before the carrier can take possession of dangerous goods. It is a carrier's responsibility to make sure a vehicle has all the proper placards on it before it is loaded.
- o You may also need **Permits for Equivalent Level of Safety**, which allow dangerous goods to be handled, offered for transport, or transported in a way that does not exactly comply with regulations. The permit exempts a carrier from meeting all regulatory requirements while ensuring the carrier operates at an equivalent level of safety. Permits are only issued if risks to health, safety, and the environment are reasonably addressed.
- By regulation, you must complete training to earn a Dangerous Goods Training Certificate before you can transport dangerous goods. The Certificate is valid for three years, and must be renewed whenever you change employment. Carriers are responsible for ensuring their drivers receive the training and must sign the certificate to make it valid.
- You may wish to provide a link to Transport Canada's Permits of Equivalent Level of Safety, found here: https://www.tc.gc.ca/eng/tdg/certificates-apply-1140.htm
- (i) Textbook Reference: Section 10 Dangerous Goods and Emergency Situations Dangerous Goods.



Emergency Equipment

Objectives: This section of the lesson explains the type of emergency equipment that is required, and describes the proper use of fire extinguishers.

Time: 10 minutes

Slide: 8 Type: Presentation

After completing this section, you should be able to describe the proper use of warning devices and other emergency equipment in compliance with regulations.



Slide: 9 Type: Presentation

- As part of daily inspections and pre-trip preparations, you need to ensure the emergency equipment listed here is in the truck, easily accessible, and in good working condition:
 - Approved Warning Devices (see note below)
 - Hazard Warning Lights (see note below)
 - o Personal Protective Equipment (PPE) (see note below)
 - First Aid Kits
 - o Fire Extinguishers (covered on next two slides)

First Aid Kits

Fire Extinguishers

If you breakdown or are involved in a collision, some of the first things you must do is turn on your hazard lights and place approved warning sources.

Note: Warning devices are warning triangles or flares that you place on the road to warn other drivers of a problem or collision ahead. You must carry at least three triangles or flares in an undamaged container in your vehicle. Flares can be reflectors or electric lanterns visible from at least 150 metres (either as a reflection off headlights or as their own light source). Lantern flares must be capable of operating continuously for at least 12 hours.

Note: If you breakdown or are involved in a collision, some of the first things you must do is turn on your hazard lights and place approved warning devices.

Note: Rules for what PPE is carried on trucks and what PPE training is required is in a carrier's Safety Plan. The Manitoba Guide to Transportation Safety explains that carriers must have a safety plan and you have a right to see a copy of it.



Slide: 10 Type: Presentation

■ By regulation, all trucks weighing 4,500 kg or more and those carrying fuel petroleum products must carry an approved fire extinguisher in good operating condition.

For all other trucks, carrying a fire extinguisher is not required but highly recommended.

Fire extinguishers must be:

- Approved and in good operating condition
- o Secured safely in the vehicle
- o Easily accessible to the driver
- o They also must be inspected and re-certified annually
- Used according to the manufacturer's directions

Trucks typically carry dry chemical extinguishers.

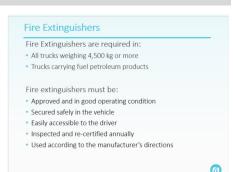
- o These have a pin release and discharge a snow-like powder to a range of up to 4 to 5 metres, using the force of pressurized gas.
- o The discharge lasts only about 8 to 10 seconds, so it's important not to waste any discharge.
- (i) Textbook Reference: Section 10 Dangerous Goods and Emergency Situations Emergency Equipment.

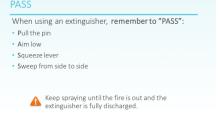
Slide: 11 Type: Presentation

- ◀ When using an extinguisher, remember to PASS:
 - o Pull the pin
 - o Aim low
 - o Squeeze lever
 - Sweep from side to side

Keep spraying until the fire is out and the extinguisher is fully discharged.

Even when the fire appears out, do not turn your back on it. Watch for flare-ups until the fire area has completely cooled.





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Mechanical Breakdowns

Objectives: In this section, the students will learn how to handle mechanical breakdowns.

Time: 10 minutes

Slide: 12 Type: Presentation

■ After completing this section, you should be able to explain how to handle mechanical breakdowns.



Slide: 13 Type: Presentation

A breakdown may not become an emergency, but it always involves potential danger and risk that requires careful management.

If possible, stop the vehicle in a safe place as far off the roadway as practical.

- o Analyze the situation
- o Turn on the hazard lights
- Place approved warning devices. You must carry at least three triangles or flares in a suitable container in your vehicle.

