



07-5-6
May 05, 2007

May 23, 2007

Dr. Robert Sawyer, Chairman and Members of the Board
California Air Resources Board
1001 I Street, P.O. Box 2815
Sacramento, CA 95812

RE; Oppose, Proposed Adoption of In-Use Off Road Diesel Vehicles Rule

Dear Chairman Sawyer and Members:

The California Construction and Industrial Materials Association (CalcIMA) opposes the adoption of the proposed regulation for In-Use Off Road Diesel Vehicles in its current form. We request an overall extension of the rollover and retrofit requirements by five years. In addition, we have made several other requests for modifications to the rule. We appreciate your consideration in these matters.

CalcIMA, a statewide trade association formed in January of 2007 from the consolidated memberships of the California Mining Association, Construction Materials Association of California, Southern California Rock Products Association and Southern California Ready Mixed Concrete Association. Our 110 member companies operate multiple surface mines producing sand and gravel, crushed stone and multiple industrial minerals such as limestone and silica. Our membership also includes ready mixed concrete companies. In 2006, California's 800 active mines produced minerals valued at 4.6 billion dollars and led the nation in the production of sand and gravel, portland cement, diatomite and natural sodium sulfate.¹ Through our previous associations we have participated in this rule making since it began in 2004.

We recognize the importance and support the end goals of the proposed regulation. However, the rule as drafted will not only place economic hardships upon the State of California and business it will force us to rely on untested and unproven technologies. Likewise, it will force our members to make large capital investments in equipment we know will not be the cleanest available.

¹ California Non-Fuel Minerals 2006, Susan Kohler, California Geological Survey
1811 Fair Oaks Avenue ■ South Pasadena, California 91030 ■ Tel. 626.441.3107 ■ Fax 626.441.0649
1029 J Street, Suite 420 ■ Sacramento, California 95814 ■ Tel. 916.554.1000 ■ Fax 916.554.1042
www.calcima.org

Extend Compliance Schedule by 5 years:

We believe that it is necessary for CARB to extend the compliance schedule of this rule by five years to enable industry time to meet the revised reduction goals and methods contained within this rule. We strongly support a five year extension of the compliance and implementation deadlines to 2015 to 2025 for the PM retrofit and NOx rollover provisions.

There are various challenges posed by the rule to industry that will be discussed later, however, we will discuss why extending the compliance dates by five years is appropriate due both to changes in method from the diesel risk reduction plan as well as the resultant benefits on NOx reductions over the useful life of new equipment caused by ensuring its later purchase.

Staff notes on page 2 of the Initial Statement of Reasons that this rule is expected to reduce PM emissions from covered sources by 92% from the 2000 baseline and NOx by 32%. The PM emission reduction represents a 7% increase in reductions of PM and as NOx was not included in the Diesel Risk Reduction Plan (DRRP) a 32% increase in NOx reductions. The impact of directly including NOx has been to make NOx reductions and forced equipment replacement the driving force of the rule. We believe it is important to remind the Board that the DRRP anticipated achieving the PM reductions as follows,

“The recommended measures for diesel-fueled off-road engines are similar to those for on-road vehicles: more stringent diesel PM standards, after-treatment control retrofit requirements, and in-use compliance programs.”²

While the proposed rule certainly includes those three requirements it also mandates the replacement of the emission source under the equipment rollover requirements in 2449(d)(2) of the proposed rule. This is a significant and expensive new method CARB is using to achieve the NOx reductions sought. In addition, staff proposed the implementation of rules for off-road diesel equipment under the DRRP beginning in 2002.³

Finally staff also envisioned that, “... well before the end of this decade these filters will become as commonplace on diesel-fueled engines as catalysts are now on gasoline-fueled vehicles.”⁴ As of April of 2007, this is not the case for off-road diesel engines, as only three level 3 VDECS are available for off-road equipment. Further no level 3 VDECS which also achieves NOx reduction to meet the added NOx requirements yet exists for our equipment.

In short, the time extension for the final compliance targets we are requesting of just five years to a timeframe from 2015 to 2025 are warranted due to the substantial changes made to the 2000 Diesel Risk Reduction Plan Compliance strategy which include;

1. An increase in NOx reductions sought from baseline of 32%
2. A decrease in the timeline over which industry can absorb the costs of implementing the plan from 18 years to 10.

² Diesel Risk Reduction Plan, California Air Resources Board, October 2000, P. 26

³ Staff PPT presentation to Board September 2000, <http://www.arb.ca.gov/diesel/presentations/Rrp0928/sld001.htm>, Slide 26

⁴ Diesel Risk Reduction Plan, California Air Resources Board, October 2000, P. 2

3. The addition of mandatory equipment rollover provisions in addition to retrofits and in-use controls and low-sulfur diesel.
4. The limited supply of VDECS available for off-road equipment and that none currently control to acceptable levels both NOx and PM.

