

Regulations regarding testing of self-driving motor vehicles

Date	FOR-2017-12-19-2240
Ministry	Ministry of Transport
Dep/dir	Department of Public Roads, Urban Mobility and Traffic Safety
Entry into force	01.01.2018
Applicable to	Norway
Legal basis	LOV-2017-12-15-112-Section 19
Published	21.12.2017 at 17:20
Abbreviated title	Regulations regarding testing of self-driving motor vehicles

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Chapter 1. General provisions

Section 1. *Purpose*

The purpose of the Regulations is to complement the Act regarding self-driving vehicles to ensure that such testing occurs in accordance with framework that ensures traffic safety, traffic flow, data security and privacy. Testing shall occur gradually, especially based on the maturity of the technology and with the purpose of determining the impact on traffic safety, efficiency of traffic flow, mobility and the environment.

Section 2. *Scope*

These Regulations apply to the testing of self-driving vehicles, cf. the Act regarding testing of self-driving vehicles Section 2, for vehicles considered motor vehicles.

The Regulations cover testing of motor vehicles with a driver seated in the traditional driver's seat, equipped with a technical system that automatically drives the motor vehicle, whereby the driver, in whole or in part, can no longer be considered to be the responsible driver.

The Regulations also cover testing of motor vehicles that drive entirely without a responsible driver, or with a responsible driver not seated in the traditional driver's seat.

The Regulations cover testing of self-driving motor vehicles whether it occurs on or off roads.

The Regulations do not cover testing of motor vehicles with technical systems intended to assist the driver and where testing may occur pursuant to the Road Traffic Act, Professional Transport Act and Personal Data Act.

Section 3. *Permit-granting authority*

The Directorate of Public Roads may grant permits for testing of self-driving motor vehicles.

Section 4. *Permits*

Permits for testing of self-driving motor vehicles may be granted on application to natural or juridical persons when the conditions in Chapter 2 are satisfied, and traffic safety during testing is at least as good as it would have been without self-driving motor vehicles, cf. the Act regarding testing of self-driving motor vehicles Section 4.

The permit shall establish the framework necessary for the purpose of the relevant testing. Conditions may be established in the permit out of consideration for traffic safety, traffic flow for other road users, the environment, data security and privacy implications, among other things. The Directorate of Public Roads may impose additional conditions during the testing, should this be necessary.

In case of changes to the prerequisites for testing, the Directorate of Public Roads must be informed.

The permit shall contain a description of what exemptions that are made from the provisions in the Road Traffic Act or Professional Transport Act. Exemptions shall only be made to the extent this is justifiable and necessary.

The relevant police districts, road authorities, road owners, sign authorities and owners of possible railway infrastructure shall be given the opportunity to comment before a permit is granted. This is especially to highlight matters of significance to traffic safety and traffic flow, including the necessity of special traffic regulations in connection with the testing, cf. the Road Traffic Act Section 7, second paragraph and Section 9.

Chapter 2. Permit conditions

Section 5. *Application requirements*

The application shall contain information regarding

- a) the name of the applicant and the names of [the persons](#) appointed as safety representatives
- b) the purpose of the testing
- c) the motor vehicles that will be included in the testing
- d) the names of operators, where this is relevant, cf. Section 11
- e) the automation systems that will be used
- f) plan for the testing
- g) time frame for the testing
- h) possible needs for special traffic regulations
- i) where the testing will occur, including specific sections of road or specific areas that will be used.
- j) needs for exemptions from applicable provisions in the Road Traffic Act and Professional Transport Act with regulations
- k) insurance during the testing that insures injured parties at least as comprehensively as ordinary liability insurance pursuant to the Automobile Liability Act, and
- l) documentation that the requirements in Sections 7 to 11 are satisfied

The Directorate of Public Roads may require additional information that is relevant for the processing of the application.

Section 6. *Requirements for motor vehicles included in the testing*

Motor vehicles that will be included in the testing shall, unless exemptions have been made, satisfy the requirements in the Motor Vehicle Approval Regulations, Vehicle Regulations, Motorcycle Regulations or Tractor Regulations etc.

The Directorate of Public Roads may impose additional technical requirements to ensure considerations for safety and the environment other than those that follow from e.g. the Motor Vehicle Approval Regulations, Vehicle Regulations, Motorcycle Regulations and Tractor Regulations during the testing of self-driving motor vehicles.

Section 7. *Requirements for registration*

Motor vehicles included in the testing shall be registered in accordance with the Road Traffic Act with regulations.

The Directorate of Public Roads may grant exemptions from the requirement for registration if indicated by special considerations. The motor vehicle must in any case be insured or covered by self-insurance, cf. the Automobile Liability Act.