On non-divided highways:

- o 3 metres in front of the vehicle
- o 30 metres in front of the vehicle
- o 30 metres behind the vehicle

On divided highways:

- o 3 metres behind the vehicle
- o 30 metres behind the vehicle
- o 60 metres behind the vehicle
- Textbook Reference: Section 10 Dangerous Goods and Emergency Situations Responding to Emergency Situations.





Slide: 14 Type: Presentation

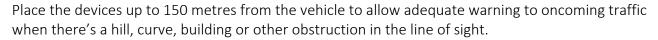
Distance for placing warning devices is defined by regulation:

On non-divided highways:

- o 3 metres in front of the vehicle
- o 30 metres in front of the vehicle
- o 30 metres behind the vehicle

On divided highways:

- o 3 metres behind the vehicle
- 30 metres behind the vehicle
- o 60 metres behind the vehicle



It's also recommended to increase the placement distance when visibility is reduced.

Textbook Reference: Section 10 - Dangerous Goods and Emergency Situations – Responding to Emergency Situations.

Slide: 15 Type: Self-paced Activity

◀ You will have 15 minutes to complete Exercise 1 in the Exercise Book.

If time permits, you should review the questions after the students have completed the exercise. Alternatively, you may provide a copy of the **Lesson 10 - Exercise Book Answer Key** at the end of the lesson for them to review on their own time.

Exercise 1:

• Time: 15 minutes

Handling Breakdowns

Non-Divided Highway:

Divided Highway:

 Complete Exercise 1: Dangerous Goods & Emergency Situations







Potentially Hazardous Situations

Objectives: This section of the lesson describes the procedures to follow when involved in a collision.

Time: 10 minutes

Slide: 16 Type: Presentation

After completing this section, you should be able to describe the importance of following workplace practices, procedures and policies when engaging emergency support such as towing and recovery service, vehicle repair, breakdown, tire repair, etc.



Slide: 17 Type: Presentation

- Always stop if you're involved in a collision, regardless of how serious it is, and follow these steps:
 - o Under most conditions, do not move the vehicle until directed by a police officer.
 - If the vehicle's position presents danger to other motorists (for example, it's across both traffic lanes on a blind curve), or is considered a very high-risk collision, move the vehicle off the roadway, where possible.
- Collisions

 Always stop if you're involved in a collision, regardless of how serious it is:

 Do not move the vehicle until directed by a police officer

 If the vehicle's position presents danger to other motorists, move the vehicle off the roadway.

 Assess the scene, turn on hazard lights and place approved warning devices as required

 Check on the condition of everyone involved

 Check the vehicle(s) to ensure there is no danger of fire

 Record and report the collision
- Assess the scene, turn on hazards lights and place approved warning devices as required (see the Breakdowns section above).
- Check on the condition of everyone involved.
- O Check the vehicle(s) to ensure there is no danger of fire. Fire may be likely if fuel is leaking, smoke is coming out of the vehicle(s), or if the collision occurred near flammable material.
- Record and report on collision.
- ➤ You may wish to share real world scenarios about drivers handling emergency situations, like this article: https://thetrucker.com/driver-named-highway-angel-after-actions-at-accident-scene-showed-hes-d-man/
- **Textbook Reference:** Section 10 Dangerous Goods and Emergency Situations Reporting on Collisions.



Slide: 18 Type: Presentation

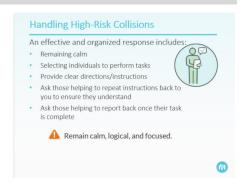
- Most people at the scene of a collision want to help, but they may end up creating more chaos if the response is not organized. A professional driver recognizes this and takes the lead in directing an effective and organized response. This includes:
 - Remaining calm (this helps others to stay calm and be more able to help)
 - Selecting responsible individuals to perform specific tasks
 - o Providing direction on tasks clearly and concisely
 - o Asking those helping to repeat their task to ensure they clearly understand their task
 - o Asking those helping to report back when their tasks are completed
- Textbook Reference: Section 10 Dangerous Goods and Emergency Situations Very High-Risk Collisions.

Slide: 19 Type: Presentation

More serious collisions can easily create a scene of chaos because of stress, intense emotions, injuries, present and potential danger, bystanders, etc.

A lot of important or urgent tasks may need to be done:

- Activating your hazards and moving your vehicle out of danger
- Setting out warning devices
- Attending to injured people
- Getting needed supplies such as blankets, bandages, etc.
- Notifying police, and emergency responders
- o Directing people to safety
- Directing traffic
- Finding witnesses





Only qualified individuals should perform first aid.



Reporting Collisions

Objectives: This section of the lesson explains how to report collisions.

Time: 5 minutes

Slide: 20 Type: Presentation

■ After completing this section, you should be able to describe the typical kinds of collisions that must be reported to employers, police and other reporting agencies and explain how to correctly report collisions.



