

# SAFE EU DRIVER



Handbook on Initial Qualifications and Periodic Training of Professional Drivers





















# **SAFE EU DRIVER**

AGREEMENT n° 2005 DK/05/B/F/NT-145.518

Handbook on Initial Qualifications and Periodic Training of Professional Drivers

## SAFE EU DRIVER

First published in 2007 by TUR © TUR

Printed in Denmark 2007 Narayana Press

Photographs with thanks to AFT-FC, CESMAD, TUR, TYA and ZMPD ISBN 978-87-91742-01-3

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In 2003, the European Union introduced a new Directive (2003/59/EC) to regulate the initial qualification and periodic training of professional drivers.

This EU Directive was published September 10, 2003 and has entered into force. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with the Directive within 3 years. This means that by September 2006, all Member States will have to change their regulations in order revise their training programmes to fulfil the demands of the Directive.

It strongly influences the requirements for training of drivers in the future. All parties from governments to employers' associations and unions will be concerned with the effective alignment and implementation of the national legislation in line with the EU Directive. In short, the Directive has set the frames and now the frames have to be filled up with the best possible training.

This handbook will give common recommendations for training, minimum qualification and training requirements. These recommendations are given for the option "training and test" for initial qualifications, but for those countries that have chosen the option "test alone" the handbook can serve as a reference to the subjects and knowledge a student will need before taking the test.

The recommendations for initial qualification, "training and test" option, are given for a course duration of 280 hours. The duration for accelerated initial qualification is half of that, 140 hours, but the content is the same. Please refer to the Directive 2003/59, annex 1, Section 2 and 3.

This handbook has been produced by these working partners:

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- DK: TUR: Transport Training Board of Denmark, Copenhagen, www.tur.dk
- NL: VTL: Vakopleiding Transport en Logistiek, Alphen aan den Rijn, http://www.vtl.nl
- SE: TYA: The Vocational Training and Working Environment Council (Transport Trades), Solna, www.tya.se

These organisations have acted as consulting partners:

- BE: Le FOREM, Charleroi, www.leforem.be
- FR: AFT-FC: Association Francaise du Transport -, Monchy Saint-Eloi, www.aft-iftim.com
- PL: ZMPD: Association of International Road Transport Operators, Warsaw, www.zmpd.pl
- RO: Fundatia Academia de transport intern si international, Bucarest, www.artri.ro

Project coordinator and contractor has been: Transport Training Board of Denmark, TUR, Copenhagen, www.tur.dk



















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# 1

# Advanced Training in Rational Driving based on Safety Regulations

Ref: Directive 2003/59/EC, Section 1 of Annex 1



# 1.1 The transmission system

Objective number: 1.1 (all licences)

Objective heading: to know the characteristics of the transmission system in order to

make the best possible use of it

Directive text: curves relating to torque, power, and specific consumption of an

engine, area of optimum use of revolution counter, gearbox-ratio

cover diagrams



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

It is important to understand the transmission system as a system with different parts and be able to class the function of these parts with their specific effect. Knowing this makes work much easier for the driver, leads to optimized fuel consumption and lower levels of environmental pollution.

The lessons in transmission system comprises:

- a) Curves relating to torque
- b) Performance curves
- c) Specific consumption curves of engines
- d) Area of optimal use of revolution counter (according to the data of vehicle manufacturers)
- e) Optimal speed engine range when shifting gears/gearbox-ratio cover diagrams (according to the data of vehicle manufacturers)

Furthermore trainee drivers need basic technical knowledge of engines, clutch, gearbox, cardan shaft and the differential (vehicle drivetrain).

#### a) Curves relating to torque

The trainee driver

- understands the physical meaning of 'torque',
- can recognize 'torque' at different places of the vehicle,
- knows of the correlation of rising engine power and rising revs per minute (important for driving uphill, start up and accelerate driving),
- knows the fact, that the highest torque (best exploitation) increase in lower areas of revs per minute,
- can distinguish between transmission ratio and reduction of force,
- is aware of the importance of torque relating to safety (e.g. acceleration, overtaking manoeuvre and economical driving (relationship of torque to fuel consumption).

#### b) Power

The trainee driver

- can describe the physical meaning of power,
- can explain 'power' in dependence on different numbers of revolutions of the vehicle,
- is able to control the power of the engine most effectively,
- knows of the existence of full load curves from which to read torque and power.
- is aware of the importance of power relating to safety (e.g. overtaking manoeuvre, merge on a motorway) and economical driving (relation of power and fuel consumption),
- Is aware of cruise control (speed limit about 85 km/h) and therefore anticipatory driving behaviour.

#### c) Specific consumption of an engine

The trainee driver

- knows the difference between specific and real fuel consumption as well as the factors explaining this difference (e.g. loading condition, rolling resistance, air resistance),
- can evaluate the specific fuel consumption by full load diagrams,
- can make use of the technical recourses of an engine,
- knows different kinds of engines (different cylinders, cylinder capacity, revs) and their individual full load diagrams,
- can identify the real fuel consumption of transports and plan an economic refuelling,
- is aware of the importance and influence of fuel consumption on safety and economical driving.

#### d) Area of optimum use of revolution counter

The trainee driver

- knows the meaning of revolutions per minute relating to torque, power and specific fuel consumption,
- can distinguish between the meanings of the different coloured areas of a revolution counter/ flexible optimum speed sector,
- is aware of the effects of different rpm relating to e.g. power and acceleration.

#### e) Gearbox-ratio cover diagrams

The trainee driver

- is aware of the possibility of effective driving at different revolutions per minute (rpm) areas (summary and conclusion of a-d regarding to economical driving),
- is able to chose and set the optimal engine speed according to loading condition and climbing resistance,
- can use the rev counter/flexible optimum speed sector with regard to economical driving,
- can choose the right gear under different given conditions.

#### Results

The trainee driver chooses the optimal gear under different conditions. Among others factors the choice depends on the laden state and the climbing resistance. The optimal used range of torque leads to an optimized working process (change gear not so often), minimized wear and tear, optimises fuel consumption and minimized exhaust gas emission.

## Suggested duration

(hours of training) in reference to a 280 h-course see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

#### a) Curves relating to torque

- transmission model
- torque wrench
- Screws (wheels, cylinder head,)
- crankshaft drive

#### b) Power

- engine model
- exploratory visit on a motor power testing station
- crankshaft drive

#### c) Specific consumption of an engine

- engine model
- exploratory visit on a motor power testing station
- full load characteristics of different engines (e.g. naturally aspirated engine)
- truck or bus

#### d) Area of optimum use of revolution counter

- revolution counter model
- truck with revolution counter
- PC-animations

#### e) gearbox-ratio cover diagrams

- rev counter model
- truck with rev counter (flexible optimum speed sector)
- PC animation

# Suggested exercises

#### a) curves relating to torque

#### Methods:

- theoretical training
- demonstration of models
- success control/test

#### Exercises:

- definition (torque= force x lever arm)
- the torque at different places of the vehicle
- detect and read of torque of different revs per minute
- Start-up- and acceleration-training in higher and lower gears (transmission ratio and reduction of force)
- economic driving (full load curves, power curves, specific fuel consumption)
- establish the optimum area of revs per minute by means of diagramms of full load curves,
- check the tightening moment of wheel nuts by using a torque spanner.

#### b) Power

#### Methods:

- theoretical training
- demonstration at models
- success control/test

#### Exercises:

- definition (power measured in kilowatt or PS)
- power dependent on different situations (e.g. merge on a motorway, drive uphill with a special speed, overtaking manoeuvre).
- Show the significance power has on the safety of vehicles. (e.g. orientate driving behaviour on the flow of traffic)
- The practical importance of the power of vehicles for the driver's work (e.g. change gears infrequently)
- economic driving (full load curves, power curves, specific fuel consumption)

- establish the optimum area of revs per minute by means of diagrams of full load curves and in consideration of different revs per minute,
- drive a truck uphill with different loading and different revs per minute/engine power

#### c) Specific consumption of an engine

#### Methods:

- theoretical training
- demonstration on models
- exercises for driving experience
- success control/test

#### Exercises:

- definition (consumption as g/KWh)
- realise full load curves (diagram)
- realise specific fuel consumption (diagram)
- mathematical exercises
- economic driving (full load curves, power curves, specific fuel consumption)
- establish the optimum area of revs per minute by means of diagrams of full load curves and in consideration of different revs per minute.

#### d) Area of optimum use of revolution counter

#### Methods:

- theoretical lessons
- demonstration using models, using the truck or using PC-animation
- check the instruction manual (vehicle manufacturer)
- success control/test

#### Exercises:

- definition (engine speed per minute x 100)
- to know the meaning of the different coloured areas of a revolution counter
- adapt the driving behaviour on the optimum area of revs per minute (training on the truck and in road traffic)
- economical driving (areas of engine speed: green, yellow an red areas, flexible optimum speed sector),
- how to drive to minimize wear and tear and how to drive in a anticipatory way (e.g. take advantage of phased traffic lights, lesser unnecessary braking, avoiding of unnecessary stops).
- Examine the instruction manual of vehicle manufacturer and explain the flexible optimum speed sector.
- Find out the number of injections of different revolutions per minute at different engines (f.e. six-cylinder engine).

#### e) Gearbox-ratio cover diagrams

#### Methods

- theoretical lessons
- demonstration using models, using the truck or using PC-animation
- check the instruction manual (vehicle manufacturer)
- success control/test and practical driving experience

#### Exercises:

- effects of driving within different rpm areas
- explanations of the right way to change gears (e.g. jump over gears)
- explanations of the flexible optimum speed sector for optimized driving
- exemplify inserted gears based on a circuitry of a double-h-gearbox.
- exemplify the conversion of power in a given gear (diagram)

# Suggested qualifications of the trainer

see Chapter 6

#### Notice:

For example in Germany special courses for trainers who educate trainee driver are recommended; called ADA (Ausbildung für Ausbilder) similar to Train-the-Trainer-Courses. These courses are offered in much EU member states. F.e. the Chambers of Industry and Commerce give some information about that.

# Suggested training materials

(books, CBT, etc.)

- a-e) Curves relating to torque, power, specific consumption of an engine, area of optimum use of the revolution counter, gearbox-ratio cover diagrams
  - overhead foils
  - tables and diagrams
  - specialist books
  - formula book
  - PC animations

# Cost/benefit analysis

of the most effective training methods

a-e) Curves relating to torque, power, specific consumption of an engine, area of optimum use of the revolution counter, gearbox-ratio cover diagrams

#### Animation models

advantages:

- holistic learning with animated models
- learning by 'touching'

disadvantage:

- higher prime costs
- you need a stockroom

#### PC-animations

advantages:

- lower prime costs (program)
- self-educates learning possible

disadvantage:

- you need PCs (costs)
- not three-dimensional

## Specialist books

advantages:

- additional information and explanations
- low prime costs

disadvantage:

- only two-dimensional diagrams
- explanations are often not comprehensible

#### Overhead foils

advantages:

- very cheap
- applicable as paper copies

disadvantage:

- you need a overhead projector
- less information

# 1.2 The safety controls

Objective number: 1.2 (all licences)

Objective heading: to know the technical characteristics and operation of the safety

controls in order to control the vehicle, minimise wear and tear and

prevent disfunctioning

Directive text: specific features of hydraulic vacuum servo brake circuit, limits of

the use of brakes and retarder, combined use of brakes and retarder, making better use of speed and gear ratio, making use of vehicle inertia, using ways of slowing down and braking on downhill

stretches, action in the event of failure



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver should know the technical components and the physical characteristics of the pneumatic brake, retarder, gear ratio, vehicle inertia, braking on downhill stretches as well as what to do in events of failure.

The combination of these different components and their interaction should become clear as to make trainee drivers able to handle their vehicles with regard to changing situations and local conditions. These capabilities lead to a safer driving style.

The technical characteristics and functionality comprises

- a) Specific features of hydraulic vacuum servo brake circuit,
- b) Limits to the use of brakes and retarder,
- c) Combined use of brakes and retarder,
- d) Making better use of speed and gear ratio,
- e) Making use of vehicle inertia,
- f) Using ways of slowing down and braking on downhill stretches,
- g) Action in the event of failure.

#### a) Specific features of hydraulic vacuum servo brake circuit and air brake system

The trainee driver

- can describe types of braking systems and can distinguish between different braking systems,
- can describe the functioning of air compressor,
- can describe different brake circuit configurations,
- is aware of the connection between the braking system and the safety of driving (different braking systems with different braking operations),
- can estimate irregularities and failures,
- can remedy failures if possible,
- Is aware of national and international legislative provisions (e.g. minimum face values of braking deceleration regarding to EU-Norms).

#### b) Limits to the use of brakes and retarder

The trainee driver

- can describe brakes and retarder in general and is able to distinguish between the different functions and modes of
  action of the pneumatic brake and retarder,
- can describe different kinds of retarder (hydraulic and electric retarder)
- is aware of the importance of pneumatic brake and the retarder for the security of driving (e.g. avoid overstraining),
- can describe different kinds of additional security facilities, who act on braking response (e.g. ABS, ESP)
- can recognize irregularities and failures and to remedy these if possible,
- can estimate the extent of failures and their effects (e.g. mechanical failure: brake rigging; pneumatic failure: trailer control valve)
- Is aware of European legislative provisions.

#### c) Combined use of brakes and retarder

The trainee driver

- can describe the operation of pneumatic brakes and retarder,
- can describe the proper use of a combined operation of brakes and retarder,
- is able to apply the knowledge in accordance to the laws and handle brakes and retarder correctly,
- can describe the effects of application errors (wear and tear, brake fade, brake failure)
- is aware of what importance brakes and retarder play in regards to safety (brake handling), profitable (increasing stability time of component parts subject to wear) and economical driving (fewer start-up procedures combined with forward-thinking driving behaviour).

#### d) Making better use of speed and gear ratio

The trainee driver

- is able to distinguish between different kinds of gearboxes (EPS electro pneumatic shifting system, automatic transmission, double-H-shifting system, etc.),
- is able to choose the optimal gear dependent on engine speed and given speed of the vehicle,
- can recognize and distinguish between different technical troubles,
- can eliminate technical troubles if possible (e.g. problems with compressed air supply)

#### e) Making use of vehicle inertia

The trainee driver

- has basic knowledge of driving dynamics and acting forces,
- can describe the effects of driving dynamics for the safety of other road users (e.g. drive curves, start up, slow down),
- can distinguish between different driving resistances and is able to accommodate the driving behaviour (e.g. rolling friction, air resistance, climb resistance).

#### f) Using ways of slowing down and braking on downhill stretches

The trainee driver

- can describe the functioning of a compressed air brake
- system,
- can distinguish between different kinds of brake systems (combined braking system, pneumatic braking system, drum brake, disk brake),
- can describe the physical characteristics of the drum brake (brake fade) and the disc brake,
- can describe the brake circuit scheme,
- knows how to alternate use of the service brake and the retarder on downhill stretches (avoid unnecessary wear and tear of service brake and avoid overheating the engine by using the retarder),
- is aware of the importance of the brake system for security,
- is able to recognize irregularities and failures and mend if possible,
- is aware of legislative provisions (EU-Norm).

#### g) Action in the event of failures

The trainee driver

- is able to detect irregularities by carrying out check-ups according to the manual of the vehicle,
- is able to give examples of possible failures
- can distinguish between failures by their effects (e.g. check drop in pressure),
- is able to prevent failures by optimal driving behaviour (driving rules),
- can evaluate a failure and decide how to handle it (e.g. worn out brake pads, condensation water inside the brake fluid reservoir, damaged air tubes),
- can describe how failures effect security and economical driving,
- can control the functioning of the vehicle and prevent failures by carrying out routinely checkups and perusal of operating instructions of the truck,
- knows the meaning of tyre designation,
- is able to detect related faults, change a tyre and decide whether or not to drive considering the state of the wheels)

#### Results

The trainee driver can apply basic knowledge of physical concepts, pneumatics, thermodynamics and the workings of brakes and retarder. Based on this knowledge the trainee driver can decide the right course of actions under different conditions. The driver is aware of an optimum utilisation of brakes and retarder (lesser switching operations and breakings). The trainee driver can explain the meaning of these technical characteristics for economical driving and to minimise wear and tear.

# Suggested duration

(hours of training) see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

#### a) Specific features of hydraulic vacuum servo brake circuit

- model of a hydraulic vacuum servo brake circuit
- models of different parts of brakes
- overhead slides
- pc animations
- truck for practical lessons

#### b) Limits to the use of brakes and retarder

- model of a retarder
- models of different parts of brakes
- overhead slides
- pc animations
- truck for practical lessons

#### c) Combined use of brakes and retarder

- retarder model
- models of different parts of brakes
- overhead slides
- pc animations
- truck for practical lessons

#### d) Making better use of speed and gear ratio

- models of different kinds of transmission/gearbox types
- models of different transmission parts
- overhead slides (e.g. gear schematics)
- pc animations
- truck for practical lessons

#### e) Making use of vehicle inertia

- models of different of different tyre types and tarpaulins
- overhead slides
- pc animations
- truck for practical lessons

#### f) Using ways of slowing down and braking on downhill stretches

- model of a hydraulic vacuum servo brake circuit
- models of different parts of brakes
- overhead slides
- pc animations
- truck for practical lessons

#### g) Action in the event of failures

- model of a pneumatic brake
- model of a retarder
- models of manual gearboxes
- truck for practical lessons

# Suggested exercises

a-g) Specific features of hydraulic vacuum servo brake circuit, limits to the use of brakes and retarder, combined use of brakes and retarder, making better use of speed and gear ratio, making use of vehicle inertia, using ways of slowing down and braking on downhill stretches, action in the event of failure.

#### Methods:

- theoretical lessons
- demonstration on models
- success control/test

#### a) Specific features of hydraulic vacuum servo brake circuit

#### Exercises:

- get to know different kinds of braking systems by overhead slides or on models
- get to know the functions of a compressed air cylinder by overhead slides or on models
- get to know brake circuit schemes by overhead slides or on models
- get to know irregularities and failures of the braking system and learn to mend some deficiencies on a functional model with simulated failures.
- is able to define and describe detected failures and their effects.

#### b) Limits to the use of brakes and retarder

#### Exercises:

- get to know the functioning of a retarder
- get to know the functioning of a pneumatic brake
- get to know the importance of pneumatic brake and retarder for the operational safety of vehicles
- get to know possible failures, troubleshooting and how to handle them
- how to deal with legal provisions

#### c) Combined use of brakes and retarder

#### Exercises:

- generate different operating states at a model (partial braking, full braking)
- simulation of a brake circuit failure (hydraulic area)
- simulation of a pneumatic brake failure

#### d) Making better use of speed and gear ratio

#### Exercises:

- demonstrate the functioning of different kinds of gearboxes
- differentiate kinds of gearboxes
- get to know how to use gears correctly
- get to know the different failures and defects of the gearbox
- learn to eliminate failures and defects by using gearboxes
- how to deal with legal provisions

#### e) Making use of vehicle inertia

#### Exercises:

- get to know the most important physical laws of driving dynamics
- get to know different tractive resistances
- failure, defects an how to react

#### f) Using ways of slowing down and braking on downhill stretches

#### Exercises:

- get to know compressed air supply, compressed air reserve and compressed-air supply circuit
- get to know the different kinds of braking systems and their components
- get to know the physical characteristics of drum brake and disc brake
- describe a brake circuit scheme
- how the braking system induces safe driving
- failures and defects and how to handle it
- how to deal with legal provisions

#### g) Action in the event of failures

#### Exercises:

- prevent failure and defects by continuous checkups/
- what a check-up procedure include (e.g. control air pressure, estimate the tyre condition)
- typical failures and defects
- how to eliminate failures and defects
- the effects of failures and defects on safety and economical driving

# Suggested qualifications of the trainer

See Chapter 6

The trainers need adequate theoretical and practical knowledge of techniques and experiences as a driver and trainer. Professional experience in industrial and technical professions in the field of logistics is an advantage.

# Suggested training materials

(books, CBT, etc.)

- overhead slides
- tables and diagrams
- specialist books
- formula book
- PC animations

# Cost/benefit analysis

of the most effective training methods

## Animation models

#### advantages:

- holistic learning with animated models
- learning by 'touching'

#### disadvantages:

- higher prime costs
- you need a stockroom

## PC-animations

#### advantages:

- lower prime costs (program)
- self-educated learning possible

#### disadvantages:

- you need PCs (costs)
- not three-dimensional

# Specialist books

#### Advantages:

- additional information and explanations
- low prime costs

#### Disadvantages:

- only two-dimensional diagrams
- explanations are often not comprehensible

## Overhead slides

#### Advantages:

- very cheap
- applicable as paper copies

## Disadvantages:

- you need a overhead projector
- less information

# 1.3 Fuel consumption

Objective number: 1.3 (all licences)

Objective heading: ability to optimise fuel consumption

Directive text: optimisation of fuel consumption by applying know-how as regards

points 1.1 and 1.2



# Standards and recommendation

See table for Fuel Consumption check in Chapter 4 "Individual Driving Lessons".

#### Curriculum

(what does the trainee driver need to know and do?)

#### The trainee driver

- is able to report and utilize the knowledge of objective 1.1 and 1.2
- know the effects of the local conditions on the fuel consumption
- can adjust the driving behaviour to the local conditions (different road conditions, wetness, snow and sheet ice, dryness, uphill and downhill, traffic density, route planning, etc.)
- can recapitulate the factors which affecte the fuel consumption positively
- is able to recapitulate the knowledge on the basis of objective 1.1a-f regarding fuel consumption
- utilization of the optimal torque
- change gear in the right moment
- utilization of rev counter and flexible optimum speed sector

- driving in consideration of engine power
- accommodate the engine speed range by changing gears
- is able to recapitulate the knowledge on the basis of objective 1.2a-g regarding to fuel consumption
- utilization of brakes
- utilization of inertia
- utilization of brakes on downhill stretches
- find the optimal interaction of speed and gear ratio
- pays attention to the correct tyre pressure
- handle vehicles regarding economical driving well
- can transform theoretical knowledge into practical driving behaviour
- can describe different kinds of fuels and qualities (e.g. diesel for summer and winter, different cleanliness level in different countries)
- can describe the effects of high exhaust gas emissions for the environment
- is able to prevent failures by carrying out vehicle checkups regularly (e.g. change air filter)
- can describe economical driving according to 1.1 and 1.2 on different vehicles
- knows special devices to analyze criterias (e.g. fleet management, on-board computer)

#### Results

The trainee driver is able to transfer his knowledge into his daily work. Therefore the trainer should teach important factors and give recommendations for optimized fuel consumption. So, the trainee driver can show economical driving by improving criteria of optimized fuel consumption while driving (see blank "Fuel Consumption Check" in the annex).

# Suggested duration

(hours of training) in reference to a 280 h-course

see Annex 1 and the chapter about individual driving lessons (chapter 4)

# Suggested facilities

(equipment, vehicles, etc.)

- vehicles for practical lessons
- models of different structural elements (objective 1.1 and 1.2)
- terrain with different road conditions (gravel, asphalt, area of road works) fuel consumption indicator

# Suggested exercises

(examples)

#### Methods:

- practical lessons
- demonstration on models
- driving lessons (road traffic, parcour, special course, training area, simulator)
- success control/test

#### Exercises:

- 1. drive within a high range torque and monitor the fuel consumption indicator (in reference to 1.1a)
- 2. drive within the lowest and the highest power range and monitor the fuel consumption indicator (in reference to 1.1b)
- 3. drive within the lowest specific fuel consumption (in reference to 1.1c)
- 4. drive within the optimal engine speed range and keep the flexible optimum speed sector and the instruction of the motor vehicle manufacturer in mind (in reference to 1.1d)
- 5. drive within the optimal engine speed range by changing gears at the right time (in reference to 1.1e)
- 6. check the parts of the dual circuit brake (e.g. excavation of diaphragm cylinder, readjust brakes, check air connections, check air tubes, check the settings of the brake force regulator (manual und automatic) in reference to 1.2a)
- 7. learn by careful braking tests on special terrain how the brakes works and notice the effects for driving a vehicle (in reference to 1.2b)
- 8. downhill driving lessons using both braking systems at the same time or seperately (in reference to 1.2c)

- 9. driving lessons by monitoring tachometer and rev counter in different gears (in reference to 1.2d)
- 10. driving lesson with a loaded truck: hill-starting, speed up to 50 km/h and watch the time with a loaded and unloaded vehicle (in reference to 1.2e)
- 11. prove carefully the braking systems of a truck by driving downhill; get to know brake fade and how to react (in reference to 1.2f)
- 12. Try to find simulated failures in the vehicle, describe the recognized situation, try to find the reason for this, mend the failure if possible and decide to drive on or not (in reference to 1.2e)
- 13. show economical driving by improve criteria of opti-mized fuel consumption while driving (see blank form "Fuel Consumtion Check Pre- and Post-Training -" as Annex X)

# Suggested qualifications of the trainer

see Chapter 6

It is recommended that the trainer go through special training for economic driving. Furthermore he should be updated on technical developments (changing motor techniques and transmission systems, corporate vehicle characteristics, etc.).

#### Notice:

For example in Germany special courses for trainers who educate trainee driver are recommended; called ADA (Ausbildung für Ausbilder) similar to Train-the-Trainer-Courses. These courses are offered in much EU member states. F.e. the Chambers of Industry and Commerce give some information about that.

# Suggested training materials

(books, CBT, etc.)

- operating instructions of different motor vehicle manufacturers
- recommendations of motor vehicle manufacturers
- PC animations

# Cost/benefit analysis

of the most effective training methods

# 1.4 Loading the vehicle

Objective number: 1.4 (Licences C, C+E, C1, C1 + E)

Objective heading: ability to load the vehicle with due regard for safety rules and proper

vehicle use

Directive text: Forces affected vehicles in motion, use of gearbox ratios according

to vehicle load and road profile, calculation of payload of vehicle or assembly, calculation of total volume, load distribution, consequences of overloading the axle, vehicle stability and centre of gravity, types of packing and pallets, sign-posting of vehicles with special load, care and attention of safety areas; main categories of goods needing securing, clamping and securing techniques, use of securing straps, checking of securing devices, use of handling equipment, placing and

removal of tarpaulins



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

A driver's driving behaviour affects not just his own safety but also that of other road users. Therefore the trainee driver should be able to guarantee the safe transportation of goods based on safety regulations. Furthermore a professional driving behaviour also results in an enhanced preventive environmental protection.

The following aspects are in this sense of great importance

- a) Forces affecting vehicles in motion,
- b) Use of gearbox ratios according to vehicle load and road profile,
- c) Calculation of payload of vehicle or assembly,

- d) Calculation of total volume
- e) Load distribution
- f) Consequences of overloading the axle, vehicle stability and centre of gravity,
- g) Types of packing and pallets.
- h) Sign-posting of vehicles with special load (e.g. oversized laod, wide load)

Regarding the transportation, especially for dangerous goods, it is important to pay attention to the following points:

- i) clamping and securing techniques,
- j) use of securing straps,
- k) checking of securing devices,
- l) use of handling equipment,
- m) Placing and removal of tarpaulins and rope nets.

