Engine
Manufacturers
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VIA E-MAIL TCACKETT@ARB.CA.GOV
VIA FEDERAL EXPRESS

Thomas Cackette
Chief Deputy Executive Officer
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Proposed Revisions to Malfunction and Diagnostic System Requirements for Heavy-Duty Engines

Dear Tom:

As we discussed the other day, the Engine Manufacturers Association ("EMA") has very significant concerns regarding the proposed revisions to the malfunction and diagnostic system requirements for heavy-duty engines (the "HD OBD amendments") that ARB staff will be presenting to the Board for adoption on May 28, 2009. In particular, and while we still have a number of issues concerning the overall scope and stringency of the proposed OBD monitoring requirements and thresholds, EMA's principal concerns relate to the proposed manufacturer-run in-use OBD testing requirements that ARB is seeking to impose pursuant to new regulatory Sections 1971.5 and 1971.1(i)(2.3).

Under Section 1971.5 of the proposed HD OBD amendments, engine manufacturers would be required to undertake the following steps on an annual basis starting with the 2010 model year:

(i) identify one to three engine ratings for in-use testing;

(ii) for the identified engine ratings, locate a test sample of non-new, in-use engines (i.e., engines previously sold and installed in heavy-duty vehicles operating in commerce) that have accumulated mileage that is between 70 to 80 percent of the engines' full "useful life" mileage of 435,000 miles;

(iii) negotiate with the owners of the identified heavy-duty vehicles to exchange from 1 to as many as 10 of the identified non-new, in-use test sample engines for new replacement engines to be supplied by the engine manufacturer;

(iv) remove from 1 to as many as 10 of the identified test sample engines from the identified heavy-duty vehicles, and install in their place new replacement heavy-duty engines, all at the engine manufacturer's expense;

(v) transport the uninstalled high-mileage test sample engines (each with accumulated mileage between 304,500 and 348,000 miles) to the engine manufacturer's testing facilities;

(vi) replace each of the uninstalled engine's major OBD system components with deteriorated or defective OBD components that can simulate or cause potential exceedances of the relevant OBD malfunction criteria -- i.e., install defective OBD system components that can produce the excessive emission levels or other monitored signals that would trigger a malfunction indicator light ("MIL") if the exceedances actually occurred during real-world operation of the engine (as equipped with its original OBD system components);

(vii) test on an engine dynamometer in the manufacturer's engine testing facilities, and in an iterative one-by-one fashion, each of the deteriorated or defective OBD system components to cause an exceedance of the applicable OBD malfunction criteria;

(viii) measure the emissions of the reconfigured engine with each of the deteriorated OBD system components to assess whether the appropriate MIL is illuminated before the reconfigured engine's artificially-increased emissions exceed the relevant OBD threshold (e.g., 2 times the NTE standard);

(ix) test up to 10 engines from as many as 3 identified engine ratings in this manner; and

(x) prepare to respond to an ARB-issued mandatory engine recall order if 50% or more of the reconfigured test engines do not illuminate a MIL when any deteriorated or defective replacement OBD system component has caused the engine's emissions to exceed any applicable OBD threshold.

The burdens that ARB seeks to impose on engine manufacturers under the above-described in-use testing regime are unprecedented and unlawful. ARB, in essence, would require manufacturers to: (a) give away for free as many as 30 new heavy-duty engines each year (up to 10 engines for as many as 3 engine ratings); (b) install the new "free" engines in place of the uninstalled high-mileage engines in up to 30 vehicles each year; (c) reconfigure each of the (up to 30) uninstalled engines with broken OBD system components; and (d) conduct extensive engine dynamometer testing on each of the (up to 30) uninstalled reconfigured engines to assess

whether any incidence might be found where a MIL is not triggered before an artificial exceedance of an OBD threshold can be engineered and measured.

But ARB's proposed HD OBD regulations would go even further. Specifically, under new regulatory Section 1971.1(i)(2.3), manufacturers "would be required to collect and report in-use emissions data from 2010 and later model year engines operated in the real world" to demonstrate the emissions performance of aged engine components. (See ISOR, p. 58.) As ARB describes this additional in-use testing requirement of its proposed rulemaking,

> Such data collection by manufacturers would require removing real-world aged systems (engine and aftertreatment) from vehicles, installing the [removed] systems on engine dynamometers, running various emission tests to quantify the system deterioration, and reporting the data to ARB late in the 2011 calendar year. ... For engine's subject to a 435,000 mile useful life, manufacturers would additionally be required to collect data from 2010 or later model year real-world aged systems with mileage equal to 435,000 miles and report the data to ARB in the 2014 calendar year. (ISOR, pp. 58-59.)

ARB does not have the statutory authority to impose on engine manufacturers the in-use testing burdens proposed in Sections 1971.5 and 1971.1(i)(2.3). The relevant California statutes are unambiguous regarding the limits on ARB's authority to require engine manufacturers to perform emissions testing of their products. ARB's authority in that regard is limited to new motor vehicle engines. See HSC §§ 43104, 43202. ARB has no statutory authority to compel engine manufacturers to conduct emissions testing of non-new in-use engines. Consequently, ARB has no authority to adopt or implement the in-use testing program proposed in Sections 1971.5 and 1971.1(i)(2.3).

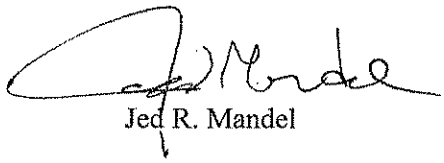
Proposed Section 1971.5 is unlawful on other grounds as well. The proposed regulation would fail to provide adequate leadtime for the new standards - - standards that could trigger a finding of OBD noncompliance and the issuance of a mandatory recall order. In addition, the proposed regulation violates HSC Section 43105, since it would impose engine recall liability without first requiring ARB to establish that there has been an actual violation of emission standards in-use.

As you requested, EMA and its members are considering a potential alternative compliance program that, even if not authorized, heavy-duty engine manufacturers might be willing to undertake. Meanwhile, given the tremendous costs that would be imposed on engine manufacturers under proposed Sections 1971.5 and 1971.1(i)(2.3) (well in excess of $100,000 per engine test, and up to 30 engine tests per year), and further considering ARB's lack of statutory authority to mandate such in-use testing, we are requesting that ARB reconsider the

manufacturer-run in-use OBD testing program proposal. Even if ARB did have authority to adopt some form of manufacturer-run in-use testing, we do not think that ARB should adopt the onerous program outlined above.

EMA would be happy to work with you and your staff on this matter. Please let me know how you would like to proceed.

Very truly yours,



Jed R. Mandel

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