

General Summary

1. Q: What is Act 130?

A: Act 130 refers to a piece of legislation enacted in Pennsylvania that addresses various aspects related to Highly Automated Vehicles (HAVs).

2. Q: When do the different sections of Act 130 take effect?

A: The effective dates for the provisions of Act 130 are as follows:

- (1) Section 11 of the Act, which outlines the effective dates, takes effect immediately.
- (2) The amendment of 75 Pa.C.S. § 1106(b) (Section 2) will take effect in one year from the date of approval, specifically on November 3, 2023.
- (3) The addition of 75 Pa.C.S. § 3723 (Section 3.1) is set to take effect in 60 days from the approval date, which is January 2, 2023.
- (4) The addition of 75 Pa.C.S. § 8510.2 (Section 9) takes effect immediately upon approval.
- (5) The remainder of the Act will take effect in 240 days from the date of approval, i.e., July 1, 2023.

3. Q: Where is Act 130 available?

A: Act 130 is available online and can be freely accessed at:

<https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2022&sessInd=0&act=130>

4. Q: What is Act 130 about?

A: Act 130 includes significant amendments to the State's vehicle code (Title 75) and covers definitions, rules, equipment standards, inspections, and other regulations concerning HAVs. This Act provides a framework for how these vehicles should operate, focusing on areas like safety, licensing, insurance, and operations on public roads. Additionally, Act 130 introduces new offenses, such as the theft of catalytic converters, and establishes guidelines for the reporting and handling of vehicular crashes. It also outlines the responsibilities of different government bodies in regulating and overseeing the use of HAVs in Pennsylvania. Act 130 includes a total of 11 sections.

Section 1: Adding definitions in section 102 of Title 75

5. Q: What is an “Automated Driving System (ADS)” and how does it function?

A: An ADS consists of advanced hardware and software capable of handling the entire driving task independently. It controls functions such as steering, braking, accelerating, and monitoring the vehicle’s surroundings and can respond to road conditions.

In terms of driving automation levels as defined by the Society of Automotive Engineers (SAE) and adopted by the US Department of Transportation, as shown in **Figure 1**, ADS varies in complexity and capability:

1. **Level 0 (No Driving Automation):** The driver performs all driving tasks.
2. **Level 1 (Driver Assistance):** The vehicle includes systems like cruise control for acceleration or automated steering, but not both simultaneously.

3. **Level 2 (Partial Driving Automation):** The vehicle can automate both steering and acceleration tasks yet requires the driver's full engagement with the driving process and environment monitoring.
4. **Level 3 (Conditional Driving Automation):** The ADS executes all driving functions under certain conditions; however, the driver must be ready to intervene if called upon.
5. **Level 4 (High Driving Automation):** The vehicle can perform all driving operations under specific conditions without any human intervention, but there may be some operational constraints.
6. **Level 5 (Full Driving Automation):** The vehicle is fully automated, capable of performing all driving operations under all conditions without any human input.