The Directorate of Public Roads may set as a requirement for the testing that the motor vehicle must be equipped with special labelling, specifying that it has self-driving capabilities.

Section 8. *Requirements for the automatic system*

Documentation shall be presented for the following matters concerning the automatic system that is used during the testing:

- a) function description
- b) system description
- c) technology description
- d) clarification of the technology's maturity
- e) clarification of how data security and privacy are safeguarded
- f) clarification of risks of the autonomous functions, cf. letter a and data security and impacts on privacy (PIA), and
- g) clarification of the system's electromagnetic compatibility (EMC).

The Directorate of Public Roads may require additional documentation or that documentation be assessed by a competent, independent institution.

Where relevant, the system shall continuously register whether it is the automatic system or the driver that is driving the vehicle and in control of the driving.

Section 9. *Requirements for road section or testing area*

Testing on public roads may only occur on road sections that are suitable for testing of the relevant self-driving motor vehicles.

The applicant shall conduct an overall assessment of the suitability of the road section and emphasise traffic safety and traffic flow for other road users. Clarification of risk, cf. Section 10, shall be given considerable weight in the assessment.

The applicant shall document that the motor vehicle's technical systems can handle the available infrastructure, including the design of the road, road equipment, signage, road marking, signals and possible level crossings.

Testing of heavy motor vehicles shall occur in accordance with permitted weights and dimensions for the relevant vehicle type on the relevant road section. Testing of multiple, connected heavy motor vehicles ('platooning') on road sections with bridges may only occur where it has been assessed that the bridges on the road section can handle the load.

Testing on public roads must be notified to the police via the relevant operations centres in advance, unless otherwise stated on the permit.

In case of testing in a closed area, the applicant is responsible for finding a suitable area that is closed to other traffic and documenting that the testing will occur in a safe manner and ensuring that unauthorised individuals do not access the area.

Section 10. *Requirements for clarification of risk*

In the application, the applicant shall clarify the risks associated with the testing. The report shall cover all significant aspects of testing. Measures to reduce or eliminate risks shall be described in the report.

In case of testing on public roads, aspects in addition to normal circumstances shall be assessed both regarding the road section and surrounding area. This may include road work, weather, detours, accidents and other aspects.

The Directorate of Public Roads may require that the report be reviewed by an independent third party.

Section 11. *Requirements for operators*

The application shall, to the extent necessary, indicate an operator who will monitor the driving of the self-driving motor vehicle and describe the role of the operator, including the relationship to the responsible driver, cf. Section 17 of the Act, and the appointed safety representative, cf. the Regulations Section 5 a). The operator may be seated in the ordinary driver's seat, elsewhere in the motor vehicle or outside the motor vehicle,

The applicant shall document that the named operators who will participate in the testing have valid driving licenses for the relevant category of motor vehicle, have undergone sufficient training and have the necessary knowledge regarding how the automatic system functions.

The applicant is responsible for giving the operators sufficient training and information regarding their roles and responsibilities during the testing. This especially applies to testing with a driver in the traditional driver's seat where the technical system will drive the motor vehicle during parts of the drive.

Chapter 3. Various provisions

Section 12. *Reporting*

The permit holder for testing shall upon completion of the testing prepare a final report with an account of the implementation and results in relation to purpose, frameworks and conditions in the permit. The report shall be sent to the Public Roads Administration no later than six months after completion of the testing, unless otherwise stated in the permit. A version of the report that may be published shall also be submitted.

The Directorate of Public Roads may set a condition that a continuous log shall be kept describing the progress of the testing, technological upgrades or changes, administrative changes, objectives for the testing, etc. This also includes registration and description of unforeseen occurrences in connection with the testing. The permit holder shall at the request of the Public Roads Administration present this log.

In case of an accident or potentially serious incident in connection with the testing, the permit holder shall promptly investigate the accident. The report shall contain a description of the course of events, consequences, possible causal connections and descriptions of measures to prevent similar incidents in the future. The report shall be sent to the permit-granting authority without undue delay.

Section 13. *Supervisory authority*

The Public Roads Administration supervises the testing.

Conducted supervision shall be documented in a supervision report.

Section 14. *Reactions*

The Directorate of Public Roads may decide to impose measures, including corrections, necessary to ensure that the testing is implemented in accordance with the applicable regulatory framework and permit.

The Directorate of Public Roads may revoke or temporarily suspend a permit pursuant to the Act regarding testing of self-driving motor vehicles Section 7.

Section 15. *Entry into force*

These Regulations enter into force on 1 January 2018.