

1 State of Arkansas
2 92nd General Assembly
3 Regular Session, 2019
4

As Engrossed: H3/27/19

A Bill

HOUSE BILL 1822

5 By: Representatives Christiansen, *Breaux, Cavanaugh, Dalby, A. Davis, D. Douglas, Eaves, K. Ferguson,*
6 *Fielding, M. Gray, Hillman, M. Hodges, Rye, Scott, Sorvillo*
7 By: Senators *J. Dismang, K. Hammer, B. Sample*
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For An Act To Be Entitled

9
10 AN ACT CONCERNING THE OPERATION OF AUTONOMOUS
11 *VEHICLES AT RAILROAD CROSSINGS; TO DECLARE AN*
12 *EMERGENCY; AND FOR OTHER PURPOSES.*
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Subtitle

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16 CONCERNING THE OPERATION OF AUTONOMOUS
17 *VEHICLES AT RAILROAD CROSSINGS; AND TO*
18 *DECLARE AN EMERGENCY.*
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21 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:
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23 SECTION 1. Arkansas Code Title 27, Chapter 51, Subchapter 14, is
24 amended to add an additional section to read as follows:

25 27-51-1410. Autonomous vehicle operation at railroad crossing.

26 (a) As used in this section:

27 (1) "Automated driving system" means the hardware and software
28 that are collectively capable of performing the entire dynamic driving task
29 on a sustained basis, regardless of whether the automated driving system is
30 limited to a specific operational design domain;

31 (2) "Autonomous vehicle" means a vehicle equipped with an
32 automated driving system that can drive the vehicle for any duration of time
33 without the active physical control or monitoring of a human operator;

34 (3)(A) "Dynamic driving task" means the real-time operational
35 and tactical functions required to operate a vehicle in on-road traffic,
36 including without limitation the operational functions of:



1 (i) Lateral vehicle motion control via steering;
2 (ii) Longitudinal motion control via acceleration
3 and deceleration;
4 (iii) Monitoring of the driving environment using
5 object and event detection, recognition, classification, and response
6 preparation;
7 (iv) Object and event response execution;
8 (v) Maneuver planning; and
9 (vi) Lighting and signaling operation designed to
10 enhance conspicuity of the vehicle.

11 (B) "Dynamic driving task" does not include the strategic
12 functions of:

13 (i) Trip scheduling; or
14 (ii) Selection of destinations and waypoints; and

15 (4) "Operational design domain" means a description of the
16 specific operating domain in which an automated driving system is designed to
17 properly operate, including without limitation:

18 (A) Roadway types;
19 (B) Speed range;
20 (C) Environmental conditions; and
21 (D) Other domain constraints.

22 (b) An autonomous vehicle operated in the state shall have an
23 operational design domain that is designed to safely negotiate railroad
24 crossings in compliance with all applicable state and federal law and
25 regulations concerning railroad crossings when the automated driving system
26 is engaged.

27 (c) An autonomous vehicle operated without a driver shall have a
28 dynamic driving task that is designed to safely negotiate railroad crossings
29 when the automated driving system is engaged.

30 (d) The Arkansas Department of Transportation shall consult with
31 railroad companies in this state when considering the authorization for the
32 operation of autonomous vehicles on public streets, roads, and highways that
33 have railroad crossings.

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35 SECTION 2. EMERGENCY CLAUSE. It is found and determined by the
36 General Assembly of the State of Arkansas that autonomous vehicles will be

1 operating on public streets, roads, and highways before July, 1, 2019; that
2 there exists a potential issue with the automated driving system of
3 autonomous vehicles in determining the appropriate dynamic driving task when
4 approaching a railroad crossing; that railroad companies and the Arkansas
5 Department of Transportation need to be aware of this issue and work together
6 to resolve this potential issue for the safety of railroad and motor vehicle
7 traffic. Therefore, an emergency is declared to exist, and this act being
8 immediately necessary for the preservation of the public peace, health, and
9 safety shall become effective on:

10 (1) The date of its approval by the Governor;

11 (2) If the bill is neither approved nor vetoed by the Governor,
12 the expiration of the period of time during which the Governor may veto the
13 bill; or

14 (3) If the bill is vetoed by the Governor and the veto is
15 overridden, the date the last house overrides the veto.

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19 /s/Christiansen
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