

March 22, 2007

**GRANITE  
CONSTRUCTION  
INCORPORATED**

Catherine Witherspoon  
Executive Officer  
California Air Resources Board  
P.O. Box 2815  
Sacramento, CA 95812

Dear Ms. Witherspoon:

Thank you for taking the time to meet with us. We certainly recognize the challenges faced by CARB in crafting a new Off-Road Diesel Rule. While Tier 4 engines will eventually resolve this issue and achieve the necessary attainment goals, the status quo is not a viable option in the interim, as we must address the health ramifications associated with diesel emissions.

Granite's concern is not with the goals of the draft Off Road Diesel Rule that have been presented, but rather with their realistic ability to achieve those goals. In our judgment, the current draft relies too heavily on unproven retrofit technology. We also believe the amorphous nature of the enforcement mechanisms contained in the draft rule relies too heavily on self-reporting and that compliance problems will be inevitable.

The following are some specific areas where we believe the proposed rule and the assumptions associated with it are off the mark:

**Equipment Availability**—Few suppliers, questionable interface with existing equipment and systems, etc. Given the limited scope and duration of the retrofit marketplace, it remains to be seen whether manufacturers will be prepared to make the substantial investment required to develop and prove out the technology.

Currently there are three California level 3 VDECS verified for off-road use. Of these three units, two (the Cornfilter and the Cleaire Horizon) both require a high voltage electrical source to regenerate on a daily basis. We find this not compatible with our operations as there is rarely such an electrical source in our field operations. This would require us to purchase a number of exchange filters and support trucks, hire support staff, and create regeneration facilities to daily manage either one of these type units on our equipment.

The Huss filter appears to be more user-friendly, but with it comes concern that these are not practical and safe units on the large equipment the industry typically uses in the State of California. We would feel much more confident in the diesel particulate filters if they were being offered by the major manufacturers that originally supplied the equipment.

**Equipment Reliability** -Untested under field conditions, will the retrofit equipment work as promised to reduce emissions and what impact will it have on performance and productivity of the off-road vehicles?

Huss admits that they do not have their systems running on the large horsepower equipment that we have, but indicate they will just put more filters in the system. We are not

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confident adequate engineering has been applied to this concept, nor do we feel there is adequate room to do the installations. Therefore, we are very concerned regarding safety and reliability of these unproven systems.

Cost - CARB's cost estimates appear to be considerably lower than marketplace conditions indicate. Given the state's emphasis on infrastructure development, this cost will have an impact on the buying power of recently passed bonds and other funding measures.

We see a large disparity between the prices CARB estimates for one of these systems and prices we have received. CARB publicly estimates the high end to install one of these units at \$30,000.00, while we have obtained an actual estimate to install a Huss unit on a Caterpillar 980F (475 hp) at \$56,000.00. None of these figures include increased maintenance costs that we anticipate will be a result of this. We also question the projected turnover rate that CARB uses and therefore believe the true cost of this regulation to industry will be significantly higher than CARB has stated.

The timetable - Aggressive implementation dates are based on the development and manufacturing of technology that does not exist and is not proven. This is like rushing a drug to market before clinical trials - leaving no opportunity to identify side effects or assess whether the therapy really works.

When we started attending workshops on this proposed regulation in November of 2004 the Combifilter filter was the only level 3 VDECS at that time. Since then (2 1/2 years later) there have only been two additional devices verified as discussed above. If this is the pace this technology will evolve, it clearly shows the timetable in the proposed regulation is over aggressive.

Enforcement - There is really no mechanism for systematically monitoring compliance. The applicability of self-reporting is highly questionable when it comes to smaller, less sophisticated companies who may be operating the most problematic vehicles.

An Uneven Playing Field - The construction industry includes literally thousands of players with even the largest companies commanding only a small portion of the market. With its exemptions and questionable enforcement mechanisms, this proposed rule could substantially disadvantage the companies who operate the cleanest, most reliable fleets.

It is our hope that the proposed Off Road Diesel Rule is a work in progress and that it can be reshaped to actually achieve its laudable goals. Granite Construction shares CARB's commitment to cleaner air and protecting the health of our citizens. We are anxious to collaborate with CARB and other stakeholders to shape and implement a workable rule for off-road diesel equipment in California.

Sincerely,



Geoff Doraston, P.E.  
Director of Environmental Affairs