RSA



# TYPE APPROVAL

Údarás Um Shábháilteacht Ar Bhóithre Road Safety Authority

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Please note that this content is for information purposes only. It does not purport to set out all legal obligations relating to the entry into service of motor vehicles and their systems, components and separate technical units. It is not, nor should it be treated as, a definitive or legal interpretation of the applicable law and its requirements. Images are for illustration purposes only.

# **Obtaining Type-Approval**

#### **Foreword**

Type-approval is the process applied by national authorities to certify that a model of a vehicle meets all EU safety, environmental and conformity of production requirements before allowing it to be placed on the EU market. Type-approval helps remove barriers to trade for manufacturers and ensures that new vehicles are manufactured to prescribed safety and environmental standards.

Each Member State has a designated national type-approval authority (TAA) which ensures that all the vehicles are compliant with all EU safety, environmental and conformity of production requirements. A manufacturer can get partial type-approvals in the different Member States, but the overall type-approval will always be delivered by one national authority. In the Republic of Ireland, the National Standards Authority of Ireland (NSAI) is the approval authority. Access the NSAI website for more information.

# Legislation

The applicable type-approval legislation is shown in the table below. Irish NSSTA and IVA requirements are provided in the statutory instrument.

#### Legislation for passenger cars, goods vehicles and trailers









EU Legislation	EU Reference	National Legislation
Framework Regulation	2018/858	S.I. No. <u>556/2020</u>

#### Legislation for two-wheel, three-wheel and quads







EU Legislation	EU Reference	National Legislation
Framework Regulation	168/2013	S.I. No. <u>614/2015</u>

#### **United Nations Economic Commission for Europe**

The requirements that new vehicles are required to meet consist of a mixture of EU standards and international standards from the United Nations Economic Commission for Europe (UN-ECE). These standards are constantly being developed, to ensure that society continues to benefit from technological advances, in particular through improvements in road safety, improvements in air quality and reductions in carbon emissions that are relevant to climate charge.

UNECE working party's information.

# Type-Approval Requirements for Passenger Cars (M1)



**M1:** Vehicles designed and constructed for the carriage of passengers and comprising no more than eight seats in addition to the driver's seat e.g., cars, people carriers. **NCT** tested.

## Lighting



Description	Regulatory Act
Installation of lighting and light-signalling devices on vehicles	UN Regulation No. 48
Retro-reflecting devices for power-driven vehicles and their trailers	UN Regulation No. 3
Front and rear position lamps, stop-lamps and end outline marker lamps for motor vehicles and their trailers	UN Regulation No. 7
Daytime running lamps for power-driven vehicles	UN Regulation No. 87
Side-marker lamps for motor vehicles and their trailers	UN Regulation No. 91
Direction indicators for power-driven vehicles and their trailers	UN Regulation No. 6
Illumination of rear registration plates of power-driven vehicles and their trailers	UN Regulation No. 4
Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	UN Regulation No. 31
Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	UN Regulation No. 37
Motor vehicle headlamps equipped with gas-discharge light sources	UN Regulation No. 98

Description	Regulatory Act
Gas-discharge light sources for use in approved gas- discharge lamp units of power-driven vehicles	UN Regulation No. 99
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 112
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 123
Power-driven vehicle front fog lamps	UN Regulation No. 19
Rear fog lamps for power-driven vehicles and their trailers	UN Regulation No. 38
Reversing lights for power-driven vehicles and their trailers	UN Regulation No. 23
Parking lamps for power-driven vehicles	UN Regulation No. 77

# **Tyres**



Description	Regulatory Act
Installation of tyres	Regulation (EU) No. 458/2011
Pneumatic tyres for motor vehicles and their trailers (Class C1)	UN Regulation No. 30
Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	UN Regulation No. 117
Temporary-use spare unit, run-flat tyres/system and tyre pressure monitoring system	UN Regulation No. 64

# **Environment**



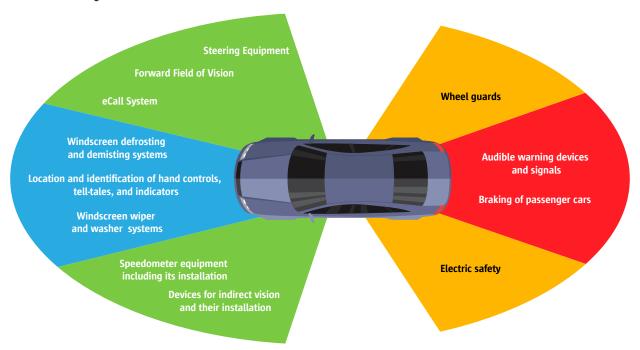
Description	Regulatory Act
Sound Levels	Regulation (EU) 540/2014
Emissions light-duty	Regulation (EC) No. 715/2007
Recyclability	Directive 2005/64/EC
Gear Shift Indicators	Regulation (EU) No. 65/2012

# Fuel



Description	Regulatory Act
Prevention of fire risks (liquid fuel tanks)	UN Regulation No. 34
Hydrogen system	UN Regulation No. 134
Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	UN Regulation No. 67
Specific components for CNG and their installation on motor vehicles	UN Regulation No. 110

# **Active Safety**

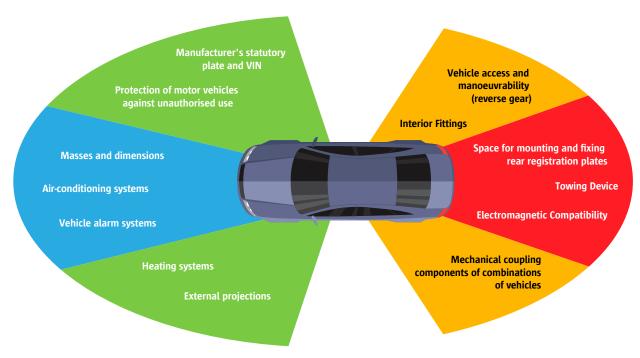


Description	Regulatory Act
Steering equipment	UN Regulation No. 79
Audible warning devices and signals	UN Regulation No. 28
Devices for indirect vision and their installation	UN Regulation No. 46
Braking of passenger cars	UN Regulation No. 13-H
Speedometer equipment including its installation	UN Regulation No. 39
Forward field of vision	UN Regulation No. 125
Location and identification of hand controls, tell-tales, and indicators	UN Regulation No. 121
Windscreen defrosting and demisting systems	Regulation (EU) No. 672/2010
Windscreen wiper and washer systems	Regulation (EU) No. 1008/2010
Wheel guards	Regulation (EU) No. 1009/2010
Electric safety	UN Regulation No. 100
eCall system	Regulation (EU) 2015/758