Furthermore the trainee driver has to know about the number and types of accidents caused by inadequate load securing (statistics). In this regard responsibility, liability, the legal framework and the consequences of ignored regulations are important points to be taught. The trainee driver thus learns to avoid failures of loading and is aware of the national and international norms.

#### a) Forces affecting vehicles in motion

The trainee driver

- can describe driving dynamics,
- possesses basic knowledge of physical laws,
- can distinguish between the modes of action of resistances,
- can describe the behaviour of a load while the vehicle is in motion (e.g. weight force of the loaded goods),
- can describe the relation between highness of centre of gravity and the outer edge of the load,
- can describe the function of safety equipment (e.g. ABS, TCS, lane departure warning, etc.),
- can recognize the effects of resistances and react correctly (e.g. check tyre pressure, fixate fluttering tarpaulins),
- is aware of the importance of the resistances for safe and economical driving.

#### b) Use of gearbox ratios according to vehicle load and road profile

The trainee driver

- knows and is trained in driving a truck with varying loads and under different environmental conditions (e.g. weather conditions, different terrain) while taking into consideration the optimum revolutions per minute and changing gears correctly at the right time
- can distinguish between different manual, semi-automatic and automatic gearboxes by their functioning and by how to handle these under different loading and environmental conditions,
- is aware of the practical importance of the gearbox (learn to change gear with consideration),
- is able to choose the optimal gear according to the actual vehicle loading (e.g. second gear to start up an unloaded vehicle; first gear to start up an loaded vehicle),
- is aware of the importance of using the optimal gear depending on the loading and the environmental conditions (e.g. snow, sheet ice, wetness, dryness) for safety and economic driving,
- knows which types of road (composition of the ground) to avoid to traveling on when driving heavily loaded trucks.

#### c) Calculation of payload of vehicle or assembly

The trainee driver

- can identify the payload by inspecting the vehicle documents,
- is able to estimate the payload of vehicles
- is able to use the knowledge of payload to accommodate the driving behaviour (e.g. avoiding overload),
- is aware of reducing cost and emissions by employing the whole range of the payload,
- can describe the effects of payloads for safe (e.g. longer braking distance, varying curve braking behaviour) and economical driving (e.g. forward-thinking way of driving, avoid additional and unnecessary stops, avoid additional transports).

#### d) Calculation of total volume

The trainee driver

- is able to estimate the total volume,

- can list different measurements of masses (e.g. m³, dm³, cm³, mm³, hl, l),
- is aware of the importance of optimal utilisation of total volume, without exceeding the permissible maximum weight; regarding safe (e.g. pay attention on securing of bulky goods) and economical driving (e.g. avoid unnecessary transportations).

#### e) Load distribution

The trainee driver

- is able to determine the centre of gravity,
- can make a load distribution plan,
- can describe and find out valid weights and axle load,
- is aware of the interaction between payload and the centre of gravity,
- is able to exploit the payload with the help of a loading plan,
- is aware of the importance of load distribution for safe (e.g. avoid tyre failure causes by incorrect load distribution; a damaged truck, e.g. when suspension is damaged; varying drivability by incorrect load) and economical driving (e.g. higher rolling resistance, coordinated route planning and load distribution).

#### f) Consequences of overloading the axle vehicle stability and centre of gravity

The trainee driver

- can recognise overloading (e.g. by weigh data, leaf spring and tyres)
- knows the effects of overloading regarding vehicle stability (e.g. unbalanced load)
- knows the effects of a changing centre of gravity (e.g. liquids in motion)
- can act in given situations on the basis of his knowledge (e.g. load redistribution, accommodate the driving behaviour regarding to the actual centre of gravity)
- is aware of the safety risk of overloaded vehicles for passengers and other road user
- is able to carry out the most effective driving in relation to vehicle stability
- is aware of the consequences of overloading, vehicle stability and centre of gravity for safe and economical driving.

#### g) Types of packaging and pallets

The trainee driver

- can list different types of packaging
- is able to act correctly in relation to types of packaging and pallets (e.g. demand outer packaging of forwarders)
- is able to choose the optimal and safest packing for the goods
- can list packaging labels and their meaning)
- can list different types of pallets and barred boxes.

#### h) Sign-posting of vehicles with special load (e.g. oversized laod, wide load)

The trainee driver

- know the regulations to signpost the load
- can signpost the load with markings when necessary.

#### i) Care and attention of safety areas

The trainee driver

- know safety areas around the vehicle (e.g. safety margins to other road users, safety margins for unloading)
- pay attention to safety areas while driving and loading.

## j) Clamping and securing techniques

The trainee driver

- can describe different techniques of load securing (e.g. form-lock securing, friction-lock securing, combined securing)
- knows different securing aids
- can decide (depending on the load) which technique of load securing and equipment to make use of (clamping and securing techniques)
- can estimate the standard tension force
- is able to decide and control the dimension of load securing techniques for safe transports
- knows methods and technics of proper load securing (long-size material, sheet-types goods, rolls and other cylindrical loads, single items, securing of part loads, vehicles and auto transporters, interchangeable loading aids and their load, bulk material, beverage transports).

#### k) Use of securing straps, lashing chains and lashing wires

The trainee driver

- can determine/set the number and lashing capacity of securing straps for the actual load
- can estimate the optimal load securing

- can estimate the condition of used securing straps and decide whether or not to use them
- knows the labelling of lashing straps: lashing capacity (LC), standard hand force (SHF), standard tension force (STF)
- knows the productivity of lashing chains
- knows the productivity of lashing wires
- knows different lashing points on the vehicle and their strengths
- is aware of the importance of securing straps for safety (e.g. prevent damaged tarpaulins and lost goods while driving)
- knows the European best practice guidelines for securing goods
- knows the European usage standards of securing straps, lashing chains and lashing wires for securing of load.

#### I) Checking of securing devices

The trainee driver

- can estimate the condition/wear and tear of securing devices
- can determine the adequate recommended amount and strength (t) of fixed and movable securing devices
- can install additional securing devices
- Can distinguish the different securing techniques for different loads.

#### m) Use of handling equipment

The trainee driver

- knows different ways to handling equipment
- can handle different kinds of equipment (e.g. pumper, tail lift)
- can choose the handling equipment for loading and unloading
- is able to use the best/correct handling equipment for the specific loads with respect to legal constraints,
- is aware of legislative provisions.

#### n) Placing and removal of tarpaulins and rope nets

The trainee driver

- can list different kinds of tarpaulins (e.g. rolled up tarpaulins, curtain side) and rope nets (dumpster container),
- can handle different kinds of tarpaulins,
- can choose the best tarpaulin for the specific load (tarpaulins for covering the load and load security),
- is aware of the importance of placing and removing tarpaulins for safe (e.g. avoid lost cargo) and economical driving (e.g. inadequate fixed tarpaulins).

#### Results

The trainee driver has obtained basic knowledge of engine, clutch, gearbox, cardan shaft and differential gear.

Knowing this the trainee driver must be able to make optimal use the vehicle. He is able to exploit the vehicle with regard to permissible payload and centre of gravity optimally The above standing will secure an economical and eco-friendly use of the vehicle with a minimum level of wear and tear and an optimized fuel consumption.

Furthermore the trainee driver is able to guarantee a safe transport of cargo by respecting the public regulations and using the recommended and necessary load securing techniques.

### Suggested duration

(hours of training) in reference to a 280 h-course see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

#### a) Forces affecting vehicles in motion

- models of wheels and tyres
- vehicle for driving lessons
- terrain for driving lessons

#### b) Use of gearbox ratios according to vehicle load and road profile

- model of a gearbox
- vehicle for driving lessons

terrain with different road surfaces

#### c) Calculation of payload of vehicle or assembly

- calculator
- documents of vehicles for calculation different payloads of vehicles and truck trailers

#### d) Calculation of total volume

- calculator
- documents of vehicles with different total volumes

#### e) Load distribution

- load distribution plan
- vehicles with different payloads
- tables of coefficients of friction
- calculator
- CBT (program for generating load distribution plans)
- Truck model to simulate loading, weight distribution and their effects.

#### f) Consequences of overloading the axle, vehicle stability and centre of gravity

- vehicle for driving lessons
- cargo to simulate different load conditions

#### g) Types of packaging and pallets

- different film reels (plastic, etc.),
- different packaging (barrel, glassware, etc.),
- different wrappings (e.g. cardboard) for transportation,
- different shrink wrappings,
- different one-way packages,
- different other ways of packing and pallets (boxes, pallets, etc.).

#### h) Sign-posting of vehicles with special load (e.g. oversized laod, wide load)

different markings and signs

#### i) Care and attention of safety areas

powerpoint-Presentation

#### j) Clamping and securing techniques

- different chock blocks
- different lashing straps
- different lashing chains
- different retaining jigs
- different tarpaulins
- a secure load simulator

#### k) Use of securing straps

- different securing straps
- securing straps with different whorls
- different clamping jigs

#### I) Checking of securing devices

- different retaining jigs
- sorted out retaining jigs

#### m) Use of handling equipment

- different handling equipment (e.g. forklift, pumper, loading crane)
- security facilities for handling equipment (e.g. emergency pushbutton, audible and visual alarm)

#### n) Placing and removal of tarpaulins

- different tarpaulins
- different cover equipment

# Suggested exercises

# a-c) Forces affecting vehicles in motion, use of gearbox ratios according to vehicle load and road profile, calculation of payload of vehicle or assembly

#### Methods:

- theoretical lessons
- demonstration on models
- practical driving lessons
- success control/test

#### a) Forces affecting vehicles in motion

#### Exercises:

- get to know physical laws (air resistance, rolling resistance)
- get to know the occurrence of different resistances at different places of the vehicle
- get to know the effects of different resistance on the security
- how to handle resistances
- get to know the resistances by driving (economic driving, full load curve)

#### b) Use of gearbox ratios according to vehicle load and road profile

#### Exercises:

- get to know the importance of the gear ratio for a safer driving behaviour
- get to know the effects of gear ratio, vehicle load and road profile on driving
- practical driving lessons with different loadings and road conditions
- learn the skill to use the engine power and the gearbox most efficiently

#### c) Calculation of payload of vehicle or assembly

#### Exercises:

- learn to calculate the payload of different vehicles and truck trailers

#### d) Calculation of total volume

#### Methods:

- theoretical lessons
- demonstration on vehicle documents
- to see instruction manuals of vehicle manufacturers
- success control/test

#### Exercises:

- calculate the total volume of different vehicles or truck trailers

#### e) Load distribution

#### Methods:

- theoretical lessons
- demonstration on models, trucks and pc animations
- to see instruction manuals of vehicle manufacturers
- practical lessons for load distribution on the truck
- success control/test

#### Exercises:

- create a load distribution plan according to payload and axle load
- learn to calculate the load distribution
- load up a truck

#### f) Consequences of overloading the axle, vehicle stability and centre of gravity

#### Methods:

- theoretical lessons
- demonstration on models, trucks and pc animations
- to see instruction manuals of vehicle manufacturers
- theoretical load sharing
- practical driving lessons
- success control/test

#### Exercises:

- find out the effects of overloading, truck stability and centre of gravity by driving on a special terrain

- calculate overload
- find out the centre of gravity

#### g) Types of packing and pallets

#### Methods:

- theoretical lessons
- demonstration on models
- to see instruction manuals of the fabricators
- success control/test

#### Exercises:

- get to know different types of packing and pallets
- practical lessons with different materials
- find out the centre of gravity

#### h) Sign-posting of vehicles with special load (e.g. oversized load, wide load)

#### Methods:

- theoretical lessons
- demonstration on models
- success control/test

#### Exercises:

- get to know different types of markings and signs
- signpost different vehicles/load

#### i) Care and attention of safety areas

#### Methods:

- theoretical lessons
- success control/test

#### Exercises:

- get to know different safety areas
- observation of take care of safety areas while driving

# j-n) Clamping and securing techniques, use of securing straps, checking of securing devices, use of handling equipment, placing and removal of tarpaulins

## Methods:

- theoretical lessons
- demonstration on models
- to see instruction manuals of the fabricators
- success control/test

#### j) Clamping and securing techniques

#### Exercises:

- practical lessons (rigging, tie up, tie down)
- find out the coefficient of friction

## k) Use of securing straps

#### Exercises:

- practical lessons (rigging, tie up, tie down)
- find out the coefficient of friction
- calculate the lashing capacity
- how to remove damaged securing straps

# I) Checking of securing devices

#### Exercises:

- practical lessons/check up
- how to spot damaged securing devices
- put up additional securing devices

#### m) Use of handling equipment

#### Exercises:

- different practical lessons with forklift, pumper, loading crane, pallets and lattice boxes
- get to know the safety regulations for handling equipment

#### n) Placing and removal of tarpaulins

Exercises:

- different practical lessons to train the handling with tarpaulins

# Suggested qualifications of the trainer

see Chapter 6

The trainer must be trained in both the theoretical and practical aspects of safety.

# Suggested training materials

(books, CBT, etc.)

- overhead foils
- tables and diagrams
- specialist books
- formula book
- PC animations

# Cost/benefit analysis

of the most effective training methods

Truck/practical lesson

advantages:

- learning by 'touching'
- learning by doing
- a optimal transfer for the daily work

disadvantages:

- costs (rental, place to park, not cheap to
- run, etc.)

Animation models

advantages:

- holistic learning with animated models
- learning by 'touching'

disadvantages:

- higher prime costs
- you need a stockroom

#### PC-animations

advantages:

- lower prime costs (program)
- self-educated learning possible

disadvantages:

- you need PCs (costs)
- not three-dimensional

Specialist books

advantages:

- additional information and explanations
- low prime costs

disadvantages:

- only two-dimensional diagrams
- explanations are often not comprehensible

Overhead slides

advantages:

- very cheap
- applicable as paper copies

disadvantages:

- you need a overhead projector
- less information

# 1.5 Passenger comfort and safety

Objective number: 1.5 (Licences D, DE, D1, D1E)

Objective heading: ability to ensure passenger comfort and safety

Directive text: adjusting longitudinal and sideways movements, road sharing,

position on the road, smooth braking, overhang operation, using specific infrastructure (public areas, dedicated lanes), managing conflicts between safe driving and other roles as a driver, interacting with passengers, peculiarities of certain groups of passengers (disabled

persons, children)



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The following factors are important when dealing with passengers' comfort and safety in vehicles:

- a) Adjusting longitudinal and sideways movements,
- b) Overhang operation,
- c) Using specific infrastructure (public areas, dedicated lanes),
- d) Anticipatory driving and smooth braking,
- e) Considerate behaviour on the road (road sharing, position on the road),
- f) Interacting with passengers,
- g) Managing conflicts between safe driving and other roles as a driver,
- h) Peculiarities of certain groups of passengers (disabled persons, children)

#### a) Adjusting longitudinal and sideways movements

The trainee driver

- can describe driving dynamics
- can describe physical laws
- can describe the effects of resistances
- can list safety equipment
- Is aware of the importance of the different resistances for safety (e.g. in certain situations better use parking brake than bus stop brake, adapt speed to curve radius) and economical driving (e.g. smooth braking and accelerating).

#### b) Overhang operation

The trainee driver

- is able to estimate the overhang of the vehicle when making turns
- is aware of the overhang swerving out when making turns (especially the back of the bus)
- is aware of the dangers of manoeuvring for other road users and is able to anticipate and deal with the problem
- must reach a high level of proficiency in handling vehicles of different lengths
- is aware of the payload and centre of gravity and how to handle it.

#### c) Using specific infrastructure (public areas, dedicated lanes)

The trainee driver

- has knowledge of infrastructure eg. public areas, dedicated lanes
- has knowledge of the traffic regulation
- is aware of specific safety regulations (e.g. pedestrian zone)
- can recognise specific types of road (e.g. cycle ways)
- is able take care in specific situations: specific attention on space dedicated as public thoroughfares: pedestrian zone, in front of schools, when arriving bus stops) and economical driving (e.g. traffic lights for busses, go-ahead on bus lanes).

#### d) Anticipatory driving and smooth braking

The trainee driver

- is able to brake smoothly to secure the passengers comfort
- is able to utilise different braking systems depending on the situation (e.g. bus stop brake, retarder)
- is aware of the optimal use of brakes and retarder for safety (e.g. use the parking brake to give a hand to get in the bus) and profitability (less wear and tear of service brake by using parking brake).

#### e) Considerate behaviour on the road (road sharing, position on the road)

The trainee driver

- has knowledge of the responsibility for the passengers and acts correctly,
- can describe the special needs for children and disabled persons and acts correctly,
- is able to make use of heating systems, air conditioner, ramps and kneeling technique according to demand,
- is aware of the responsibilities in different situations according to safety (e.g. pay attention when passengers get in or get out the bus, before departure have a look at the passengers who leave the bus)
- know how to merge in traffic with different types of busses
- is able to estimate the vehicle length and the swing out of the bus
- is aware of the optimal position on the road and is able to act accordingly
- knows and abide safety areas (f.e. minimum distance to cyclist, biker, pedestrian) in consideration of a reasonable speed

## f) Interacting with passengers

The trainee driver (public and tourist transport)

- is appropriately attired
- can conduct the job with good manners
- displays proper conduct towards passengers
- points out safety rules and makes sure they are followed
- uses soft skills (e.g. adaptability, patience, friendliness) to control different situations and guarantees the safety of vehicle and passengers
- is able to interact with passengers with different ethnic, cultural, religious or linguistic backgrounds properly
- is able to take care of the passengers, especially children, the elderly and the disabled
- help the disabled when boarding or getting off the bus
- is able to use technical facilities to help handicapped passengers (kneeling system, ramp, etc.)
- is aware of the importance of being friendly
- can estimate and alleviate conflicts respectively, prevent escalation
- can describe behaviour patterns of crisis intervention
- knows techniques of stress reduction for bus drivers.

#### Especially for public drivers:

- can give information about changing busses, timetables, bus routes and fares
- is able to handle technical instruments (e.g. ticket printer).

#### Especially for tourist drivers:

- can give information about sights (sometimes the bus driver is the only contact person for the passengers)
- is able to organise a journey to destination.

#### g) Managing conflicts between safe driving and other roles as a driver

The trainee driver

- knows techniques of relaxations to prevent stress and to handle crisis situations on the bus
- knows who to contact in crisis situations (e.g. police, emergency doctor)
- knows how to react in cases of attacks on the driver and the passengers
- is able to use communicative skills to master crisis situations
- is able to evaluate the pros and cons of passengers well-being and the strict observance of timetable
- is able to inform the headquarters about unexpected events on the road and ask how to act
- is able to make an announcement for the passengers
- knows how to point out the code of behaviour in the bus.

#### h) Peculiarities of certain groups of passengers (disabled persons, children)

The trainee driver

- can handle auxiliary means (e.g. ramps for wheelchair users)
- can stop at the bus stop in a specific way (to get into the bus or to leave the bus especially for children, old and disabled people)
- can handle a bus with a low floor and the kneeling technique
- can deal with schoolchildren and children in general
- is aware of safety rules while driving.

#### Results

The trainee driver should guarantee the safety of vehicle and passengers by following safety regulations. His knowledge leads to an increased safety for all passengers and road users, a securer driving behaviour, fewer injuries and environmentally-friendly driving.

# Suggested duration

(hours of training in reference to a 280 h-course)

see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

#### a) Adjusting longitudinal and sideways movements

- vehicle for driving lessons
- models of tyres and wheels
- special terrain for driving lessons

#### b) Overhang operation

- vehicle for driving lessons
- special terrain for driving lessons

#### c) Using specific infrastructure (public areas, dedicated lanes)

- materials for road marking (e.g. barrels, barrier tape, roof batten)

#### d) Forward-thinking driving and smooth braking

- vehicle for driving lessons
- special terrain for driving lessons (smooth braking)

#### e) Considerately behaviour on the road (road sharing, position on the road)

- vehicle for driving lessons

bus stop

#### f) Interacting with passengers

#### g) Managing conflicts between safe driving and other roles as a driver

- vehicle for driving lessons
- public road traffic

# Suggested exercises

(examples)

#### a) Adjusting longitudinal and sideways movements

#### Methods:

- theoretical lessons
- demonstration on models
- practical driving lessons
- success control/test

#### Exercises:

- get to know the longitudinal and sideways movements of a bus (driving lesson on a special terrain)
- most remarkable characteristics of a bus when turned off (driving lesson on a special terrain)

#### b) Overhang operation

#### Methods:

- theoretical lessons
- demonstration on models, on the truck and with pc animations
- sight the instruction manual of the motor vehicle manufacturer
- success control/test

#### Exercises:

- size the overhang of a vehicle (front and heck)
- make experience of overhang of a bus by driving on a special terrain

#### c) Using specific infrastructure (public areas, dedicated lanes)

#### Methods:

- theoretical lessons
- demonstration on models
- success control/test

#### Exercise:

- make driving experience on a special terrain, use different specific infrastructures (public areas,
- dedicated lanes) when you driving a bus

#### d) Forward-thinking driving and smooth braking

#### Methods:

- theoretical lessons
- sight the instruction manual of the motor vehicle manufacturer
- success control/test

#### Exercises:

- get to know the peculiarity of the pneumatic brake and the retarder
- driving lessons on a special terrain and public traffic (braking tests)

# e) Considerately behaviour on the road (road sharing, position on the road)

#### Methods:

- theoretical lessons
- practical driving lessons
- success control/test

#### Exercises:

- The importance of considerately driving for security and comfortable transportation of passengers (theoretical lesson)
- Train considerately road sharing by driving a bus (driving lesson)
- driving lesson (shunting) on a special terrain (parcours) to make experience with the dimensions of a bus

#### f) Interacting with passengers

#### Methods:

- theoretical lessons
- success control/test

#### Exercises:

- simulate different situations and train the handling (e.g. complaints, riots, delays)

#### g) Managing conflicts between safe driving and other roles as a driver

#### Methods:

- theoretical lessons
- simulation of different kinds of conflicts an problem solution
- success control/test

#### Exercises:

- simulate different crisis situations and train the their handling

#### h) Peculiarities of certain groups of passengers (disabled persons, children)

#### Methods:

- theoretical lessons
- practical driving lessons
- success control/test

#### Exercises:

- learn to use auxiliary means (e.g. ramps for wheelchair user)
- learn to set in soft skills to solve problems

# Suggested qualifications of the trainer

See Chapter 6

The trainer should be experienced in dealing with typical crisis of bus driver's work.

# Suggested training materials

(books, CBT, etc.)

- overhead foils
- specialist books
- PC animations
- videos

# Cost/benefit analysis

of the most effective training methods

# Practical driving lesson

#### advantages:

- holistic learning
- good transfer to the daily work

#### disadvantages:

Costs (rent, prime costs, etc.)

#### Animation models

#### advantages:

- holistic learning with animated models
- learning by 'touching'

#### disadvantages:

- higher prime costs
- you need a stockroom

## PC-animations

advantages:

- lower prime costs (program)
- self-educated learning possible

disadvantages:

- you need PCs (costs)
- not three-dimensional

# Specialist books

advantages:

- additional information and explanations
- low prime costs

disadvantages:

- only two-dimensional diagrams
- explanations are often not comprehensible

#### Videos

advantages:

- cheap
- impressive illustrative material disadvantages:

## Overhead slides

advantages:

- very cheap
- applicable as paper copies

disadvantages:

- you need a overhead projector
- less information

# 1.6 Loading the vehicle, Licenses D and E

Objective number: 1.6 (Licences D, D+E, D1, D1+E)

Objective heading: ability to load the vehicle with due regard for safety rules and proper

vehicle use

Directive text: forces affecting vehicles in motion, use of gearbox-ratios according

to vehicle load and road profile, calculation of payload of vehicle or assembly, load distribution, consequences of overloading the axle,

vehicle stability and centre of gravity



# Standards and recommendation

## Curriculum

(what does the trainee driver need to know?)

The trainee driver should guarantee the safety of vehicle and passengers by following safety regulations. His knowledge leads to an increased safety for all passengers and road users, a securer driving behaviour, fewer injuries and environmentally-friendly driving.

The following factors are important when dealing with passengers' comfort and safety in vehicles:

- a) Forces affecting vehicles in motion
- b) Use of gearbox-ratios according to vehicle load and road profile
- c) Calculation of payload of vehicle or assembly
- d) Load distribution

- e) Consequences of overloading the axle vehicle stability and centre of gravity
- f) Handling of security equipment

#### a) Forces affecting vehicles in motion

The trainee drive

- can describe driving dynamics (see 1.2) and its consequences on passenger traffic,
- can describe the physical laws (see 1.4) and its consequences on passenger traffic,
- can describe resistances (e.g. centrifugal force, inertia, aerodynamic resistance, friction forces) (see 1.4), and its consequences on passenger traffic,
- is aware of the effects of resistances on passengers and loading (e.g. luggage)
- is able to transfer his knowledge into his daily work for an optimised driving style
- can take full responsibility for the passengers with regard to safety regulations (e.g. to give information about belting up on coach trips)
- knows the safety devices of the vehicle (e.g. ABS, TCS, EBS lane departure warning) and the consequences on passenger traffic.
- knows the effects of trailers on the stability of driving (e.g. breakaway of a trailer without ABS).

#### b) Use of gearbox-ratios according to vehicle load and road profile

The trainee driver

- knows and is trained in driving a bus with a widely differing number of passengers and weight of luggage and is able to align the driving behaviour to environmental conditions
- can operate different manual, semi-automatic and automatic gearboxes
- is able to use the knowledge in different situations and react properly
- is aware of the responsibility for the passengers. The driving style must be orientated towards comfortable and safe passenger transportation,

#### c) Calculation of payload of vehicle or assembly

The trainee driver

- is able to find out the payload (kg) and the permissible number of passengers by vehicle documents
- can estimate the payload (passengers and luggage) by information of the vehicle and trailer documents
- is able to use the knowledge of payload to accommodate the driving behaviour (e.g. avoiding overload)
- is aware of the compliance with the safety regulations
- can describe the effects of payload for safety (e.g. longer braking distance, varying curve braking behaviour).

#### d) Load distribution

The trainee driver

- can describe centre of gravity
- is able to distribute the load on the vehicle (passengers and luggage) evenly
- has knowledge of maximum loaded vehicle, weight and load per axle
- can describe the interaction between loading and the centre of gravity
- knows that passengers differs from other loads and need a special care
- can list different safety installations for passengers (e.g. escape-hatch, window hammer, escape route)
- can secure luggage adequately (e.g. form-lock securing)
- is aware of the special responsibility for passengers.

#### e) Consequences of overloading the axle vehicle stability and centre of gravity

The trainee driver

- understands the importance of vehicle stability and the centre of gravity and is able to recapitulate his knowledge
- can carry out an optimal load distribution (luggage) to guarantee a safe transport
- can recognize when a bus is overloaded
- knows the effects of overloaded busses with regard to vehicle stability (e.g. changing driving behaviour in curves)
- can act in a given situations on the basis of the knowledge about, e.g. luggage redistribution, accommodate the driving behaviour regarding to the actual centre of gravity
- is aware of the safety risks of overloaded busses for passengers and other road user
- is aware of national and international safety regulations.

#### f) Handling of security equipment (e.g. safety belts for wheelchairs)

The trainee driver

- know different kinds of security equipment for passenger transport
- is able to use the security equipment in the right way.

#### Results

The trainee driver needs basis knowledge of engine, clutch, gearbox, cardan shaft and differential gear.

