



9 December 2011

European Commission
Directorate-General Climate Action
Unit C2 - Transport and Ozone
B-1049 Bruxelles
Belgium

Subject: Consultation on reducing CO₂ emissions from road vehicles

Dear Sir or Madam,

Cummins Inc. appreciates the opportunity to provide the following comments specific to heavy-duty vehicles (HDVs) in response to the European Commission's questionnaire on the reduction of carbon dioxide (CO₂) emissions from road vehicles.

About Cummins

Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. Cummins employs approximately 40,000 people worldwide and serves customers in approximately 190 countries and territories through a network of more than 600 company-owned and independent distributor locations and approximately 6,000 dealer locations. As the world's largest independent diesel engine manufacturer with significant business in the European market, Cummins is committed to working with the Commission on their activities to reduce CO₂ emissions from HDVs.

Cummins in Europe

Within the European Union (EU), Cummins supplies a large number of automotive and nonroad vehicle and equipment manufacturers with complete engines and with engine components both directly and through its extensive distributor network. The automotive engines and engine components that Cummins sells within the EU are developed specifically for the market at the

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engine regional technical centre in Darlington, UK; at component technology centres in Huddersfield and Darlington, UK and Quimper, France; and at Cummins distributors throughout the UK and EU; and are manufactured in the UK, France and Sweden. This allows Cummins to integrate closely with UK- and European-based vehicle manufacturers to deliver market-leading engines and component technologies to our customers and enable our truck and bus partners to comply with all environmental standards while maintaining their strong market positions.

HDV CO₂ Standards: Engine + Vehicle

Cummins encourages the Commission to consider the important and unique role of the engine system as they study whether and how to regulate CO₂ for HDVs. If the Commission chooses to regulate HDV CO₂, Cummins believes the most effective approach is a combination of vehicle standards and engine standards. Separate engine standards are a necessary component of any effective regulation of CO₂ emissions from HDVs for the same reasons they are necessary for all other HDV emissions.

First, separate engine standards ensure predictable and lasting benefit from regulatory standards across the entire HDV fleet. HDVs vary greatly in size, configuration and application and may be manufactured by single vertically-integrated manufacturers or a series of independent subsystem manufacturers and assemblers. When legislation for criteria pollutants was first established, the EU faced precisely the same diversity of applications and duty cycles as confronted today for greenhouse gases. The European Commission addressed this diversity very effectively by establishing a broadly representative engine-based program that ensured emission reductions across all engine applications. Because the engine is the source of all “tailpipe” emissions, including CO₂, it should be addressed directly with standards that ensure emissions are controlled at the source. While specific vehicle attributes will cause in-use emissions from different vehicles to vary, the entire fleet will benefit in aggregate as represented by the standard engine test. The Commission would be right to use this solid foundation for any new legislation by reusing existing engine test procedures, test equipment and conformity measures already in place for criteria pollutants.

Second, separate engine standards also allow customers to continue to buy a common approved engine and use it in a wide range of vehicles and applications. This ensures emission reductions across the various vehicles without sacrificing the diversity of configurations needed in the marketplace, and it allows independent manufacturers to continue to compete fairly with vertically-integrated manufacturers.

Additionally, separate engine standards with specific regulatory limits would provide the certainty needed for the cost-effective development and deployment of advanced and breakthrough engine technologies and would give businesses and engineers the clarity to invest and innovate in new engine technologies to support future environmental benefits.



The independent regulation of the engine will not compromise the system engineering that is done in the normal course of business between engine and vehicle divisions – whether in an independent or vertically-integrated company. The optimization for engine performance, size, weight, heat rejection, cost and other factors will continue as is done today for best total value to the customer at given emission levels. As a result of separate engine standards, the existing market structure where these engine and vehicle divisions compete with each other would remain intact without disadvantaging one over the other. Without separate engine standards, independent manufacturers would essentially be regulated by their customers and potentially face as many different emission targets as they have customers.

Finally, a separate engine standard is an expeditious path to an initial regulation with real environmental benefit. Regulating vehicle emissions for the first time would require a completely new scheme to be developed and implemented. While these protocols are being created and tested, separate engine performance standards would allow for the use of existing engine approval and conformity mechanisms in which the European Commission, type-approval agencies, industry and the public have gained confidence through the years.

To be clear, this is not an argument for an engine-only standard. Vehicle attributes like aerodynamics and other driveline component attributes like mechanical efficiency and tyre rolling resistance must also be regulated independently or collectively in order to enjoy the maximum environmental benefits from any HDV CO₂ regulation. It is clear that the only way to ensure predictable and lasting benefit and to encourage the investment in technology to sustain future improvements is with a combination of separate engine and vehicle standards.

Addressing CO₂ emissions from road vehicles is a complicated task affecting numerous entities from those that make components, engines and vehicles to the users. For the success of any program, it is critical to involve a variety of stakeholders. Cummins is committed to working with the European Commission and a wide range of stakeholders on reducing CO₂ emissions from HDVs. Cummins will be happy to provide any further information or assistance which the Commission may request.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter A. Williams'.

Peter A. Williams
Product Environmental Management Manager
Cummins Ltd.