# **Passive Safety**

Description	Regulatory Act
Vehicle access and manoeuvrability (steps, running boards and handholds)	Regulation (EU) No. 130/2012
Door latches and door retention components	UN Regulation No. 11
Protection of the driver against the steering mechanism in the event of impact	UN Regulation No. 12
Seats, their anchorages and any head restraints	UN Regulation No. 17
Safety-belt anchorages, ISOFIX anchorages systems and ISOFIX top tether anchorages	UN Regulation No. 14
Safety-belts, restraint systems, child restraint systems and ISOFIX child restraint systems	UN Regulation No. 16
Head restraints (headrests), whether or not incorporated in vehicle seats	UN Regulation No. 25
Safety glazing materials and their installation on vehicles	UN Regulation No. 43
Protection of occupants in the event of a frontal collision	UN Regulation No. 94
Protection of occupants in the event of lateral collision	UN Regulation No. 95
Pole side impact	UN Regulation No. 135
Pedestrian protection	UN Regulation No. 127

# **Other Requirements**



Description	Regulatory Act
Space for mounting and fixing rear registration plates	Regulation (EU) No. 1003/2010
Electromagnetic Compatibility	UN Regulation No. 10
Interior Fittings	UN Regulation No. 21
Protection of motor vehicles against unauthorised use	UN Regulation No. 116
External projections	UN Regulation No. 26
Vehicle access and manoeuvrability (reverse gear)	Regulation (EU) No. 130/2012
Manufacturer's statutory plate and VIN	Regulation (EU) No. 19/2011
Towing Device	Regulation (EU) No. 1005/2010
Heating systems	UN Regulation No. 122
Masses and dimensions	Regulation (EU) No. 1230/2012
Mechanical coupling components of combinations of vehicles	UN Regulation No. 55
Air-conditioning systems	Directive 2006/40/EC
Vehicle alarm systems	UN Regulation No. 97

# Type-Approval Requirements for Buses and Coaches (M2 and M3)



**M2:** Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat and having a maximum mass not exceeding five tonnes. Generally, this includes small buses and minibuses. **CVRT** tested annually.

**M3:** Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat and having a maximum mass exceeding five tonnes e.g., large buses. **CVRT** tested annually.

#### Lighting



Description	Regulatory Act
Installation of lighting and light-signalling devices on vehicles	UN Regulation No. 48
Retro-reflecting devices for power-driven vehicles and their trailers	UN Regulation No. 3
Front and rear position lamps, stop-lamps and end outline marker lamps for motor vehicles and their trailers	UN Regulation No. 7
Daytime running lamps for power-driven vehicles	UN Regulation No. 87
Side-marker lamps for motor vehicles and their trailers	UN Regulation No. 91
Direction indicators for power-driven vehicles and their trailers	UN Regulation No. 6
Illumination of rear registration plates of power-driven vehicles and their trailers	UN Regulation No. 4

Description	Regulatory Act
Power-driven vehicle's sealed-beam headlamps (SB) emitting a European asymmetrical passing beam or a driving beam or both	UN Regulation No. 31
Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	UN Regulation No. 37
Motor vehicle headlamps equipped with gas-discharge light sources	UN Regulation No. 98
Gas-discharge light sources for use in approved gas- discharge lamp units of power-driven vehicles	UN Regulation No. 99
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 112
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 123
Power-driven vehicle front fog lamps	UN Regulation No. 19
Rear fog lamps for power-driven vehicles and their trailers	UN Regulation No. 38
Reversing lights for power-driven vehicles and their trailers	UN Regulation No. 23
Parking lamps for power-driven vehicles	UN Regulation No. 77

# **Environment**



Description	Regulatory Act
Sound Levels	Regulation (EU) 540/2014
Emissions light-duty (applicable for some vehicles of category M2)	Regulation (EC) No. 715/2007
Emissions heavy-duty	Regulation (EC) No. 595/2009

# Fuel



Description	Regulatory Act
Prevention of fire risks (liquid fuel tanks)	UN Regulation No. 34
Hydrogen system	UN Regulation No. 134
Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	UN Regulation No. 67
Specific components for CNG and their installation on motor vehicles	UN Regulation No. 110

# Tyres



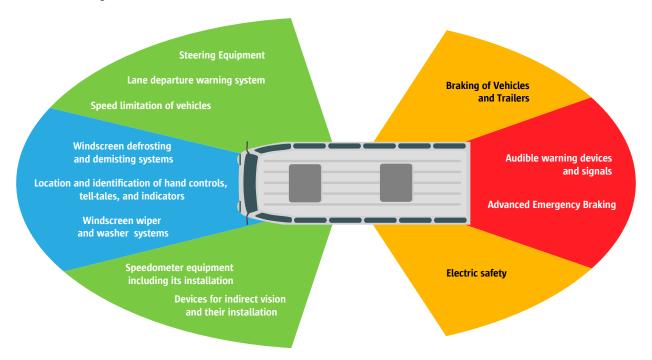
Description	Regulatory Act
Installation of tyres	Regulation (EU) No. 458/2011
Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	UN Regulation No. 54
Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	UN Regulation No. 117

# **Passive Safety**



Description	Regulatory Act
Seats, their anchorages, and any head restraints	UN Regulation No. 17
Seats of large passenger Vehicles	UN Regulation No. 80
Safety-belt anchorages, ISOFIX anchorages systems and ISOFIX top tether anchorages	UN Regulation No. 14
Safety-belts, restraint systems, child restraint systems and ISOFIX child restraint systems	UN Regulation No. 16
Safety glazing materials and their installation on vehicles	UN Regulation No. 43

