Pennsylvania Automated Vehicle Incident Response Plan

Lifesavers National Conference
March 15, 2022
Automated Vehicle Incident Response Plan

Agenda

- Overview of the AVIRP
- Communication Flow Chart
- Pennsylvania AV Incident Response Field Guide
Automated Vehicle Incident Response Plan

Timeline Overview

2019
- Winter: PennTIME AV Leadership Group and OTT identified need for AV Response Plan
- Summer: AV Framework Draft

2020
- Spring: Communications Plan Draft
- Winter: AV Incident Response Field Guide Development

2021
- Summer: AVIRP Comments Finalized and AV Incident Response Field Guide Beta Testing
- Fall: AVIRP Clearance Transmittal and AV Incident Response Field Guide testing finalized

2022
- Winter: AVIRP document under Legislative review for Publication
- Spring/Summer: Incident Management Outreach and Training
Automated Vehicle Incident Response Plan

Overview

SAE J3016™ LEVELS OF DRIVING AUTOMATION™

What does the human in the driver’s seat have to do?

- SAE LEVEL 0**: You are driving whenever these driver support features are engaged – even if your feet are off the pedals and you are not steering.
- SAE LEVEL 1**: You must constantly supervise these support features; you must steer, brake or accelerate as needed to maintain safety.
- SAE LEVEL 2**: When the feature requests, you must drive.
- SAE LEVEL 3**: These automated driving features will not require you to take over driving.
- SAE LEVEL 4**: These automated driving features will not require you to take over driving.
- SAE LEVEL 5**: These automated driving features can drive the vehicle under all conditions.

What do these features do?

- Example Features:
  - Automatic emergency braking
  - Blind spot warning
  - Lane departure warning
  - Lane centering OR adaptive cruise control
  - Lane centering AND adaptive cruise control at the same time
  - Traffic jam chauffeur
  - Local driverless taxi
  - Pedal exit
  - Pedals/steering wheel may or may not be installed
  - Same as level 4, but feature can drive everywhere in all conditions

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Overview

• AVIRP Goals
  • Ensure PennDOT and applicable stakeholders are aware of all reportable incidents involving an AV in Pennsylvania.
  • Ensure communications are maintained to assist in appropriate response and interagency coordination efforts.
  • Ensure all responders are equipped with appropriate incident response considerations to enhance safety by providing a mobile application to access while on-scene of an incident.

• Elements
  • Communication Flow Chart
  • Pennsylvania AV Incident Response Field Guide
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Communication Flow Chart

Outlines communication avenues from AV Incident Detection to Post-Incident Activities

Built-in notifications for impacted stakeholders
Pennsylvania AV Incident Response Field Guide

• Field Guide Goals
  • Ensure all responders are aware of appropriate incident response considerations to ensure they safely respond to an AV/PDD incident.
    • Law Enforcement
    • Fire
    • Towers
  • Ensure communication is maintained to assist with response and interagency coordination efforts.
  • Ensure PennDOT is aware of all reportable AV/PDD incidents.
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Field Guide Components

Backend Database

Mobile App
Automated Vehicle Incident Response Plan

**Sign into business partner account**

**Enter license plate or PDD unique ID**

**Access relevant information**

***PennDOT alerted the app is being used***

**Access Response Info**

**Vehicle/Tester Information**

**1-click Incident Reporting**
Pennsylvania AV Incident Response Field Guide

- Incident Response Information
  - How to Secure the Vehicle
  - Location of Documentation
  - Extrication Considerations
  - Towing Considerations
  - Firefighting Considerations
  - Post-Incident Considerations
Thank You!

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