May 11, 2018

Clerk of the Board

California Air Resources Board

1001 I Street

Sacramento, California 95814

Re:   California Air Resources Board (ARB) Public Hearing to Consider Proposed Amendments to California Emission Control System Warranty Regulations and Maintenance Provisions for 2022 and Subsequent Model Year On-Road Heavy-Duty Diesel Vehicles With Gross Vehicle Weight Ratings Greater than 14,000 Pounds and Heavy-Duty Diesel Engines in Such Vehicles

Dear Clerk:

BorgWarner is a global product leader in clean and efficient technology solutions for combustion, hybrid, and electric vehicles. With manufacturing and technical facilities across 67 locations in 18 countries, we employ approximately 29,000 people worldwide. BorgWarner has evolved from a powertrain supplier to a vehicle propulsion company that is playing a major role in creating our vision of a clean energy-efficient world. We are a U.S.-headquartered company with 6,300 people in 16 manufacturing and technical centers in eight states across the United States. Our technologies deliver innovative propulsion solutions that improve fuel economy, emissions, and performance in vehicles globally. BorgWarner’s vision of a clean, energy-efficient world aligns with the goals of ARB in reducing vehicle emissions and greenhouse gas (GHG).

As a follow up to our September 8, 2017 letter and in preparation for the upcoming hearing, BorgWarner would like to propose that ARB clarify and classify turbocharger and exhaust gas recirculation (EGR) electronic actuators and sensors with electronic control unit, sensors, and actuators with the proposed minimum repair/replacement intervals as described below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Component or System** | **Minimum Repair / Replacement Interval** | | |
| **Light Heavy-Duty Diesel Engine 14,000 lbs. < GVWR ≤ 19,500 lbs.** | **Medium Heavy-Duty Diesel Engine 19,500 lbs. < GVWR ≤ 33,000 lbs.** | **Heavy Heavy-Duty Diesel Engine GVWR > 33,000 lbs.** |

|  |  |  |  |
| --- | --- | --- | --- |
| Electronic Control Unit, Sensors, and Actuators | 100,000 miles, or 3,000 hours | 150,000 miles, or 4,500 hours | 150,000 miles, or 4,500 hours, or 5 years |

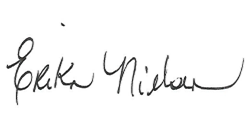
Turbocharger and exhaust gas recirculation (EGR) electronic actuators and sensors are highly dynamic devices and critical to the emissions performance of the engine. Enabling maintenance by repair or replacement of the actuator would ensure the emission performance of the engine remains within its limits. The EGR and turbocharger actuators are easily accessible and relatively inexpensive. As such, extending their warranty coverage beyond the distances shown in your table is unwarranted. In addition, replacing an external component by itself means the integrity of the air and EGR system would be maintained thereby avoiding collateral damage.

These parts should not be included with the turbocharger or EGR system as “Not replaceable.”

However, it is important to understand, in some cases, the EGR electronic actuator is integrated with the EGR valve. In these cases, the entire EGR assembly (EGR electronic actuator and EGR valve) would need to be replaced according to the intervals described above. Note: There are no integration issues with turbocharger actuators or sensors. These parts can be changed without changing the turbocharger.

We appreciate this opportunity to provide ARB with our perspective. Please let me know if you have any questions. Thank you for your consideration.

Sincerely,



Erika Nielsen

Director, Global Government Affairs

BorgWarner Inc.

enielsen@borgwarner.com

Tel: 248-754-0422

Cc: Jeff Lowry, Ronald Haste