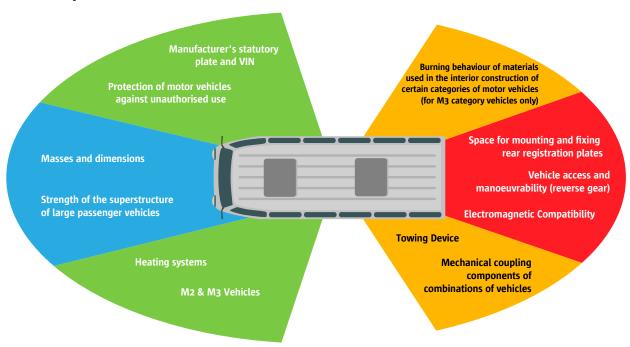
# **Active Safety**



Description	Regulatory Act
Steering equipment	UN Regulation No. 79
Audible warning devices and signals	UN Regulation No. 28
Devices for indirect vision and their installation	UN Regulation No. 46
Braking of vehicles and Trailers	UN Regulation No. 13
Speedometer equipment including its installation	UN Regulation No. 39

Location and identification of hand controls, tell-tales, and indicators	UN Regulation No. 121
Windscreen defrosting and demisting systems	Fitted with a suitable windscreen defrosting and demisting device.
Windscreen wiper and washer systems	Fitted with a suitable windscreen washing and wiping devices.
Speed limitation of vehicles	UN Regulation No. 89
Advanced emergency braking system	UN Regulation No. 131
Lane departure warning system	UN Regulation No. 130
Electric safety	UN Regulation No. 100

# **Other Requirements**



Description	Regulatory Act
Space for mounting and fixing rear registration plates	Regulation (EU) No. 1003/2010
Electromagnetic Compatibility	UN Regulation No. 10
Protection of motor vehicles against unauthorised use	UN Regulation No. 18
Vehicle access and manoeuvrability (reverse gear)	Regulation (EU) No. 130/2012
Manufacturer's statutory plate and VIN	Regulation (EU) No. 19/2011
Towing Device	Regulation (EU) No. 1005/2010
Heating systems	UN Regulation No. 122
Masses and dimensions	Regulation (EU) No. 1230/2012
Mechanical coupling components of combinations of vehicles	UN Regulation No. 55
Burning behaviour of materials used in the interior construction of certain categories of motor vehicles (for M3 category vehicles only)	UN Regulation No. 118
M2 and M3 vehicles	UN Regulation No. 107
Strength of the superstructure of large passenger vehicles	UN Regulation No. 66

# Type-Approval Requirements for Light Goods Vehicles (N1)



**N1:** Vehicles designed and constructed for the carriage of goods and having a maximum mass not exceeding 3,500 kg. e.g., light vans and trucks. **CVRT** tested annually.

#### Lighting



Description	Regulatory Act
Installation of lighting and light-signalling devices on vehicles	UN Regulation No. 48
Retro-reflecting devices for power-driven vehicles and their trailers	UN Regulation No. 3
Front and rear position lamps, stop-lamps and end outline marker lamps for motor vehicles and their trailers	UN Regulation No. 7
Daytime running lamps for power-driven vehicles	UN Regulation No. 87
Side-marker lamps for motor vehicles and their trailers	UN Regulation No. 91
Direction indicators for power-driven vehicles and their trailers	UN Regulation No. 6
Illumination of rear registration plates of power-driven vehicles and their trailers	UN Regulation No. 4
Power-driven vehicle's sealed-beam headlamps (SB) emitting a European asymmetrical passing beam or a driving beam or both	UN Regulation No. 31
Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	UN Regulation No. 37
Motor vehicle headlamps equipped with gas-discharge light sources	UN Regulation No. 98

Description	Regulatory Act
Gas-discharge light sources for use in approved gas- discharge lamp units of power-driven vehicles	UN Regulation No. 99
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 112
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 123
Power-driven vehicle front fog lamps	UN Regulation No. 19
Rear fog lamps for power-driven vehicles and their trailers	UN Regulation No. 38
Reversing lights for power-driven vehicles and their trailers	UN Regulation No. 23
Parking lamps for power-driven vehicles	UN Regulation No. 77

# **Tyres**



Description	Regulatory Act
Installation of tyres	Regulation (EU) No. 458/2011
Pneumatic tyres for motor vehicles and their trailers (Class C1)	UN Regulation No. 30
Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	UN Regulation No. 54
Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	UN Regulation No. 117
Temporary-use spare unit, run-flat tyres/system and tyre pressure monitoring system	UN Regulation No. 64

# **Environment**



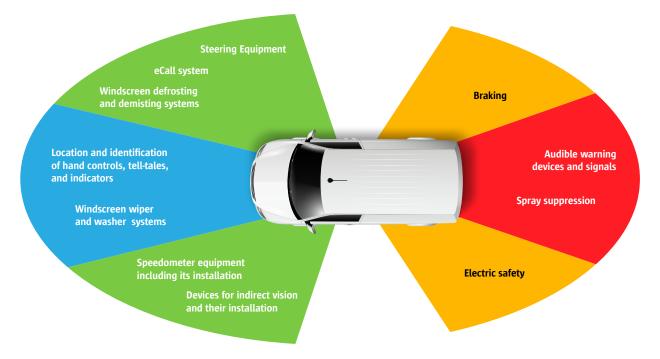
Description	Regulatory Act
Sound Levels	Regulation (EU) 540/2014
Emissions light-duty	Regulation (EC) No. 715/2007
Emissions heavy-duty	Regulation (EC) No. 595/2009
Recyclability	Directive 2005/64/EC

# Fuel



Description	Regulatory Act
Prevention of fire risks (liquid fuel tanks)	UN Regulation No. 34
Hydrogen system	UN Regulation No. 134
Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	UN Regulation No. 67
Specific components for CNG and their installation on motor vehicles	UN Regulation No. 110