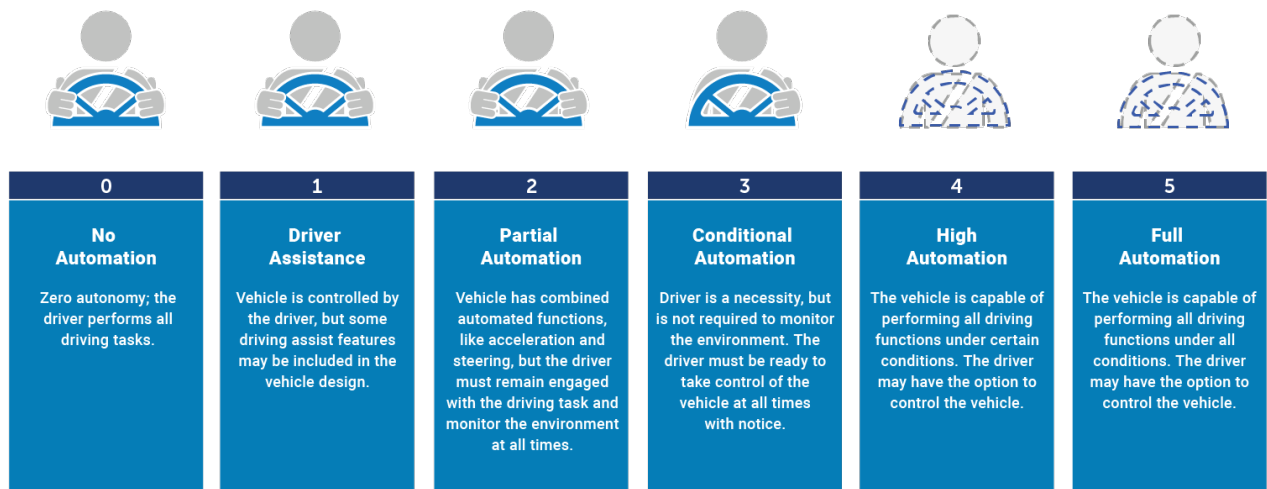


Figure 1 Levels of automated driving

At Levels 3 to 5, vehicles are typically referred to as HAV. Vehicles designed to operate exclusively on Level 4 or Level 5 automation are known as “ADS-dedicated vehicles.”

6. Q: What automation vehicles are HAVs?

A: HAVs refer to the vehicles with automation level 3 to 5.

7. Q: Can an individual obtain an HAVs certificate?

A: According to Act 130, individuals are not recognized as certificate holders for HAVs, and new legislation will be needed to authorize the personal ownership of an HAV at Levels 3 to 5. In contrast, Act 130 only permits eligible entities to hold such certificates include firms, partnerships, associations, corporations, or educational or research institutions.

8. Q: How to become an HAV driver?

A: To become a driver of an HAV under Act 130, the following criteria must be met:

1. Certificate Holder Affiliation: The individual must be an authorized employee or contractor of a certificate holder.
2. Dynamic Driving Task (DDT): The driver is responsible for managing all or part of the dynamic driving task, even if the vehicle is largely automated.
3. Monitoring Capability: The driver must be capable of monitoring and controlling the HAV either on board the vehicle or remotely from a location within the United States.

9. Q: What is a "platoon"? What kind of vehicles can form a platoon? Can school vehicles form a platoon?

A: A platoon refers to a group of vehicles, specifically buses, military vehicles, or motor carrier vehicles, traveling closely together at electronically coordinated speeds, which allows them to maintain shorter following distances than typically advisable. Platoon configurations do not include school buses or school vehicles.

10. Q: Does a platoon have a maximum vehicle limit?

A: Yes, a maximum of three vehicles shall be in a platoon.

11. Must each vehicle in the platoon include a driver?

A: Yes, a driver shall be present in each vehicle of a platoon, except as provided in the following: Consistent with applicable federal or state laws and regulations, the lead vehicle may operate with a driver, and one non-lead vehicle may operate with an ADS engaged, with or without a driver.

12. Q: Should vehicles in a platoon travel only on limited-access highways or interstate highways?

A: Yes, vehicles in a platoon shall travel only on limited access highways or interstate highways, unless otherwise permitted by the Pennsylvania Department of Transportation (PennDOT or department) or the Pennsylvania Turnpike Commission, as applicable.

13. Q: Can "Personal Delivery Devices" (PDDs) with an ADS be called HAVs?

A: No, PDDs equipped with ADS are not classified as HAVs under Act 130. While both utilize ADS technology, HAVs are specifically defined as motor vehicles designed for the transportation of persons or goods, whereas PDDs are primarily used for transporting goods on sidewalks and pathways and are not designed to carry passengers. Act 130 explicitly excludes PDDs, which are considered as pedestrians under Pennsylvania law, from being recognized as HAVs.

Section 2: Amending the content and effect of certificate in section 1106 (b) (10) and (11) of Title 75

14. Q: I want to transfer my vehicle title certificate, but I don't want to disclose that the car is an HAV. Is that okay? What will be the consequences?

A: No, it is not permissible to transfer a vehicle title without disclosing that the vehicle is an HAV. According to Act 130, any transfer of a vehicle title must include clear notification if the vehicle

has specific conditions or uses, such as being an HAV. Failing to disclose this information violates the Act, and any person found guilty of such nondisclosure commits a summary offense. Upon conviction, they are subject to a fine of \$200.

Section 4: Amending Sections 3742, 3743, 3744, 3745, 3746, 4103, 4702 and 4921 of Title 75

15. Q: What should be done when an HAV is involved in a crash?

A: When an HAV is involved in a crash, the responsible party—either a person on behalf of the certificate holder for the HAV or an operator of the HAV itself—must immediately contact a duly authorized police department to report the crash. They must also provide the registration details and proof of financial responsibility for the HAV to the police department and PennDOT.

