

DEPARTMENT OF TRANSPORTATION

Adoption of Chapter 19-150,  
Hawaii Administrative Rules

April 5, 2022

SUMMARY

Chapter 19-150, Hawaii Administrative Rules,  
entitled "Autonomous Vehicle Regulations", is adopted.

HAWAII ADMINISTRATIVE RULES

TITLE 19

DEPARTMENT OF TRANSPORTATION

SUBTITLE 5

MOTOR VEHICLE SAFETY OFFICE

CHAPTER 150

AUTONOMOUS VEHICLE REGULATIONS

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**§19-150-1 Definitions.** Unless the context clearly indicates otherwise, as used in this chapter: "ADS-equipped vehicle" means a vehicle equipped with an Automated Driving System.

"Advanced Driver-Assistance Systems" and "ADAS" mean systems designed to help drivers with certain driving tasks (e.g., staying in the lane, parking, avoiding crashes, reducing blind spots, and maintaining a safe headway).

"Automated driving system" and "ADS" mean the hardware and software that are collectively capable of performing the entire dynamic driving task on a sustained basis, regardless of whether it is limited to a specific operational design domain.

"Automated mode" means the mode that is set in the vehicle in order for the automated actions to take over and the driver or user does not control the functions of the vehicle.

"Automated vehicle" and "AV" means an automated-driving-system-equipped vehicle capable of performing all aspects of the dynamic driving task within its operational design domain, if any, including achieving a minimal risk condition, without the intervention or supervision, by a conventional human driver.

"Crash report" means a report completed by a law enforcement officer who investigates a motor vehicle crash.

"Data collection mechanisms" and "DCM" mean recording media, including but not limited to on-board electronic data recorders, on-board computer processing units, and cloud-based computer processing units.

"Department" means the Department of Transportation.

"Driver" means a human user who performs in real-time part or all of the dynamic driving task and dynamic driving task fallback for a particular vehicle. In a vehicle equipped with an ADS, a driver may in some vehicles assume or resume performance of part or all of the dynamic driving task from the ADS during a given trip.

"Driver history" means the record containing all convictions and other licensing actions of each driver.

"Driver testing" means the examination of an applicant to determine whether the applicant possesses the knowledge, skills, and ability to safely operate a vehicle on public roadways.

"Dynamic driving task" and "DDT" mean all of the

real-time operational and tactical functions required to operate a vehicle in on-road traffic.

"Endorsement" means an authorization to an individual's driver's license permitting the individual to operate certain types of vehicles.

"Human-machine interface" and "HMI" mean software and hardware that displays process status information, historical information, reports, and other information to operators, administrators, managers, business partners, and other authorized users and allows:

- (1) Human operators to monitor the state of a process under control, modify control settings to change the control objective, and manually override automatic control operations in the event of an emergency; and
- (2) Control engineers or operators to configure set points or control algorithms and parameters in the controller, and to monitor and configure set points, control algorithms, send commands, and adjust and establish parameters in the controller.

"Level 0 - No Driving Automation" means the SAE classification of vehicle automation in which the driver performs the entire dynamic driving task even when enhanced by active safety systems.

"Level 1 - Driver Assistance" means the SAE classification of vehicle automation in which sustained and operational design domain-specific execution by a driving automation system of either the lateral or the longitudinal vehicle motion control subtask of the dynamic driving task (but not both simultaneously) with the expectation that the driver performs the remainder of the dynamic driving task.

"Level 2 - Partial Driving Automation" means the SAE classification of vehicle automation in which the sustained and operational design domain-specific execution by an ADS of both the lateral and longitudinal vehicle motion control subtasks of the dynamic driving task with the expectation that the driver completes the object and event detection and response subtask and supervises the ADS.

"Level 3 - Conditional Driving Automation" means the SAE classification of vehicle automation in which the sustained and operational design domain-specific performance by an automated driving system of the entire dynamic driving task with the expectation that the dynamic driving task fallback-ready user is receptive to automated driving system issued requests to intervene, as well as to dynamic driving task performance relevant system failures in other vehicle systems, and will respond appropriately.

"Level 4 - High Driving Automation" means the SAE classification of vehicle automation in which the sustained and operational design domain-specific performance by an automated driving system of the entire dynamic driving task and dynamic driving task fallback without any expectation that a user will respond to a request to intervene.

"Level 5 - Full Driving Automation" means the SAE classification of vehicle automation in which the sustained and unconditional (i.e., not operational design domain-specific) performance by an automated driving system of the entire dynamic driving task and dynamic driving task fallback without any expectation that a user will respond to a request to intervene.

