



MITSUBISHI CEMENT CORPORATION

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July 18, 2007

Ms. Mary Nichols
Chair, California Air Resources Board
1001 "T" Street
Sacramento, CA 95812

Subject: Comments from Mitsubishi Cement Corporation on the Offroad Diesel Engine Regulation, Following the June & July Workshops

Dear Ms. Nichols:

The purpose of this letter is to present comments from Mitsubishi Cement Corporation (MCC) in response to the workshops conducted on June 18 and July 16, referencing the May 24, 2007 version of the draft offroad diesel (ORD) rule. MCC presented verbal comments at the July 16 workshop, but our understanding is that comments at this workshop were not being recorded.

MCC operates a cement plant in Lucerne Valley, California, which includes a limestone mining operation with a dedicated offroad diesel engine fleet. In addition, MCC is affiliated with a company that operates sand and gravel mines with offroad diesel equipment.

MCC understands that ARB plans to submit the rule to a Board Hearing on July 26th. The purpose of this letter is to provide specific cost information in response to ARB's recent explanations that ARB cost estimates are based on engine repowers and used vehicle purchase, both of which have limited applicability to many engine types (specifically for the large engines in the MCC large fleet).

Specific Comments on ARB Cost Projections

The purpose of the following cost-related comments is to present cost projections for the mining type of fleet that are based on actual vendor quotations and illustrate the significant differences in engine size and other parameters between a mining fleet and the construction industry fleet described in ARB documents. In the case of the mining fleet, NOx issues are controlling cost, not PM issues. The conclusion from the cost calculations is that ARB's cost estimate of \$140 per horsepower (on average) underestimates the compliance cost for a mining fleet by a factor of ten. The cost estimate for the MCC fleet is over \$1,300 per



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horsepower, and we have considered a number of different scenarios before arriving at this cost.

We support the Construction Industry Air Quality Coalition's (CIAQC's) proposals to increase flexibility in meeting the 2015 limits and to delay compliance with ARB's 2020 limits until 2025. We are presenting the following information to further illustrate the extent to which ARB has underestimated the cost of compliance with the rule and underline the need for greater flexibility to minimize compliance cost.

As a general comment, it appears that ARB's cost estimate reflects numerous optimistic assumptions that result in a lower cost estimate. At a minimum, ARB needs to show the true cost of the rule as a **range of costs**, including both the low end and the high end of the potential cost, where the high end is based on conservative assumptions. This is standard practice when estimating costs for a project where there are many uncertainties about circumstances in the future and many assumptions that have to be made.

A mining fleet has much larger engines than a typical construction industry fleet as presented in previous ARB workshops. The majority of the engines in the mining fleet vehicles are over 600 horsepower. The engines over 600 horsepower differ from smaller engines in the following ways:

- The normal turnover rate for these large vehicles is even below the estimate of 3% per year provided by CIAQC, which is significantly below ARB's estimate, which we understand to be 4.5% per year.
- Repower options for these large vehicles are non-existent, because the new engines do not fit in the old vehicles.
- There are few, if any, used vehicles in this size category, based on a detailed review of published used vehicle databases.
- Due to the size and complexity of the engines in the mining fleet, the cost of new vehicle replacement is between \$1,300 and \$2,200 per horsepower, based on actual vendor quotations.

Because of these factors, we conclude that the overall cost of compliance for the mining fleet will be at least ten times ARB's estimate for \$140 per horsepower. Therefore, we urge ARB to provide greater flexibility and extended deadlines for rule compliance as proposed by CIAQC and also to recognize the larger engines that have fewer compliance options through a horsepower-hour option either just for the larger engines or for all engines.



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We look forward to hearing from you and thank you for your attention to this matter. Please call Anne McQueen of Geomatrix Consultants Inc., who assisted with preparation of this letter, at (949) 574-7082 if you have any questions.

Very truly yours,

Michael W. Jasberg
Executive Vice President

Copy: Kim Heroy- Rogalski, ARB
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