The trainee driver is able to drive busses in public transport and tourist traffic. Furthermore the trainee driver is able to guarantee a secure transport of passengers by respecting public regulations and by following the recommendations stated in this book.

## Suggested duration

(hours of training) in reference to a 280 h-course

see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

#### a) Forces affecting vehicles in motion

- bus, trailer
- different wheels and tyres
- special terrain for driving lessons

#### b) Use of gearbox-ratios according to vehicle load and road profile

- model of a gearbox
- bus, trailer
- special terrain with different road surfaces

#### c) Calculation of payload of vehicle or assembly

- calculator
- documents of vehicles and trailer (motor vehicle manufacturer)

#### d) Load distribution

- some vehicle documents with different resituated payloads and permitted number of passengers,
- calculator
- bus, trailer

#### e) Consequences of overloading the axle, vehicle stability and centre of gravity

- bus, trailer
- dummies (e.g. sandbags) for simulate different loading conditions (passengers/luggage)

#### f) Handling of security equipment (e.g. safety belts for wheelchairs)

- bus
- security equipment (e.g. safety belts)

# Suggested exercises

#### a) Forces affecting vehicles in motion

#### Methods:

- theoretical lessons
- practical driving lessons
- videos (how to drive a bus)
- success control/test.

#### Exercises:

- get to know physical laws (e.g. air resistance, rolling resistance)
- the appearance of different resistances at different places of the bus,
- the importance of handling resistances for secure driving,
- practical driving lessons (e.g. economic driving style, full load curve)

#### b) Use of gearbox-ratios according to vehicle load and road profile

#### Methods:

- theoretical lessons
- practical driving lessons
- success control/test.

#### Exercises:

- the importance of the gear ratio for a secure driving style
- the interaction between gear ratio, loading weight and road conditions (driving lessons)
- train to use the engine power with a good economic sense.

#### c) Calculation of payload of vehicle or assembly

#### Methods:

- theoretical lessons
- demonstration of calculating payload with reference to vehicle documents
- success control/test

#### Exercises:

- learn to calculate payload of different vehicles or assembly

#### d) Load distribution

#### Methods:

- theoretical lessons
- demonstration on models, at the bus or videos (e.g. crash tests)
- look at documents of vehicles and trailer (motor vehicle manufacturer)
- practical lessons of loading distribution
- success control/test.

#### Exercises:

- load up a vehicle with know-how (practical lesson with luggage)
- load up a trailer (incl. securing of load/luggage).

#### e) Consequences of overloading the axle, vehicle stability and centre of gravity

#### Methods:

- theoretical lessons
- demonstration on models, at the bus or videos (e.g. Schleuderkurse)
- look at documents of vehicle and trailer
- theoretical lessons of luggage distribution
- success control/test

#### Exercises:

- summarise the most important statements of this subject
- make experiences of an overloaded bus by driving on a special terrain
- plan an optimal load distribution relating to safety regulations
- calculate overloading in a simulated case
- determine the centre of gravity in a simulated case.

#### f) Handling of security equipment (e.g. safety belts for wheelchairs)

#### Methods:

- theoretical lessons
- demonstration on the bus
- success control/test.

#### Exercises:

- summarise security equiment for passenger transportation
- secure a wheelchair in the bus

# Suggested qualifications of the trainer

see Chapter 6

The trainer should be experienced in public transport and tourist traffic.

# Suggested training materials

(books, CBT, etc.)

- overhead slides
- tables and diagrams
- specialist books
- videos

## Cost/benefit analysis

of the most effective training methods

#### Practical driving lesson

advantages:

- holistic learning
- good transfer to the daily work

disadvantages:

- Costs (rent, prime costs, etc.)

#### Animation models

advantages:

- holistic learning with animated models
- learning by 'touching'

disadvantages:

- higher prime costs
- you need a stockroom

#### Videos

advantages:

- cheap
- impressive illustrative material

disadvantages:

#### Specialist books

advantages:

- additional information and explanations
- low prime costs

disadvantages:

- only two-dimensional diagrams
- explanations are often not comprehensible

#### Overhead slides

advantages:

- very cheap
- applicable as paper copies

disadvantages:

- you need a overhead projector
- less information

# 2 Application of Regulations

Ref: Directive 2003/59/EC, Section 1 of Annex 1



# 2.1 The social environment of road transport

Objective number: 2.1

Objective heading: To know the social environment of road transport and the rules

governing it.

Directive text: Maximum working periods specific to the transport industry;

principles, application and consequences of Regulations (EEC) No 3820/85 and (EEC) No 3821/85; penalties for failure to use, improper use of tampering with the tachograph; knowledge of social environment of road transport; rights and duties of drivers as regards

initial qualification and periodic training.



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

# a) Social-legal environment of road transport

- Equal conditions of competition
- Road safety
- Working conditions
- Regulations regarding age and qualification

#### The trainee driver

- can identify equal conditions of competition, the principles of an open traffic market.
- can describe the importance of social and legal regulations for equal conditions of competition.

- can describe how respecting the social and legal regulations contributes to road safety, can give examples of the consequences of violating these regulations.
- can identify and give examples of how the social and legal regulations influence the work of the driver.
- can explain the significance of training for improvement of his professional competences and that professional
  qualification is only a precondition for carrying out the profession (in accordance with the rules in the different
  countries).

#### b) International and national regulations governing working periods, break and rest periods.

The trainee driver can

- explain the purpose of regulations 3820, 3821 and the AETR agreement.
- can analyse the different impact of them.
- can define both consequential and implied national regulations concerning working periods, break and rest periods.

#### c) National regulations governing the working periods.

The trainee driver

- can explain the content of EU directives 2002/15 and 2003/88 and of the related national regulations.
- can recognize the coherence in the implementation of the directive in country of residence and the implications of this implementation on the general national codes.

#### d) Function and construction of analogue and digital tachograph.

The trainee driver

- can distinguish between two kinds of recording equipment; digital and analogue.
- is able to describe working principle of the digital tachograph, its construction.
- is able to describe how it is installed into a vehicle.
- can describe that tachographs differ from producer to producer and knows how to operate these different models.
- can describe working principle of the analogue tachograph, its construction.
- can describe that tachograph is required to be calibrated.

#### e) Data sheet (tachograph chart) and memory card

The trainee driver

- is able to describe the functions of the tachograph chart and the memory card, the way of data recording via both of mediums
- can describe the rights and duties of the cardholder.

#### f) Handling of the analogue and digital tachographs

The trainee driver

- can operate the analogue tachograph,
- can use the tachograph charts.
- can operate the digital tachograph.
- can use the memory card.

#### g) Obligations of the driver based on the international and national regulations

The trainee driver

- can carry out a driver's obligations based on the regulations. 3820, 3821, AETR and on the national regulations.

#### h) Obligations of the transport operator based on the international and national regulations

The trainee driver

- is able to describe the obligations of the transport operator based on the regulations.3820, 3821, AETR and on the national regulations.

#### i) Control, inspection-control authorities, penalties, penalty procedure. Behaviour of the driver in the checking procedure

The trainee driver

- can name which authorities can provide road side check.
- is able to identify different types of penalties.
- can act correctly during the checking procedure.
- can describe the different kinds of penalties when not acting correctly during checking procedure.
- is able to describe checking info-systems (can give examples of the evidence in different countries).

## What are the results of the training?

The trainee driver can describe both the purpose and the meaning of the legislation and regulations directly concerning his work. This will lead to safe driving and prevent penalties and sanctions.

# Suggested duration

(hours of training) see Annex 1

## Suggested facilities

(equipment, vehicles, etc.)

- Data projector and power-point presentations
- Working model of an analogue tachograph (common used types)
- Tachograph charts
- Scoring aids (tools)- evaluation tools for tachograph charts
- Video (DVD) programme for digital tachograph operating
- Model of digital tachograph (common used types)
- Memory cards
- Memory card reader.

#### Suggested exercises

- Filling out the form of tachograph chart, the form for placement and withdrawing (unloading)
- Operating analogue tachograph correctly
- Operating memory card correctly
- Operating digital tachograph correctly
- Procedure at the road check
- Evaluation of tachograph chart

# Suggested qualifications of the trainer

See Chapter 6

Qualification according to national legislation - if any

# Suggested training materials

(books, CBT, etc.)

- Handout of presentations
- Brochure about Operating mode in the EU (example used by CESMAD Bohemia "Operating mode of the Czech drivers after accession to the EU")
- Handbook about operating the digital tachograph (example of CESMAD Bohemia own material)
- Handbook about training of the drivers (example of CESMAD Bohemia own material)
- abstract from regulations
- Figure (grafic presentation) of the working shift.

# Cost/benefit analysis

# 2.2 Regulations governing the carriage of goods

Objective number: 2.2

Objective heading: To know the regulations governing the carriage of goods. For

Licence C.

Directive text: Transport operating licenses, obligations under standard contracts

for the carriage of goods, drafting of documents which form the transport contract, international transport permits, obligations under the Convention on the Contract for the International Carriage of Goods by Road, drafting of the international consignment note, crossing borders, freight forwarders, special documents accompanying

goods.



# Standards and recommendation

## Curriculum

(what does the trainee driver need to know?)

# a) Conditions for acquiring the transport operating licence and for the road-transport market access The trainee driver

- is able to describe conditions under which the operator can obtain the licence for carriage of goods, international transport permits carriage, Community transport licence (Euro licence) and bilateral licences.
- is able to define the conditions under which licences and permits can be withdrawn.

#### b) Multilateral agreements and conventions

The trainee driver

- can describe the principles of multilateral agreements and conventions CMR (more detailed see the points below).
- can describe the principles of agreements and conventions (HACCP, ATP, CEMT and Vienna Convention 1968.)
- can well describe the content of ADR.
- can identify when the mentioned agreements apply.
- in case of ATP and HACCP the trainee driver is able to explain which kinds of foodstuff are involved in, which kinds
  of special facilities are used (for both traffic and shipping transport) and which documents are required.

#### c) Bilateral international agreements

The trainee driver

- can describe the purpose of the existence of bilateral agreements and their consequences.

#### d) Technical regulations

The trainee driver

- can name the technical standards regarding allowed size and payload of vehicle, based on Directive 96/53 and related national regulations.
- can describe the procedure by check weighing of vehicle by the inspection authority.
- can describe the technical standards regarding environmental aspects of vehicle importance, utilization.
- is able to use the technical standards regarding road checks and technical control based on Directive 2000/30 and related national regulations, can behave correctly during checking procedure.

#### e) Contractual relations within the road transport. International, national legislation

The trainee driver

- understands that contractual relations within the road transport are governed by national regulations. The only exception is CMR convention, which is international related.
- is able to describe the main types of agreements (forwarding contract, intermediary contract, transportation contract).
- is able to describe the main rights and obligations resulting from the contracts (loading, unloading, transportation, point of taking delivery).

# f) Responsibility of the operator for goods. Exemptions from this responsibility (And how to make an evidence of the exemptions)

- Remarks
- Claims

The trainee driver

- can describe his duties and is able to specify the difference between international and domestic road -transport.
- is able to describe how and why to act in case of remarks.
- is able to describe how remarks made by driver can help in case of claims.
- is able to use the CMR check list (list of remarks).
- can recognize conditions of claiming and decision procedure concerned.
- can identify legal terms and relations to loading, unloading and handover, takeover of goods, securing load.

#### g) Shipping documents. Using and completion the documents in a proper way

- Consignment note CMR
- Shipping documents in the domestic transport
- Goods in transit insurance, duties of the driver. Insured accident procedure.
  - Documentation related to the driver, the vehicle and the load
- Shipping document based on regulation EEC11/60

The trainee driver

- can recognize importance of the Consignment note CMR.
- can apply the content of the Consignment note CMR and its relation to the contract of carriage.
- can properly fill out the Consignment note CMR.
- is able to describe the shipping documents and can use them, in respecting national legislation.
- understands the requirement of having insurance documentation of the vehicle, the load in case of operator's insurance based on national regulations.
- can recognize and use the content of the Shipping document based on regulation EEC 11/60..
- can identify its relation to the Consignment note CMR, can apply it, can describe who is entitled to fill out that

#### h) Special documentation accompanying goods

- Carriage of Foodstuff based on ATP
- Customs inspection with regards to goods carriage
- TIR convention and ATA carnets
- Transport of waste based on EEC regulation 259/93
- Animal transport based on ECC related regulations (NOs)
- ADR Transport documentation
- Permits for abnormal cargo

#### The trainee driver

- can name existing regulations and national regulations for particular types of transport.
- is able to use the documentation regarding foodstuff, the documentation regarding goods of customs inspection, consumption tax etc.
- is able to use the documentation regarding TIR convention and ATA carnets.
- is able to use the documentation regarding both the transport of waste and animals conventions.

# What are the results of the training?

The trainee driver can describe all types of documents regarding carriage of goods and will know his responsibilities required by EU legislation concerning different types of transport. He will be able both to understand and to use these documents from a driver's point of view.

## Suggested duration

(hours of training) see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

- Data-projector and power-point presentations for particular subjects-topics
- Sample of the documents- papers
- Sample of the shipping documents papers
- Sample of the documents for ADR
- Sample of the documents for ATP
- Sample of the vehicle-marking for ADR
- Sample of the vehicle-equipment for ADR
- Sample of the custom documents
- Graphical symbolisation of tolerable Proportions, axel load limits and weight limits of the vehicle

#### Suggested exercises

- Correct completion of particular documentation
- Correct procedure by using of particular documentation
- Correct procedure by check weighing of the vehicles
- Models relating the driver's job at the goods transport from the point of view of legislation, company image and dealing with the customer

# Suggested qualifications of the trainer

See Chapter 6

Qualification according to national legislation - if any.

Practical experience and ability to explain examples of real life situations is an advantage.

# Suggested training materials

(books, CBT, etc.)

- Handout of presentations
- Handbook for drivers training (example of CESMAD Bohemia own material)
- ADR for drivers handbook (example of CESMAD Bohemia own material)
- ATP and food transport handbook for drivers (example of CESMAD Bohemia own material)

# Cost/benefit analysis

# 2.3 Regulations governing the carriage of passengers

Objective number: 2.3

Objective heading: To know the regulations governing the carriage of passengers. For

licence D

Directive text: Carriage of specific groups of passengers, safety equipment on board

busses, safety belts and vehicle load.



# Standards and recommendation

## Curriculum

(what does the trainee driver need to know?)

#### a) Conditions for acquiring the transport operating licence and for the road-transport market access

Trainee driver can describe

- conditions under which the operator can obtain the licence for transport of passengers, for regular services, international permits for transport of passengers carriage, Community transport licence (Euro licence) and bilateral licences.
- conditions under which, the licences and permits can be withdrawn.

## Scheduled transport

#### b) Duties of the transport operator on regular services

The trainee driver can use

- national regulations, can describe the particular segments concerning duties of the driver.

#### c) Rights and duties with regard to passengers

The trainee driver

can explain his duties regarding relation between operator and passengers (transport regulations, transport conditions).

#### d) Tariffs regulations (scale of charges regulations), ways of dispatching. Tariffs setting and charges payment setting

The trainee driver

- is able to distinguish between types of tariffs, understands the purpose of transport as a public service.
- is able to distinguish between ways of dispatch, and ways of charge payment (for the countries concerned).

#### e) Integrated transport systems, ways of tariffs and ways of payment (cash, via card)

The trainee driver

- can identify integrated transport systems.
- is able to distinguish between the position and the particular activities of the operator within the system (based on the national regulations in particular countries).

#### f) Technical and safety conditions of specific groups of passengers (children, impaired people etc.)

The trainee driver

- is able to describe the national regulations concerning transport of specific groups of passengers.
- can explain the principles of active and passive safety of the vehicle particular safety elements and their application –
   speed limits etc.
- is able to use the safety equipment on board buses.

#### Unscheduled transport

#### g) Conditions of international and domestic bus transport

The trainee driver

- is able to distinguish between conditions on international and domestic bus transport, international agreements and licences
- is able to describe the use of these documents.
- knows conditions on transport of passengers within EU based on regulations EU 684/92 and 11/98.
- knows conditions on transport of passengers under INTERBUS agreement (countries outside of EU).
- knows conditions on transport of passengers within the third countries (outside both of EU and INTERBUS).

#### h) Conditions of bus operation

The trainee driver

- is able to distinguish between technical and safety conditions in bus operation, can evaluate responsibility in case of infringement of technical and safety regulations while the bus is in use (e.g. load – burden limits of the vehicle, operation's conditions during the winter season, trailer bus operation, driving with chains).

#### i) Bus classification (ranking)

The trainee driver

- can describe the principles of bus classification.
- is able to define examples of the IRU classification.

#### j) Relevant documentation for the transport of passengers - international - within EU - domestic level

The trainee driver

- is able to describe the use documents needed for the driver and the vehicle in case of international, national transport and transport within the Community.

# What are the results of the training?

The trainee driver understands the difference between both scheduled and unscheduled transport and international and domestic transport of passengers. He can describe his duties regarding regulations for both the transport and techniques. These duties refer to passengers, to operation of the vehicle, to administration procedures.

# Suggested duration

(hours of training) see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

- Data-projector and power-point presentations for particular subjects-topics
- Appropriate workable instrument for dispatching of passengers within particular system
- Samples of valid tickets
- Samples of journey form (white bill) of EU and INTERBUS
- Key principles of IRU bus classification based on number of stars.

#### Suggested exercises

- Filling out correctly of particular documents
- Correct procedure for using of particular documents
- Correct procedure for marking of the vehicles
- Correct procedure at the dispatching of passengers
- Model procedure of solving the confrontation with passengers
- Model procedure for driver's job at the scheduled and unscheduled transport from point of view of legislation, company image.

## Suggested qualifications of the trainer

See Chapter 6.

Practical knowledge of existing dispatch systems, route planning, tariffs calculating

# Suggested training materials

(books, CBT, etc.)

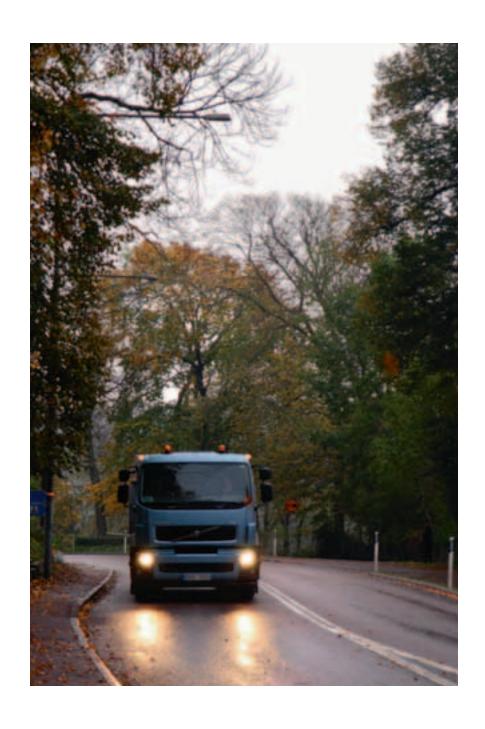
- Handout of presentations
- Handbook for bus drivers training (example of CESMAD Bohemia own material)
- National road transport code
- Samples of journey forms (white bill)

# Cost/benefit analysis

# 3

# Health, Road and Environmental Safety, Service, Logistics

Ref: Directive 2003/59/EC, Section 1 of Annex 1



# 3.1 The risks of the road and accidents at work

Objective number: 3.1

Objective heading: To make drivers aware of the risks of the road and of accidents at

work.

Directive text: Types of accidents at work in the transport sector, road accident

statistics, involvement of lorries/coaches, human, material and

financial consequences.



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver can:

- a) describe the different risks at work and be able to give examples how to prevent them
- b) interpret statistics related to traffic accidents
- c) describe and discuss the accident rate of trucks and coaches
- d) name the measures to prevent collisions with bicycles
- e) describe the aim of long-term safe work
- f) name the material damages related to vehicle as well as to the goods
- g) name the financial consequences for people, the company, environment and the society.

## What is the result of the training?

The driver is able to undertake a task related to his employment in a satisfactory and safe way regarding working environment and road/traffic safety conditions.

He recognizes potential dangerous situations and takes measurements to prevent them.

# Suggested duration

(hours of training) see Annex 1

## Suggested facilities

(equipment, vehicles, etc.)
Template to adjust mirrors of the truck

## Suggested exercises

# Suggested qualifications of the trainer

See Chapter 6

## Suggested training materials

(books, CBT, etc.)
- VTL CBT Wijs op weg

#### Cost/benefit analysis

# 3.2 Criminality and trafficking in illegal immigrants

Objective number: 3.2

Objective heading: Ability to prevent criminality and trafficking in illegal immigrants.

Directive text: General information, implications for drivers, preventive measures,

check list, legislation on transport operator liability.



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver can:

- a) name the problems with international, cross-border criminality and trafficking.
- b) describe the consequences, protective measures, check list, road accident statistics and legislation.
- c) name the potential differences related to time, methods and focus of the criminality.
- d) describe the legislation, protective measures and the responsibilities of the driver and the haulage company.
- e) apply the check list when carrying out an inspection

# What are the results of the training?

The driver takes adequate measures to prevent trafficking of illegal immigrants.

# Suggested duration

(hours of training) see Annex 1

# Suggested facilities

(equipment, vehicles, etc.) **Suggested exercises** 

# Suggested qualifications of the trainer

See Chapter 6

# Suggested training materials

(books, CBT, etc.)

- VTL Training course "Prevention of criminal behaviour in transport and logistics"

# Cost/benefit analysis

# 3.3 Physical risks

Objective number: 3.3

Objective heading: Ability to prevent physical risks.

Directive text: Ergonomic principles; movements and postures which pose a risk,

physical fitness, handling exercises, personal protection.



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver:

- a) can explain the importance of a safe working environment and ergonomics.
- b) can explain the legislation in the area of working environment; the rights and obligations of an employee/employer.
- c) can give examples of how co-operation can improve a safe working environment.
- d) can apply PPE's in relation with the risks.
- e) an explain the importance of physical fitness.
- f) is able to perform ergonomically correct lifts, to keep the body in a correct position behind the steering wheel and perform simple, physical exercises.
- g) is able to report on measures to improve the personal protection. Personal protection equipment and the safety equipment of the vehicle.

# What are the results of the training?

The driver knows how to work in a correct ergonomic and working environmentally manner. Avoiding and preventing accidents.

# Suggested duration

(hours of training) see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

# Suggested exercises

# Suggested qualifications of the trainer

See Chapter 6

# Suggested training materials

(books, CBT, etc.)BGZ training course "Fit op de rit"

#### Cost/benefit analysis

# 3.4 Physical and mental ability

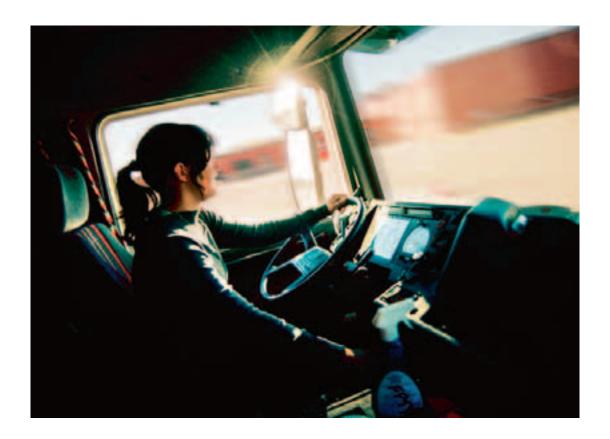
Objective number: 3.4

Objective heading: Awareness of the importance of physical and mental ability.

Directive text: Principles of healthy, balanced eating, effects of alcohol, drugs or any

other substance likely to affect behaviour, symptoms, causes, effects of

fatigue and stress, fundamental role of the basic work/rest cycle.



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver:

- a) can describe the effects of a balanced diet in relation with road safety and long term diseases.
- b) can describe the relation between fatigue and the human body. He can explain the importance of the work/rest cycle.
- c) can name the costs related to absence due to illness.
- d) can describe the influence of alcohol and other substances on road safety, the family and society.
- e) can name the advantages of zero-tolerance and the degree of alcohol in different beverages and is able to reflect over what is generally accepted by society.
- f) can define the effects of job related stress.

## What are the results of the training?

The trainee driver is carrying out his job in a safe way with respect for the long term effects related to unsafe behaviour and a incorrect diet.

The trainee driver can plan and organize his working day to enable a safe working environment.

# Suggested duration

(hours of training) see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

#### Suggested exercises

# Suggested qualifications of the trainer

See Chapter 6

# Suggested training materials

(books, CBT, etc.)

BGZ training course "Fit op de rit", BGZ Instruction "how to use and adjust your seat"

## Cost/benefit analysis

# 3.5 Emergency situations

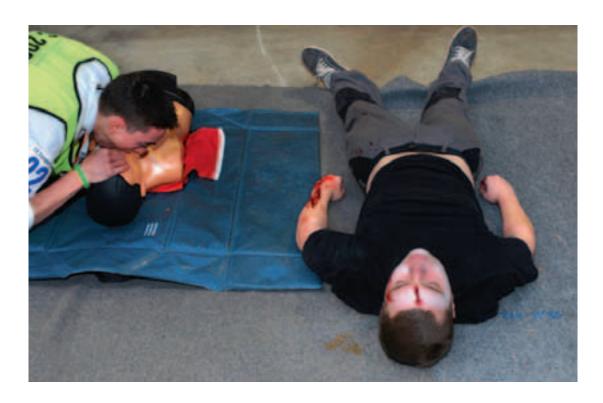
Objective number: 3.5

Objective heading: Ability to assess emergency situations.

Directive text: Behaviour in emergency situations: assessment of the situation,

avoiding complications of an accident, summoning assistance, assisting causalities and giving first aid, reaction in the event of fire, evacuation of occupants of a lorry/bus passengers, ensuring the safety of all passengers, reaction in the event of aggression: basic principles

for the drafting of an accident report.



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver can:

- a) assess the situation and name the correct procedure to prevent further damage
- b) apply the basics of first aid
- c) explain how a fire develops and can determine the risk for explosion
- d) interpret the specific labels on vehicles and goods which require special attention and know how and where to find information
- e) describe the risks of accidents and incidents for society in case of accidents and incidents
- f) fill in an accident report and can give an oral report
- g) describe the procedure when how to react when confronted with an accident or incident
- h) describe how damages can affect the human body and can describe how to prevent damages.

# What are the results of the training?

The driver can assess the situation and is able to make right decisions if he comes at first to an accident to take the right measures.

# Suggested duration

(hours of training) see Annex 1

## Suggested facilities

(equipment, vehicles, etc.)

## Suggested exercises

VTL practical instruction "dealing with incidents regarding dangerous goods"

# Suggested qualifications of the trainer

See Chapter 6

# Suggested training materials

(books, CBT, etc.)

## Cost/benefit analysis

# 3.6 The image of the profession

Objective number: 3.6

Objective heading: Ability to adopt behaviour to help enhance the image of the

profession.

Directive text: Behaviour of the driver and company image: importance for the

company of the standard of service provided by the driver, the roles of the driver, people with whom the driver will be dealing, vehicle maintenance, work organisation, commercial and financial effects of a

dispute.