16. Q: When an HAV equipped with a rear visibility system, which functions as a traditional mirror, is operating on highways of this Commonwealth, should the rear visibility system be included in the overall width measurement of the vehicle for compliance with state vehicle dimension regulations?

A: No, according to Section 4921(e.3) of Act 130, a rear visibility system that functions as a traditional mirror in an HAV operating on highways of this Commonwealth shall be considered equivalent to a mirror but shall be excluded from the measurement of the width of the vehicle. This exclusion is consistent with applicable Federal and State laws.

Section 5: Amending Section 6109 (a) (13) of Title 75 by specific powers of department and local authorities

17. Q: Does Act 130 affect the reasonable exercise of police powers? Are local authorities allowed to ban or regulate the use of certain classes or types of traffic on particular streets, specifically targeting or discriminating against HAVs? Do HAVs have equal rights with other regular driver-driven vehicles?

A: According to Act 130, local authorities maintain the power to prohibit or regulate the use of specific streets by any class or kind of traffic, ensuring the reasonable exercise of police powers. However, these regulations must not specifically target or discriminate against HAVs, ensuring HAVs are treated equally to traditional, driver-driven vehicles on public roads.

Section 6: Amending Section 8501 of Title 75 by adding definitions

18. Q: What is a highly automated work zone vehicle?

A: A highly automated work zone vehicle is a motor vehicle that is utilized within an active work zone, managed by either PennDOT or the Pennsylvania Turnpike Commission. It is specifically used for operations related to that active work zone and is characterized by one of the following features:

- (1) Equipped with an automated driving system that enables it to operate in automated mode.
- (2) Connected via wireless communication or other technologies to another vehicle, which allows for coordinated or controlled movement within the work zone.

19. Q: What is “Dynamic Driving Task (DDT) fallback”?

A: DDT fallback refers to the actions taken by the ADS of an HAV when there is a system failure related to the DDT or when the vehicle exits its operational design domain. The ADS or the driver, if present, must either continue performing the DDT or transition the vehicle to a minimal-risk condition to ensure safety.

20. Q: Can the DDT select a destination or a waypoint? What can DDT accomplish? Could you give us an example?

A: No, the DDT does not include strategic functions such as trip scheduling or the selection of destinations and waypoints. It focuses on immediate operational tasks required for driving. These include, but are not limited to:

- (1) Lateral vehicle motion control via steering.
- (2) Longitudinal motion control via acceleration and deceleration.
- (3) Monitoring the driving environment through the detection, recognition, classification, and preparation to respond to objects and events.
- (4) Execution of responses to objects and events.
- (5) Maneuver planning.
- (6) Enhancing vehicle conspicuity through lighting, signaling, and gesturing.
- (7) These functions are integral to managing the vehicle's movement and ensuring safety but do not encompass navigation to chosen destinations or waypoints.

21. Q: How do HAVs reduce the risk of collisions? What does “minimal risk condition” mean?

A: HAVs incorporate a ‘Minimal Risk Condition’ to significantly reduce the risk of collisions. This feature is a safety protocol where the HAV or its ADS brings the vehicle to a stable, stopped condition if continuing the trip becomes unsafe or impractical. This condition is activated following a ‘DDT fallback’ scenario, where the vehicle must manage a failure or operational issue that threatens the continuation of normal driving operations.

Section 7: Amending Section 8502 of Title 75 by the definition of HAV

22. Q: Which organization has the authority to grant or deploy highly automated work zone vehicles? Will HAVs require driver supervision? In what areas might their work zones be involved?

A: PennDOT and the Pennsylvania Turnpike Commission have the authority to authorize locations on their roadways for the deployment of highly automated work zone vehicles in Pennsylvania. These organizations decide on the specific locations where these vehicles can be used on a periodic basis. Depending on the specific operational requirements and safety considerations, a driver may be required in a highly automated work zone vehicle, especially when used in active work zones. The deployment areas typically involve major roadways or areas undergoing extensive maintenance or construction work.

Section 8: Amending Section 8503 (b) and (h) of Title 75 by adding a subsection about Highly Automated Vehicle Advisory Committee

23. Q: Could Tom, who works as a regular car salesman, and his friend Jack, a teacher, be eligible to serve on the Highly Automated Vehicle Advisory Committee?

A: Tom and Jack would only be eligible if they represent one of the specific groups mentioned in the committee structure. These include members from educational or research institutions, technology companies, vehicle manufacturers, and other specified stakeholders in highly automated vehicle development. Typically, the roles of a car salesman and a teacher do not align with the specialized positions defined for committee membership unless they have additional relevant qualifications or representational roles.