"Manufacturer" means an individual or company that designs, produces, or constructs vehicles or equipment. The term includes original equipment manufacturers, multiple and final stage manufacturers, modifiers or upfitters.

"Non-drivers" means a user of an automated vehicle who normally would not be able to drive a vehicle (i.e., because of age limitations or disabilities).

"Occupant" means a human in the vehicle, regardless of role or responsibility.

"Other entities" means any individual, institution or company, that is not a manufacturer, involved with helping to design, supply, test, operate, or deploy automated vehicles, technology, or equipment.

"Permit" means the valid document issued by the

Department granting authorization to a manufacturer to conduct testing of its autonomous vehicles on public highways and roadways.

"Remote driver" means a driver who is not seated in a position to manually exercise in-vehicle braking, accelerating, steering, and transmission gear selection input devices but is able to operate the vehicle.

"Reportable crash" means a collision resulting in a person's injury or death or property damage pursuant to section 291C-16(a), Hawaii Revised Statutes.

"Request to Intervene" means that notification by the automated driving system to a driver indicating that the driver should promptly perform the dynamic driving task fallback.

"Society of Automotive Engineers International" and "SAE" mean an automotive and aerospace standard setting body that coordinates development of voluntary consensus standards.

"Testing" means the operation of an ADS-equipped vehicle on public roads by employees, contractors, or designees of a manufacturer or other entities for the purpose of assessing, demonstrating, and validating the automated driving system capabilities.

[Eff **JUL 31 2022** ] (Auth: SLH (2020), Act 21 §1)  
(Imp: SLH (2020), Act 21 §1)

**§19-150-2 Permit required.** An AV shall not be tested on any public highway or roadway in the state until the manufacturer or other entity has submitted and the Department has approved an application for and issued a permit to test autonomous vehicles.

[Eff **JUL 31 2022** ] (Auth: SLH (2020), Act 21 §1)  
(Imp: SLH (2020), Act 21 §1)

**§19-150-3 Permit application; Department response.** Manufacturer or other entity shall submit the application to the Department, which shall review and approve or disapprove the permit application within fifteen (15) business days.  
[Eff **JUL 3 1 2022** ] (Auth: SLH (2020), Act 21 §1)  
(Imp: SLH (2020), Act 21 §1)

**§19-150-4 Permit application requirements for manufacturers and other entities.** (a) Manufacturers and other entities involved in testing shall designate their employees, contractors, or other persons who are authorized to operate their AVs.

(b) Manufacturers and other entities shall provide all their employees, contractors, or other persons designated to operate their AVs the training and instruction related to, but not limited to, the operation, capabilities and limitations of the AV being tested.

(c) Manufacturers and other entities shall certify that, upon review of a driving history and background check, each driver is suitable to participate in the testing program.

(d) Manufacturers and other entities shall ensure that all drivers of their vehicles being tested are properly licensed to operate such vehicle.

(e) Manufacturers and other entities shall provide to the Department:

(1) A list of all drivers operating their vehicle(s); and

(2) A certification that such drivers have received the appropriate training and instruction relating to the operation, capabilities and limitations of the AVs being tested. [Eff **JUL 3 1 2022** ] (Auth: SLH (2020), Act 21 §1) (Imp: SLH (2020), Act 21 §1)

**§19-150-5 Driver requirements.** (a) All drivers shall be employees, contractors or other persons designated by the manufacturer or other entity to operate the vehicles being tested pursuant to this chapter.

(b) All drivers shall be required to receive and complete the training and instruction relating to the operation, capabilities and limitations of the vehicles being tested pursuant to this chapter by its manufacturer or other entity.

(c) All drivers shall be properly licensed to drive in the United States and to operate any vehicles being tested pursuant to this chapter.

(d) All drivers shall be subject to the requirements in section 19-150-4(c).

(e) All drivers shall be subject to the requirements in section 291E-11, Hawaii Revised Statutes. [Eff **JUL 31 2022** ] (Auth: SLH (2020), Act 21 §1) (Imp: SLH (2020), Act 21 §1)

**§19-150-6 Vehicle requirements and inspections.**

(a) All AVs in the testing program must be certified to be in compliance with all applicable local laws and regulations, including chapter 291, Hawaii Revised Statutes.

(b) All AVs in the testing program must be certified to be in compliance with all applicable federal laws and regulations, including the Federal Motor Vehicle Safety Standards (FMVSS), or be exempted by federal law.