#### Curriculum

(what does the trainee driver need to know?)

The trainee driver can:

- a) describe how his behavior, quality of work and vehicle maintenance taken together reflects the image of the company and that the driver is an ambassador of the company
- b) identify work-situations which situations that may cause stress and can describe how to deal with those situations mentally
- c) describe which costs are directly influenced by the way the work is planned
- d) describe how to deal with different people, such as enforcement officers, staff of (un) loading sites and he can describe the way to show respect to people with a different cultural background
- e) describe the as knowledge of the consequences of disputes for haulage companies, both personal as well as material for haulage companies.

## What are the results the training?

The driver acts as the ambassador of the company. The driver recognises situations and can handle strain.

# Suggested duration

(hours of training) see Annex 1

## Suggested facilities

(equipment, vehicles, etc.)

# Suggested exercises

# Suggested qualifications of the trainer

See Chapter 6

# Suggested training materials

(books, CBT, etc.)

- VTL training course "Professional presentation and communication for drivers"
- VTL training course "practical language skills for drivers"
- VTL CBT "Eco driving"

#### Cost/benefit analysis

# 3.7 The economic environment of road haulage and the organization of the market

Objective number: 3.7

Objective heading: To know the economic environment of road haulage and the

organization of the market. For licence C.

Directive text: Road transport in relation to other modes of transport (competition,

shippers), different road transport activities (transport for hire or reward, own account, auxiliary transport activities), organisation of the main types of transport company and auxiliary transport activities, different transport specialisations (road tanker, controlled temperature, etc.), changes in the industry (diversification of services

provided, rail-road, subcontracting, etc.).



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver can:

- a) explain the difference of variable and fixed costs for transport companies
- b) describe the structure/content of an economical transport cost calculation
- name the advantages and disadvantages of road transport in relation to other transport
  means (train, airplane, sea transport) from a global, national, regional and a local point of
  view

- d) name the competitiveness of the road transport with regard to the speed of the transport, transported goods and availability in relation to other transport means (train, airplane, sea transport)
- e) name forms of specific transport of goods

# What are the results of the training?

The driver shall depending on the professional category according to art.1.4 place his/her area of activity in relation to the curriculum art.3.7

# Suggested duration

(hours of training) see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

#### Suggested exercises

## Suggested qualifications of the trainer

See Chapter 6

# Suggested training materials

(books, CBT, etc.)

- VTL training course "Survey of the transport industry for new drivers"

## Cost/benefit analysis

# 3.8 The economic environment of passengers by road and the organization of the market

Objective number: 3.8

Objective heading: to know the economic environment of passengers by road and the

organization of the market. For licence D.

Directive text: carriage of passengers by road in relation to other modes of passenger

transport (rail, private car), different activities involving the carriage of passengers by road, crossing borders (international transport), organisation of the main types of companies for the carriage of

passengers by road.



# Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver can:

- explain why the driver makes an important contribution towards the image of the transport sector both at home and abroad [Customer-friendly; Responsible for passengers. Professional road behaviour. [social/defensive] towards other road users

- create the right kind of image in relation to customers, luggage and with the vehicle; dealing with complaints in a correct manner; Carefully handling documents
- can name forms of specific transport of passengers [carriage of passengers by road in relation to other modes of passenger transport (rail, private car), different activities involving the carriage of passengers by road, crossing borders (international transport), organisation of the main types of companies for the carriage of passengers by road]

# What are the results of the training?

# Suggested duration

(hours of training) see Annex 1

# Suggested facilities

(equipment, vehicles, etc.)

#### Suggested exercises

## Suggested qualifications of the trainer

See Chapter 6

# Suggested training materials

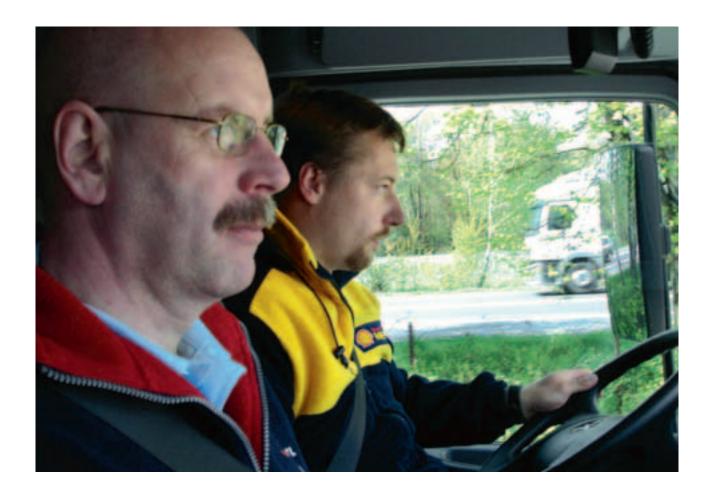
(books, CBT, etc.)

- VTL training course "working in passengers transport"

## Cost/benefit analysis

# 4 Individual Driver Training

Ref: Directive 2003/59/EC, Section 2 of Annex 1



#### Directive text:

#### Remark (10):

The minimum requirements to be met for the initial qualification and the periodic training concern the safety rules to be observed when driving and while the vehicle is stopped. The development of defensive driving — anticipating danger, making allowance for other road users — which goes hand in hand with rational fuel consumption, will have a positive impact both on society and on the road transport sector itself.

#### Article 5.1

Access to an initial qualification shall not require the corresponding driving licence to be obtained beforehand.

#### Annex 1, Section 2.1:

Each trainee driver must drive for at least 20 hours individually in a vehicle of the category concerned which meets at least the requirements for test vehicles as defined in Directive 91/439/EEC.

When driving individually, the trainee driver must be accompanied by an instructor, employed by an approved training centre. Each driver may drive for a maximum of eight hours of the 20 hours of individual driving on special terrain or on a top-of-the-range simulator so as to assess training in rational driving based on safety regulations, in particular with regard to vehicle handling in different road conditions and the way they change with different atmospheric conditions and the time of day or night.

The 20 individual driving lessons described in annex 1, section 2.1, must be separated from the lessons belonging to the obtaining of a driving licence in the corresponding category. The 20 individual driving lessons can be carried out within one or more of the following categories,

depending on in which category the trainee driver obtains the licence: C1, C1+E, C, C+E or D1, D1+E, D, D+E.

#### Curriculum

(what do the trainee driver need to know?)

#### All drivers

The trainee driver

- can carry out energy conserving and environmentally compatible driving.
- can carry out defensive driving: Anticipating danger, making allowance for other road users.
- is able to master the vehicle with varying loads, while taking advantage of the choice of gear, the course of the road and the inertia of the vehicle.
- should on this background be able to master the vehicle in a way that optimises the performance of the engine and transmission.
- should by carrying out defensive and provident driving should be able to minimize the costs of the maintenance of the vehicle and optimise fuel utilization.
- can master the vehicle in a way that minimises wear and tear, can carry out a safety check of the vehicle before driving, including correct adjustment of mirrors.
- can master and take advantage of the kinetic energy of the vehicle.
- can take the necessary precautions when driving a large vehicle down steep/long hill stretches – including avoiding prolonged use of the brake, choosing the appropriate low speed and gear, keeping the necessary safety distance, and using the engine brake or retarder.
- should be able to master the vehicle while taking into consideration the changes of the load, regarding the stability and dynamics of the vehicle. Among other things, the skills necessary to do this include mastering the changing use of the gear depending on the load of the vehicle and the profile of the road.

# What kind of work functions can the trainee driver undertake after completed training?

#### All drivers

The trainee driver

- can carry out transport of goods or passengers on a non specialised level observing safety rules when driving and while the vehicle is stopped.
- can carry out energetically and environmentally friendly driving.
- should master the knowledge of the following:
- knows the current working hour rules in the field of road transport
- knows the rights and duties of a driver in accordance with the demands of the education and the certificate.
- knows the national *and* international rules for the transport of goods *or* passengers including circumstances regarding responsibility and insurance.

#### Truck driver

The trainee driver

- can carry out basic driving of goods with truck.
- can correctly place the load on the vehicle, considering weight and dimensions, and are able to, due to legal standards and regulations, properly secure the cargo.
- can handle, maintain and inspect the transport material: Lift, crane etc.

can carry out the job in a way that shows knowledge of driving techniques and
ensures the safety of the goods, material and other road users, while also taking into
consideration the environment, working environment, energy saving and environmentally
friendly driving.

#### Bus and coach drivers

The trainee driver

- can carry out commercial conveyance of passengers while taking appropriate measures to ensure the safety and comfort of the passengers.
- can manoeuvre a bus to and from stops in a safe and considerate manner for passengers, pedestrians and other road users. The driving can be carried out while running on schedule.

#### Suggested duration

(hours of training) see Annex 1

The annex 1, Section 2 of the directive, states that each driver must participate in at least 20 hours of individual driving lessons in a vehicle of the category in question. For accelerated initial qualification the duration of the individual driving lessons must be at least 10 hours.

## Suggested facilities

(equipment, vehicles, etc.)

#### Vehicle

At least 12 of the 20 hours of the individual driving lessons must take place in vehicles that meet the demands for test vehicles in the directive 91/439/EEC

#### Simulator

Up to 8 hours of the driving lessons can take place on a top-of the-range simulator in which the drivers' ability to master the vehicle on roads in different conditions, during varying weather conditions and on different times of the day is developed.

#### Special terrain

Up to 8 hours of the driving lessons can take place in a special terrain in which manoeuvring can be practised.

#### Skid pad Facility

A skid pad facility is seen as special terrain, and some of the driving lessons can take place here.

The sum of the lessons in a simulator and driving in special terrain/ skid pad facility cannot exceed 8 hours.

#### Black Box

Black Box systems can be used to document the lessons and help visualise the individual trainee driver's profile. This makes it a valuable element in a individually tailored educational course.

#### Suggested exercises

#### Truck

When receiving individual driving lessons the trainee driver is accompanied by an instructor from an approved training centre.

- Lessons ought to be at least of 2 hours of duration.
- Assessment of the lessons should be based on the ability of the trainee driver to show proper handling of traffic safety and good conduct.
- The vehicle must at least be fully loaded at the start of the exercise or at the end.
- A minimum of 3 lessons must take place in, or in near vicinity of a relatively dense city. A part of or the entire driving in a city must take place in a different part of the city than the one in which the test for the driving license took place.
- During lessons the trainee driver has to adjust the mirrors of the vehicle correctly in accordance to what is required by law.

An evaluation form must be filled out by the instructor at all the driving lessons, and the trainee driver must receive a copy of this form directly after the driving lesson. The copy of the evaluation form is meant to guide the trainee driver to achieve a good behaviour ensuring traffic safety.

#### On skid-pad or special terrain

Driving lessons in a special terrain/closed circuit:

- The manoeuvring should take place in an "action lane" that contains the manoeuvres that cause the statistically highest number of accidents.
- The manoeuvring must contain both forward and reverse driving, including backing to ramp and through a gate.
- At the end of each lesson the trainee driver must receive an evaluation on how the driver has managed going through the "track".
- On a skid pad the trainee drivers can practice (advanced training):
  - Driving on regular dry road
  - Driving on wet road
  - Driving on icy road
  - Driving up/down icy or wet hill-top

Correct control-, braking-, and evasion- techniques in difficult and emergencies Practical exercises in the dynamics of driving, including:

- Speed's influence on the kinetic energy and the centrifugal force.
- Kinetic energy's influence on the breaking distance.
- Friction's influence during braking/slowing down, driving in curves, changing gears.
- The Centrifugal Force's influence on the stability of the driving during making turns (going through curves), changing of lanes, and during evasive action.
- Under- and over steering and the factors influencing these, e.g. loading, suspension, tire equipment and tire pressure.
- The placement of the centre of gravity's influence on driving safety, heeling in curves, and the centre of gravity's shifting during braking in dry and wet weather.
- The risk of only using the brake when driving down steep/long hills with a high total weight.
- The significance of correctly adjusted brakes and correctly adjusted ALB-valves.
- The significance of ABS-brakes in relation to the chosen driving technique.
- The significance of ESP-brakes in relation to the chosen driving technique.

The purpose of the practical lessons is to teach the trainee driver to evaluate road- weather and traffic conditions, and use the knowledge from the training to be able to evaluate the risks of driving the large vehicles. Furthermore, the purpose is to make the trainee driver capable of using the correct steering-, braking-, evading-, and evasion- techniques, and thereby make him/ her capable of reacting appropriately in difficult and suddenly occurring situations on:

- Long dry track:
  - Braking and evasion exercises with suddenly occurring obstacles and light regulation control.
- Long skid pad:
  - Braking and evasion exercises with suddenly occurring obstacles.
  - Steering and evasion in curves exercises.
  - Braking on differentiated friction. The instructor determines the speed.
- Dry agility course:
  - Reaction exercise.
  - Slalom exercise.
  - Double evasion without braking exercise.
- Hill with low friction:
  - Driving down into lay-bys
  - Evasion while driving downwards exercise, including a sudden occurrence.

#### Bus/coach

Suggested exercises on special terrain

Driving lessons in a special terrain / closed circuit:

- The manoeuvring should take place in an "action lane" that contains the manoeuvres that cause the statistically highest number of damages and accidents.
- The manoeuvring ought to contain both forward and reverse driving, including driving to a difficult "bus stop" and through a narrow washing machine.
- At the end of each lesson the trainee driver must receive an evaluation on how the driver has managed going through the "track".

Suggested exercises on a skid pad

On a skid pad the trainee drivers can practice (advanced training):

- Driving on regular dry road.
- Driving on wet road.
- Driving on icy road.

Practical exercises in correct control-, braking-, and evasion- techniques in difficult and emergencies.

Practical exercises in the dynamics of driving, including:

- Speed's influence on the kinetic energy and the centrifugal force.
- Kinetic energy's influence on the breaking distance.
- Friction's influence during braking/slowing down, driving in curves, changing gears.
- The Centrifugal Force's influence on the stability of the driving during making turns (going through curves), changing of lanes, and during evasive action.
- Under- and over steering and the factors influencing these, e.g. loading, suspension, tire equipment and tire pressure.
- The placement of the centre of gravity's influence on driving safety, heeling in curves, and the centre of gravity's shifting during braking in dry and wet weather.
- The risk of only using the brake when driving down steep/long hills with a high total weight.
- The significance of correctly adjusted brakes and correctly adjusted ALB-valves.

- The significance of ABS-brakes in relation to the chosen driving technique.
- The significance of ESP-brakes in relation to the chosen driving technique.

Exercises ought to include:

- Stopping and starting correctly at bus stops.
- Driving through a narrow washing unit.
- Driving into garage

#### Regular 2-axled busses

On a skid pad the trainee drivers ought to practice:

- Driving on regular dry road.
- Driving on wet road.
- Driving on icy road

On each of the 3 different types of road the trainee drivers ought to practise:

- Double evasive action.
- Emergency braking.
- Making a precise stop at bus stops.

#### Special busses

There is a significant difference between driving a regular 2-axled bus and the larger and more special busses, for example 3-axled buses, articulated busses and double-deckers. It might be suitable to carry out a few hours of training on a skid pad in which the trainee driver get to practise skids and evasions with these vehicles.

#### Driving in traffic

Considerate and defensive driving is an objective in both route traffic and driving a tourist bus. This way of driving gives the customers the best experience while travelling, the highest fuel efficiency and the fewest damages to passengers and material – this is why the training of the drivers in this subject of everyday traffic should be considered a very important part of the training.

Content of individual driving lessons carried out in driving traffic, compared with the objectives of Annex 1, Section 1: List of subjects

Considerate and defensive driving is an objective in both route traffic and driving a tourist bus. This way of driving gives the customers the best experience while travelling, the highest fuel efficiency and the fewest damages to passengers and material – this is why the training of the drivers in this subject of everyday traffic should be considered a very important part of the training.

In the individual driving lessons the trainee driver is supervised by a qualified trainer. The lessons can with advantage be carrying out in block of two hours.

The evaluation of the individual driving lessons should be related to traffic safety and optimal energy conserving driving (eco driving). Some of the lessons should include driving the vehicle fully loaded, either at the beginning of the tour or at the end.

The individual driving lessons should be carried out in closely populated areas, and some of the lessons should take place in another city or in another part of the city.

# Individual driving lessons related to Annex 1, section 1

Section	Hours	Ojective and content
		Defensive driving and traffic safety
1.1	2 - 4	Points of focus The trainee driver conducts defensive and provident driving in dense city traffic and the ability of the trainee driver to handle the vehicle is trained, as well as the use of the vehicles safety controls (breaks)
		Points of observation Use points marked red in schedule below

### Exercises in bus

Name (	of trainee driver:	Departmen	t:				
Area:		Traffic type	:				
Date:		Time from		t	:0		
Vehicle	type	'	Evaluation level				
Subject			Α	В	C	D	E
1.	Traffic Prediction						
2.	Consideration and patience in traffic						
3.	Distance to vehicle in front						
4.	Stress symptoms						
5.	Pedestrian and cyclist consideration						
6.	Uncovering of hidden objects behind mirrors et	c.					
7.	Mirror culture and adjustments						
8.	Driving speeds - 50, 70, 80, 90						
9.	Right of way/yielding						
10.	Cornering and roundabouts etc.						
11.	Lane changing and overtaking						
12.	Parking						
13.	Use of lights						
14.	Acceleration/deceleration (braking)						
15.	Tyre consideration						
16.	Fuel saving style of driving						
17.	Use of safety belts						
18.	Use of communication equipment						
19.	Use of navigational equipment						
20.	Knowledge of traffic act						
21.	Language and dress code						
22.	Obvious physical disabilities						
23.	Knowledge of Tachograph regulations						
24.	Attitudes						
25.	General evaluation						
26.	Miscellaneous •						
Evaluat							
	isfactory (according to experience)		0	0			_
	tory (The expected/required level)			0			_
Not acc	sfactory				0	0	<del> </del>
	vant on this trip						0
NOL TELE	evant on this trip						

Section	Hours	Ojective and content
		Optimal energy conserving driving (eco driving)
1.1	2 - 4	Points of focus
1.3		The trainee driver can optimise fuel consumption and drive the vehicle in such a way that the characteristics of the transmission system and the motor is made best possible use of, including optimum use of revolution counter.
		Points of observation Use points marked red in schedule below

Name o	Name of trainee driver: Department:						
Area:		Traffic type					
Date:		Time from		t	:0		
Vehicle	type			Eval	uation l	evel	
Subject			Α	В	С	D	Е
1.	Traffic Prediction						
2.	Consideration and patience in traffic						
3.	Distance to vehicle in front						
4.	Stress symptoms						
5.	Pedestrian and cyclist consideration						
6.	Uncovering of hidden objects behind mirrors etc.						
7.	Mirror culture and adjustments						
8.	Driving speeds - 50, 70, 80, 90						
9.	Right of way/yielding						
10.	Cornering and roundabouts etc.						
11.	Lane changing and overtaking						
12.	Parking						
13.	Use of lights						
14.	Acceleration/deceleration (braking)						
15.	Tyre consideration						
16.	Fuel saving style of driving						
17.	Use of safety belts						
18.	Use of communication equipment						
19.	Use of navigational equipment						
20.	Knowledge of traffic act						
21.	Language and dress code						
22.	Obvious physical disabilities						
23.	Knowledge of Tachograph regulations						
24.	Attitudes						
25.	General evaluation						
26.	Miscellaneous						
	Evaluation						
Very Satisfactory (according to experience)							
Satisfact	ory (The expected/required level)			0			
Less sati	,				0		
Not acce	•					0	
Not relevant on this trip						0	

Section	Hours	Ojective and content
		Ability to ensure passenger comfort and safety
1.5	6 - 8	Points of focus  The trainee driver can drive the vehicle in a safe and comfortable way for passengers, adjusting longitudinal and sideways movements by choosing correct position on the road, by using bus lanes and by smooth braking.  The trainee driver can recognise and solve conflicts safe driving and other roles of the driver such as contact with passengers with special needs for example disabled people, children and elderly. The trainee driver can use the technical installations of the bus such as the air suspense system, cruise control, air-conditioning system, etc. on the basis of the knowledge acquired by the trainee driver.
		Points of observation Use points marked red in schedule below

Name o	of trainee driver:	Departmen	t:				
Area:		Traffic type:					
Date:		Time from		t	:o		
Vehicle	type		Evaluation level				
Subject			Α	В	С	D	Е
1.	Traffic Prediction						
2.	Consideration and patience in traffic						
3.	Distance to vehicle in front						
4.	Stress symptoms						
5.	Pedestrian and cyclist consideration						
6.	Uncovering of hidden objects behind mirrors etc.						
7.	Mirror culture and adjustments						
8.	Driving speeds - 50, 70, 80, 90						
9.	Right of way/yielding						
10.	Cornering and roundabouts etc.						
11.	Lane changing and overtaking						
12.	Parking						
13.	Use of lights						
14.	Acceleration/deceleration (braking)						
15.	Tyre consideration						
16.	Fuel saving style of driving						
17.	Use of safety belts						
18.	Use of communication equipment						
19.	Use of navigational equipment						
20.	Knowledge of traffic act						
21.	Language and dress code						
22.	Obvious physical disabilities						
23.	Knowledge of Tachograph regulations						
24.	Attitudes						
25.	General evaluation						
26.	Miscellaneous						
Evaluation							
	isfactory (according to experience)		0				
	Satisfactory (The expected/required level)  O						
	sfactory				0		
Not acc						0	
Not rele	evant on this trip O					0	

Section	Hours	Ojective and content
		Ability to load the vehicle with due regard for safety rules and proper vehicle use
1.6	2 - 4	Points of focus
		The trainee driver can drive the loaded vehicle safely, regarding the changes caused by the loaded passengers and luggage on the stability and dynamics of the vehicle. This causes for example different use of gears, depending on the load of the vehicle and the profile of the road.
		Points of observation Use points marked red in schedule below

Name o	Name of trainee driver: Department:						
Area:		Traffic type	:				
Date:		Time from		t	:0		
Vehicle	type			Eval	uation I	evel	
Subject			Α	В	С	D	E
1.	Traffic Prediction						
2.	Consideration and patience in traffic						
3.	Distance to vehicle in front						
4.	Stress symptoms						
5.	Pedestrian and cyclist consideration						
6.	Uncovering of hidden objects behind mirrors etc.						
7.	Mirror culture and adjustments						
8.	Driving speeds - 50, 70, 80, 90						
9.	Right of way/yielding						
10.	Cornering and roundabouts etc.						
11.	Lane changing and overtaking						
12.	Parking						
13.	Use of lights						
14.	Acceleration/deceleration (braking)						
15.	Tyre consideration						
16.	Fuel saving style of driving						
17.	Use of safety belts						
18.	Use of communication equipment						
19.	Use of navigational equipment						
20.	Knowledge of traffic act						
21.	Language and dress code						
22.	Obvious physical disabilities						
23.	Knowledge of Tachograph regulations						
24.	Attitudes						
25.	General evaluation						
26.	Miscellaneous						
Evaluation							
	y Satisfactory (according to experience)						
	ory (The expected/required level)			0			
Less sati	•				0		
Not acce	•					0	
Not rele	vant on this trip						0

### Individual driving lessons on special terrain or in simulator

Section	Hours	Ojective and content
		Manoeuvring and driving techniques on special terrain
1.2	2 - 4	Points of focus
		Driving techniques to and from bus stop.
		Driving techniques in automatic washing area

Section	Hours	Ojective and content
		Driving busses with three axels
1.2	2 - 4	Points of focus
		Driving techniques to and from bus stop.
		Driving techniques in double evasion manoeuvre on skidded surface
		Braking techniques on roads with different friction

Section	Hours	Ojective and content
		Driving under different weather and road conditions in simulator or on skid pad
1.2	0 - 2	Points of focus
		On a skid pad or in a simulator the trainee drivers can practice:
		- Driving on regular dry road
		- Driving on wet road
		- Driving on icy road
		- Driving in fog

Section	Hours	Ojective and content
		Driving in different traffic density in simulator or on skid pad
1.2	0 - 2	Points of focus
		On a skid pad or in a simulator the trainee drivers can practice driving in different traffic density

Section	Hours	Ojective and content
		Driving with load in simulator or on skid pad
1.2	0 - 2	Points of focus
		On a skid pad or in a simulator the trainee drivers can practice driving with for example ski box

Section	Hours	Ojective and content
		Manoeuvring and driving techniques on special terrain or in simulator
1.2	0 - 2	Points of focus  - Driving techniques to and from bus stop.  - Driving techniques in automatic washing area.  - Driving techniques on and of a ferry

### Plan for Training Individual driving lessons in truck

### Chapter 1 Periodic training in Rational Driving with Main Emphasis on Safety

Section.	No. of Hours	Content
		Defensive Driving and Traffic Safety
1.1 1.2	2 - 4	Focal points The trainee driver carries out defensive and provident driving in dense urban traffic during which the trainee driver is trained in controlling the vehicle and using the vehicle's safety controls (brake hydraulic/pneumatic, emergency brake and other brakes)
		Observation points See schedule, next page (marked in red/with particular importance to)

### Exercises in truck

Name:				Department:					
Area:		Traffic:							
Date:		Time from		1	:o				
Vehicle	type			evalı	uation I	evel			
Subject			Α	В	С	D	Е		
1.	Traffic Prediction								
2.	Consideration and patience in traffic								
3.	Distance to vehicle in front								
4.	Stress symptoms								
5.	Pedestrian and cyclist consideration								
6.	Uncovering of hidden objects behind mirrors etc.								
7.	Mirror culture and adjustments								
8.	Driving speeds - 50, 70, 80, 90								
9.	Right of way/yielding								
10.	Cornering and roundabouts etc.								
11.	Lane changing and overtaking								
12.	Parking								
13.	Use of lights								
14.	Acceleration/deceleration (braking)								
15.	Tyre consideration								
16.	Fuel saving style of driving								
17.	Use of safety belts								
18.	Use of communication equipment								
19.	Use of navigational equipment								
20.	Knowledge of traffic act								
21.	Language and dress code								
22.	Obvious physical disabilities								
23.	Knowledge of Tachograph regulations								
24.	Attitudes								
25.	General evaluation								
26.	Miscellaneous								
Evaluat									
-	Very Satisfactory (according to experience)								
	Satisfactory (The expected/required level)			0					
Less sati	·				0				
Not acc	•					0			
Not rele	vant on this trip						0		

Section	No. of Hours	Content
		Energy-conserving driving
1.1	2 - 4	Focal Points The trainee driver can optimize fuel consumption and control the vehicle in such a way that the characteristics of the transmission system and the engine is made best possible use of, including optimum use of revolution counter
		Observation points See schedule, next page (marked in red/with particular importance to)