The Advisory Committee shall consist of the following members:

- (1) The secretary, who shall serve as the chairperson of the advisory committee.
- (2) The Secretary of Community and Economic Development.
- (3) The Insurance Commissioner.
- (4) The Secretary of Labor and Industry.
- (5) The Commissioner of Pennsylvania State Police.
- (6) The Chief Executive Officer of the Pennsylvania Turnpike Commission.
 - (6.1) The chairperson of the Pennsylvania Public Utility Commission.
- (7) The chairperson and minority chairperson of the Transportation Committee of the Senate.
- (8) The chairperson and minority chairperson of the Transportation Committee of the House of Representatives.
- (9) The following members to be appointed by the Governor:
 - i. One member representing a transit authority located in this Commonwealth.
 - ii. One member representing [a transportation,] an educational or research institution located in this Commonwealth engaged in developing highly automated vehicles.
 - iii. One member representing a technology company engaged in developing highly automated vehicles.
 - iv. One member representing a vehicle manufacturer engaged in developing highly automated vehicles.
 - v. One member representing bicyclists, pedestrians, or motorcyclists in this Commonwealth.
 - vi. One member representing drivers or consumers in this Commonwealth.
 - vii. One member representing a municipality of this Commonwealth.
 - viii. One member representing platoon operations.
 - ix. One member representing an insurance company, association or exchange who is authorized to transact the business of motor vehicle insurance in this Commonwealth.
 - x. Two members representing different labor organizations in this Commonwealth.
 - xi. One member representing Pennsylvanians with disabilities.
 - xii. One member representing a company engaged in the development of highly automated motor carrier vehicles.

24. Q: The HAV Advisory Committee is required to submit a special annual report that evaluates

the impact of HAVs on the state. What will be included in this report?

A: The annual report submitted by the HAV Advisory Committee under Act 130 should include several critical evaluations to assess the impact of HAVs on the state:

- (1) Benefits and implications for the workforce.
- (2) Economic benefits and implications.
- (3) Improvements to accessibility and mobility for persons with disabilities.
- (4) Improvements to mobility options for the general public.
- (5) Suggested changes to the laws of this Commonwealth to better integrate and regulate HAVs.

25. Q: Does the HAV Advisory Committee have the power to punish HAV drivers?

A: No, the Highly Automated Vehicle Advisory Committee does not have the authority to punish HAV drivers directly. Their powers are limited to evaluating crashes and other aspects related to the operation of HAVs. The committee can provide recommendations and feedback based on their evaluations, but any legal actions or penalties would fall under the jurisdiction of the appropriate legal and regulatory bodies at the federal government or Commonwealth agency, not the advisory committee itself.

Section 9: Amending Title 75 by adding Section 8504, 8505, 8506, 8507, 8508, 8509, 8510

26. Q: Can an HAV from California enter Pennsylvania without a certificate if it intends to travel through Pennsylvania?

A: An HAV must have a valid certificate to operate in Pennsylvania, regardless of its state of origin. If an operator holds an HAV certificate in California, it does not automatically permit operation in Pennsylvania unless there is an existing interstate agreement or recognition of out-of-state certificates specifically allowing such an operation. As of current regulations under Act 130, each state maintains its certification process, and there's no automatic reciprocity for HAV operation across state lines without specific authorization.

27. Q: Tom is a driver for the public transit agency (such as SEPTA or CATA), which has a certificate for operating HAVs. Can Tom legally drive an HAV on a highway?

A: Yes, Tom can legally drive an HAV on a highway as long as he is properly licensed under the Vehicle Code and authorized by the public transit agency (such as SEPTA or CATA) to do so. The transit agency, being a certificate holder for HAVs, must designate its drivers who are permitted to operate these vehicles. If Tom is authorized by the transit agency, he can operate the HAV on a highway; if not, he cannot drive the HAV without proper authorization. The public transit agency will also be responsible for establishing quality standards for Tom to ensure he's properly trained to operate the HAV.

28. Q: Which organization has the sole regulatory authority over HAVs on highways in

Pennsylvania?

A: PennDOT has the sole regulatory authority over HAVs on highways within this Commonwealth. This authority is consistent with the provisions of Act 130 and applicable federal laws and regulations.

29. Q: Can someone from the HAV Advisory Committee prohibit the use of an HAV on a highway?

A: No, only the secretary of PennDOT has the right to prohibit the use of an HAV on a highway. The premise is that an HAV operating on a highway may constitute a hazard. The Advisory Committee itself does not have the authority to prohibit the use of HAVs on highways.

