

To: All Interested Parties Mail-Out #ECC 2020-01

Date: January 23, 2020

Subject: PUBLIC WORKSHOP TO DISCUSS PROPOSED AMENDMENTS TO THE ON-BOARD DIAGNOSTIC (OBD) REGULATIONS

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The California Air Resources Board (CARB or Board) is proposing changes to the OBD II and heavy-duty OBD (HD OBD) regulations (sections 1968.2, 1968.5, 1971.1, and 1971.5 of title 13, California Code of Regulations (CCR)). Specifically, CARB is proposing changes to require the use of updated standardization specifications for OBD II and HD OBD systems on vehicles and engines using the International Organization for Standardization (ISO) 15765-4 communication protocol. Additionally, CARB staff will discuss other possible amendments to the OBD regulations, including changes related to the cold start emission reduction strategy monitoring requirements. CARB staff has scheduled a workshop to discuss its proposals and to obtain input to further refine or amend its proposals as needed from interested stakeholders prior to the release of the Staff Report and documents related to a Board Hearing later this year.

The workshop will be held at the date, time, and location below:

Date: Thursday, February 27, 2020  
Time: 9:00 a.m. to 3:00 p.m. (Pacific Time)  
Location: California Air Resources Board  
Annex 4 Auditorium  
9530 Telstar Avenue  
El Monte, CA 91731

Participants unable to attend in person may take part via webinar. To register for this webinar, please go to:

<https://attendee.gotowebinar.com/register/8041128060548612867>

CARB's workshop presentation will be made available on CARB's [OBD Workshop website](#) prior to the workshop. CARB staff will send out a bulletin to notify stakeholders that the presentation has been posted. If you would like to receive this bulletin, as well as any other bulletins regarding the OBD program, please subscribe to the email list at the [OBD Program Email Updates](#) website.

## Background

OBD systems serve an important role in helping to ensure that engines and vehicles maintain low emissions throughout their full life. OBD systems monitor virtually all emission controls on gasoline and diesel engines, including catalysts, particulate matter (PM) filters, exhaust gas recirculation systems, oxygen sensors, evaporative systems, fuel systems, and electronic powertrain components as well as other components and systems that can affect emissions when malfunctioning. The systems also provide specific diagnostic information in a standardized format through a standardized serial data link on-board the vehicles.

CARB adopted sections 1968.2 and 1968.5 of title 13, CCR in 2002, which established OBD II requirements and associated enforcement provisions for 2004 and subsequent model year light-duty and medium-duty vehicles and engines. In 2005, CARB adopted section 1971.1 of title 13, CCR, which established comprehensive OBD requirements for 2010 and subsequent model year heavy-duty engines and vehicles, referred to as HD OBD. CARB subsequently adopted section 1971.5 of title 13, CCR in 2009, which established enforcement provisions for HD OBD systems. The Board has periodically updated the OBD II and HD OBD regulations since they were initially adopted, with the OBD II regulation last comprehensively amended in 2015 and the HD OBD regulation last comprehensively amended in 2018. The amendments updated the regulations to address manufacturers' implementation concerns and, where needed, to strengthen specific requirements.

## Workshop Agenda

Staff's proposed amendments focus mostly on the incorporation of Unified Diagnostic Services (UDS) for OBD communication on vehicles and engines using the ISO 15765-4 communication protocol. Specifically, SAE International (SAE) intends to publish future standards (e.g., SAE J1979-2 and an updated version of SAE J2012) that will include improved specifications that are intended to greatly enhance the standardized OBD system data made available from these vehicles and engines. These amendments will not apply to engines and vehicle using the SAE J1939 communication protocol to meet the OBD data access requirements. CARB staff and the relevant SAE committees have been working on developing the improved specifications, resulting in the proposal that will be discussed at the workshop. Elements of staff's proposal that will be presented include the following:

- Amendments to the readiness status requirements, including revisions to the readiness status "complete" setting requirements for a few readiness bits (e.g., fuel system monitor, misfire monitor) and the addition of readiness status bits in order to include all monitors that are subject to the in-use monitoring performance ratio (IUMPR) requirements

- Addition of monitors required to track and report IUMPR data
- Addition of monitors required to store and report test results
- Addition of status bytes for standardized fault codes to provide additional information for each fault code (e.g., pending, confirmed, completion status)
- Increase of the minimum required number of freeze frames

In addition, staff will discuss possible amendments to a few requirements in the OBD II regulation to address manufacturers' concerns. These include possible revisions to the exemption criteria for diesel non-methane hydrocarbon (NMHC) catalyst and catalyzed PM filter feedgas generation monitoring, and the possible extension of the 0.100 IUMPR ratio requirement for PM filter filtering performance monitors. Finally, staff will discuss possible changes to the cold start emission reduction strategy monitoring requirements in both the OBD II and HD OBD regulations.

#### Contact

For questions regarding the public workshop or the proposed OBD regulatory changes, please contact Mr. Jason Wong, Manager, On-Board Diagnostics Program Development Section, at (626) 575-6838 or via email at [Jason.Wong@arb.ca.gov](mailto:Jason.Wong@arb.ca.gov).

#### Special Accommodation Request

Consistent with California Government Code Section 7296.2, special accommodation or language needs may be provided for any of the following:

- An interpreter to be available at the meeting;
- Documents made available in an alternate format or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact Jason Wong at (626) 575-6838 or via email at [Jason.Wong@arb.ca.gov](mailto:Jason.Wong@arb.ca.gov) as soon as possible, but no later than five business days before the scheduled meeting. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Sincerely,



Allen Lyons, Chief  
Emissions Certification and Compliance Division

cc: Jason Wong, Manager  
On-Board Diagnostics Program Development Section  
Emissions Certification and Compliance Division