Slide: 21 Type: Presentation

Recording and reporting what happened is very important after a collision. Try to take notes as soon as you can to help you to avoid forgetting important details.

Get the following information:

- Names, contact information, and insurance details of the other driver(s) involved
- Names and contact information of all witnesses
- The time, location, weather and other driving conditions (as relevant), and a factual description of what occurred.

Report any collision as soon as possible to:

- o The carrier (who may require you to complete an accident report form)
- Your insurance company
- Local police or law enforcement Rules about reporting vary among provinces, territories, and U.S. states. It is best to call local police/law enforcement to confirm whether you need to report.
- (i) Textbook Reference: Section 10 Dangerous Goods and Emergency Situations Reporting on Collisions.



Obtain the following information:

- Names, contact information, and insurance details of the other driver(s) involved
- Names and contact information of all witnesses
- The time, location, weather and other driving conditions
- Factual description of what occurred
- Report details to:
- Your employer / the carrier
- Insurance company
- Local police





Slide: 22 Type: Presentation

■ All heavy and specialized vehicle claims are handled through the Commercial Claims Department at MPI. The Commercial Claims adjusters are familiar with the various types of equipment you operate and the policies they require.

For a commercial emergency situation outside of regular hours, call the number on the slide and select "2" to reach our after-hours commercial response team.

How to Report a Collision

- All heavy and specialized vehicle claims are handled through the Commercial Claims Department at MPI.
- To report a claim, call:
 - In Winnipeg: 204-985-7000
 - Outside Winnipeg and out-of-province (toll-free): 1-800-665-2410
- For a commercial emergency situation outside of regular hours, call the above number and select "2" to reach the after-hours commercial response team.



(i) Reference: https://www.mpi.mb.ca/Pages/report-vehicle-claim.aspx

Slide: 23 Type: Self-paced Activity

- ◀ You will have 10 minutes to complete Exercise 2 in the Exercise Book.
- ► If time permits, you should review the questions after the students have completed the exercise. Alternatively, you may provide a copy of the Lesson 10 Exercise Book Answer Key at the end of the lesson for them to review on their own time.

Exercise 2:

- · Time: 10 minutes
- Complete Exercise 2: Responding to Emergency Situations







Wrap Up

Time: 5 minutes

Slide: 24 Type: Discussion

- Where do you need to place your warning devices?
- ▶ Wait for students to respond then click to reveal answer.
 - Also note: When there's a hill, curve, building or other obstruction in the line of sight, place the devices up to 150 metres from the vehicle as appropriate to allow adequate warning to oncoming traffic.

Review

Where do you need to place your warning devices?



Answer:

On non-divided highways:

- On divided highways:
- 3 m in behind of the vehicle
- vehicle

 3 m in behind of the vehicle

 vehicle

 30 m in behind of the vehicle
- · 30 m in behind of the vehicle
- 30 III III bellilid of the ver
- 30 m behind the vehicle
- 60 m behind the vehicle



Slide: 25 Type: Discussion

Gases, corrosive materials and toxic substances are all examples of?

▶ Wait for students to respond then click to reveal answer.

Review

Gases, corrosive materials and toxic substances are all examples of?



Answer:

Dangerous Goods



Slide: 26 Type: Presentation

- You should now be able to:
 - o Identify hazardous goods and their classes
 - Assess and adapt to dangerous conditions
 - React in a professional manner to emergency incidents (accidents, fire, etc.)

Summary

You should now be able to:

- Identify hazardous goods and their classes
- Assess and adapt to dangerous conditions
- React in a professional manner to emergency incidents (accidents, fire, etc.)





Knowledge Check

Time: 20 minutes

Slide: 27 Type: Presentation

▶ Provide students with a printed copy of the Lesson 10 Quiz. Time provided for this quiz is 20 minutes. Remind students of the scoring and weight of the quiz. Explain what is required for a passing grade.

When complete, fill out the assessment tracker for each student and the classroom assessment tracker.

Hand out Lesson 10 - Quiz

Quiz Lesson 10 Quiz Time: 20 minutes to complete

Slide: 28 Type: Survey

To better understand the experience of Class 1 drivers participating in the MELT Course, The Manitoba Public Insurance Driver Training Unit is asking that you complete a customer experience survey. Your valuable feedback will help them keep improving the MELT course.

Any information provided will remain strictly confidential.

The survey may take up to 15 minutes to complete, depending on your responses.

If you are not able to complete the survey at this time, please write down this link and do so within the next day so you do not forget.

Please ensure you include the underscore _ after MELT and POST (point to the underscore).

Survey Please go to the

Please go to the following link to complete a survey about the MELT course.

Your individual responses are confidential

https://interceptum.com/s/en/MELT_POST_Train





Practical In-Yard Training

Time: 40 minutes

Preparation

- Organize students and time in-yard in order to maximize efficiency.
- Print Lesson 10 Practical Job Aid for each student.
- Ensure the yard and vehicle are prepared for training.