### **Exercises in Truck**

Name:		Departmen	Department:						
Area:		Traffic:	Traffic:						
Date:		Time from	Time from to						
/ehicle	type		evaluation level						
ubject			Α	В	С	D	Е		
1.	Traffic Prediction								
2.	Consideration and patience in traffic								
3.	Distance to vehicle in front								
4.	Stress symptoms								
5.	Pedestrian and cyclist consideration								
6.	Uncovering of hidden objects behind mirrors etc.								
7.	Mirror culture and adjustments								
8.	Driving speeds - 50, 70, 80, 90								
9.	Right of way/yielding								
10.	Cornering and roundabouts etc.								
11.	Lane changing and overtaking								
12.	Parking								
13.	Use of lights								
14.	Acceleration/deceleration (braking)								
15.	Tyre consideration								
16.	Fuel saving style of driving								
17.	Use of safety belts								
18.	Use of communication equipment								
	Use of navigational equipment								
	Knowledge of traffic act								
	Language and dress code								
22.	Obvious physical disabilities								
23.	Knowledge of Tachograph regulations								
	Attitudes								
25.	General evaluation								
26.	Miscellaneous								
valuat									
	isfactory (according to experience)		0						
	tory (The expected/required level)			0					
	sfactory				0				
						1	1		
Not acce	eptable vant on this trip					0			

Section.	No. of hours	Content
		Defensive Driving and Traffic Safety
1.2	2 - 4	Focal points  The trainee driver is trained in general driving dynamics and can take full advantage of the vehicles kinetic energy.  The trainee driver carries out driving down steep hills in a large vehicle, including avoiding prolonged use of the brake, choosing a suitable (low) speed and gear, respecting the necessary safety distance, and occurring use of motor brake or retarder.
		Observation points See schedule, next page (marked in red/with particular importance to)

### Exercises in truck

Name: Department:						
Area: Traffic:						
Date: Time from to						
Vehicle type evaluation level						
Subject		Α	В	С	D	Е
1. Traffic Prediction						
2. Consideration and patience in traffic						
3. Distance to vehicle in front						
4. Stress symptoms						
5. Pedestrian and cyclist consideration						
6. Uncovering of hidden objects behind mirrors etc.						
7. Mirror culture and adjustments						
8. Driving speeds - 50, 70, 80, 90						
9. Right of way/yielding						
10. Cornering and roundabouts etc.						
11. Lane changing and overtaking						
12. Parking						
13. Use of lights						
14. Acceleration/deceleration (braking)						
15. Tyre consideration						
16. Fuel saving style of driving						
17. Use of safety belts						
18. Use of communication equipment						
19. Use of navigational equipment						
20. Knowledge of traffic act						
21. Language and dress code						
22. Obvious physical disabilities						
23. Knowledge of Tachograph regulations						
24. Attitudes						
25. General evaluation						
26. Miscellaneous						
Evaluation						
Very Satisfactory (according to experience)		0				
Satisfactory (The expected/required level)			0			
Less satisfactory				0		
Not acceptable					0	
Not relevant on this trip						0

Underpunkt til "Bilag 1" i Direktivet.	Antal lektioner	Indhold
		Defensive Driving and Traffic Safety (loading and distribution of weight)
1.4	2 - 4	Focal Points The trainee driver controls a fully loaded vehicle while taking the changes that the loading causes, regarding the vehicles stability and dynamics, into consideration. This causes among other things a change in the use of gear, depending on the load of the vehicle and the profile of the road.
		Observation points See schedule, next page (marked in red/with particular importance to)

### Exercises in truck

Name:	ame: Department:						
Area:	Traffic:						
Date:	Time from to						
Vehicle	type			evalı	uation l	evel	
Subject	:		Α	В	С	D	Е
1.	Traffic Prediction						
2.	Consideration and patience in traffic						
3.	Distance to vehicle in front						
4.	Stress symptoms						
5.	Pedestrian and cyclist consideration						
6.	Uncovering of hidden objects behind mirrors etc.						
7.	Mirror culture and adjustments						
8.	Driving speeds - 50, 70, 80, 90						
9.	Right of way/yielding						
10.	Cornering and roundabouts etc.						
11.	Lane changing and overtaking						
12.	Parking						
13.	Use of lights						
14.	Acceleration/deceleration (braking)						
15.	Tyre consideration						
16.	Fuel saving style of driving						
17.	Use of safety belts						
18.	Use of communication equipment						
19.	Use of navigational equipment						
20.	Knowledge of traffic act						
21.	Language and dress code						
22.	Obvious physical disabilities						
23.	Knowledge of Tachograph regulations						
	Attitudes						
25.							
26.	Miscellaneous						
27.							
	isfactory (according to experience)		0				
	tory (The expected/required level)			0	0		
	sfactory				0		
Not acc	•					0	
INOT refe	Not relevant on this trip					$\Box$	

### Driving in simulator or special terrain

All trainee drivers can each only get a maximum of 8 of the 20 individual driving lessons in special terrain OR in an advanced simulator.

On closed special terrain the training can include the manoeuvring of a truck, also involving particularly difficult situations.

In a simulator the trainee driver can be trained in rational driving with main emphasis on safety, including the command of the vehicle on roads in different conditions, under different weather conditions and on different times of day.

### Plan - training:

Special terrain/Simulator

### Chapter 1: Initial training in Rational Driving with Main Emphasis on Safety

Section	No of lessons	Content
		Driving under different weather conditions and road conditions/ driving technique
1.2	2	In simulator or on skid pad

Section	No of lessons	Content
		Driving under different intensities of traffic
1.2	2	In simulator or on skid pad

Section	No of lessons	Content
		Driving with different loads (e.g. Tank)
1.4	2	In simulator or on skid pad

Section	No of lessons	Content
		Manoeuvring / Driving technique
1.2	2	Focal points:
		Parking Forward and backward driving, including driving on ramp and backing through a gate.
		In simulator or on special terrain/closed terrain/manoeuvring course

# **Fuel Consumption Check**

(pre- and post-training)

Driver:					
Trainer:					
Date 1st test drive	<b>:</b>	Date 2nd test di	rive:		
Stretch of way:					
Criterion	1st test drive (pre-training)	2nd test drive (post-training)	Difference	<b>Difference</b> in %	
number of switching operations					
number of stops					
needed time					
Criterion	1st test drive	2nd test drive	Difference	Savings in	
fuel consumption	l/100 km:	I/100 km	I/100 km:	%:  € (expenses of a litre fuel =):  Fuel savings projected on a running performance of 120.000 km/ year in €:	
Notes:					

### Suggested qualifications of the trainer

See Chapter 6

The instructor must be an expert subject matter teacher at an approved training centre and updated in the subject. In addition the instructor must have an experience of several years driving busses / coaches/trucks. This experience could have been achieved by working as a driver or by working as a heavy vehicle-driving instructor. Thus the instructor does not have to be a trained driving instructor, but it is very important that he/she understands how to motivate the driver in training to drive in a considerate and defensive way with an objective of zero accidents.

### Suggested training materials

(books, CBT, etc.)

Books, CBT, a top of the range simulator (high key)

### Cost/benefit analysis

of the most effective training methods

National authorities in the EU countries could use a **cost/benefit analysis** of the different ways of completing individual training to evaluate and subsequently improve the education of drivers.

As mentioned above it is possible to include:

- 1. Driving in a special terrain
- 2. Driving on skid pad
- 3. Training in a top of the range simulator
- 4. Training in traffic

#### Ad 1

One instructor can train more then one participants at the same time at a special terrain / closed circuit, which will reduce the cost for salaries compared to training outside a closed circuit where it would be necessary with one instructor pr vehicle/trainee driver.

#### Ad 2

Driving on skid pad is considered driving in a special terrain and on one hand the instructor can also handle more than one trainee driver here as well. On the other hand it will cost more to participate in a skid pad course and you have to take into consideration that certain speed-limits will prevent the trainee driver from performing some complex traffic manoeuvres.

#### Ad 3

The technical, pedagogical and economic progress in training in advanced simulators seems to be of significant value and it is therefore difficult to make a cost/benefit analysis of this subject. At present the costs for training in a simulator compared to training traditionally are relatively the same.

However training drivers by simulator can offer possibilities, which are difficult to accomplish in other ways. For example: Driving in the dark, driving with reduced visibility etc. In addition it is possible to include dangerous situations without risk of physical injury to participants and material.

#### Ad 4

The natural point of reference for the analysis should be driving in everyday traffic.

# 5 Periodic Training

Ref: Directive 2003/59/EC, Section 2 of Annex 1



The basis for periodic training in the context of Directive 2003/59 is found in article 7; "Periodic training shall consist of training to enable holders of a CPC...to update the knowledge which is essential for their work, with specific emphasis on road safety and the rationalisation of fuel consumption."

There are at least two major questions that need to be elaborated in this context;

- 1) How should the training be delivered?

  Another important question is where the training should take place. That question is however not dealt with here; and
- 2) What subjects should the actual training focus on?

### How should the training be delivered?

When discussing the delivery of training based on Directive 2003/59, there seems to exist a common understanding that the training should be delivered in modules. This as it would be virtually impossible to tailor-make the training on individual basis. The modular system strategy seems attractive for all major players concerned (owners of the haulage companies, the

professional drivers and the training providers) as it includes necessary flexibility following the fact that it is possible to define a great number of training modules and since the content of the modules can change over time. This way it is possible to satisfy the needs of the great majority of the transport companies in the market.

Thus, we propose the adoption of a modular system. There are a number of elements of interest in this context:

- 1) the content of the different individual modules derives from the annex of Directive 2003/59. Thus, there is an obligation to put emphasis on road safety and rationalisation of fuel consumption;
- 2) there should be a module aiming at updating the knowledge –the content of directive 2003/59- of the individual driver. This module should be mandatory for all professional drivers and should take place the last year of every five-year period. The reason for this is the safeguarding of a system that keeps professional drivers aware of the latest regulations and developments within the transport and logistics industry. Please see document "WP4 SafeEU M1" for a description of a module of such a mandatory nature;
- 3) there should be a list of eligible modules reflecting the variety of drivers needs. A determining factor when defining the training content is connected to the various functions a professional driver can hold. There are namely great differences in terms of training needs between a driver who e.g. transports timber in deserted areas in comparison with a driver who delivers packages to offices in heavy populated areas;
- 4) a survey of best practice will be carried out during the fall 2006. The goal is to define how the training should be delivered. This survey will take an as wide approach as possible and include e.g. possibilities to deliver training using e-learning.

### What subjects should the actual training focus on?

The content of the training finds it basis in the annex of Directive 2003/59. The annex gives however rise to several questions as it does not give a complete picture but rather only a mere list of relevant training subjects.

The process is in this context twofold;

- a) the definition of a number of training modules; and
- b) the determination of the actual content of each separate module.

### The definition of training modules

When trying to define a modular system it is crucial not to forget that the system must be flexible. This in order to meet continuous changes in the market demand. At the same time, we need to respect that Directive 2003/59 puts emphasis on the importance of road safety and the rationalisation of fuel consumption.

The survey referred to in the previous, will also include an analysis of best practices with regard to the determination of separate training modules. Therefore, it is likely that the proposed training modules will be revised within only a few months.

Here is a draft list of various training modules:

- Securing of loads
- Driving, working and resting time. Tachograph

- First Aid and handling with crises related to accidents
- New technology on heavy vehicles
- Maintenance of vehicles
- Long distance driving
- Temperature regulated transports
- Distribution driving
- International road transport (passengers or goods)
- Timber transports
- Heavy goods and oversized transports
- Tank transports
- Bulk transports
- Animal transports
- Costumer service
- Advanced driving techniques (skid pad, simulator or other special terrain)
- Driving special busses (three axels, double-deckers, etc)
- Driving passengers with special needs
- etc.

Please see below for a description of a module of such an eligible nature.

### Determination of the actual training content

Much of which has been highlighted in the previous is also relevant in relation to the determination of the training content. That goes e.g. for the need of flexibility as well as the importance of findings in the survey carried out within a few months.

It should be stressed that it will be up to each nation to independently decide upon which modules should be adopted in their territory. Moreover, each government must also consider and determine whether the proposed training content satisfies the needs of their transport industry.

### THE PERIODIC QUALIFICATION TRAINING

### Module 1:

# Mandatory module to undertake the last year in the five-year period

Objective number: Article 7

Objective heading: Periodic training

Directive text: Periodic training shall consist of training to enable holders of a CPC

as referred to in Article 6 and the drivers referred to in Article 4 to update the knowledge which is essential for their work, with specific emphasis on road safety and the rationalisation of fuel consumption.



This training shall be organised by an approved training centre, in keeping with section 5 of Annex I. If a driver moves to another undertaking, the periodic training already undergone must be taken into account.

Periodic training shall be designed to expand on, and to revise, some of the subjects referred in section 1 of Annex I.

### Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

In accordance with news, updates and new regulations for the past 5 years the trainee driver shall have knowledge of news:

- a) in technology on vechicles concerning road safety and fuel economic driving.
- b) about technique for traffic safety and fuel economic driving.
- c) in domestic and international traffic regulations.
- d) in regulations for working, driving and resting time regulations.
- e) Shall have knowledge of news in the rules governing transport of goods/passengers.

In case of other items known by authorities, social partners etc. as items where drivers in common don't have sufficient knowledge or skill. For example: defensive driving, vehicles impact on polluting the environment, first aid or something else. There can be more items here.

### What are the results of the training?

The trainee driver can:

- a) drive his/hers vehicle in a safe way in accordance to other road users.
- b) drive his/hers vehicle in a safe way in accordance to the environment.
- c) perform a safe and legal work in accordance to valid rules and regulations.

### Suggested duration

(hours of training)

1 day (7 hours) - 3 days (35 hours)

Depending on the amount of news and items here.

#### For example:

Item A – E theoretical 1 day (7 hours)

Item A – E theoretical and practical 2 days (14 hours)

Item A – E theoretical and practical plus

Item F "First Aid" theoretical and practical 3 days (21 hours)

### Suggested facilities

(equipment, vehicles, etc.)

#### Suggested exercises

### Suggested qualifications of the trainer

See Chapter 6

### Suggested training materials

(books, CBT, etc.)

#### Cost/benefit analysis

of the most effective training methods

### THE PERIODIC QUALIFICATION TRAINING

### Module 2:

### Securing of goods (Eligible module)

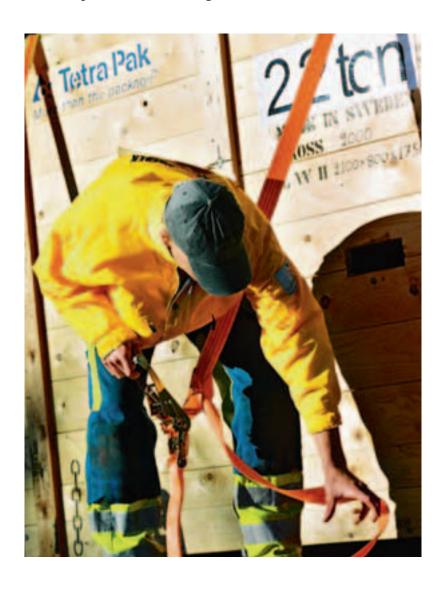
Objective number: Article 7

Objective heading: Periodic training

Directive text: Periodic training shall consist of training to enable holders of a CPC

as referred to in Article 6 and the drivers referred to in Article 4 to

update the knowledge which is essential for their work



### Standards and recommendation

#### Curriculum

(what does the trainee driver need to know?)

The trainee driver:

a) Shall have knowledge of what risks driving with incorrect secured goods involve.

- b) Is aware of his responsibilities according to securing of goods in domestic and international transports.
- c) Is aware of the physical pressures that affect goods during road transports.
- d) Is aware of different kind of securing methods and what effect they give.
- e) Can decide the optimal way to secure different loads on different vehicles.
- f) Can handle securing devices the right way according to effect and safety.
- g) Is aware of domestic roles, regulations, standards, guidelines etc concerning securing of goods.
- h) Has knowledge about international roles, regulations, standards, guidelines etc concerning securing of goods.

### What are the results of the training?

The trainee driver can accomplish a correct and optimal securing in practice on different loads.

Correct and optimal in relation to safety, regulations, time and amount of equipment.

### Suggested duration

(hours of training)

- a) 0,5 h
- b) 0,5 h
- c) 1,0 h
- d) 1,5 h
- e) 2,0 h
- f) 1,0 h
- g) + h) 0.5 h

Total 7 hours

### Suggested facilities

(equipment, vehicles, etc.)

- Fully equipped classroom
- Securing simulator or truck with tilting platform
- Normal sized gods (weight and size) of different kinds, into line with the needs for the practical exercises.

### Suggested exercises

Theoretical in classroom:

- Risk with insufficient secured goods
- Responsibilities in a transport chain
- Physics involved in transportation on roads
- Securing methods and how they work:

Blocking

Top-over lashing

Spring lashing

Loop lashing

etc

- Securing equipment and their maintenance:
- Blocking devices

Webbings

Chains

Wires

etc.

- How to calculate the optimal amount of method and securing device using handouts.
- Regulations

#### Practical on the simulator or truck:

- Friction and its impact on securing goods
- Securing different kind of goods:

Pallets

Drums

Goods with a high center of gravity

Goods in more than one layer

etc.

### Suggested qualifications of the trainer

See Chapter 6

### Suggested training materials

(books, CBT, etc.)

- Secure Load Instructor material
- Secure Load Student book
- Secure Load Handout
- Secure Load Video
- CD-rom Loading and securing goods (TUR)

### Cost/benefit analysis

of the most effective training methods

### List of suggested modules for periodic training

See Annex 3 for further information on courses

Task	Text	Remarks
Title of course	Mandatory module Refreshing	1 - 3 days se template
Title of course	Securing of load	7h se template
Title of course	Receiving customers	7h se template
Title of course	Safety driving with truck	7h se template
Title of course	Traffic safety	7h se template
Title of course	Animal transports	7h se template
Title of course	Human factor	7h se template
Title of course	eDriving	
	First aid	7h se template
Title of course Title of course		7h se template 7h
Title of course	Ergonomics for drivers  The trainee driver shall after training have knowledge of and realize:  - How to work in a safe and ergonomic correct way corresponding to his working functions.	711
Title of course	Driving in special terrain (slippery surface, hills etc)  The trainee driver shall after training know how different road conditions - up/downhill, rain, snow, ice, fog, heavy traffic etc - affect the way he shall drive his vehicle in a safe way.  The training includes practical driving in special terrain.	7h
Title of course	Distribution driver	7 – 14h
	The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  - Regulations  - Environment  - Technique  - Health and safety  - Branch standards	
Title of course	Long distance driving domestic  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  - Regulations - Environment - Technique - Health and safety - Branch standards	7 - 14h
Title of course	Long distance driving international  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  - Regulations - Environment - Technique - Health and safety - Branch standards	7 – 14h

Title of course	Movers  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  Regulations  Environment  Technique  Health and safety  Branch standards	7 – 14h
Title of course	Drivers of vehicle mounted cranes  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  Regulations Environment Technique Health and safety Branch standards	7 – 14h
Title of course	Drivers of abnormal transports  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  Regulations Environment Technique Health and safety Branch standards	7 - 14h
Title of course	Tank drivers - Food (milk, bulk etc)  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  Regulations Environment Technique Health and safety Branch standards	7 – 14h
Title of course	Tank drivers - Petrol products  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  - Regulations - Environment - Technique - Health and safety - Branch standards	7 – 14h

Title of course	Tank drivers - chemicals	7 – 14h
	The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  - Regulations - Environment - Technique - Health and safety - Branch standards	
Title of course	Timber drivers  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  - Regulations - Environment - Technique - Health and safety - Branch standards	7 – 14h
Title of course	Drivers of tempered transports  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  Regulations Environment Technique Health and safety Branch standards	7 – 14h
Title of course	Construction drivers  The trainee driver shall after training have updated knowledge in important items related to work functions in his daily job. The items shall be based on news and updates in the past five years related to:  - Regulations - Environment - Technique - Health and safety - Branch standards	7 – 14h

## 6

## **Approval of Training Centres/Providers**



The implementation of periodic training in Directive 2003/59 into national legislation requires the issuing of a rather extensive national set of legislation. One of the cornerstones in this context is the quality assurance of the training made available to all professional drivers embraced by the training in the directive. Below follows a brief description of a system related to *the training provider* – a provider who will make available training distinguished by quality assurance.

### **Definitions**

A training provider is an actor who with own staff alternatively with external consultants, or with a combination of these alternatives, provide or have the intention to provide periodic training that meets the criteria found in the national legislation implementing Directive 2003/59.

An "instructor" is a physical or a legal person who carries out the actual training.

### General requirements

The training provider is to make sure that the training delivered meet the requirements found in the national legislation and, thus, fulfils the requirements in Directive 2003:59. The training provider must, to be in a position to deliver relevant training, apply for a permit. Only legal persons may be granted permissions.

A training provider can when needed employ instructors to make the training available on the market. The training provider must always employ instructors who satisfy the level of competence defined in this document. In practice, this means that the training provider must prove, with the support of a certificate and/or training certificate, that employed instructors hold the relevant competence. This applies in relation to external instructors whether they are employed to carry out the complete training or only parts thereof.

The application for approval to provide training must be filed with the competent national authority. In order to safeguard the quality of the training, an application must include i.a. the following information:

- name of the training provider
- register of instructors
- the competence and suitability of the instructors
- detailed curriculum describing content and structure

### Curriculum

A training provider whose ambition is to make available training that meets the criteria in the legislation implementing Directive 2003/59 on national level, should present a curriculum to the competent national authority. The following guidelines should be respected as regards the content of such a curriculum:

- **Content**. Discipline, implementation and estimation of time.
- **Instructors**. Register of instructors who will carry out the training, their competence and which part(s) of the training curriculum that is/are relevant for them.
- The location of the training. Description of the training premises and places for practical exercises.
- Pedagogical training tools. Training tools, literature and training material used for the training.
- **Number of students**. Maximum number of students.
- **Learning targets.** Specified targets according to the content of the curriculum.

### The level of competence of the instructor

As mentioned above, the instructors carrying out the training must hold a certain level of competence. An application to start delivering training will otherwise not be accepted. Also, it is always the obligation of the training provider to prove that the instructors engaged in the delivery of training have the necessary qualifications. In this context, an instructor who already has an authorisation issued by a competent authority entitling him to deliver training according to the national legislation which follows from the implementation of Directive 2003/59 must be considered to satisfy the requirements on level of competence and/or experience. A training provider who engages such an instructor may therefore simply refer to the permission to carry out training carried out by the instructor.

Please see below for a discussion as to the competence requirements applied in relation to instructors.

### a) Pedagogy

The instructors must hold basic pedagogical knowledge derived from studies and/or informal teaching experiences, i.e. a person who has functioned as an instructor in real situations for considerable time. The studies must be verified and the same applies in relation to informal experiences.

### b) General knowledge - thorough knowledge

The instructors shall possess general knowledge of all the areas of training embraced by Directive 2003/59. The instructor shall in that respect have an understanding for the context of the directive and knowledge of the background of the regulation.

General knowledge, as above, refers to the content of the national legislation following Directive 2003:59 whereas thorough knowledge, as below, means specific knowledge within those specific subjects where the instructor intends to deliver training.

An instructor shall have thorough knowledge related to the rules relevant for areas in which he intends to deliver training. To hold such knowledge, it is necessary that instructors have undergone own training and/or acquired corresponding knowledge through own professional experiences. This must be verified in the curriculum under "Instructors".

### c) Practical experience and other prior knowledge

An instructor shall have practical and prior experience from the curriculum within which he intends to deliver training. This experience can derive from either own training/vocational experience and/or through working experience as professional driver, transport manager or alike.

Knowledge derived from professional experience shall be verified by a description of what assignments the instructor has been engaged in, the duration of the working experience from a specific profession and by verification from an employer.

### d) Requirements in relation to in-house instructors

For in-house instructors there should be a reference made to the system already existing in France and Sweden; 4 week pedagogic courses for in-house trainers completed with informal learning experiences (i.e. working experience as drivers). In Sweden this training course for instructors includes the following:

Pedagogy	7 days
Traffic safety pedagogy and methodology	2 days
Driving training pedagogy and methodology	2 days
Health and safety pedagogy and methodology	2 days
Goods handling pedagogy and methodology	2 days
Securing of loads pedagogy and methodology	2 days
Economic driving pedagogy and methodology	2 days
Social environment and regulations pedagogy and methodology	2 days

### The validity of a permit

A permission to deliver training is valid for a defined time framework whereas the acceptance of an individual instructor is valid for definite periods to be determined.

A training provider applying for an extension of a permit shall prove that instructors consulted by the training provider continuously have relevant knowledge with regard to news and other changes within the relevant subject-matter areas.

The competent authority may cancel a permission to deliver training provided that the conditions for a permit are no longer satisfied and a correction of the incongruity is not adopted despite complaint. The acceptance of an instructor's right to deliver training should be withdrawn only under special circumstances.

# Annex 1

# Recommended duration of training sections

The recommended duration has been done for a complete training course of 280 hours. However, these hours should be split different, dependent on if the initial qualification is done for truck drivers or bus drivers.

#### Safe EU Driver

		Truck	Bus
1. /	Advanced training in rational driving based on safety regulations	92	81
	1.1. Objective: to know the characteristics of the transmission system in order to make the best possible use of		
	it:	10	15
	1.2. Objective: to know the technical characteristics and operation of the safety controls in order to control the vehicle, minimise wear and tear and prevent disfunctioning:	25	22
	1.3. Objective: ability to optimise fuel consumption:	10	15
C	1.4. Objective: ability to load the vehicle with due regard for safety rules and proper vehicle use:	47	
D	1.5. Objective: ability to ensure passenger comfort and safety:		15
D	1.6. Objective: ability to <b>load</b> the vehicle with due regard for safety rules and proper vehicle use:		14
2. /	Application of regulations	70	58
	2.1. Objective: to know the social environment of road transport and the rules governing it:	30	30
C	2.2. Objective: to know the regulations governing the carriage of goods:	40	
D	2.3. Objective: to know the regulations governing the carriage of passengers:		28
3.	Health, road and environmental safety, service, logistics	118	141
	3.1. Objective: to make drivers aware of the risks of the road and of accidents at work:	20	22
	3.2. Objective: ability to prevent criminality and trafficking in illegal immigrants:	10	15
	3.3. Objective: ability to prevent physical risks:	20	30
	3.4. Objective: awareness of the importance of physical and mental ability:	8	15
	3.5. Objective: ability to assess emergency situations:	24	22
	3.6. Objective: ability to adopt behaviour to help enhance the image of the company:	16	15
C	3.7. Objective: to know the economic environment of road haulage and the organisation of the market:	20	
D	3.8. Objective: to know the economic environment of the carriage of passengers by road and the organisation of the Market		22
	Total	280	280

## Annex 2

# How to describe curriculum and work functions after training

As part of the project the partners have tried to use a common terminology when describing levels of learning.

A learning target has been described on one of the three levels, and the appropriate wording to the level should be used:

**Initial level.** The trainee driver can solve a task and undertake an activity of a well known work function or undertake a more complicated work function under guidance.

Terms to be used: The trainee driver can

- name ...
- recognize...
- identify...
- define...
- demonstrate...
- give examples of ...

etc

**Routine level**. The trainee driver can plan and undertake an activity or solve a problem in a routine or well know situation, alone or in cooperation with others.

Terms to be used: The trainee driver can

- use...
- chose...
- describe...
- distinguish ...
- test ...
- can construct ...
- can undertake ...
- can fulfill ...
- explain...
- handle....

etc

**Advanced level:** The trainee driver can evaluate a task or problem, can plan, solve and carry through a task or activity, also in unknown situations.

Terms to be used: The trainee driver can

- organize ...
- evaluate ...
- plan ...
- decide ...
- conclude ...
- control ...
- analyze ...

etc.