# **Active Safety**



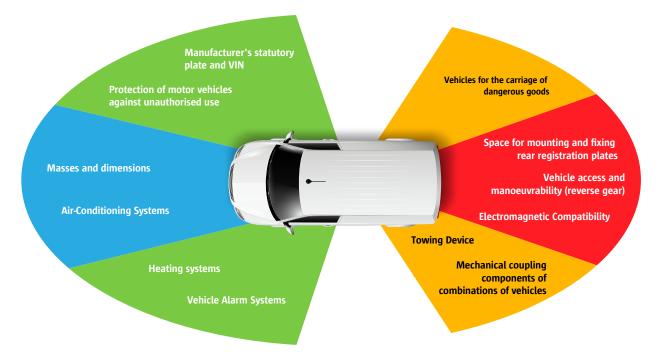
Description	Regulatory Act
Steering equipment	UN Regulation No. 79
Audible warning devices and signals	UN Regulation No. 28
Devices for indirect vision and their installation	UN Regulation No. 46
Braking of vehicles and Trailers	UN Regulation No. 13
Braking of passenger cars	UN Regulation No. 13-H
	This Regulation offers an alternative set of requirements for Category N1 vehicles to those contained in Regulation No. 13.
Speedometer equipment including its installation	UN Regulation No. 39
Location and identification of hand controls, tell-tales, and indicators	UN Regulation No. 121
Windscreen defrosting and demisting systems	Fitted with a suitable windscreen defrosting and demisting device.
Windscreen wiper and washer systems	Fitted with a suitable windscreen washing and wiping devices.
Spray suppression systems	Regulations (EU) No. 109/2011
Electric safety	UN Regulation No. 100
eCall system	Regulation (EU) 2015/758

# **Passive Safety**



Description	Regulatory Act
Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)*	UN Regulation No. 58 *Not required where the ground clearance conditions are met.
Vehicle access and manoeuvrability (steps, running boards and handholds)	Regulation (EU) No. 130/2012
Door latches and door retention components	UN Regulation No. 11
Protection of the driver against the steering mechanism in the event of impact	UN Regulation No. 12
Seats, their anchorages, and any head restraints	UN Regulation No. 17
Safety-belt anchorages, ISOFIX anchorages systems and ISOFIX top tether anchorages	UN Regulation No. 14
Safety-belts, restraint systems, child restraint systems and ISOFIX child restraint systems	UN Regulation No. 16
Safety glazing materials and their installation on vehicles	UN Regulation No. 43
Commercial vehicles with regard to their external projections forward of the cab's rear panel	UN Regulation No. 61
Protection of occupants in the event of lateral collision	UN Regulation No. 95
Pole side impact	UN Regulation No. 135
Pedestrian protection	UN Regulation No. 127
Cab strength	UN Regulation No. 29

# **Other Requirements**



Description	Regulatory Act
Space for mounting and fixing rear registration plates	Regulation (EU) No. 1003/2010
Electromagnetic Compatibility	UN Regulation No. 10
Protection of motor vehicles against unauthorised use	UN Regulation No. 116
Vehicle access and manoeuvrability (reverse gear)	Regulation (EU) No. 130/2012
Manufacturer's statutory plate and VIN	Regulation (EU) No. 19/2011
Towing Device	Regulation (EU) No. 1005/2010
Heating systems	UN Regulation No. 122
Masses and dimensions	Regulation (EU) No. 1230/2012
Mechanical coupling components of combinations of vehicles	UN Regulation No. 55
Vehicles for the carriage of dangerous goods	UN Regulation No. 105
Air-conditioning systems	Directive 2006/40/EC
Vehicle alarm systems	UN Regulation No. 97

# Type-Approval Requirements for Medium Goods Vehicles (N2)



**N2:** Vehicles designed and constructed for the carriage of goods and having a maximum mass exceeding 3,500 kg and not exceeding 12,000 kg e.g., larger vans and trucks. **CVRT** tested annually.

#### Lighting



Description	Regulatory Act
Installation of lighting and light-signalling devices on vehicles	UN Regulation No. 48
Retro-reflecting devices for power-driven vehicles and their trailers	UN Regulation No. 3
Front and rear position lamps, stop-lamps and end outline marker lamps for motor vehicles and their trailers	UN Regulation No. 7
Daytime running lamps for power-driven vehicles	UN Regulation No. 87
Side-marker lamps for motor vehicles and their trailers	UN Regulation No. 91
Direction indicators for power-driven vehicles and their trailers	UN Regulation No. 6
Illumination of rear registration plates of power-driven vehicles and their trailers	UN Regulation No. 4
Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	UN Regulation No. 31
Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	UN Regulation No. 37

Description	Regulatory Act
Motor vehicle headlamps equipped with gas-discharge light sources	UN Regulation No. 98
Gas-discharge light sources for use in approved gas- discharge lamp units of power-driven vehicles	UN Regulation No. 99
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 112
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 123
Power-driven vehicle front fog lamps	UN Regulation No. 19
Rear fog lamps for power-driven vehicles and their trailers	UN Regulation No. 38
Reversing lights for power-driven vehicles and their trailers	UN Regulation No. 23
Parking lamps for power-driven vehicles	UN Regulation No. 77

# Tyres



Description	Regulatory Act
Installation of tyres	Regulation (EU) No. 458/2011
Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	UN Regulation No. 54
Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	UN Regulation No. 117

# **Environment**



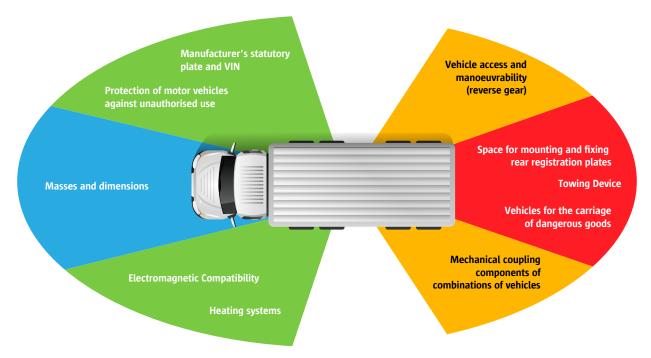
Description	Regulatory Act
Sound Levels	Regulation (EU) 540/2014
Emissions light-duty (applicable for some N2 vehicles)	Regulation (EC) No. 715/2007
Emissions heavy-duty	Regulation (EC) No. 595/2009

#### **Fuel**



Description	Regulatory Act
Prevention of fire risks (liquid fuel tanks)	UN Regulation No. 34
Hydrogen system	UN Regulation No. 134
Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	UN Regulation No. 67
Specific components for CNG and their installation on motor vehicles	UN Regulation No. 110