30. Q: Suppose there is a serious crash involving an HAV on a highway. As the holder of the HAV certificate, Jill did not report the incident to the department until 24 hours later. Is this, okay?

A: No, reporting the incident 24 hours later does not comply with the requirements set forth in Act 130. According to the Act, PennDOT establishes the timeframe for reporting crashes involving an HAV that resulted in bodily injury, serious bodily injury, death, or significant property damage. The timeframe established by the department is no less than six hours from the occurrence of the crash. Therefore, Jill should have reported the crash within the timeframe specified by PennDOT, which would be no less than six hours after the incident.

31. Q: What information of the certificate holders will be listed on PennDOT's publicly accessible Internet website?

A: According to Act 130, PennDOT's website should provide comprehensive information about HAV operations, not just the list of certificate holders. This includes:

1. Location information where the HAV is expected to operate.
2. The name and contact information for accident claims, including the registered agent for service of process.

[https://www.penndot.pa.gov/ProjectAndPrograms/ResearchandTesting/Autonomous%20 Vehicles/Pages/Automated%20Vehicle.aspx](https://www.penndot.pa.gov/ProjectAndPrograms/ResearchandTesting/Autonomous%20Vehicles/Pages/Automated%20Vehicle.aspx)

32. Q: Jane was penalized for a violation while driving an HAV a year ago. Can she now control all or part of the DDT?

A: Yes, if the penalty specified under Act 130 or related regulations includes a one-year ban from driving an HAV, and this period has elapsed, Jane would no longer be subject to this restriction. After the completion of the one-year penalty, restrictions on controlling the DDT would no longer be imposed, allowing her to resume driving under the terms of his certification.

33. Q: A public transit operation wants to conduct self-certification for HAVs, but the form they submit does not include registered agents for legal process services related to accident claims. Will this self-certification form be approved?

A: No, the self-certification form for HAVs must include specific information to be approved under Act 130. The required contents of the form include the name, address, and contact information of the applicant. Crucially, it must also include details such as a principal point-of-

contact for the applicant's accident claims and a registered agent for service of process. If these elements are missing, the form will not meet the statutory requirements and therefore will not be approved.

34. Q: How can we ensure the safety of the HAV driver and the operation of the HAV on a highway?

A: To ensure the safety of the HAV driver and the operation of the HAV on a highway, the ADS must be properly engaged. If there is a failure in the ADS that renders it unable to perform the entire DDT within the intended Operational Design Domain (ODD), the vehicle or the driver must transition the HAV to a minimal risk condition. This involves taking necessary actions to reduce the risk of crashes, such as safely pulling over or stopping the vehicle.

35. Q: Is there a reasonable expectation for certificate holders to notify local governments prior to commencing operation of the HAV within the municipal boundaries?

A: Yes, in order to maintain compliance under Act 130, the certificate holder must notify in writing the governing body of the municipality of the intent to operate an HAV within the municipal boundary at least 10 days prior to commencing operations.

36. Q: If there is a motor carrier HAV with a commercial driving license but without an HAV driver, is the vehicle subject to federal and state laws or regulations? Are they subject to the same HAV regulations as vehicles with a driver?

A: Yes, motor carrier HAVs without drivers are subject to both federal and state laws, similar to those with drivers. However, the specific regulations applied may vary, particularly in areas that involve direct human oversight. Federal and state laws ensure that all HAVs meet stringent safety and operational standards, whether they are operated with the ADS engaged or with a human driver. Nevertheless, certain aspects of the regulations that specifically address the human driver's responsibilities might be adjusted or replaced by requirements suited to automated operations.

37. Q: A transit operator owns two HAVs; the company has decided to use one vehicle for public welfare activities, such as serving as a campus bus, and to use the other vehicle to transport hazardous materials to generate revenue. Is this allowed?

A: Using an HAV for public welfare activities like serving as a campus bus is permissible under Act 130, as long as it does not involve operating as a school bus or school vehicle. However, using an HAV to transport hazardous materials is generally restricted under Act 130. The law states that HAVs may not carry hazardous materials that require placarding according to federal regulations unless the certificate holder receives specific certification from the department following the promulgation of regulations. Therefore, the use of an HAV to transport hazardous materials, as described, would not be allowed unless these conditions are met.

38. Q: When an HAV is involved in a traffic crash, should it be subject to the local law or state law? How should decisions be made when there is a discrepancy between local and state laws?