These levels and associated terms have been applied throughout the handbook – but it has been a challenge, because of the different cultures of each partner.

# Annex 3

# Existing training courses that matches the objectives

### TUR (1)

Task	Text	Remarks
Title of course, in original languages and	Godstransport med lastbil Transport of Goods with Truck	
translated		
Referring to section # of the Directive - or to Periodic Training (PT)	Covering all sections of initial qualification	
Short description of content /objectives	The student can handle the vehicle rationally and carry all normal functions of a driver of a heavy goods vehicle, with emphasis on road and personal safety, application of transport rules, health and wellness, environmental safety, service and logistics, according to EU directive 2003/59/EF.  The student must pass theoretical test, according to the EU Directive and a practical test on Securing of Loads.  After training the student has acquired driving licence C as well.	
Duration in hours	6 weeks = 30 days = 222 hours	
Available training materials (book, PP, CBT, models, etc.)	CBT's produced by TUR Publishing:  CBT for driving licence C theory  CBT: Safe working conditions for drivers  CBT: Elementary fire fighting  CBT: Logistics for drivers  CBT: Working & resting hours for drivers  CBT: Driving Dynamics  CBT: Securing of Goods  CBT: Risk Assessment in Traffic  Book: Transport of Goods with Truck, 190 pages, TUR Publishing 2006  Book: Functioning and maintenance of heavy Vehicles, 208 pages, TUR Publishing 2004  Book: Transport Certificates and Regulations, 208 pages, TUR Publishing 2004  Book: Securing of Goods on Vehicles, 63 pages, TUR Publishing 2006  Mini guide: Securing of Goods on Vehicles, 24 pages, TUR Publishing 2006  Book: Driving Techniques, 96 pages, TUR Publishing 2006	
Practical exercises used for this course with success	A Load Securing Simulator is used for both training and test.	
Specially needed qualifications of trainers, if any	Examiner for the Securing of Loads test must pass a special test, organised by TUR	
Other issues of relevance	The course has been running since September 2005 with more then 2.500 students attending.  The Initial Qualification Course can also be obtained as a 4-week course, if the student holds a C driving licence already.  These two courses contain the accelerated initial qualification. The full initial qualification is part of the apprenticeship program for drivers. About 700 students go through this program every year.  The theoretical testing is done by TUR.  A lot of train-the-trainer courses are organised by TUR each year.	
Done by	Niels H. H. Jørgensen & Hans Christiansen	
Organisation	TUR	
Date	24 August 2006	

### TUR (2)

Task	Text	Remarks
Title of course, in original languages and translated	Personbefordring med bus  Passenger Transport with Bus & Coach	
Referring to section # of the Directive - or to Periodic Training (PT)	Covering all sections of initial qualification	
Short description of content /objectives	The student can handle the vehicle rationally and carry all normal functions of a driver of a bus and coach, with emphasis on road and personal safety, application of transport rules, health and wellness, environmental safety, service and logistics, according to EU directive 2003/59/EF.  The student must pass theoretical test, according to the EU Directive. After training the student has acquired driving licence D as well.	
Duration in hours  Available training materials (book, PP, CBT, models, etc.)	CBT's produced by TUR Publishing:  CBT for driving licence D theory  CBT: Safe working conditions for drivers  CBT: Elementary fire fighting  CBT: Logistics for drivers  CBT: Working & resting hours for drivers  CBT: Driving Dynamics  CBT: Risk Assessment in Traffic  Book: Passenger transport with Bus, 136 pages, TUR Publishing 2003  Book: Functioning and maintenance of heavy Vehicles, 208 pages, TUR Publishing 2004  Book: Transport Certificates and Regulations, 208 pages, TUR Publishing 2004  Book: Driving Techniques, 96 pages, TUR Publishing 2006  Book: Communication, Conflict handling and Consumer Service, 37 pages, TUR Publishing 2004	
Practical exercises used for this course with success  Specially needed qualifications of trainers, if any	The course has been supplied since September 2005 with more than 1 500	
Other issues of relevance	The course has been running since September 2005 with more then 1.500 students attending.  The Initial Qualification Course can also be obtained as a 4-week course, if the student holds a D driving licence already.  These two courses contain the accelerated initial qualification. The full initial qualification is part of the apprenticeship program for drivers. About 300 students go through this program every year.  The theoretical testing is done by TUR.  A lot of train-the-trainer courses are organised by TUR each year.	
Done by	Niels H. H. Jørgensen & Preben Mandrup	
Organisation Date	TUR 24 August 2006	

### VTL (1)

Task	Text	Remarks
Title of course, in original languages and translated	CCVb Verkeer C Traffic regulations for CPC	
Referring to section # of the Directive - or to Periodic Training (PT)	Driving license regulation	
Short description of content /objectives	Traffic regulations for driving license	
Duration in hours	24	
Available training materials (book, PP, CBT, models, etc.)	Various training books, CBT Traffic regulations	
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any	WRM certification	
Other issues of relevance		
Done by	JvR	
Organisation	VTL	
Date	28-08-06	

### VTL (2)

Task	Text	Remarks
Title of course, in original languages and translated	CCVb Techniques for CPC	
Referring to section # of the Directive - or to Periodic Training (PT)	1.1, 1.2, Driving license regulation	
Short description of content /objectives	Technical knowledge of trucks:  1. Vehicle general 2. Economically and environmentally aware vehicle use 3. The diesel engine 4. Engine components 5. Engine lubrication system 6. Cooling system 7. Diesel fuel system 8. Electrical system 9. Drive generator sets 10. Clutch and gearbox 11. Power transmission 12. Steering system and tyres 13. Suspension and wheel suspension 14. Pneumatic braking system 15. Dashboard 16. Instruction manual and on-board tools	
Duration in hours	24	
Available training materials (book, PP, CBT, models, etc.)	Various commercial availabel books, PP Techniek VTL	
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	JvR	
Organisation	VTL	
Date	28-08-06	

### VTL (3)

Task	Text	Remarks
Title of course, in original languages and translated	CCVb Administratie Goederenvervoer Administration Goods Transport for CPC	
Referring to section # of the Directive - or to Periodic Training (PT)	2.1, 2.2, 3.6, 3.6,	
Short description of content /objectives	<ol> <li>Goods Transport by Road Act</li> <li>Goods Transport by Road Decree</li> <li>Working Conditions and Working Hours</li> <li>Application of Working Hours in Road Transport</li> <li>Working Hours Registration</li> <li>Vehicle documents</li> <li>Customs documents</li> <li>Consignment notes</li> <li>Expert loading, stowing and unloading of goods</li> <li>Other forms of transport</li> <li>Areas of specialisation</li> <li>Transport of hazardous substances</li> <li>Costs consciousness of the driver</li> <li>Road map and route planning</li> <li>Actions in the event of collision and accident</li> <li>Image of goods transport by road in the Netherlands and in Europe</li> <li>Working conditions</li> </ol>	
Duration in hours	24	
Available training materials (book, PP, CBT, models, etc.)	Various commercial available books, PP VTL administratie goederenvervoer	
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	JvR	
Organisation	VTL	
Date	28-08-06	

## VTL (4)

Task	Text	Remarks
Title of course, in original languages and translated	HNR Eco driving for trucks	
Referring to section # of the Directive - or to Periodic Training (PT)	1.3	
Short description of content /objectives	Practical training course to reduce fuel consumption: Zero measurement of driver Theoretical part Trip with consultation	
Duration in hours	7	
Available training materials (book, PP, CBT, models, etc.)	CBT HNR	
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any	Trainer should be recognised by Dutch centre for Fuel economics	
Other issues of relevance		
Done by	JvR	
Organisation	VTL	
Date	28-08-06	

### VTL (5)

Task	Text	Remarks
Title of course, in original languages and translated	Professional presentation and communication for drivers	
Referring to section # of the Directive - or to Periodic Training (PT)	3.6, 3.7	
Short description of content /objectives	Presentation Commercial issues Dealing with complaints Verbal and written communication Stress restrain	
Duration in hours	8	
Available training materials (book, PP, CBT, models, etc.)		
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance	During the training course a professional actor is used to train the practical exercises.	
Done by	JvR	
Organisation	VTL	
Date	28-08-06	

## VTL (6)

Task	Text	Remarks
Title of course, in original languages and translated	CBT "Wijs op weg"	
Referring to section # of the Directive - or to Periodic Training (PT)	3.1, 3.5	
Short description of content /objectives	This CBT simulates a fictional trip from Groningen to Italy in which the trainee driver has to solve all sorts of problems such as dealing with pre trip checks, changing tyres, dividing the load and planning the trip.	
Duration in hours		
Available training materials (book, PP, CBT, models, etc.)		
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	JvR	
Organisation	VTL	
Date	28/08/06	

### VTL (7)

Task	Text	Remarks
Title of course, in original languages and translated	Fit op de rit Fitness for drivers	
Referring to section # of the Directive - or to Periodic Training (PT)	3.3	
Short description of content /objectives	Life style program to enhance health and well-being of drivers	
Duration in hours	?	
Available training materials (book, PP, CBT, models, etc.)		
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	JvR	
Organisation	VTL	
Date	28/08/06	

## VTL (8)

Task	Text	Remarks
Title of course, in original languages and translated	BZ instruction "How to use and adjust your seat"	
Referring to section # of the Directive - or to Periodic Training (PT)	3.4	
Short description of content /objectives		
Duration in hours	2	
Available training materials (book, PP, CBT, models, etc.)		
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	JvR	
Organisation	VTL	
Date	28/08/06	

## AFT-IFTIM/AFT-FC

### **Sequence 300:** acquisition of basic driving techniques in light traffic conditions

	1	
Nr.	AFT ref	Exercise title
	1	Getting used to sim and setting in hand the driver's post
	2	Ignition and stop
	3	Put back quickly the engine on the way after a wedging
	5	Start and stop on flat road
	88	Start and stop on flat road
	10	Use gear box
	11	Use gear box
	9	Hold and turn the wheel
	6	Start the vehicle in ascent
	7	Start the vehicle in ascent
	8	Start the vehicle in descent
	14	Steer the vehicle forward and backward in a straight line
	85	Place accurately the vehicle forward and backward in a straight line
	15	Use rear-view mirrors to manoeuvre
	16	Use rear-view mirrors to manoeuvre
	17	Change lane left moving backward
	19	Change lane right moving backward

### **Sequence 301:** driving on non sinuous road in light traffic conditions

Nr.	AFT ref	Exercise title
	34	Driving on straight lanes, respect signalization
	35	Place vehicle taking in account its gauge and other vehicles
	36	Place vehicle according to its gauge and other vehicles
	37	Adapt driving to signalization
	13	Use gear box according to types of roads
	89	Manœuvre vehicle in real situation
	45	Place vehicle according to its gauge and signalization
	52	Keep security distance while driving

### Sequence 302: driving on sinuous road in heavy traffic conditions

Nr.	AFT ref	Exercise title
	90	Use slowing equipments on sinuous road
	91	Use slowing equipments on sinuous road
	72	Fitting into fast traffic

### **Sequence 303**: city driving conditions

Nr.	AFT ref	Exercise title
	86	Take gauge in account in city driving
	74	City driving in heavy traffic conditions

### Sequence 304: night, mist, rain conditions driving

Nr.	AFT ref	Exercise title
	76	Adapt driving to visibility - night
	77	Adapt driving to visibility - mist
	78	Adapt driving to visibility and tyre adhesion - rain
	79	Adapt driving to visibility and tyre adhesion - snowy road
	87	Driving in difficult conditions - snowy road

**Sequence 305:** professional and degree manoeuvres

Nr.	AFT ref	Exercise title
	30	Park vehicle
	31	Knowledge of driving license exam circuit
	32	Knowledge of driving license exam circuit
	33	Knowledge of driving license exam circuit
	92	Knowledge of driving license exam circuit

### Option nr. 2: 60 Addtionals

60 more exercises to practice a lot more

Sequence 203: adapt driving to articulated

Nr.	AFT ref	Exercise title
	510	Setting in hand an articulated
	511	Setting in hand an articulated
	512	Blank driving exam
	214	Steering vehicle forward and backward
	232	Doing a precise backward manoeuvre
	233	Doing a precise forward and backward manoeuvre
	231	Effectuer une mise à quai à main avec visibilité réduite
	288	Adapt driving to vehicle gauge
	239	Place vehicle taking gauge and other drivers in account
	256	Keep security distances between vehicles
	251	Driving according to vehicle's gauge in city driving
	276	Insert vehicle in fast traffic
	289	Mountain conditions driving
	280	Adapt driving to visibility – night driving
	281	Adapt driving to visibility - dense mist
	287	React in an emergency situation - presence of a vehicle on snowy road

### FATII-ARTRI (1)

Task	Text	Remarks
Title of course, in original	The drivers training who perform the carriage of goods with vehicles with	
languages and translated	the maximal authorised mass over 7,5 tones and the public carriage of	
ianguages and translated	passengers.	
Referring to section # of the	Advanced training in rational driving based on safety regulations:	
Directive – or to Periodic	Objective 1.1.: to know the characteristic of the transmission in order to	
Training (PT)	make the best possible use of it	
ANNEX I: Minimal demands	Objective 1.2.: to know the technical characteristics and operation of the	
concerning qualification and	safety controls in order to control the vehicle, minimise wear and tear and	
formation	prevent specific disfunctioning	
Section I: List of Disciplines	Objective 1.3.: ability to optimise fuel consumption	
'	Objective 1.4.: ability to load the vehicle due to regard for safety rules and	
	proper vehicle use	
	Objective 1.5.: ability to ensure passenger comfort and safety	
	Objective 1.6.: ability to load vehicle with due regard for safety rules and	
	proper vehicle use	
	2. Application of regulations	
	Objective 2.1.: to know the social environment of road transport and the	
	rules governing it	
	Objective 2.2.: to know the regulations governing the carriage of goods	
	Objective 2.3.: to know the regulations governing the carriage of passengers	
	3. Health, road, environmental safety, service, logistics	
	Objective 3.1.: to make drivers aware of risks of the road and of accidents at	
	work	
	Objective 3.2.: ability to prevent criminality and trafficking in illegal	
	immigrations	
	Objective 3.3.: ability to prevent the physical risks	
	Objective 3.4.: awareness of the importance of physical and mental ability	
	Objective 3.5.: ability to asses emergency situations	
	Objective 3.6.: ability to adopt behaviour to help enhance the image of the	
	company	
	Objective 3.7.: to know the economic environment of road haulage and the	
	organization of the market	
Short description of content		
/objectives	1. The technical characteristics	
	- manufacture and functioning of the engine	
	- curves relating to torque, power, specific consumption curves of engines	
	- the optimal use of gears under given conditions, depends on the laden state and road conditions	
	2. Braking system	
	- function of the pneumatic brake, use of retarder, and speed limit	
	- physical characteristics of the pneumatic brake - limits to the use of brakes and retarder and combined use of brakes and	
	retarder	
	- can control the functioning of the vehicle and prevent failures by recurrent checkups	
	·	
	3. The driving behaviour	
	- using of inertia	
	4. Specific scheme	
	II. Prevention/Warning the risks of the road and of accidents at work	
	1. General information	
	2. Warning the road accidents at work	
	3. Warning the road accidents at waiting	
	4. Ergonomic principles	

	III. Regulations governing the road carriage of goods, public carriage, data sheet, knowing and utilization of control devices (tacograph)  1. Regulations concerning the carriage of goods and their activities 2. Traffic road regulations 3. Social regulations on carriage of goods:  - to known the regulations regarding the period to driving and rest period  - operate the tachograph and data sheet  - use the right behaviour in the checking procedure, should recognize the different kinds of penalties and how to act against them  IV. Accomplish a correct and optimal load securing in practice of goods  1. Loading of goods 2. Loading assurance  V. The minimal level of knowledge 1. To know about the manufacture and main parts of the vehicle 2. General knowledge about road transport 3. Practical experience in driving and manoeuvring of vehicle for carriage of goods and trailers
Duration in hours  Available training materials (book, PP, CBT, models, etc.)	30 hours  Books, PP, Overhead slides Drawings and diagrams Sketches Didactic pictures
Practical exercises used for this course with success	-
Specially needed qualifications of trainers, if any	Courses to acquire the professional certificate
Other issues of relevance	-
Done by	Calin Sabau
Organisation	FATII - ARTRII
Date	30.08.2006

### FATII-ARTRI (2)

Task	Text	Remarks
Title of course, in original languages and translated	The drivers training who perform the carriage of dangerous goods.	
Referring to section # of the Directive - or to Periodic Training (PT)	3. Health, road, environmental safety, service, logistics Objective 3.1.: to make drivers aware of risks of the road and of accidents at work Objective 3.2.: ability to prevent criminality and trafficking in illegal immigrations	
ANNEX I: Minimal demands concerning qualification and formation Section I: List of Disciplines	Objective 3.3.: ability to prevent the physical risks Objective 3.4.: awareness of the importance of physical and mental ability Objective 3.5.: ability to asses emergency situations Objective 3.6.: ability to adopt behaviour to help enhance the image of the company Objective 3.7.: to know the economic environment of road haulage and the organization of the market	
Short description of content /objectives	Chapter9: Measures for emergency situations Chapter 10: Environmental safety and civil responsibility of carriage operator. Chapter 11: Accidents and happenings	
Duration in hours	30 hours	
Available training materials (book, PP, CBT, models, etc.)	Books, PP, Overhead slides Drawings and diagrams Didactic pictures	
Practical exercises used for this course with success	-	
Specially needed qualifications of trainers, if any	Courses to acquire the professional certificate	
Other issues of relevance	-	
Done by	Calin Sabau	
Organisation	FATII - ARTRII	
Date	30.08.2006	

### FATII-ARTRI (3)

Task	Text	Remarks
Title of course, in original languages and translated	The drivers training who perform road transport as taxi-cab.	
Referring to section # of the Directive - or to Periodic Training (PT)  ANNEX I: Minimal demands concerning qualification and formation Section I: List of Disciplines	3. Health, road, environmental safety, service, logistics Objective 3.1.: to make drivers aware of risks of the road and of accidents at work Objective 3.2.: ability to prevent criminality and trafficking in illegal immigrations Objective 3.3.: ability to prevent the physical risks Objective 3.4.: awareness of the importance of physical and mental ability Objective 3.5.: ability to asses emergency situations	
Short description of content /objectives	Chapter E: The vehicles and passengers security  1. Statistics concerning violence as taxi driver  2. Different risks  3. Theft (stolen) with violence and threats  4. Prevention (warning) of armed theft  5. Measures for security prevention (general and specific)	
Duration in hours	30 hours	
Available training materials (book, PP, CBT, models, etc.)	Books, PP, Overhead slides Drawings and diagrams Sketches Didactic pictures	
Practical exercises used for this course with success	-	
Specially needed qualifications of trainers, if any	Courses to acquire the professional certificate	
Other issues of relevance	-	
Done by	Calin Sabau	
Organisation	FATII – ARTRII	
Date	30.08.2006	

### FATII-ARTRI (4)

Task	Text	Remarks
Title of course, in original	Professional training of persons who manage continuous and effective the	
languages and translated	road transport activities.	
Referring to section # of the	2. Application of regulations	
Directive – or to Periodic	Objective 2.1.: to know the social environment of road transport and the	
Training (PT)	rules governing it	
<i>5</i> ( )	Objective 2.2.: to know the regulations governing the carriage of goods	
ANNEX I: Minimal demands	Objective 2.3.: to know the regulations governing the carriage of	
concerning qualification and	passengers	
formation		
Section I: List of Disciplines	3. Health, road, environmental safety, service, logistics	
	Objective 3.1.: to make drivers aware of risks of the road and of accidents	
	at work	
	Objective 3.2.: ability to prevent criminality and trafficking in illegal	
	immigrations	
	Objective 3.3.: ability to prevent the physical risks	
	Objective 3.4.: awareness of the importance of physical and mental ability	
	Objective 3.5.: ability to asses emergency situations	
	Objective 3.6.: ability to adopt behaviour to help enhance the image of the	
	company	
	Objective 3.7.: to know the economic environment of road haulage and the	
	organization of the market	
Short description of content	A. Civil Law	
/objectives	1.The main principles of agreements used in road transport	
	2. Evaluations of complaints regarding the damages risen behind the	
	lost or deterioration of carriage goods, as well as the delay of goods	
	(merchandise)	
	3. Regulations and obligations from CMR Conventions concerning the	
	international road carriage of goods	
	4. Evaluations of complaint regard compensate of passengers damages or	
	for the luggage deterioration	
	C. Social Legislation	
	9. The operator's duty regard the employee social support	
	11. AETR Provisions (Geneva, July 1st, 1970)	
	12. The provisions of EEC nr. 3820/85 regulations regard the social	
	legislation concerning the road transport and nr. 3821/85 regard the endowment of registration equipment and the way of implementation of	
	these regulations	
	G. Technical rates and operation	
	39. Regulations regard the load and size of vehicle and the procedures in	
	case of unconfirmed to these regulations.	
	42. Rules regard noise reduction and minimized exhaust gas emission (the	
	environmental protection)	
	43. Periodic maintenance of vehicles and theirs equipment	
	44. Different types of equipment regard operation and load of goods	
	(container, stages) procedures and directives for goods loading and	
	unloading (load distribution, clamping and securing techniques)	
	46. Procedures to comply with ADR, ATP provisions	
	H. Road safety	
	50. Regulations to comply with traffic regulations, national and	
	international interdictions and restrictions (speed limit, right of way,	
	waiting and parking, using of lights, traffic signalling)	
	51. Rules regard the vehicle safety, equipment and their load, as well	
	as measures of precaution for accidents or a serious violation of traffic	
	regulations	

Duration in hours	60 hours	
Available training materials	Books,	
(book, PP, CBT, models,	PP,	
etc.)	Overhead slides	
	Drawings and diagrams	
	Sketches	
Practical exercises used for	-	
this course with success		
Specially needed	Courses to acquire the professional certificate	
qualifications of trainers,		
if any		
Other issues of relevance	-	
Done by	Calin Sabau	
Organisation	FATII – ARTRII	
Date	30.08.2006	

### FATII-ARTRI (5)

Task	Text	Remarks
Title of course, in original languages and translated	Professional training of safety consultants for road transport.	
Referring to section # of the Directive - or to Periodic Training (PT)  ANNEX I: Minimal demands concerning qualification and formation Section I: List of Disciplines	2. Application of regulations Objective 2.1.: to know the social environment of road transport and the rules governing it Objective 2.2.: to know the regulations governing the carriage of goods Objective 2.3.: to know the regulations governing the carriage of passengers 3. Health, road, environmental safety, service, logistics Objective 3.1.: to make drivers aware of risks of the road and of accidents at work Objective 3.2.: ability to prevent criminality and trafficking in illegal immigrations Objective 3.3.: ability to prevent the physical risks Objective 3.4.: awareness of the importance of physical and mental ability Objective 3.5.: ability to asses emergency situations	
Short description of content /objectives	I.General rules of precaution and security a) to know different type of results of an accident for dangerous goods carriage b) to know the main reason of the accident II. Provisions regard the carriage of dangerous goods content at the Community rules, international conventions, agreements; 14.Security provisions: provisions implementation and using the protective equipment 15. Vehicle stand 16.Traffic regulations and restrictions 17.The pollution in case of accident or operational sloop 18.Provisions regard the protective equipment	
Duration in hours	30 hours	
Available training materials (book, PP, CBT, models, etc.)	Books, PP, Overhead slides Drawings	
Practical exercises used for this course with success	-	
Specially needed qualifications of trainers, if any	Courses to acquire the professional certificate	
Other issues of relevance	-	
Done by	Calin Sabau	
Organisation	FATII - ARTRII	
Date	30.08.2006	

### **ZMPD**

Existing training courses that matches the objectives, partly or totally, for both initial qualification or for periodic training

List suitable training materials (book, Power Points, CBT's, etc.)

Indicate exercises or part of training modules that (in the opinion of the partner) can act as best practice

Currently in Poland we have obligatory initial training for professional drivers based on Transport Law from 2001.

The program of this course would be partially suitable for Periodic Training under Dir 2003/59..

The programs used by different schools in Poland are very similar however because they are based on government regulation.

However, two schools developed special practical modules that would be suitable for periodic training.

WORD Warsaw has developed a special first aid module (3 hours) with practical exercises with phantom and a separate module for loading and unloading (theoretical part plus practical demonstration) 1 + 3 hrs.

Academy of Transport and Enterprise (Warsaw) developed a similar module for loading, unloading and load securing (with PP presentation, video and practical presentation(1 + 1hrs)

Majority of advance driving schools operated by truck manufactures (like Mercedes, Volvo, Renault, Iveco or Scania) developed special training modules very similar to eco -driving concept proposed by VTL. (theoretical part with PP presentation plus practical driving – two circuits same route).

Training for 6 -10 drivers with one instructor takes 8 -10 hrs.

I understand that similar modules are used by driving schools in other European countries. Such module is included in training program of WORD Warsaw. (They are using Mercedes and Volvo instructors).

Volvo instructor is paying special attention to adjusting engine revolutions to the change of gears.

A short description of obligatory initial training for truck drivers used currently in Poland is given below.

Qualifications of instructors and lecturers – in WORD – min 5 year In ATP Warsaw – min. 3 years.

We are still waiting for new law on training of professional drivers based on Dir 2003/59. A corresponding draft has been approved by our Council of Ministers beginning of August. It will be discussed by Parliament  $4^{th}$  Q 2006.

Acc. to the draft it will an option of obligatory training + test.