# **Active Safety**



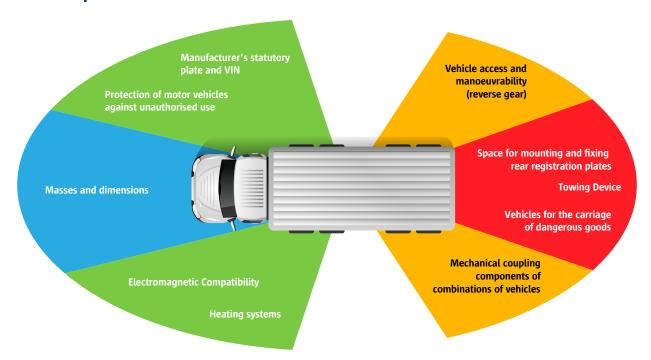
Description	Regulatory Act
Steering equipment	UN Regulation No. 79
Audible warning devices and signals	UN Regulation No. 28

Devices for indirect vision and their installation	UN Regulation No. 46
Braking of vehicles and Trailers	UN Regulation No. 13
Speedometer equipment including its installation	UN Regulation No. 39
Location and identification of hand controls, tell-tales, and indicators	UN Regulation No. 121
Windscreen defrosting and demisting systems	Fitted with a suitable windscreen defrosting and demisting device.
Windscreen wiper and washer systems	Fitted with a suitable windscreen washing and wiping devices.
Spray suppression systems	Regulation (EU) No. 109/2011
Speed limitation of vehicles	UN Regulation No. 89
Advanced emergency braking system	UN Regulation No. 131
Lane departure warning system	UN Regulation No. 130
Electric safety	UN Regulation No. 100

# **Passive Safety**

Description	Regulatory Act
Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	UN Regulation No. 58
Vehicle access and manoeuvrability (steps, running boards and handholds)	Regulation (EU) No. 130/2012
Seats, their anchorages, and any head restraints	UN Regulation No. 17
Safety-belt anchorages, ISOFIX anchorages systems and ISOFIX top tether anchorages	UN Regulation No. 14
Safety-belts, restraint systems, child restraint systems and ISOFIX child restraint systems	UN Regulation No. 16
Lateral protection of goods Vehicles	UN Regulation No. 73
Safety glazing materials and their installation on vehicles	UN Regulation No. 43
Commercial vehicles with regard to their external projections forward of the cab's rear panel	UN Regulation No. 61
Front underrun protective devices (FUPDs) and their installation; front underrun protection (FUP)	UN Regulation No. 93
Cab strength	UN Regulation No. 29

# **Other Requirements**



Description	Regulatory Act
Space for mounting and fixing rear registration plates	Regulation (EU) No. 1003/2010
Electromagnetic Compatibility	UN Regulation No. 10
Protection of motor vehicles against unauthorised use	UN Regulation No. 18
Vehicle access and manoeuvrability (reverse gear)	Regulation (EU) No. 130/2012
Manufacturer's statutory plate and VIN	Regulation (EU) No. 19/2011
Towing Device	Regulation (EU) No. 1005/2010
Heating systems	UN Regulation No. 122
Masses and dimensions	Regulation (EU) No. 1230/2012
Mechanical coupling components of combinations of vehicles	UN Regulation No. 55
Close-coupling device (CCD); fitting of an approved type of CCD	UN Regulation No. 102
Vehicles for the carriage of dangerous goods	UN Regulation No. 105

# Type-Approval Requirements for heavy goods vehicles (N3)



**N3:** Vehicles designed and constructed for the carriage of goods and having a maximum mass exceeding 12,000 kg e.g., trucks. **CVRT** tested annually.

## Lighting

Description	Regulatory Act
Installation of lighting and light-signalling devices on vehicles	UN Regulation No. 48
Retro-reflecting devices for power-driven vehicles and their trailers	UN Regulation No. 3
Front and rear position lamps, stop-lamps and end outline marker lamps for motor vehicles and their trailers	UN Regulation No. 7
Daytime running lamps for power-driven vehicles	UN Regulation No. 87
Side-marker lamps for motor vehicles and their trailers	UN Regulation No. 91
Direction indicators for power-driven vehicles and their trailers	UN Regulation No. 6
Illumination of rear registration plates of power-driven vehicles and their trailers	UN Regulation No. 4
Power-driven vehicle's sealed-beam headlamps (SB) emitting a European asymmetrical passing beam or a driving beam or both	UN Regulation No. 31
Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	UN Regulation No. 37
Motor vehicle headlamps equipped with gas-discharge light sources	UN Regulation No. 98
Gas-discharge light sources for use in approved gas- discharge lamp units of power-driven vehicles	UN Regulation No. 99
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 112

Description	Regulatory Act
Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	UN Regulation No. 123
Power-driven vehicle front fog lamps	UN Regulation No. 19
Rear fog lamps for power-driven vehicles and their trailers	UN Regulation No. 38
Reversing lights for power-driven vehicles and their trailers	UN Regulation No. 23
Parking lamps for power-driven vehicles	UN Regulation No. 77

## **Environment**



Description	Regulatory Act
Sound Levels	Regulation (EU) 540/2014
Emissions heavy-duty	Regulation (EC) No. 595/2009

# **Tyres**



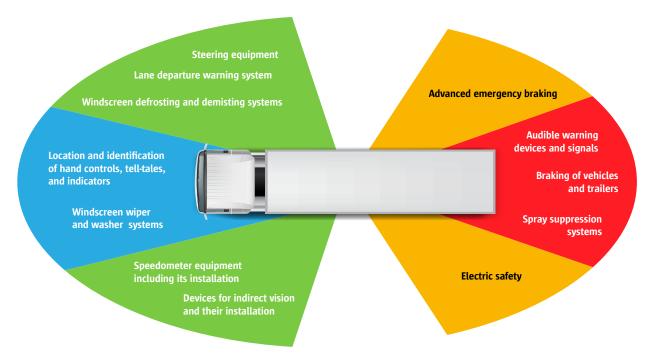
Description	Regulatory Act
Installation of tyres	Regulation (EU) No. 458/2011
Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	UN Regulation No. 54
Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	UN Regulation No. 117