A: In the event of a traffic crash involving an HAV, both local and state laws may apply. Local authorities have the right to exercise their police powers reasonably over HAVs, as long as these powers do not specifically discriminate against HAVs. However, where there is a discrepancy between local and state laws concerning the operation of HAVs as a type or class of vehicle, state laws will generally take precedence. This is to ensure uniformity in the regulation of HAV operations across the state. Therefore, in cases where local ordinances conflict with state regulations regarding HAVs, the state regulations should be followed.

39. Q: How can a driverless HAV satisfy a police inspection by a police officer?

A: Under Act 130, if a driverless HAV is stopped for a police inspection and there is no human driver on board, the vehicle is required to provide access to its vehicle registration card. This card must be either physically present within the vehicle or electronically accessible to the police officer. This provision ensures that even without a driver, the vehicle can still comply with typical requirements during traffic stops, such as showing a driver's license and registration card to an officer.

40. Q: How can we ensure that the public and stakeholders are able to adequately express their comments and concerns before regulations and guidelines for HAVs are developed?

A: To ensure public and stakeholder engagement in the development of regulations and guidelines for HAVs, the department responsible for these regulations conducts a thorough consultation process. This includes consulting with the advisory committee in a public meeting before promulgating any regulations or publishing guidelines under this subchapter. Additionally, there is a mandatory 10-day public comment period before any temporary regulations or guidelines are finalized. For the final regulations, the department adheres to the public comment period stipulated under the Regulatory Review Act, allowing ample opportunity for all concerned parties to submit their inputs.

41. Q: Would the department, on behalf of Pennsylvania, establish an interstate agreement with another State to allow its HAVs and platoons to operate in Pennsylvania? Once established, would it take effect immediately?

A: The **department** can negotiate an interstate agreement to allow the operation of another State's HAVs and platoons in Pennsylvania. Such an agreement would become effective only after it receives approval from the Governor of Pennsylvania. Additionally, the agreement must comply with all relevant federal laws and regulations. It is also required that each HAV operated under this agreement within Pennsylvania be adequately insured or self-insured in accordance with the minimum amounts stipulated by Act 130. The immediate effect of the agreement upon governor's approval ensures prompt enactment, provided that all legal and regulatory requirements are satisfied.

42. Q: What are the penalties for non-compliance with the regulations governing highly automated vehicles?

A: Under Act 130, any person who operates an HAV on a highway in a manner that is not in accordance with the set regulations is subject to legal penalties. Specifically, if convicted for such non-compliance, the individual is liable to pay a fine of not less than \$1,000. This stringent penalty

underscores the importance of adhering to regulatory standards to ensure the safety and efficiency of HAV operations on public roads.

Q: Who is responsible for an HAV that violates the “rules of the road”?

- A. Act 130 places the responsibility on the certificate holder who shall be considered the driver for the purpose of assessing compliance under Title 75.

Q: What are the requirements if a certificate holder intends to operate as a Transportation Network Company (TNC)?

- A. The certificate holder and the HAV will be subject to the provisions of 66 Pa.C.S. (relating to public utilities). A TNC licensed by the Public Utility Commission may utilize a certificate holder’s HAV to provide transportation network services under 66 Pa.C.S. Ch. 26 (relating to transportation network service).

Section 10: Amending Chapter 85 of Title 75 by adding a subchapter D named other automated vehicles

43. Q: What kind of vehicle can be the leader of a platoon on Pennsylvania? And can one nonlead vehicle operate without a driver via an ADS?

A: According to Act 130, the lead vehicle in a platoon must be operated with a driver. However, one or more nonlead vehicles in the platoon may operate with an ADS engaged, and these vehicles may operate either with or without a driver, consistent with applicable federal and state laws and regulations. This allows for flexibility in the configuration of platoons, enhancing the potential benefits of automated driving technology while ensuring safety and regulatory compliance.

44. Q: Where can I find out more about the policies around platooning operations?

A: The [vehicle platooning policy](#) could be found here:

- (1) [https://www.penndot.pa.gov/ProjectAndPrograms/ResearchandTesting/Autonomous%20 Vehicles/Documents/Vehicle%20Platooning%20Policy.pdf](https://www.penndot.pa.gov/ProjectAndPrograms/ResearchandTesting/Autonomous%20Vehicles/Documents/Vehicle%20Platooning%20Policy.pdf)

Section 11: Amended the effective time of this Act 130