INFORMATIONAL HEARING
Overview of the Department of Motor Vehicle's Autonomous Vehicle Regulations

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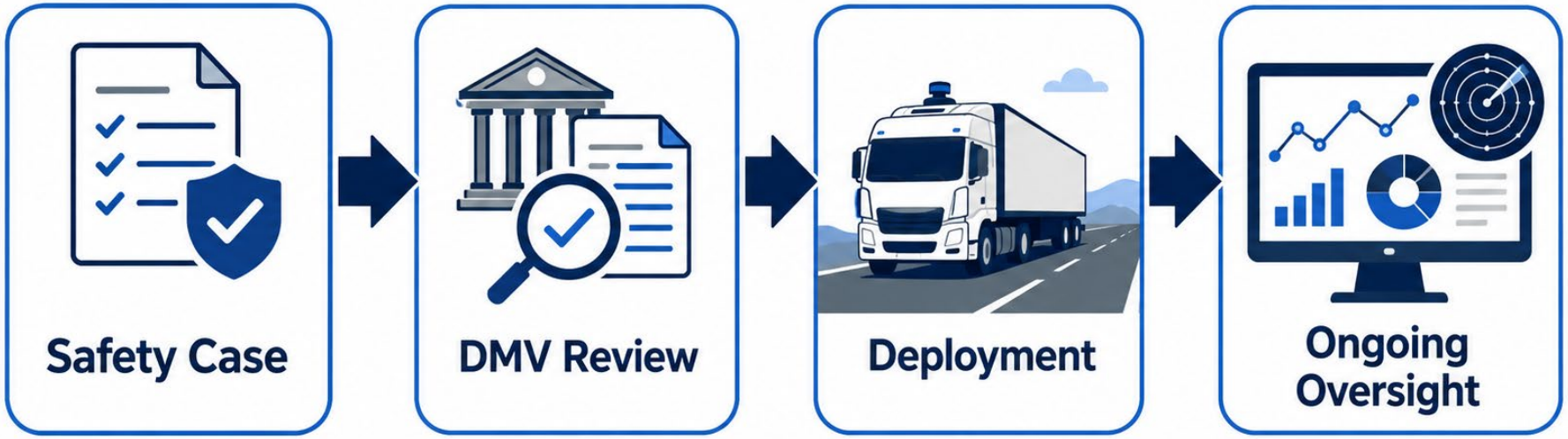
UC ITS drives innovation and shapes transportation in California and beyond through leading-edge research and active collaboration with policymakers and practitioners.

Why Heavy-Duty AVs Matter?

- Freight movement is essential to California's economy
  - …including ports, logistics, agriculture, manufacturing, and interstate commerce
- Large trucks represent a small fraction of registered vehicles but are involved in a meaningful share of fatal roadway crashes nationally.
  - Greater weight + highway speeds + longer stopping distances => greater consequences
- Improving freight efficiency & safety is crucial public policy objective.

What the new regulations accomplish

For the 1st time, California has a pathway for carefully regulated deployment of autonomous heavy-duty commercial vehicles:



Key features:

- Safety case review
- Operational Design Domain (ODD) restrictions
- Permit requirements
- Ongoing reporting requirements
- Enforcement authorities

The real test of a regulatory framework is not whether it allows or prevents deployment. It is whether it generates the evidence needed to advance California's policy goals.

Shift Toward More Informative Safety Metrics

Before…

- Disengagements
- Crashes
- Vehicles miles travelled

After

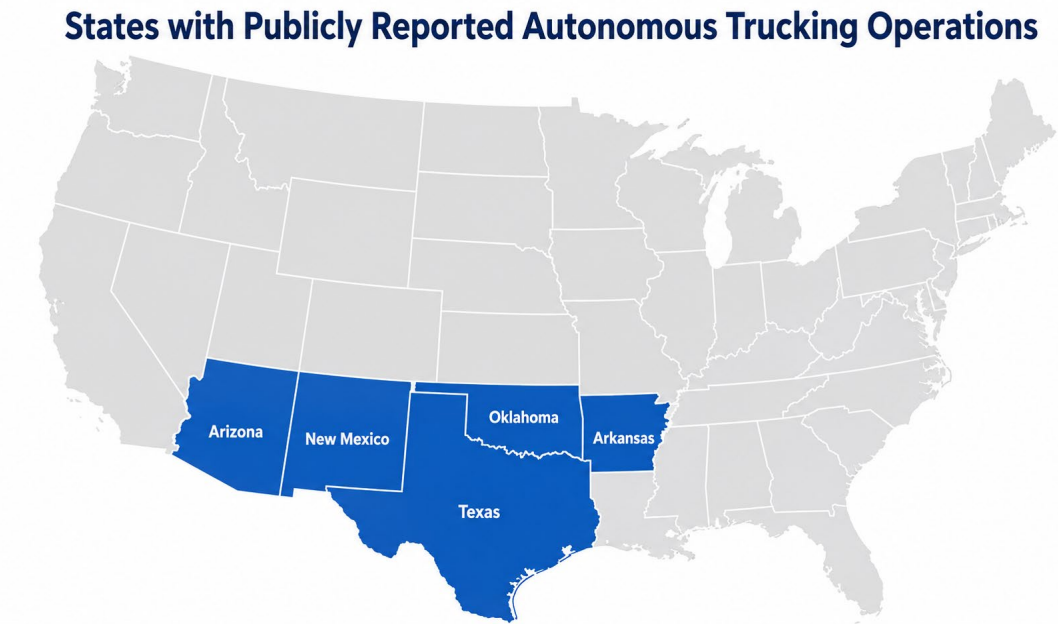
- Dynamic-driving-task failures
- Vehicle immobilizations
- Braking events
- Crashes
- Vehicles miles travelled

Context for heavy-duty AVs?

- Immobilization on highway travel lane can be very dangerous
- Heavy-duty AVs decelerate much slower
- Accumulate VMT much faster. Cannot compare per VMT stats with robotaxis
- Crashes are even MORE rare, yet more consequential
- Need for “leading” not “lagging” indicators

Learning from other states

- Texas – strongest example
- Arizona
- New Mexico
- Arkansas
- Oklahoma



Autonomy level and operating domain vary by company and route

California context is different – dense urban freight corridors, major ports, complex local road interfaces, all types of weather, interaction with labor and local governments

Other states are generating operational experience;

California is generating regulatory experience.

Questions California should continue to evaluate

1. Safety: Are autonomous trucks improving safety performance?

2. Data: Are the reporting requirements producing meaningful insights?

3. Scalability: When and under what conditions should operational restrictions evolve?

4. Emissions: Can heavy-duty AVs accelerate heavy-duty ZEVs?

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