#### Fuel



Description	Regulatory Act
Prevention of fire risks (liquid fuel tanks)	UN Regulation No. 34
Hydrogen system	UN Regulation No. 134
Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	UN Regulation No. 67
Specific components for CNG and their installation on motor vehicles	UN Regulation No. 110

## **Active Safety**



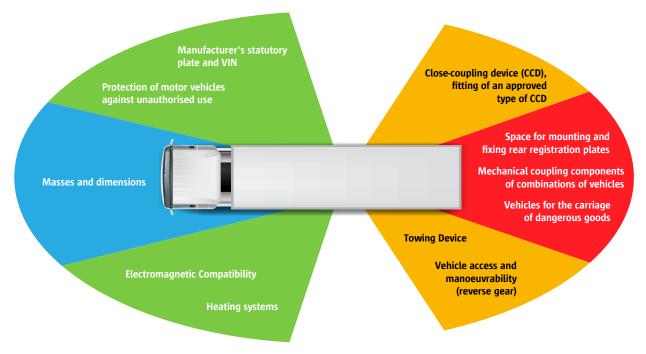
Description	Regulatory Act
Steering equipment	UN Regulation No. 79
Audible warning devices and signals	UN Regulation No. 28
Devices for indirect vision and their installation	UN Regulation No. 46
Braking of vehicles and Trailers	UN Regulation No. 13
Speedometer equipment including its installation	UN Regulation No. 39
Location and identification of hand controls, tell-tales, and indicators	UN Regulation No. 121

Description	Regulatory Act
Windscreen defrosting and demisting systems	Fitted with a suitable windscreen defrosting and demisting device.
Windscreen wiper and washer systems	Fitted with a suitable windscreen washing and wiping devices.
Spray suppression systems	Regulation (EU) No. 109/2011
Speed limitation of vehicles	UN Regulation No. 89
Advanced emergency braking system	UN Regulation No. 131
Lane departure warning system	UN Regulation No. 130
Electric safety	UN Regulation No. 100

# **Passive Safety**

Description	Regulatory Act
Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	UN Regulation No. 58
Vehicle access and manoeuvrability (steps, running boards and handholds)	Regulation (EU) No. 130/2012
Seats, their anchorages and any head restraints	UN Regulation No. 17
Safety-belt anchorages, ISOFIX anchorages systems and ISOFIX top tether anchorages	UN Regulation No. 14
Safety-belts, restraint systems, child restraint systems and ISOFIX child restraint systems	UN Regulation No. 16
Lateral protection of goods Vehicles	UN Regulation No. 73
Safety glazing materials and their installation on vehicles	UN Regulation No. 43
Commercial vehicles with regard to their external projections forward of the cab's rear panel	UN Regulation No. 61
Front underrun protective devices (FUPDs) and their installation; front underrun protection (FUP)	UN Regulation No. 93
Cab strength	UN Regulation No. 29

# **Other Requirements**



Description	Regulatory Act
Space for mounting and fixing rear registration plates	Regulation (EU) No. 1003/2010
Electromagnetic Compatibility	UN Regulation No. 10
Protection of motor vehicles against unauthorised use	UN Regulation No. 18
Vehicle access and manoeuvrability (reverse gear)	Regulation (EU) No. 130/2012
Manufacturer's statutory plate and VIN	Regulation (EU) No. 19/2011
Towing Device	Regulation (EU) No. 1005/2010
Heating systems	UN Regulation No. 122
Masses and dimensions	Regulation (EU) No. 1230/2012
Mechanical coupling components of combinations of vehicles	UN Regulation No. 55
Close-coupling device (CCD); fitting of an approved type of CCD	UN Regulation No. 102
Vehicles for the carriage of dangerous goods	UN Regulation No. 105

# Type-Approval Requirements for Light Trailers (O1 and O2)



**01:** Trailers with a maximum mass not exceeding 750 kg e.g., small car trailers

**02:** Trailers with a maximum mass exceeding 750 kg but not exceeding 3,500 kg e.g., larger car trailers and most trailer caravans

#### Lighting

Description	Regulatory Act
Installation of lighting and light-signalling devices on vehicles	UN Regulation No. 48
Retro-reflecting devices for power-driven vehicles and their trailers	UN Regulation No. 3
Front and rear position lamps, stop-lamps and end outline marker lamps for motor vehicles and their trailers	UN Regulation No. 7
Side-marker lamps for motor vehicles and their trailers	UN Regulation No. 91
Direction indicators for power-driven vehicles and their trailers	UN Regulation No. 6
Illumination of rear registration plates of power-driven vehicles and their trailers	UN Regulation No. 4
Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	UN Regulation No. 37
Rear fog lamps for power-driven vehicles and their trailers	UN Regulation No. 38
Reversing lights for power-driven vehicles and their trailers	UN Regulation No. 23

# Tyres

Description	Regulatory Act
Installation of tyres	Regulation (EU) No. 458/2011
Pneumatic tyres for motor vehicles and their trailers (Class C1)	UN Regulation No. 30
Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	UN Regulation No. 117

# **Active Safety**

Description	Regulatory Act
Braking of vehicles and Trailers	UN Regulation No. 13
Spray suppression systems	Regulation (EU) No. 109/2011

# **Passive Safety**

Description	Regulatory Act	
Safety glazing materials and their installation on vehicles	UN Regulation No. 43	

# **Other Requirements**

Description	Regulatory Act	
Space for mounting and fixing rear registration plates	Regulation (EU) No. 1003/2010	
Electromagnetic Compatibility	UN Regulation No. 10	
Manufacturer's statutory plate and VIN	Regulation (EU) No. 19/2011	
Heating systems	UN Regulation No. 122	
Masses and dimensions	Regulation (EU) No. 1230/2012	
Mechanical coupling components of combinations of vehicles	UN Regulation No. 55	
Vehicles for the carriage of dangerous goods	UN Regulation No. 105	

# Type-Approval Requirements for Heavy Trailer (O3 and O4)



**03:** Trailers with a maximum mass exceeding 3,500 kg but not exceeding 10,000 kg. **CVRT** tested annually.

**O4:** Trailers with a maximum mass exceeding 10,000 kg e.g., heavy trailers including articulated trailers. **CVRT** tested annually.