Slide: 29 Type: Practical Training

▶ Go into the yard and practice handling breakdowns and emergencies, including the proper placement of warning devices. As an instructor you may need to adjust this slightly based on your available yard space and equipment. If full demonstration and simulation of a real-world scenario is not feasible, we encourage you to use the time to work with something that may be smaller in scale but still provides students with an opportunity to demonstrate their skills.

Practical In-Yard Training

Handling Breakdowns and Emergencies



- In this activity, you will head to the yard and practice the placement of warning devices and how to manage the scene.
- 30 minutes to observe

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■ We will now head out to the yard where an instructor will demonstrate how to properly place warning devices and how to handle a breakdown scenario or emergency scene.

You may wish to take your textbook as it provides details on where to place devices and steps to take in scene management.

Each time you attempt the activity during training, you will be provided a copy of your assessment, which you can then review to improve your skills in this area.

Are there any questions about the practical training?

- ▶ Wait for students to respond and answer any questions that come up.
 - The instructor will have about 20 minutes to demonstrate device placement and scene management procedures to the student, after which the student will perform the activities.
 - The students will have a minimum of 20 minutes to practice these activities. Make decisions about how to organize yard time based on numbers of students, available instructors for proper yard ratio, and physical training space.
- (i) It is critical to stress that the key focus of scene management is workplace health and safety. Loss prevention is an important but secondary focus. Checking for best practices in this role-play activity will reinforce behaviours in real world-situations.
- (i) Also refer to MELT Requirements for Schools regarding PPE.



Practical In-Yard Assessment

Time: 10 minutes

Preparation

- Ensure the vehicle and yard are set up for assessment.
- Print Practical Assessment Rubric Evaluator Job Aid for the evaluator.
- Review Performing Practical Assessments.
- Prepare to record assessment performance either on printed Lesson 10 Practical Job Aid sheets or directly into the Practical Assessments Excel file.
- Ensure you have access to the Practical Assessments Excel file.
- Print Instructors Class Summary.
- Print Instructors Student Summary.

Slide: 30 Type: Practical Assessment

You will now have a practical assessment where your instructor will assess your understanding and skill competency. Each time you attempt the activities, your instructor will provide you with a copy of your in-yard assessment, which you should review to improve your skills in this area.

Are there any questions before beginning the practical assessment?

Wait for students to respond and answer any questions that come up.

Practical In-Yard Training

Handling Breakdowns and Emergencies



- In this activity, you will head to the yard and practice the placement of warning devices and how to manage the scene
- 30 minutes to demonstrate

- (i) You must be familiar with the assessment rubric before evaluating the student's practical knowledge and skills.
- ▶ The instructor will evaluate students using the practical assessment sheet. The list may then be shared with the student to improve their performance. Use one practical assessment sheet each time the student performs the activities.

A minimum of 10 minutes will be used for in-yard assessment.

Instructor will grade students using the checklist in order to assess students on their emergency and breakdown scene management skills as it relates to regulations and road safety. The mark obtained in the In-Yard Assessment is not counted towards their final course mark because this is often covered in detail by an employer and the specific process and procedures may be different in their work instructions.

Check the recorded time in the log as well to confirm accuracy and proper completion of required paperwork for Hours of Service compliance.

① Use the rubric for evaluating in-yard and in-cab assessments. You are required to enter the results of the assessments in the Excel spreadsheet to calculate the final grades. Assessment sheets can then be printed and signed.



Final Competency Exam

Time: 60 minutes

Type: Competency Exam

- ▶ Students have a scheduled 60 minutes to complete the final classroom written exam. This should be done after Lesson 10.
- Hand out Final Competency Exam.



Final Practical Assessment Exam

Time: 90 minutes

Preparation

- Organize students and time in-yard in order to maximize efficiency.
- Ensure the vehicle and yard are set up for assessment.
- Print Final Practical Assessment Job Aid for each student.
- Print Practical Assessment Vehicle Inspection.
- Print Practical Assessment Coupling Uncoupling.
- Print Practical Assessment Control Skills.
- Print Practical Assessment On-Road.
- Review Practical Assessment Guidelines.
- Ensure you have access to the **Practical Assessments** Excel file.
- Print Instructors Class Summary.
- Print Instructors Student Summary.

Type: Competency Exam

- ► Following the final written exam, students are ready to be scheduled for the practical assessment through MPI. Follow standard procedures for scheduling and attending the test.
- ▶ The MELT curriculum breakdown of hours allows for 90 minutes for students to complete their final practical assessments. This should be done after the final classroom written exam.
- (i) You may wish to hand out the scoring rubric for the final practical assessment.