



July 19, 2021

Clerk's Office
California Air Resources Board
1001 I Street
Sacramento, CA 95814
Subject: Comments to obd2021

Re: Notice of Public Hearing to Consider Proposed Revisions to the On-Board Diagnostic System Requirements and Associated Enforcement Provisions for Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles and Engines, and Heavy-Duty Engines

Allison Transmission, Inc. ("Allison") is pleased to comment on the California Air Resources Board's ("CARB's") proposed amendments to the On-Board Diagnostic System Requirements and Associated Enforcement Provisions for Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles and Engines, and Heavy-Duty Engines.

Allison is the world's largest manufacturer of fully automatic transmissions for medium- and heavy-duty commercial vehicles and is a leader in hybrid propulsion systems for city buses. Allison's AXE Electric Axle Series™ offers a "bolt-in" solution for current vehicle frames, suspensions and wheel ends that features fully integrated electric motors and a multi-speed gearbox. With a market presence in more than 80 countries, Allison's products are specified by over 250 of the world's leading vehicle manufacturers and are used in a variety of applications including refuse, construction, fire, pick-up and delivery, distribution, bus, motorhomes, defense and energy. Allison is head-quartered in Indianapolis, Indiana and has over 1,000 dealer and distributor locations in the United States.

As noted in the Initial Statement of Reasons dated June 1, 2021, CARB Staff is proposing new language in 1971.1 (d)(5.7) for the introduction of supplemental monitor activity data (SMAD).

The new language states:

(5.7) Supplemental monitor activity data: For engines using SAE J1979-2, the OBD system shall track and report the following data in accordance with SAE J1979-2 specifications for *each* diagnostic or emission-critical powertrain control unit.

Allison requests that CARB Staff reconsider the requirement that all DEC-ECUs on a vehicle shall track and report such data. Specifically, Allison contends that transmission control modules (TCMs) should not be required to track and report such data.

Today, sensors and actuators in a transmission are comprehensive components, and, typically are not used in the diagnostic strategies of major monitors. The vast majority of the diagnostics for transmission sensors and actuators run continuously, and the enable conditions for transmission diagnostics are designed to run the diagnostics as much as possible during real-world driving conditions.

CARB Staff’s proposal to add supplemental monitor activity data (SMAD) is impractical for a TCM because:

- It adds more software implementation complexity with no benefit to air quality or repair effectiveness/efficiency
- The new ratio data, SMAD, does not improve diagnosis time/service efficiency for service technicians/vehicle end users debugging issues
- As proposed, SMAD will require new software, calibration development, and validation testing for every existing transmission diagnostic. That development effort for SMAD could otherwise be focused on continuing the significant Allison emissions reduction technology under development.

Allison appreciates CARB Staff consideration of our concerns and hope CARB staff chooses to not subject the TCM to the requirement for supplemental monitor activity data (SMAD). If CARB Staff continues to believe that the TCM must be included in the requirement to track and report supplemental monitor activity data, then, Allison proposes to limit the exposure to input component rationality fault diagnostics and output component/system functional checks, similar to “readiness” requirements proposed in this 1971.1 rulemaking. It is reasonable to align the scope of SMAD to the same scope as readiness. Refer to Table 1 to summarize Allison’s recommendations.

CARB Requirement	Allison Recommendation #1	Allison Recommendation #2
SMAD required for each DTC in each DEC-ECU (as proposed in 1971.1 (d)(5.7))	SMAD not required for TCM	SMAD required for input rationality fault and output functional check TCM DTCs

Table 1. Allison Transmission recommendations

Thank you for your attention to our views and hope that further adjustments can be made prior to finalization. If there are any questions concerning this submission, please contact Barbara Chance at 317-280-6371 or at Barbara.chance@allisontransmission.com.

Sincerely,

Barbara Chance
Allison Transmission, Inc.
Director, Mobile Source Emissions
Regulatory Compliance