#### Lighting

Description	Regulatory Act
Installation of lighting and light-signalling devices on vehicles	UN Regulation No. 48
Retro-reflecting devices for power-driven vehicles and their trailers	UN Regulation No. 3
Front and rear position lamps, stop-lamps and end outline marker lamps for motor vehicles and their trailers	UN Regulation No. 7
Side-marker lamps for motor vehicles and their trailers	UN Regulation No. 91
Direction indicators for power-driven vehicles and their trailers	UN Regulation No. 6
Illumination of rear registration plates of power-driven vehicles and their trailers	UN Regulation No. 4
Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	UN Regulation No. 37
Rear fog lamps for power-driven vehicles and their trailers	UN Regulation No. 38
Reversing lights for power-driven vehicles and their trailers	UN Regulation No. 23

#### Fuel

Description	Regulatory Act
Prevention of fire risks (liquid fuel tanks)	UN Regulation No. 34

# Tyres

Description	Regulatory Act
Installation of tyres	Regulation (EU) No. 458/2011
Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	UN Regulation No. 54
Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	UN Regulation No. 117

# **Active Safety**

Description	Regulatory Act
Steering equipment	UN Regulation No. 79
Braking of vehicles and Trailers	UN Regulation No. 13
Spray suppression systems	Regulation (EU) No. 109/2011

# **Passive Safety**

Description	Regulatory Act
Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	UN Regulation No. 58
Lateral protection of goods Vehicles	UN Regulation No. 73
Safety glazing materials and their installation on vehicles	UN Regulation No. 43

# **Other Requirements**

Description	Regulatory Act	
Space for mounting and fixing rear registration plates	Regulation (EU) No. 1003/2010	
Electromagnetic Compatibility	UN Regulation No. 10	
Manufacturer's statutory plate and VIN	Regulation (EU) No. 19/2011	
Heating systems	UN Regulation No. 122	
Masses and dimensions	Regulation (EU) No. 1230/2012	
Mechanical coupling components of combinations of vehicles	UN Regulation No. 55	
Close-coupling device (CCD); fitting of an approved type of CCD	UN Regulation No. 102	
Vehicles for the carriage of dangerous goods	UN Regulation No. 105	

# Vehicle Categories and Requirements: two-wheel, three-wheel, and quads

# **Vehicle Categories**

Category	Description	Sub-Category (if applicable)	Sub-Category Name	Example
L1e	Light two-wheel powered vehicle	L1e-A	Powered cycles	010
		L1e-B	Two-wheel moped	26
L2e	Three-wheeled moped	L2e-P	Three-wheel moped for passenger transport	
		L2e-U	Three-wheel moped for the transport of goods	
L3e	Two-wheel motorcycle	L3e-A1	Low performance motorcycle Up to 11 kW	
		L3e-A2	Medium performance motorcycle From 11 kW up to 35 kW	
		L3e-A3	High performance motorcycle Above 35 kW	
L4e	Two-wheel motor cycle with side-car	No Sub-category	No Sub-category	<b>6</b>
L5e	Powered tricycle	L5e-A	Tricycles	
		L5e-B	Commercial tricycles	

Category	Description	Sub-Category (if applicable)	Sub-Category Name	Example
L6e	Light quadricycle	L6e-A	Light quad	0-0
		L6e-B	Mini car	
L7e	Heavy quadricycle	L7e-A1	On-road quad	
		L7e-A2	On-road quad	
		L7e-B1	Heavy all terrain quad: All terrain quad	
		L7e-B2	Heavy all terrain quad: Side-by-side buggy	0
		L7e-C	Heavy quadri-mobile	200

## Requirements

Annex II of Regulation (EU) 168/2013 provides a list of the requirements for the purposes of EU vehicle type-approval. A link to **Regulation (EU) 168/2013** is provided.

The requirements are divided into 3 sections. These are shown in the table below:

Description	EU Reference
Vehicle functional safety requirements	3/2014
Vehicle construction and general type-approval requirements	44/2014
Environmental and propulsion performance requirements	134/2014

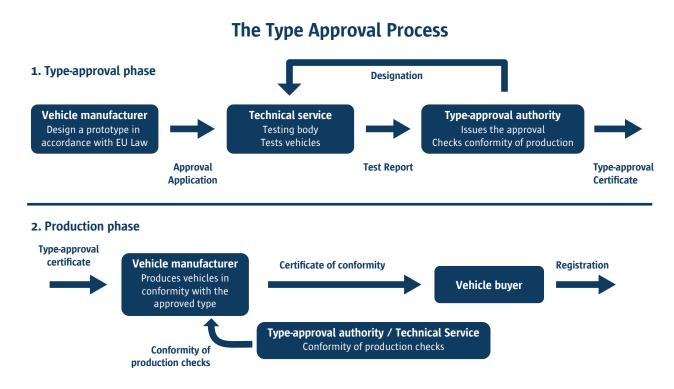
# **Type-Approval Process**

The type-approval process is shown in Figure 1 below. This describes the steps in obtaining type-approval. In the Republic of Ireland, the National Standards Authority of Ireland (NSAI) is the approval authority. Access the NSAI website for more information.

Technical Services designated by NSAI information.

For national vehicle approvals (NSSTA and IVA), a link to the NSAI Approved Vehicle Body Builder scheme is available from the NSAI website.

This document also provides further information on the process for obtaining national type-approval and national individual vehicle approval.



## **Obtaining Type-Approval**

#### **Obtaining Type-Approval for motor vehicles and trailers**

There are 5 ways to obtain type-approval. These are provided below. For details of the technical requirements, click on the method below.