(c) All AVs in the testing program shall be registered in the State of Hawaii.

(d) All AVs in the testing program shall maintain a current Hawaii Safety Check.

[Eff **JUL 31 2022** ] (Auth: SLH (2020), Act 21 §1) (Imp: SLH (2020), Act 21 §1)



**§19-150-7 Insurance.** Prior to commencement of testing, a permitted manufacturer or other entities must produce evidence of commercial automobile insurance as required by the Hawaii Revised Statutes Chapter 431, Article 10C. [Eff **JUL 31 2022** ] (Auth: SLH (2020), Act 21 §1) (Imp: SLH (2020), Act 21 §1)

**§19-150-8 Reporting.** (a) A permitted manufacturer or other entities shall submit a report to the Department on July 31 for the preceding period from January through June and on January 31 for the preceding period from July through December each year during the term of the permit. The report shall include total number of reportable crashes and descriptions of conditions thereof, total number of occurrences of unintended or unplanned disengagement of AV mode and descriptions of conditions thereof, and notification of any safety defects reported in accordance with Part 573, Title 49 of the Code of Federal Regulations.

(b) A permitted manufacturer or other entities shall provide immediate notice of reportable crashes by the quickest means of communication to the nearest police office pursuant to section 291C-16, Hawaii Revised Statutes. A permitted manufacturer or other entities shall notify the Department of a reportable crash resulting in the injury or death of any person within 48 hours. [Eff **JUL 31 2022** ] (Auth: SLH (2020), Act 21 §1) (Imp: SLH (2020), Act 21 §1)

**§19-150-9 Permit suspension.** (a) The Department may immediately suspend a permit for any of the following reasons:

- (1) The permitted manufacturer or other entities submitted incorrect or misleading information in its permit application;

- (2) The permitted manufacturer or other entities fail to report to the Department any change to the information or certifications required and provided in the permit application under §19-150-3 within ten business days of the date of the change; or
  - (3) The permitted manufacturer or other entities fail to notify the Department of a reportable crash within the time limits set forth in §19-150-8.
  - (4) The permitted manufacturer or other entities fail to comply with any of the provisions of this chapter related to the testing of autonomous vehicles.
  - (5) If the permitted manufacturer or other entities test any vehicle equipped with an SAE classification of vehicle automation level system that is not authorized to be tested by the permit;
  - (6) If the permitted manufacturer or other entities have misrepresented any information related to safety of the autonomous technology of its vehicles;
  - (7) If the permitted manufacturer's or other entities' autonomous vehicles are subject to an open National Highway Traffic Safety Administration recall related to the vehicle's autonomous technology;
  - (8) Based upon the performance of the AVs, including the reportable crash history of the AVs, the Department determines the permitted manufacturer's or other entities' vehicles are not safe for the public's operation; or
  - (9) The Department determines that the suspension of testing is required for public safety.
- (b) Upon suspension of a permit by the Department, a permitted manufacturer or other entities shall cease all further testing of affected autonomous vehicles with the affected autonomous technology

§19-20.10

feature enabled on public streets until the Department has verified that the permitted manufacturer or other entities have taken appropriate action to correct the deficiencies or complied with the National Highway Traffic Safety Administration recall that led to the suspension and the suspension has been lifted or withdrawn by the Department. [Eff **JUL 31 2022** ]  
(Auth: SLH (2020), Act 21 §1) (Imp: SLH (2020), Act 21 §1)

**§19-150-10 Severability.** If any section of this chapter is held invalid for any reason, the invalidity shall not affect the validity of the remaining sections of this chapter." [Eff **JUL 31 2022** ]  
(Auth: SLH (2020), Act 21 §1) (Imp: SLH (2020), Act 21 §1)

**§19-150-11 Reserved.**

**§19-150-12 Reserved.**

DEPARTMENT OF TRANSPORTATION

Chapter 19-150, Hawaii Administrative Rules, on the Summary Page dated April 5, 2022, was adopted on April 5, 2022, following a public hearing held on March 8, 2022, after public notice was given in the Honolulu Star-Advertiser, The Garden Island, The Maui News, Hawaii Tribune-Herald, and West Hawaii Today on February 6, 2022.

These amendments shall take effect ten days after filing with the Office of the Lieutenant Governor



JADE T. BUTAY  
Director of Transportation

APPROVED AS TO FORM:



Deputy Attorney General



DAVID Y. IGE  
GOVERNOR  
STATE OF HAWAII

Date: JUL 21 2022

Filed

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LIEUTENANT GOVERNOR'S  
OFFICE

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