



Submitted via email to joe.calavita@arb.ca.gov and via
https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=itr2016&comm_period=A

October 17, 2016

Subject: Comments in Response to Proposed Regulation to Provide Certification Flexibility for Innovative Heavy-Duty Engines and California Certification and Installation Procedures for Medium- and Heavy-Duty Vehicle Hybrid Conversion Systems (Innovative Technology Regulation)

Dear Sir or Madam,

Attached are comments from Cummins Inc. regarding the above-referenced proposed rule. We thank you for this opportunity to provide our comments. If you have any questions, please contact Sanjay Pimple at 812-377-5940 or sanjay.pimple@cummins.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mike Cooper', with a long horizontal flourish extending to the right.

Mike Cooper
Director- US/Canada
Product Certification & Compliance
Cummins Inc.



California Air Resources Board (ARB) is proposing Innovative Technology Regulation (ITR) providing certification flexibility for new advanced technologies applied in Heavy-Duty (HD) and Medium-duty (MD) engines and HD hybrid conversion systems. The intent of ITR is to encourage the development and market launch of such technologies by providing emissions and OBD certification flexibility. Specifically, ITR provides certification relief for the following:

HD Engines:

- Spark-Ignited (SI) and Compression-Ignited (CI) engines certified to CARB optional low NOx emission standards
- Installed in a hybrid HD vehicle with 35+ mileage all electric range (AER)
- Meeting proposed ITR's new optional low CO2 standards which are reflective of 15% carbon-dioxide (CO2) reduction relative to a 2017 baseline engine

Hybrid Conversion Systems

- Installed on a CARB certified vehicle between 6,000 and 14,000 pounds gross vehicle weight (GVWR) or CARB certified engine installed in a vehicle over 8,500 pounds GVWR

Cummins Inc. (Cummins) designs, manufactures, distributes and services engines and related technologies affected by the current proposal. Cummins is an advocate for consistent and responsible regulations that recognize the needs of business, offer clear direction and provide incentives to companies that create innovative technologies as well as jobs in this country. Over the course of this regulatory development we have worked with ARB to provide policy and technical input to help and improve the rulemaking process.

For low NOx technologies, OBD provides a certification challenge to manufacturers as they develop new products and ARB's rulemaking here is providing multiple pathways of modest OBD relief for low NOx technologies. First, in addition to the NOx threshold monitor relief of 1956.8(a) (2) (A), sub note O, the proposed regulation here adds further flexibility in OBD demonstration and production validation testing, free deficiencies and relaxed mandatory recall thresholds for major monitors. Alternatively, a manufacturer can elect to forgo the aforementioned OBD relief and fully certify an ITR-eligible engine family to ARB low NOx requirements, while a second ITR-eligible engine family can certify to the optional low NOx standards while being exempted from OBD emissions threshold requirements for a single model year.



These two options provide potential pathways to incentivize manufacturers to develop and certify low NOx technology products, supporting ARB's overall goal of encouraging low NOx options to the California market.

Cummins supports the efforts of ARB to develop a rule to offer certification flexibilities for innovative technologies, such as Low NOx engines. The proposed rule as written is a step towards achieving California's air quality goals and Cummins appreciates the opportunity to participate in the rulemaking process and during future collaboration once the rule is finalized.