- European Union Whole Vehicle Type-Approval (EUWVTA)
- European Small Series Type-Approval (ESSTA)
- European Individual Vehicle Approval (EU IVA)
- National Small Series Type-Approval (NSSTA)
- National Individual Vehicle Approval (IVA)

A summary of the advantages and disadvantages associated with each method of approval is provided in the table below:

Method of Type- Approval	Advantages	Disadvantages	
EUWVTA	<ul> <li>Unlimited volume</li> <li>Available for all vehicle categories</li> <li>EU wide scheme</li> <li>Suitable for large volume manufacturers</li> </ul>	<ul><li>Testing is most stringent</li><li>Most expensive option</li></ul>	
ESSTA	• EU Wide scheme • Higher volume than national type- approval schemes • Less onerous than the EUWVTA scheme • Currently applicable to N1 only • Volume limited to 1,50		
EU IVA	<ul> <li>EU wide scheme</li> <li>Less onerous than the EUWVTA and ESSTA schemes</li> </ul>	<ul> <li>Currently applicable to M1 and N1 only</li> <li>Each vehicle is physically inspected</li> </ul>	
NSSTA	<ul> <li>Less onerous than the EUWVTA scheme</li> <li>Available for all vehicle categories</li> </ul>	<ul> <li>Restricted to the Republic of Ireland only*</li> <li>Volume limited to 250 units per year (500 units for O1 and O2 trailers)</li> </ul>	
National IVA	<ul> <li>Less onerous than the EUWVTA scheme</li> <li>Available for all vehicle categories</li> <li>Most suited for small volume manufacturers</li> </ul>	<ul> <li>Restricted to the Republic of Ireland only*</li> <li>Each vehicle is physically inspected</li> </ul>	

<sup>\*</sup> Mutual recognition may apply between Member States.

#### Obtaining Type-Approval for two-wheel, three-wheel vehicles and quads

In Ireland, there is no national type-approval scheme for two-wheel, three-wheel vehicles and quads. If a manufacturer is seeking type-approval, they must meet the full European requirements of Regulation (EU) No. 168/2013.

Approval authorities shall grant an EU type-approval only after verifying the conformity of production arrangements and the compliance of the type of vehicle, system, component or separate technical unit with the applicable requirements.

# **End of Series**

For information relating to End of Series, follow the link here

# **Emissions**

Air pollutant emissions are the cause of a significant number of premature deaths in Europe. Urban transport is one factor that impacts air quality. Consequently, the European Commission has led EU efforts to progressively reduce emissions of air pollutants from road vehicles.

A new test for measuring fuel consumption and CO2 emissions has been introduced. This new test replaced the New European Driving Cycle (NEDC). Since September 2017, all new cars must be tested under the Worldwide Harmonised Light Vehicle Test Procedure (WLTP) system which captures emissions readings during real world driving conditions, instead of in a laboratory.

Information explaining the difference between **NEDC and WLTP**.

VECTO is a simulation tool that has been developed by the European Commission. It will be used for determining CO2 emissions and Fuel Consumption from Heavy Duty Vehicles.

For further information on VECTO, please see the link to the European Commission website.

# Legislation

## Passenger vehicles and goods vehicles

Vehicle emissions are divided into two categories which is determined by the reference mass:

- Light-duty vehicle emissions (Currently Euro 6)
- Heavy-duty vehicle emissions (Currently Euro VI)

Light-duty vehicle emissions		
EU Legislation	<u>715/2007</u>	
Criteria	Reference mass* up to 2,610 kg however may go up to 2,840 kg	

Heavy-duty vehicle emissions		
EU Legislation	<u>595/2009</u>	
Criteria	Reference mass* greater than 2,610 kg, however 2,380 kg may come under heavy-duty vehicle emissions.	

Definitions		
*Reference mass	Mass in running order + 25 kg	
Mass in running order	<ul> <li>Mass of vehicle plus</li> <li>Fuel tank 90% full</li> <li>Driver (75 kg)</li> <li>Standard equipment</li> <li>Bodywork, coupling, tools and spare wheel (where fitted)</li> </ul>	

# Two-wheel, three-wheel vehicles and quads (L category vehicles)

L category vehicle emissions	
EU Legislation	134/2014

# **Mississippi** Notable dates for industry

#### **Light-duty vehicle emissions**

Character	Vehicle Categories	<b>Emission Standard</b>	Replaces Character(s)	Applies from
СН	N1 Class II	Euro 6d-TEMP-EVAP-ISC	AE, BH	1 September 2020
CI	N1 Class III, N2	Euro 6d-TEMP-EVAP-ISC	AF, BI	1 September 2020
AN	N1 Class II	Euro 6d-ISC	AK	1 September 2020
AO	N1 Class III, N2	Euro 6d-ISC	AL	1 September 2020
AP	M, N1 Class I	Euro 6d-ISC-FCM	DG, AM	1 January 2021
AQ	N1 Class II	Euro 6d-ISC-FCM	CH, AN	1 January 2022
AR	N1 Class III, N2	Euro 6d-ISC-FCM	CI, AO	1 January 2022

#### Heavy-duty vehicle emissions

Step	Description	Last date of registration
С	NOx on board threshold limit: 1,200 mg/kWh Particulate matter on board threshold limit: 25 mg/kWh IUPR general requirements Reagent quality general requirements Power threshold: 20%	31 August 2019
D	Same as C with the following exception: Power threshold: 10%	31 December 2021
E	Same as D with the following exception: Cold start and PM No.	Currently no last date for Step E

#### L category vehicle

Legislation	Requirement	Categories affected	Applies from
168/2013	Euro 5 emission limits	All L category vehicles (except L2e-U, L3e-AxE, L3e-AxT and L6e-B category vehicles)	1 January 2021
2019/129	On-board diagnostic	L3e-A1, L3e-A2, L3e-A3, L4e, L5e-A and L7e-A	1 January 2021

#### Upcoming requirements and end-of-series derogations.

Upcoming requirements <u>information</u>. End-of-series derogations <u>information</u>.

# **Future policies**

A new initiative, which is part of the European Green Deal, will develop stricter emission standards for all petrol and diesel cars, vans lorries and buses. European Green Deal information.

# Working To Save Lives

#### Údarás Um Shábháilteacht Ar Bhóithre

#### **Road Safety Authority**

Páirc Ghnó Ghleann na Muaidhe, Cnoc an tSabhaircín, Bóthar Bhaile Átha Cliath, Béal an Átha, Co. Mhaigh Eo Moy Valley Business Park, Primrose Hill, Dublin Road, Ballina, Co. Mayo

locall: 1890 50 60 80 fax: (096) 25252 email: info@rsa.ie website: www.rsa.ie