### **ZMPD**

Task	Text	Remarks
Title of course, in original languages and translated	Supplementary training course for drivers performing cargo transport – general + additional part	Obligatory Initial course For professional Drivers in Poland
Referring to section # of the Directive - or to Periodic Training (PT)	Section 1. Points: 1, 1.1, 1.2, 1.3, 1.4, 1.6, 2, 2.1, 2.2, 3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7.	
Short description of content /objectives	Section 2 – Duration: 30 hours of theory + 4 h 35 minutes of practice, including 20 minutes of individual driving per each person. There is no exam at the end of the course, the only thing that matters is the attendance.  Section 5 – The Voivodeship supervises these courses; the principal of the institution, which organizes the course, signs the certificate.  The course consists of 5 modules.  First one includes contents like safe, economical, ecological driving and it is called "Rational driving". The practical part with the instructor is conducted here.  The second module is devoted to regulations concerning transport enterprise, documents, drivers' working time, the ability to deal with different types of tachograph, traffic law concerning trucks heavier than 3,5 tons (solo, trailers) and documents required.  The third module involves issues like working accidents, ergonomic rules, driver's health vs. working duties, ability to deal with critical situations such as car accidents (first aid); co-relation: employer – employee, working agreements, civil law agreements and contracts, safety rules, rights and obligations of drivers, the road transport sector in national economy, daily maintenance of vehicle  The fourth module deals with loading, securing the cargo, weight, putting the tarpaulin on and taking it off, unloading; documents concerning transport, transport restrictions and prohibition (public holidays, road surface distortion caused by temperatures).  The fifth module – observation of correct ways of loading, securing the cargo and unloading.	
Duration in hours	30 hours of theory + 4,35 h of practice.	
Available training materials (book, PP, CBT, models, etc.)	Presentations done by particular lecturers, manuals for professional drivers performing cargo transport, (first aid and driving hours)  Manual for loading, unloading and load securing will be developed shortly by ATP, Warsaw	
Practical exercises used for this course with success	Observation of the demonstration of preparing the vehicle for transport, done by the instructor.  Participants' checking of all the mechanisms responsible for safe driving.  Observation of instructor's driving. Participant's driving supervised by the instructor.  Observation of loading, unloading, securing the cargo.  First aid demonstration and exercises	

Specially required	Lecturers: depending on particular subjects; minimum 5 years of working as	
qualifications of trainers, if any	the driving instructor or the examiner, at least 5 years of working in the cargo transport company, policeman or road transport inspector, expert on labour legislation.  Practical part instructors: advanced school in truck driving trainers (Mercedes, DAF, VOLVO, MAN). Additionally they should finish pedagogical course to teach drivers.  Instructors performing the loading: at least 5 years of practice. Demonstration	WORD WARSAW
	is done in 3 different cargo transport companies (WORD Warsaw). First aid instructor -doctor, qualified nurse or life saver	
	With minimum 5 years practice	Academy of
		Transport and
	Three years practice	Enterprise
Other issues of relevance	First aid training is done with the usage of electronic phantom.	
Done by	B. Szuszkiewicz – ZMPD	
Organisation	Detailed programs developed by WORD Warsaw (T.Matuszewski) and ATP -Warsaw(B.Madej, J Michniak) based on government regulation	
Date	31st August 2006	

## TYA (1)

Task	Text	Remarks
Title of course, in original languages and translated	Kvalitetssäkrad djurtransport – uppdatering till nya utbildningskrav  Quality assuranced animal transports – refreshing	
Referring to section # of the Directive - or to Periodic Training (PT)	Article 7 Periodic training	
Short description of content /objectives	News in regulations, technique, methods etc.	
Duration in hours	7	
Available training materials (book, PP, CBT, models, etc.)	"Handbok för djurtransportörer 2006" A handbook for animal transports.	
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	TYA	
Organisation	TYA	
Date	2006-09-18	

### TYA (2)

Task	Text	Remarks
Title of course, in original languages and translated	Kundbemötande – service med kvalitet  Receiving customers – service with quality	
Referring to section # of the Directive - or to Periodic Training (PT)	Article 7 Periodic Training	
Short description of content /objectives	The trainee driver shall after training have knowledge of and realize hove to act to create success meeting costumers.	
	An active day with theoretical and practical exercises about:  - our understanding about relations to customers  - how to make faithful costumers  - customers expectations and experiences  - the meeting  - our way to communicate affect customers behaviour  - complaining costumers - our rescue	
Duration in hours	7	
Available training materials (book, PP, CBT, models, etc.)		
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	TYA	
Organisation	ТУА	
Date	2006-11-11	

### TYA (3)

Task	Text	Remarks
Title of course, in original languages and translated	eDriving	
Referring to section # of the Directive - or to Periodic Training (PT)	Article 7 Periodic training	
Short description of content /objectives	This is a <u>concept</u> on how to learn experienced drivers fuel effective driving and getting a long time effect in companys.  - environment - economy - driving - technique in vehicles - driving technique	
Duration in hours	7/driver	
Available training materials (book, PP, CBT, models, etc.)	- CBT, Internet course eDriving - Instructors manual - Board game eDriving	
Practical exercises used for this course with success	The practical exercises take place in the drivers "own" truck in his/hers daily work	
Specially needed qualifications of trainers, if any	Some kind of heavy eco driving education. eDriving concept education.	
Other issues of		
relevance		
Done by	TYA	
Organisation	TYA	
Date	2006-09-18	

## TYA (4)

Task	Text	Remarks
Title of course, in original languages and translated	Första hjälpen med hjärt-lungräddning First Aid, including cardiopulmonary resuscitation	
Referring to section # of the Directive - or to Periodic Training (PT)	Article 7 Periodic training	
Short description of content /objectives	<ul> <li>The trainee driver shall after training have knowledge of and realize</li></ul>	
Duration in hours	7	
Available training materials (book, PP, CBT, models, etc.)		
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	TYA	
Organisation	TYA	
Date	2006-09-18	

### TYA (5)

Task	Text	Remarks
Title of course, in original languages and translated	SAFED Safe And Fuel Efficient Driving	
Referring to section # of the Directive - or to Periodic Training (PT)	Advanced training in rational driving based on safety regulations.     and     Article 7. Periodic Training	
Short description of content /objectives	The Driving Environment	
	Loading, Restraining and Off-loading	
Duration in hours  Available training materials (book, PP, CBT, models, etc.)	7 SAFED: Guides and forms CBT: Driving skills for life	
Practical exercises used for this course with success	Driving lessons for totally 4 hours.	
Specially needed qualifications of trainers, if any	Achieved an "excellent" grade in the SAFED training assessment.	
Other issues of relevance	1 trainer 2 trainee driver / day	
Done by	FTA	
Organisation	FTA	
Date	2007-01-12	

### TYA (6)

Task	Text	Remarks
Title of course, in original languages and	Mänskliga faktorn	
translated	Human factor	
Referring to section # of the Directive - or to Periodic Training (PT)	Article 7 Periodic training	
Short description of content /objectives	The trainee driver shall get knowledge about how he systematically can reduce risks in work.  This training gives an insight and understanding for "the human factor" in working with safety. How a man/woman with the best education and intensions can do wrong. The trainee driver will get guidance in how to avoid getting involved in a course of events that can lead to a accident.	
	<ul> <li>insight in how values, attitudes and behaviours can affect individuals and groups on the working place.</li> <li>increased awareness about sources of mistakes.</li> <li>insight and understanding of ways to avoid mistakes.</li> </ul>	
Duration in hours	14	
Available training materials (book, PP, CBT, models, etc.)	"Den mänskliga faktorn" (The human factor) Training materials for instructors and trainees.	
Practical exercises used for this course with success		
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	TYA	
Organisation	TYA	
Date	2006-09-18	

### TYA (7)

Task	Text	Remarks
Title of course, in original languages and translated	Trafiksäker körning med övningsbil Safety driving with truck	
Referring to section # of the Directive - or to Periodic Training (PT)	Article 7 Periodic Training	
Short description of content /objectives	This course will give the trainee drivers knowledge of how to manage the higher risks that appears when they drive a truck with a high centre of gravity (tankers, timber trucks, trucks with hanging animal bodies etc.) The trainee driver shall be able to perform a correct behaviour according to the combination of speed, load and curves.  Content:  - Risks involved in a transport  - Centre of gravity in relationship with the load  - Driving technique theory and practice  - Stability exercises in different speeds, unexpected situations, different curves etc.	
Duration in hours	7	
Available training materials (book, PP, CBT, models, etc.)		
Practical exercises used for this course with success	Driving with a truck specially equipped with supporting wheels. With this truck the trainee can experience the small differences between safety driving and driving beyond the limits.  The supporting wheels allow the trainee drivers to drive over the limits where the truck rolls over in a safe way.	
Specially needed qualifications of trainers, if any		
Other issues of relevance		
Done by	ТУА	
Organisation	ТҮА	
Date	2006-09-18	

## TYA (8)

Task	Text	Remarks
Title of course, in original languages and	Lastsäkring	
translated	Securing of loads	
Referring to section # of the Directive - or to Periodic Training (PT)	Article 7 Periodic Training	
Short description of content /objectives	Consequences of not properly secured goods Responsibility Strain Equipment Methods and principles Theoretical exercises Practical exercises	
Duration in hours	7	
Available training materials (book, PP, CBT, models, etc.)	Secure Load: Instructors manual Student book Handout DVD	
Practical exercises used for this course with success	Securing exercises where trainee drivers secure goods (300 kg – 2000kg) on a platform. Then the goods exposes for the physical pressures that can appear during a transport.  For this we use at truck with a tilting platform or the TSS station.	
Specially needed qualifications of trainers, if any		
Other issues of relevance	For the practical exercises we use at truck with a tilting platform or the TSS station.	
Done by	TYA	
Organisation	ТҮА	
Date	2006-09-18	

## **CESMAD BOHEMIA (1)**

Task	Text	Remarks
Title of course, in original languages and translated	Defenzivní jízda Defensive Driving	
Referring to section # of the Directive - or to Periodic Training (PT)	1, PT	
Short description of content /objectives	<ul> <li>Driver Reaction time</li> <li>Driver Performance</li> <li>Driving in Reduced Visibility Conditions</li> <li>Exceptional Circumstances</li> <li>Occupational Safety</li> <li>Road Traffic Accidents</li> <li>Tyres- Brakes-Braking</li> <li>ADR</li> </ul>	
Duration in hours		
Available training materials (book, PP, CBT, models, etc.)	Set of 8 Video Cassette/DVD	
Practical exercises used for this course with success	Examples of most frequent situations on the road - video simulation	
Specially needed qualifications of trainers, if any	Knowledge and experience in defensive driving	
Other issues of relevance		
Done by	VH Video Record, Ltd.	
Organisation	CESMAD Bohemia	
Date		

## CESMAD BOHEMIA (2)

Task	Text	Remarks
Title of course, in original languages and translated	Přeprava potravin Foodstuffs Transportation	
Referring to section # of the Directive - or to Periodic Training (PT)	2,3, PT	
Short description of content /objectives	<ul> <li>Foodstuffs transportation risk factors</li> <li>UN (FAO, WHO) legislation concerning foodstuffs transportation / Codex Alimentarius</li> <li>ATP Convention, Definitions and standards of the specialised vehicles for perishable foodstuffs transportation, vehicles providing for frozen and quick-frozen foodstuffs transportation, appropriate temperature conditions for particular non-frozen foodstuffs transportation</li> <li>EC legislation - Regulation(EC)178/2002 - General Food Law, Regulation (EC) 852/2004 on the hygiene of foodstuffs, Regulation (EC) 853/2004 laying down specific hygiene rules for food of animal origin, Regulation (EC) 37/2005 on the monitoring of temperatures in the means of transport, warehousing and storage of quick-frozen foodstuffs intended for human consumption</li> <li>HACCP Hazard Analysis and Critical Control Point Program.</li> <li>Implementation of Good Manufacturing Practices - GMP, and Good Hygienic Practices - GHP</li> <li>Related national (Czech) legislation</li> <li>Contractual relationships, Transport Documentation</li> <li>Operator's responsibilities and duties, claims</li> <li>Procedures concerning foodstuffs transportation</li> </ul>	
Duration in hours	4	
Available training materials (book, PP, CBT, models, etc.)	Textbook + PP	
Practical exercises used for this course with success	Training in proper application of the transport documentation	
Specially needed qualifications of trainers, if any	Knowledge and experience with foodstuff transportation issues	
Other issues of relevance		
Done by	CESMAD Bohemia	
Organisation	CESMAD Bohemia	
Date		

## CESMAD BOHEMIA (3)

Task	Text	Remarks
Title of course, in original languages and translated	Přepravní operace – Daně, cla a statistika Transport Operations – Duties, Customs and Statistics	
Referring to section # of the Directive - or to Periodic Training (PT)	2,3,PT	
Short description of content /objectives	<ul> <li>Trade in the EU</li> <li>External Trade</li> <li>Intrastat, Extrastat, Reports completion, Examples used</li> <li>Taric - introduction, examples, the most frequent cases</li> <li>Tax Synoptic Report</li> <li>EU preferences - Forms, validity of the forms in EU countries</li> <li>Current samples of the forms</li> </ul>	
Duration in hours	4	
Available training materials (book, PP, CBT, models, etc.)	PP	
Practical exercises used for this course with success	Training in forms and reports completion, examples used in international trade	
Specially needed qualifications of trainers, if any	Knowledge and experience with international trade and transport operation issues	
Other issues of relevance		
Done by	CESMAD Bohemia	
Organisation	CESMAD Bohemia	
Date		

## **CESMAD BOHEMIA (4)**

Task	Text	Remarks
Title of course, in original languages and translated	TIR-Tranzitní celní systém TIR System	
Referring to section # of the Directive - or to Periodic Training (PT)	2,3,PT	
Short description of content /objectives	The participants are trained in the knowledge of the application of the TIR system based on the TIR Convention and in awareness of other customs systems.	
Duration in hours	4 hours for "advanced" (already using TIR Carnets), participants. 6 hours for "beginners" (just starting usage of TIR Carnets)	
Available training materials (book, PP, CBT, models, etc.)	TIR Convention, Declaration of the Engagement by the Transport Company for Admission to the TIR Customs System and Authorization to Use Ordinary TIR Carnets, Manual for TIR Carnet Holders and other related documents, Customs Act	
Practical exercises used for this course with success	Examples Used of TIR Carnets	
Specially needed qualifications of trainers, if any	Knowledge and experience with customs issues and especially TIR Convention	
Other issues of relevance		
Done by	CESMAD Bohemia	
Organisation	CESMAD Bohemia	

## **CESMAD BOHEMIA (5)**

Task	Text	Remarks
Title of course, in original languages and translated	Pracovní režimy řidičů, digitální tachografy Driving Periods, Digital Tachograph	
Referring to section # of the Directive - or to Periodic Training (PT)	2,3, PT	
Short description of content /objectives	<ul> <li>Regulation (EEC) 3820/85 on the harmonisation of certain social legislation relating to road transport</li> <li>Regulation (EEC) 3821/85 on recording equipment in road transport. Incl. 8 updating</li> <li>Digital tachograph</li> <li>National legislation regarding road transport and digital tachograph implementation</li> <li>The European Agreement concerning the work of Crews of Vehicles engaged in International Road Transport – AETR, related national (Czech) legislation</li> <li>Directive 88/599/EEC on standard checking procedures</li> </ul>	
Duration in hours	4,5	
Available training materials (book, PP, CBT, models, etc.)	Textbook + PP	
Practical exercises used for this course with success	Discussion, FAQ	
Specially needed qualifications of trainers, if any	Knowledge and experience with driving periods issues and especially digital tachograph	
Other issues of relevance		
Done by	CESMAD Bohemia	
Organisation	CESMAD Bohemia	
Date		

## CESMAD BOHEMIA (6)

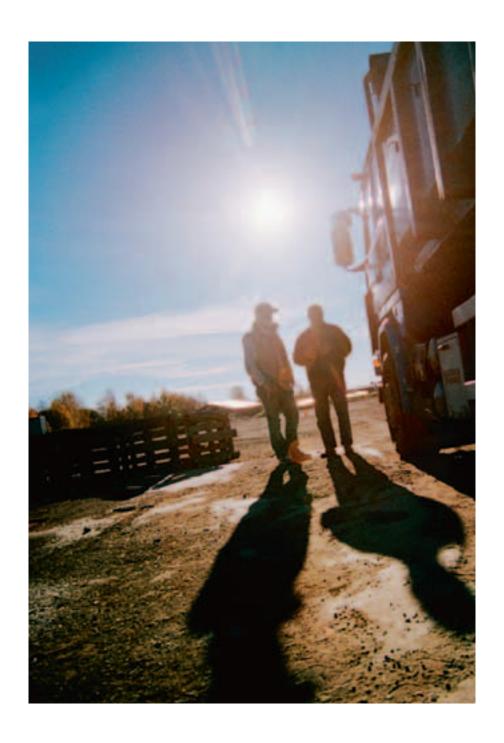
Task	Text	Remarks
Title of course, in original languages and translated	Obsluha digitálního tachografu Handling Digital Tachograph	
Referring to section # of the Directive - or to Periodic Training (PT)	2,3,PT	
Short description of content /objectives	<ul> <li>About digital tachograph</li> <li>Tachograph Smart Cards, Driver Cards</li> <li>Operating DT, icons</li> <li>Handling of the driver card</li> <li>Information displayed,monitoring</li> <li>Printing out</li> <li>Troubles and defects</li> <li>Checks and checking procedure</li> </ul>	
Duration in hours	5	
Available training materials (book, PP, CBT, models, etc.)	Video- DVD, PP, Simulators	
Practical exercises used for this course with success	Video simulating of DT operating, training in 18 of the most frequent situations with DT	
Specially needed qualifications of trainers, if any	Knowledge and practical experience in DT issue	
Other issues of relevance		
Done by	CESMAD Bohemia	
Organisation	CESMAD Bohemia	
Date		

### CESMAD BOHEMIA (7)

Task	Text	Remarks
Title of course, in original languages and translated	Uložení a zajištění nákladu na vozidle Securing Load	
Referring to section # of the Directive - or to Periodic Training (PT)	1,2,PT	
Short description of content /objectives	<ul> <li>Responsibility for securing load, legislation and regulations</li> <li>Haul load and stress on load</li> <li>Loading facilities</li> <li>Loading - methods, regulations, documentation</li> <li>Methods and principles of securing</li> <li>Types of specific loads</li> <li>Handling and off loading</li> <li>Securing facilities</li> </ul>	
Duration in hours	4	
Available training materials (book, PP, CBT, models, etc.)	Textbook + PP	
Practical exercises used for this course with success	Discussion and FAQ	
Specially needed qualifications of trainers, if any	Knowledge and experience with the securing load issue	
Other issues of relevance		
Done by	CESMAD Bohemia	
Organisation	CESMAD Bohemia	
Date		

# Annex 4

Directive 2003/59/EC in English



## DIRECTIVE 2003/59/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 July 2003

on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers, amending Council Regulation (EEC) No 3820/85 and Council Directive 91/439/EEC and repealing Council Directive 76/914/EEC

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION.

Having regard to the Treaty establishing the European Community, and in particular Article 71 thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Economic and Social Committee (2),

After consultation of the Committee of the Regions,

Acting in accordance with the procedure referred to in Article 251 of the Treaty (3),

Whereas:

- (1) Article 5(1), (2) and (4) of Regulation (EEC) No 3820/85 (4) provides that certain drivers engaged in the carriage of goods or passengers by road must, depending on their age, on the category of vehicle used and on the distance to be travelled, hold a certificate of professional competence in conformity with Community rules on the minimum level of training for some road transport drivers. That minimum level is determined by Directive 76/914/EEC (5).
- (2) Given that the provisions of Regulation (EEC) No 3820/85 apply to a very small percentage of drivers and that currently the compulsory training of drivers is only required by a few Member States, the majority of drivers now driving on Community territory are carrying out their profession solely on the basis of a driving licence.
- \_\_\_\_\_

(') OJ C 154 E, 29.5.2001, p. 258 and OJ C 20 E, 28.1.2003, p. 263. (2) OJ C 260, 17.9.2001, p. 90.

- (f) Of C 260, 17.9.2001, p. 90.

  (g) Opinion of the European Parliament of 17 January 2002 (OJ C 271 E, 7.11.2002, p. 381), Council Common Position of 5 December 2002 (OJ C 32 E, 11.2.2003, p. 9) and Decision of the European Parliament of 8 April 2003 (not yet published in the Official Journal). Decision of the Council of 13 June 2003.
- (4) Council Regulation (EEC) No 3820/85 of 20 December 1985 on the harmonisation of certain social legislation relating to road transport (OJ L 370, 31.12.1985, p. 1).
   (5) Council Directive 76/914/EEC of 16 December 1976 on the
- (5) Council Directive 76/914/EEC of 16 December 1976 on the minimum level of training for some road transport drivers (OJ L 357, 29.12.1976, p. 36).

- (3) To enable drivers to meet the new demands arising from the development of the road transport market, Community rules should be made applicable to all drivers, whether they drive as self-employed or salaried workers, and whether on own account or for hire or reward.
- (4) The establishment of new Community rules is aimed at ensuring that, by means of his or her qualification, the driver is of a standard to have access to and carry out the activity of driving.
- (5) More particularly, the obligation to hold an initial qualification and to undergo periodic training is intended to improve road safety and the safety of the driver, including during operations carried out by the driver while the vehicle is stopped. Furthermore, the modern nature of the profession of driver should arouse young people's interest in the profession, contributing to the recruitment of new drivers at a time of shortage.
- (6) To avoid unequal conditions of competition, this Directive should apply to the activity of driving both by the nationals of a Member State and by nationals of third countries who are employed or used by an undertaking established in a Member State.
- (7) In order to establish that the driver complies with his or her obligations, Member States should issue the driver with a certificate of professional competence, hereinafter referred to as 'CPC', certifying his or her initial qualification or periodic training.
- (8) Given the differences between current systems in certain Member States, Member States should be able to choose between several options so as to facilitate the implementation of the provisions relating to the initial qualification
- (9) In order to maintain their qualification of driver, existing drivers should be obliged to undergo periodic retraining in the skills essential for their profession.
- (10) The minimum requirements to be met for the initial qualification and the periodic training concern the safety rules to be observed when driving and while the vehicle is stopped. The development of defensive driving anticipating danger, making allowance for other road users which goes hand in hand with rational fuel consumption, will have a positive impact both on society and on the road transport sector itself.

- (11) This Directive should not affect the rights acquired by a driver who has held the driving licence necessary to carry out the activity of driving since before the date laid down for obtaining a CPC certifying the corresponding initial qualification or the periodic training.
- Only training centres which have been approved by the competent authorities of the Member States should be able to organise the training courses laid down for the initial qualification and the periodic training. To ensure the quality of these approved centres, the competent authorities should set harmonised criteria for their approval including that of a well-established high level of professionalism.
- (13) Not only the competent authorities of the Member States but also any entity designated by them should be responsible for organising the tests provided for in connection with the initial qualification and the periodic training. Given the importance of this Directive for road safety and for the equality of conditions of competition, the competent authorities of the Member States should supervise such tests.
- (14) Member States should prescribe that the first session of periodic training is to be completed and should issue the corresponding CPC, within the five years following either the date of issue of the CPC certifying the initial qualification or the expiry date of the time limit set for certain drivers to claim their acquired rights. It should also be possible for these time limits to be shortened or extended. Following the first periodic training, the driver should undergo periodic training every five years.
- To certify that a driver who is a national of a Member (15)State is the holder of one of the CPCs provided for by this Directive, and to facilitate mutual recognition of the various CPCs, Member States should affix the harmonised Community code laid down for that purpose, together with the code's expiry date, either to the driving licence or to the new driver qualification card, to be mutually recognised by Member States, the harmonised model of which is laid down by this Directive. This card should meet the same security requirements as the driving licence, given the importance of the rights which it confers for road safety and the equality of conditions of competition. The possibility afforded to Member States to affix the Community code on the new card should enable them to lay down a period of validity for driving licences which does not coincide with the date of expiry of the validity of periodic training, given that Directive 91/439/EEC (1) provides that each Member State is to retain the right to determine, on the basis of national criteria, the period of validity of the driving licences which it issues.
- (16) Annexes I and Ia to Directive 91/439/EEC should be amended so as to add to the list of harmonised codes and sub-codes set out in those Annexes the new
- (i) Council Directive 91/439/EEC of 29 July 1991 on driving licences (OJ L 237, 24.8.1991, p. 1); Directive as last amended by Commission Directive 2000/56/EC (OJ L 237, 21.9.2000, p. 45).

- Community code determining the date until which a driver fulfils the professional skills requirement, whether this is an initial qualification or periodic training.
- (17) Special certification provisions should be laid down for drivers covered by this Directive who are nationals of third countries.
- (18) The Commission should monitor the implementation of this Directive, particularly given the different initial qualification systems which it lays down, and should submit a report on this subject to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.
- (19) Given the significant number of drivers covered by this Directive, the provisions relating to the initial qualification should be applied in two stages, depending on whether the carriage of passengers or the carriage of goods is involved. The phased application of this Directive as regards the initial qualification for drivers of vehicles engaged in the carriage of goods and passengers should also make it possible for periodic training to be established in a phased manner.
- (20) The measures necessary to implement this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission (2).
- (21) To take account of the application on two different dates of the provisions relating to the initial qualification, the relevant provisions of Regulation (EEC) No 3820/85 as well as Directive 76/914/EEC should be repealed.
- (22) However, it is desirable, in order to respect the principles of Community law, that drivers of vehicles used to carry out transport where this is considered to have a lesser impact on road safety or where the requirements of this Directive would impose a disproportionate economic or social burden, should be exempted from the application of this Directive.
- (23) Since the objective of the proposed action, namely the establishment of a Community-wide standard for initial qualification and periodic training, cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale and the effects of the proposed action, be better achieved at Community level, the Community may adopt measures in accordance with the principle of subsidiarity set out in Article 5 of the Treaty. In accordance with the principle of proportionality as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.

<sup>(2)</sup> OJ L 184, 17.7.1999, p. 23.

HAVE ADOPTED THIS DIRECTIVE:

#### Article 1

#### Scope

This Directive shall apply to the activity of driving carried out by:

- (a) nationals of a Member State; and
- (b) nationals of third countries who are employed or used by an undertaking established in a Member State;

hereinafter referred to as 'drivers', engaged in road transport within the Community, on roads open to the public, using:

- vehicles for which a driving licence of category C1, C1+E,
   C or C+E, as defined in Directive 91/439/EEC, or a driving licence recognised as equivalent, is required,
- vehicles for which a driving licence of category D1, D1+E,
   D or D+E, as defined in Directive 91/439/EEC, or a driving licence recognised as equivalent, is required.

#### Article 2

#### Exemptions

This Directive shall not apply to the drivers of:

- (a) vehicles with a maximum authorised speed not exceeding 45 km/h;
- (b) vehicles used by, or under the control of, the armed forces, civil defence, the fire service and forces responsible for maintaining public order;
- (c) vehicles undergoing road tests for technical development, repair or maintenance purposes, or of new or rebuilt vehicles which have not yet been put into service;
- (d) vehicles used in states of emergency or assigned to rescue missions;
- (e) vehicles used in the course of driving lessons for any person wishing to obtain a driving licence or a CPC, as provided for in Article 6 and Article 8(1);
- (f) vehicles used for non-commercial carriage of passengers or goods, for personal use;

(g) vehicles carrying material or equipment to be used by the driver in the course of his or her work, provided that driving the vehicle is not the driver's principal activity.

#### Article 3

#### Qualification and training

- 1. The activity of driving as defined in Article 1 shall be subject to a compulsory initial qualification and compulsory periodic training. To this end Member States shall provide for:
- (a) a system of initial qualification

Member States shall choose between the following two options:

- (i) option combining both course attendance and a test
  - In accordance with section 2(2.1) of Annex I, this type of initial qualification involves compulsory course attendance for a specific period. It shall conclude with a test. Upon successful completion of the test, the qualification shall be certified by a CPC as provided for in Article 6(1)(a);
- (ii) option involving only tests

In accordance with section 2(2.2) of Annex I, this type of initial qualification does not involve compulsory course attendance but only theoretical and practical tests. Upon successful completion of the tests, the qualification shall be certified by a CPC as provided for in Article 6(1)(b).

However, a Member State may authorise a driver to drive within its territory before obtaining a CPC, when he or she is undergoing a national vocational training course of at least six months, for a maximum period of three years. In the context of this vocational training course, the tests referred to in points (i) and (ii) may be completed in stages;

(b) a system of periodic training

In accordance with section 4 of Annex I, periodic training involves compulsory course attendance. It shall be certified by a CPC as provided for in Article 8(1).

2. Member States may also provide for a system of accelerated initial qualification so that a driver may drive in the cases referred to in Article 5(2)(a)(ii) and (b) and in Article 5(3)(a)(i) and (b).

In accordance with section 3 of Annex I, the accelerated initial qualification shall involve compulsory course attendance. It shall conclude with a test. Upon successful completion of the test, the qualification shall be certified by a CPC as provided for in Article 6(2).

3. Member States may exempt drivers who have obtained the certificate of professional competence provided for in Directive 96/26/EC (¹) from the tests referred to in paragraph 1(a)(i) and (ii) and in paragraph 2 in the subjects covered by the test provided for in that Directive and, where appropriate, from attending the part of the course corresponding thereto.

#### Article 4

#### Acquired rights

The following drivers shall be exempted from the requirement to obtain an initial qualification:

- (a) drivers who hold a category D1, D1+E, D or D+E licence, or a licence recognised as equivalent, issued no later than two years after the final date for the transposition of this Directive;
- (b) drivers who hold a category C1, C1+E, C or C+E licence, or a licence recognised as equivalent, issued no later than three years after the final date for the transposition of this Directive.

#### Article 5

#### Initial qualification

- 1. Access to an initial qualification shall not require the corresponding driving licence to be obtained beforehand.
- 2. Drivers of a vehicle intended for the carriage of goods may drive:
- (a) from the age of 18:
  - (i) a vehicle in licence categories C and C+E, provided they hold a CPC as referred to in Article 6(1);
  - (ii) a vehicle in licence categories C1 and C1+E, provided they hold a CPC as referred to in Article 6(2);
- (b) from the age of 21, a vehicle in licence categories C and C+E, provided they hold a CPC as referred to in Article 6(2).
- 3. Drivers of a vehicle intended for the carriage of passengers may drive:
- (a) from the age of 21:
  - (i) a vehicle in licence categories D and D+E to carry passengers on regular services where the route does not exceed 50 kilometres and a vehicle in licence categories D1 and D1+E, provided they hold a CPC as referred to in Article 6(2).
- (¹) Council Directive 96/26/EC of 29 April 1996 on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas, certificates and other evidence of formal qualifications intended to facilitate for these operators the right to freedom of establishment in national and international transport operations (OJ L 124, 23.5.1996, p. 1); Directive as last amended by Directive 98/76/EC (OJ L 277, 14.10.1998, p. 17).

- Any Member State may authorise drivers of vehicles in one of the abovementioned categories to drive such vehicles within its territory from the age of 18, provided they hold a CPC as referred to in Article 6(1);
- (ii) a vehicle in licence categories D and D+E, provided they hold a CPC as referred to in Article 6(1).

Any Member State may authorise drivers of vehicles in one of the abovementioned categories to drive such vehicles within its territory from the age of 20, provided they hold a CPC as referred to in Article 6(1). This may be reduced to the age of 18 where the driver drives such vehicles without passengers;

- (b) from the age of 23, a vehicle in licence categories D and D+E, provided they hold a CPC as referred to in Article 6(2).
- 4. Without prejudice to the age limits specified in paragraph 2, drivers undertaking carriage of goods who hold a CPC as provided for in Article 6 for one of the categories provided for in paragraph 2 of this Article shall be exempted from obtaining such a CPC for any other of the categories of vehicles referred to in that paragraph.

These provisions shall apply under the same conditions to drivers undertaking carriage of passengers in the categories referred to in paragraph 3.

5. Drivers undertaking carriage of goods who broaden or modify their activities in order to carry passengers, or vice versa, and who hold a CPC as provided for in Article 6, shall not be required to repeat the common parts of the initial qualification, but rather only the parts specific to the new qualification.

#### Article 6

#### CPC certifying the initial qualification

- 1. CPC certifying an initial qualification
- (a) CPC awarded on the basis of course attendance and a test

In accordance with Article 3(1)(a)(i), Member States shall require trainee drivers to attend courses in a training centre approved by the competent authorities in accordance with section 5 of Annex I, hereinafter referred to as 'approved training centre'. These courses shall cover all the subjects referred to in section 1 of Annex I. This training shall conclude with successful completion of the test provided for in section 2(2.1) of Annex I. That test shall be organised by the Member States' competent authorities or an entity designated by them and shall serve to check whether, for the aforementioned subjects, the trainee driver has the level of knowledge required in section 1 of Annex I. The said authorities or entities shall supervise the test and, upon successful completion, issue the drivers with a CPC certifying an initial qualification.

#### (b) CPC awarded on the basis of tests

In accordance with Article 3(1)(a)(ii), Member States shall require trainee drivers to pass the theoretical and practical tests referred to in section 2(2.2) of Annex I. These tests shall be organised by the Member States' competent authorities or an entity designated by them and shall serve to check whether, for all the aforementioned subjects, the trainee driver has the level of knowledge required in section 1 of Annex I. The said authorities or entities shall supervise the tests and, upon successful completion, issue the drivers with a CPC certifying an initial qualification.

#### 2. CPC certifying an accelerated initial qualification

In accordance with Article 3(2), Member States shall require trainee drivers to attend courses in an approved training centre. These courses shall cover all the subjects referred to in section 1 of Annex I.

This training shall conclude with the test provided for in section 3 of Annex I. That test shall be organised by the Member States' competent authorities or an entity designated by them and shall serve to check whether, for the aforementioned subjects, the trainee driver has the level of knowledge required in section 1 of Annex I. The said authorities or entities shall supervise the test and, upon successful completion, issue the drivers with a CPC certifying an accelerated initial qualification.

#### Article 7

#### Periodic training

Periodic training shall consist of training to enable holders of a CPC as referred to in Article 6 and the drivers referred to in Article 4 to update the knowledge which is essential for their work, with specific emphasis on road safety and the rationalisation of fuel consumption.

This training shall be organised by an approved training centre, in keeping with section 5 of Annex I. If a driver moves to another undertaking, the periodic training already undergone must be taken into account.

Periodic training shall be designed to expand on, and to revise, some of the subjects referred in section 1 of Annex I.

#### Article 8

#### CPC certifying periodic training

1. When a driver has completed the periodic training referred to in Article 7, the Member States' competent authorities or the approved training centre shall issue him or her with a CPC certifying periodic training.

- 2. The following drivers shall undergo a first course of periodic training:
- (a) holders of a CPC as referred to in Article 6, within five years of the issue of that CPC;
- (b) the drivers referred to in Article 4, within five years of the respective dates referred to in Article 14(2), in accordance with a timetable decided on by the Member States.

Member States may reduce or extend the periods of time referred to in (a) and (b), *inter alia*, so that they coincide with the date of expiry of the driving licence or so as to ensure the gradual introduction of periodic training. The period may not, however, be shorter than three years or longer than seven years.

- 3. A driver who has completed a first course of periodic training as referred to in paragraph 2 shall undergo periodic training every five years, before the end of the period of validity of the CPC certifying periodic training.
- 4. Holders of the CPC as referred to in Article 6 or the CPC as referred to in paragraph 1 of this Article and the drivers referred to in Article 4 who have ceased pursuit of the occupation and do not meet the requirements of paragraphs 1, 2 and 3, shall undergo a course of periodic training before resuming pursuit of the occupation.
- 5. Drivers undertaking the carriage of goods or passengers by road who have completed courses of periodic training for one of the licence categories provided for in Article 5(2) and (3) shall be exempt from the obligation to undergo further periodic training for another of the categories provided for in those paragraphs.

#### Article 9

#### Place of training

Drivers referred to in Article 1(a) shall obtain the initial qualification referred to in Article 5 in the Member State in which they have their normal residence, as defined in Article 14 of Regulation (EEC) No 3821/85 (¹).

Drivers referred to in Article 1(b) shall obtain that qualification in the Member State in which the undertaking is established or in the Member State which issued a work permit to them.

Drivers referred to in Article 1(a) and 1(b) shall undergo the periodic training referred to in Article 7 in the Member State in which they have their normal residence or the Member State in which they work.

<sup>(</sup>¹) Council Regulation (EEC) No 3821/85 of 20 December 1985 on recording equipment in road transport (OJ L 370, 3.12.1985, p. 8); Regulation as last amended by Commission Regulation (EC) No 1360/2002 (OJ L 207, 5.8.2002, p. 1).

#### Article 10

#### Community code

- 1. On the basis of the CPC referred to in Article 6 and the CPC referred to in Article 8(1), Member States' competent authorities shall mark, taking into account the provisions of Article 5(2) and (3) and Article 8, the Community code provided for in paragraph 2 of this Article alongside the corresponding categories of licence:
- either on the driving licence,
- or on the driver qualification card drawn up in accordance with the model shown in Annex II.

The driver qualification card issued by Member States shall be mutually recognised. When the card is issued, the competent authorities shall check the validity of the driving licence whose number is mentioned on the card.

- 2. The following Community code shall be added to the list of harmonised Community codes as laid down in Annexes I and Ia to Directive 91/439/EEC:
  - '95. Driver holding a CPC complying with the obligation of professional competence referred to in Article 3 until ... (e.g. 95. 01.01.2012).'
- 3. (a) A driver referred to in Article 1(b) who drives vehicles used for the carriage of goods by road shall prove that he or she has the qualification and training provided for in this Directive by means of the driver's certificate provided for in Regulation (EC) No 484/2002 (¹).

In addition to the certificate, the Member State may issue him or her with the driver qualification card provided for in Annex II, marked with the relevant Community code.

- (b) A driver referred to in Article 1(b) who drives vehicles used for the carriage of passengers by road shall prove that he or she has the qualification and training provided for in this Directive by means of:
  - either the Community code marked on the Community model driving licence, where he or she is the holder of such a licence, or
  - the driver qualification card provided for in Annex II, marked with the relevant Community code, or
  - a national certificate whose validity on their territory is mutually recognised by the Member States.

#### Article 11

#### Adaptation to scientific and technical progress

The amendments necessary to adapt Annexes I and II to scientific and technical progress shall be adopted in accordance with the procedure laid down in Article 12(2).

#### Article 12

#### Committee procedure

- 1. The Commission shall be assisted by a committee.
- 2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply having regard to Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its Rules of Procedure.

#### Article 13

#### Report

Before 10 September 2011 the Commission shall submit to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions a report making an initial evaluation of the implementation of this Directive, in particular with regard to the equivalence of the various initial qualification systems provided for in Article 3, and the efficiency thereof in achieving the target level of qualification. The report shall be accompanied by appropriate proposals, if necessary.

#### Article 14

#### Transposition and implementation

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 10 September 2006. They shall forthwith inform the Commission thereof.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

- 2. Member States shall apply these measures:
- from 10 September 2008 as regards the initial qualification required to drive vehicles in licence categories D1, D1+E, D and D+E;
- from 10 September 2009 as regards the initial qualification required to drive vehicles in licence categories C1, C1+E, C and C+E.

Member States shall forthwith inform the Commission thereof and shall assist each other in applying these measures.

<sup>(</sup>¹) Regulation (EC) No 484/2002 of the European Parliament and of the Council of 1 March 2002 amending Council Regulations (EEC) No 881/92 and (EEC) No 3118/93 for the purposes of establishing a driver attestation (OJ L 76, 19.3.2002, p. 1).

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#### Article 15

#### Repeal

- 1. Article 5 of Regulation (EEC) No 3820/85 is hereby amended as follows:
- (a) paragraph 1 shall be repealed with effect from 10 September 2009.
- (b) paragraphs 2 and 4 shall be repealed with effect from 10 September 2008.
- 2. Directive 76/914/EEC shall be repealed with effect from 10 September 2009.
- 3. The laws, regulations and administrative provisions adopted to comply with Directive 76/914/EEC shall cease to apply:
- from 10 September 2008 to drivers of vehicles for the carriage of passengers by road,
- from 10 September 2009 to drivers of vehicles for the carriage of goods by road.

#### Article 16

#### **Entry into force**

This Directive shall enter into force on the day of its publication in the Official Journal of the European Union.

#### Article 17

#### Addressees

This Directive is addressed to the Member States.

Done at Brussels, 15 July 2003.

For the European Parliament For the Council
The President The President
P. COX G. TREMONTI

#### ANNEX I

#### MINIMUM QUALIFICATION AND TRAINING REQUIREMENTS

#### Section 1: List of subjects

The knowledge to be taken into account by Member States when establishing the driver's initial qualification and periodic training must include at least the subjects in this list. Trainee drivers must reach the level of knowledge and practical competence necessary to drive in all safety vehicles of the relevant licence category.

The minimum level of knowledge may not be less than level 2 of the training-level structure provided for in Annex I to Decision 85/368/EEC (1), i.e. the level reached during compulsory education, supplemented by professional training.

1. Advanced training in rational driving based on safety regulations

All licences

1.1. Objective: to know the characteristics of the transmission system in order to make the best possible use of it:

curves relating to torque, power, and specific consumption of an engine, area of optimum use of revolution counter, gearbox-ratio cover diagrams.

1.2. Objective: to know the technical characteristics and operation of the safety controls in order to control the vehicle, minimise wear and tear and prevent disfunctioning:

specific features of hydraulic vacuum servobrake circuit, limits to the use of brakes and retarder, combined use of brakes and retarder, making better use of speed and gear ratio, making use of vehicle inertia, using ways of slowing down and braking on downhill stretches, action in the event of failure.

1.3. Objective: ability to optimise fuel consumption:

optimisation of fuel consumption by applying know-how as regards points 1.1 and 1.2.

Licences C, C+E, C1, C1+E

1.4. Objective: ability to load the vehicle with due regard for safety rules and proper vehicle use:

forces affecting vehicles in motion, use of gearbox ratios according to vehicle load and road profile, calculation of payload of vehicle or assembly, calculation of total volume, load distribution, consequences of overloading the axle, vehicle stability and centre of gravity, types of packaging and pallets;

main categories of goods needing securing, clamping and securing techniques, use of securing straps, checking of securing devices, use of handling equipment, placing and removal of tarpaulins.

Licences D, D+E, D1, D1+E

1.5. Objective: ability to ensure passenger comfort and safety:

adjusting longitudinal and sideways movements, road sharing, position on the road, smooth breaking, overhang operation, using specific infrastructures (public areas, dedicated lanes), managing conflicts between safe driving and other roles as a driver, interacting with passengers, peculiarities of certain groups of passengers (disabled persons, children).

1.6. Objective: ability to load the vehicle with due regard for safety rules and proper vehicle use:

forces affecting vehicles in motion, use of gearbox-ratios according to vehicle load and road profile, calculation of payload of vehicle or assembly, load distribution, consequences of overloading the axle, vehicle stability and centre of gravity.

<sup>(1)</sup> Council Decision 85/368/EEC of 16 July 1985 on the comparability of vocational training qualifications between the Member States of the European Community (OJ L 199, 31.7.1985, p. 56).

#### 2. Application of regulations

All licences

2.1. Objective: to know the social environment of road transport and the rules governing it:

maximum working periods specific to the transport industry; principles, application and consequences of Regulations (EEC) No 3820/85 and (EEC) No 3821/85; penalties for failure to use, improper use of and tampering with the tachograph; knowledge of the social environment of road transport: rights and duties of drivers as regards initial qualification and periodic training.

Licences C, C+E, C1, C1+E

2.2. Objective: to know the regulations governing the carriage of goods:

transport operating licences, obligations under standard contracts for the carriage of goods, drafting of documents which form the transport contract, international transport permits, obligations under the Convention on the Contract for the International Carriage of Goods by Road, drafting of the international consignment note, crossing borders, freight forwarders, special documents accompanying goods.

Licences D, D+E, D1, D1+E

2.3. Objective: to know the regulations governing the carriage of passengers:

carriage of specific groups of passengers, safety equipment on board buses, safety belts, vehicle load.

3. Health, road and environmental safety, service, logistics

All licences

3.1. Objective: to make drivers aware of the risks of the road and of accidents at work:

types of accidents at work in the transport sector, road accident statistics, involvement of lorries/coaches, human, material and financial consequences.

3.2. Objective: ability to prevent criminality and trafficking in illegal immigrants:

general information, implications for drivers, preventive measures, check list, legislation on transport operator liability.

3.3. Objective: ability to prevent physical risks:

ergonomic principles; movements and postures which pose a risk, physical fitness, handling exercises, personal protection.

3.4. Objective: awareness of the importance of physical and mental ability:

principles of healthy, balanced eating, effects of alcohol, drugs or any other substance likely to affect behaviour, symptoms, causes, effects of fatigue and stress, fundamental role of the basic work/rest cycle.

3.5. Objective: ability to assess emergency situations:

behaviour in an emergency situation: assessment of the situation, avoiding complications of an accident, summoning assistance, assisting casualties and giving first aid, reaction in the event of fire, evacuation of occupants of a lorry/bus passengers, ensuring the safety of all passengers, reaction in the event of aggression; basic principles for the drafting of an accident report.

3.6. Objective: ability to adopt behaviour to help enhance the image of the company:

behaviour of the driver and company image: importance for the company of the standard of service provided by the driver, the roles of the driver, people with whom the driver will be dealing, vehicle maintenance, work organisation, commercial and financial effects of a dispute.

Licences C, C+E, C1, C1+E

3.7. Objective: to know the economic environment of road haulage and the organisation of the market:

road transport in relation to other modes of transport (competition, shippers), different road transport activities (transport for hire or reward, own account, auxiliary transport activities), organisation of the main types of transport company and auxiliary transport activities, different transport specialisations (road tanker, controlled temperature, etc.), changes in the industry (diversification of services provided, rail-road, subcontracting, etc.).

Licences D, D+E, D1, D1+E

3.8. Objective: to know the economic environment of the carriage of passengers by road and the organisation of the market:

carriage of passengers by road in relation to other modes of passenger transport (rail, private car), different activities involving the carriage of passengers by road, crossing borders (international transport), organisation of the main types of companies for the carriage of passengers by road.

#### Section 2: Compulsory initial qualification provided for in Article 3(1)(a)

#### 2.1. Option combining both course attendance and a test

Initial qualification must include the teaching of all subjects in the list under section 1. The duration of this initial qualification must be 280 hours.

Each trainee driver must drive for at least 20 hours individually in a vehicle of the category concerned which meets at least the requirements for test vehicles as defined in Directive 91/439/EEC.

When driving individually, the trainee driver must be accompanied by an instructor, employed by an approved training centre. Each driver may drive for a maximum of eight hours of the 20 hours of individual driving on special terrain or on a top-of-the-range simulator so as to assess training in rational driving based on safety regulations, in particular with regard to vehicle handling in different road conditions and the way they change with different atmospheric conditions and the time of day or night.

For the drivers referred to in Article 5(5) the length of the initial qualification must be 70 hours, including five hours of individual driving.

At the end of that training, Member States' competent authorities or the entity designated by them shall give the driver a written or oral test. The test must include at least one question on each of the objectives in the list of subjects under section 1.

#### 2.2. Option involving a test

Member States' competent authorities or the entity designated by them shall organise the aforementioned theoretical and practical tests to check whether the trainee driver has the level of knowledge required in section 1 for the subjects and objectives listed there.

- (a) The theoretical test shall consist of at least two parts:
  - (i) questions including multiple-choice questions, questions requiring a direct answer, or a combination of both:
  - (ii) case studies.

The minimum duration of the theoretical test must be four hours.

- (b) The practical test shall consist of two parts:
  - (i) a driving test aimed at assessing training in rational driving based on safety regulations. The test must take place, whenever possible, on roads outside built-up areas, on fast roads and on motorways (or similar), and on all kinds of urban highways presenting the different types of difficulties that a driver is liable to encounter. It would be desirable for this test to take place in different traffic density conditions. The driving time on the road must be used optimally in order to assess the candidate in all traffic areas likely to be encountered. The minimum duration of this test must be 90 minutes;
  - (ii) a practical test covering at least points 1.4, 1.5, 1.6, 3.2, 3.3 and 3.5. The minimum duration of this test must be 30 minutes.

The vehicle used for the practical test must meet at least the requirements for test vehicles as defined in Directive 91/439/EEC.

The practical test may be supplemented by a third test taking place on special terrain or on a top-of-the-range simulator so as to assess training in rational driving based on safety regulations, in particular with regard to vehicle handling in different road conditions and the way they change with different atmospheric conditions and the time of day or night.

The duration of this optional test is not fixed. Should the driver undergo such a test, its duration may be deducted from the 90 minutes of the driving test referred to under (i), but the time deducted may not exceed 30 minutes.

For the drivers referred to in Article 5(5), the theoretical test must be limited to the subjects, referred to in section 1, which are relevant to the vehicles to which the new initial qualification applies. However, such drivers must undergo the whole practical test.

#### Section 3: Accelerated initial qualification provided for in Article 3(2)

Accelerated initial qualification must include the teaching of all subjects in the list in section 1. Its duration must be 140 hours.

Each trainee must drive for at least 10 hours individually in a vehicle of the category concerned which meets at least the requirements for test vehicles as defined in Directive 91/439/EEC.

When driving individually, the trainee driver must be accompanied by an instructor, employed by an approved training centre. Each driver may drive for a maximum of four hours of the 10 hours of individual driving on special terrain or on a top-of-the-range simulator so as to assess training in rational driving based on safety regulations, in particular with regard to vehicle handling in different road conditions and the way they change with different atmospheric conditions and the time of day or night.

For the drivers referred to in Article 5(5) the length of the accelerated initial qualification must be 35 hours, including two-and-a-half hours of individual driving.

At the end of that training, Member States' competent authorities or the entity designated by them shall give the driver a written or oral test. The test must include at least one question on each of the objectives in the list of subjects under section 1.

#### Section 4: Compulsory periodic training provided for in Article 3(1)(b)

Compulsory periodic training courses must be organised by an approved training centre. Their duration must be of 35 hours every five years, given in periods of at least seven hours. Such periodic training may be provided, in part, on top-of-the-range simulators.

#### Section 5: Approval of the initial qualification and periodic training

- 5.1. The training centres taking part in the initial qualification and periodic training must be approved by the Member States' competent authorities. Approval may be given only in response to a written application. The application must be accompanied by documents including:
  - 5.1.1. a suitable qualification and training programme specifying the subjects taught and setting out the proposed implementing plan and teaching methods;
  - 5.1.2. the instructors' qualifications and fields of activity;
  - 5.1.3. information about the premises where the courses are given, the teaching materials, the resources made available for the practical work, and the vehicle fleet used;
  - 5.1.4. the conditions regarding participation in the courses (number of participants).
- 5.2. The competent authority must give approval in writing subject to the following conditions:
  - 5.2.1. the training must be given in accordance with the documents accompanying the application;
  - 5.2.2. the competent authority must be entitled to send authorised persons to assist in the training courses of the approved centres, and must be entitled to monitor such centres, with regard to the resources used and the proper running of the training courses and tests;
  - 5.2.3. the approval may be withdrawn or suspended if the conditions of approval are no longer complied with.

The approved centre must guarantee that the instructors have a sound knowledge of the most recent regulations and training requirements. As part of a specific selection procedure, the instructors must provide certification showing a knowledge of both the subject material and teaching methods. As regards the practical part of the training, instructors must provide certification of experience as professional drivers or similar driving experience, such as that of driving instructors for heavy vehicles.

The programme of instruction must be in accordance with the approval and must cover the subjects in the list in section 1.

#### ANNEX II

#### ARRANGEMENTS FOR THE EUROPEAN COMMUNITIES MODEL FOR A DRIVER QUALIFICATION CARD

1. The physical characteristics of the card must comply with ISO standards 7810 and 7816-1.

The methods for verifying the physical characteristics of the card to ensure that they are consistent with international standards must comply with ISO standard 10373.

- 2. The card has two sides:
  - side 1 contains:
  - (a) the heading 'driver qualification card' printed in large type in the official language or languages of the Member State issuing the card;
  - (b) the name of the Member State issuing the card (optional);
  - (c) the distinguishing sign of the Member State issuing the card, printed in negative in a blue rectangle and encircled by 12 yellow stars; the distinguishing signs are as follows:
    - B: Belgium
    - DK: Denmark
    - D: Germany
    - GR: Greece
    - E: Spain
    - F: France
    - IRL: Ireland
    - I: Italy
    - L: Luxembourg
    - NL: The Netherlands
    - A: Austria
    - P: Portugal
    - FIN: Finland
    - S: Sweden
    - UK: United Kingdom;
  - (d) information specific to the card, numbered as follows:
    - 1. surname of the holder;
    - 2. first name of the holder;
    - 3. date and place of birth of the holder;
    - 4. (a) date of issue;
      - (b) date of expiry;
      - (c) the name of the issuing authority (may be printed on side 2);
      - (d) a different number from the driving licence number for administrative purposes (optional);
    - 5. (a) driving licence number;
      - (b) serial number;
    - 6. photograph of the holder;
    - 7. signature of the holder;
    - 8. normal place of residence, or postal address of the holder (optional);
    - the (sub)categories of vehicles for which the driver satisfies the initial qualification and periodic training requirements;

(e) the title 'European Communities model' in the language or languages of the Member State issuing the card and the heading 'driver qualification card' in the other official languages of the Community, printed in blue so as to form the background to the card:

tarjeta de cualificación del conductor

chaufføruddannelsesbevis

Fahrerqualifizierungsnachweis

δελτίο επιμόρφωσης οδηγού

driver qualification card

carte de qualification de conducteur

cárta cáilíochta tiomána

carta di qualificazione del conducente

kwalificatiekaart bestuurder

carta de qualificação do motorista

kuljettajan ammattipätevyyskortti

yrkeskompetensbevis för förare;

- (f) the reference colours:
  - blue: Pantone Reflex blue,
  - yellow: Pantone yellow;

#### side 2 contains:

- (a) 9. the (sub)categories of vehicles for which the driver satisfies the initial qualification and periodic training requirements;
  - 10. the Community code provided for in Article 10 of this Directive;
  - 11. a space reserved for the possible entry by the Member State issuing the card of essential administrative details or details relating to road safety (optional). If the details relate to a heading set out in this Annex, such details must be preceded by the corresponding heading number;
- (b) an explanation of the numbered entries appearing on sides 1 and 2 of the card (at least headings 1, 2, 3, 4(a), 4(b), 4(c), 5(a), 5(b) and 10).

If a Member State wishes to word these entries in a national language other than one of the following languages: Danish, Dutch, English, Finnish, French, German, Greek, Italian, Portuguese, Spanish and Swedish, it shall draw up a bilingual version of the card using one of the abovementioned languages, without prejudice to the other provisions of this Annex.

#### 3. Security, including data protection

The aim of the various constituent parts of the card is to rule out any forgery or tampering and to detect any attempts to do so.

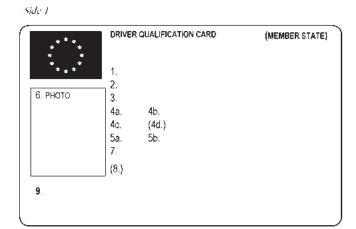
The Member State must ensure that the level of security of the card is at least comparable to the level of security of the driving licence.

#### 4. Particular arrangements

After consulting the Commission, Member States may add colours or markings, such as a bar code, national symbols and security features, without prejudice to the other provisions of this Annex.

In connection with the mutual recognition of cards, the bar code may not contain any information other than that already legibly appearing on the driver qualification card or which is essential for the card-issuing process.

#### EUROPEAN COMMUNITIES MODEL FOR A DRIVER QUALIFICATION CARD



#### Side 2