In addition, to the above reasons we feel it prudent to call to the Board's attention that mandating rollover for NOx reductions beginning in 2010 fails to capture the significant NOx and PM reductions that equipment manufacturers will meet with tier IV engines by 2015. This is compounded by the structure of the rule with operators making adjustments to their fleets in the previous year to meet the compliance date of the following year: that is 2009 equipment will be the equipment available to meet the 2010 compliance date and 2014 equipment the 2015 compliance targets. This is particularly important for the mining industry where our equipment tends to be larger on average than construction firms. Likewise it is the larger more expensive equipment that has useful lives extending multiple decades in many cases. Table 1, below, demonstrates the reduction difference in NOx and PM as well as the difference in total NOx and PM for a 249 HP loader over the CARB expected useful life of 18 years, with one purchased to comply with the 2010 requirement and another projected to comply with a 2015 compliance date which is industries request for the rule. A 2009 model vs. a 2014 model with the 2009 model receiving a level 3 DPF VDECS five years into it's life. We used the Useful Life, Average HP and average hours of use at age from appendix E page E-9 for Tractors/Loaders/Backhoes. Even using a VDECS after five years on the 2009 loader the 2014 piece of equipment emit's 181,000 fewer grams of diesel PM over its expected life and 9.7 Million fewer grams of NOx. Indeed, within 2 years the loader purchased to comply with CARB's 2010 timeline will emit more PM, and within 3 years more NOx, than the 2014 loader does in its entire lifetime. (We did not adjust the emission factors for time deterioration or adjust the hours of equipment as the end ratio result would not be changed by changing those assumptions over the same lifetime.)

Table 1
A lifecycle PM and NOx
Comparison of 2 Loaders

Equipment	HP	Useful Life	Hours Year	PM EF	NOx EF	Annual PM	Annual NOx	Annual PM with DPF	Lifetime PM	Lifetime NOx	
2009 Loader	249	18	942	0.15	2.6	35,183.7	609,850.8	5,277.5	244,526.7	10,977,314.4	
2014 Loader	249	18	942	0.015	0.3	3,518.37	70,367.4	NA	63,330.7	1,266,613.2	
									Difference in grams	181,196.1	9,710,701.2

While the final Tier PM mandates are projected to be met by equipment as early as 2011 the NOx emissions factors of this equipment with the exception of the 750 HP+ and 50-74 HP equipment would still need at least an 80% reduction in NOx to be as clean as the equipment slated to arrive from manufacturers in 2014. To state it another way ten 249 HP loaders meeting 2014 tier requirements emit as much PM as One stock 2009 loader.

If we are going to be mandated to accelerate the rollover of this equipment, we believe that public policy is best served by not beginning that mandate until Tier 4 equipment comes on the market.

By forcing fleet managers to buy Tier 3 equipment, which may have a life of decades, they are emitting 80% more NOx than if they bought a Tier 4 a very few years later.

In the current proposed State Implementation Plan (SIP), which will be before the board in June staff notes, "the magnitude of the reductions needed in the South Coast and San Joaquin Valley will ultimately require the cleanest technology in every diesel engine application."⁵ Yet this rule as drafted will require most large fleets to rollover 8% of their fleet HP a year in 2009, 2010, 2011, etc... to equipment that does not meet this definition and is not the best reasonably foreseeable equipment.

We strongly urge the Board to consider both the changes in scope of this rule from the Diesel Risk Reduction Plan as well as the large difference in emissions from equipment purchased in the 2010 timeframe to comply with staff's proposal when compared to that purchased for a 2015 initial compliance date which is our proposal. We are asking for five more years to get the best equipment available and as a result reduce the cost impacts of the rule while ensuring the capture of the greatest amount of reductions possible in the lifetime of the new equipment we purchase.

Therefore we strongly encourage the Board to keep the initial inventory reporting and idling requirements effective upon staff's proposed timeline while extending the compliance schedule for large and medium fleets for retrofits and turnover to a 2015 to 2025 schedule. The baseline inventory is important to provide both retrofit and new equipment manufacturers with a complete and accurate picture of California's off-road fleet as possible. We hope this will enable both of these parties to anticipate our future equipment needs better in designing retrofit devices as well as planning for production demand. The idling requirements are a prudent step we can implement immediately to reduce the impact of our existing equipment.

Additional Change Requests:

These requests are independent of our desire expressed above. That is, we believe they are necessary whether the Board extends the compliance implementation and final deadline or not.

Extend early repower and retirement credit to PM:

First, we would like to thank staff for adding credit for early repowers and retirement for the BACT portions of NOx compliance. This is a beneficial change for our members who have undertaken significant efforts to update and modernize their fleets in recent years. However, we do not believe the credit goes far enough and would like to see it added to the diesel PM sections of the rule as well. These companies have been leading by example and made significant improvements to their fleets absent any regulatory requirement. For the most part companies that would benefit from this extension are intent on pursuing a new equipment strategy due to the inherent uncertainty and concerns with the long term performance of retrofits on our equipment for

⁵ Air Resources Board's Proposed State Strategy for California's 2007 State Implementation Plan, Executive Summary, P. 3 Draft April 24, 2007

our usage patterns. A mine's revenue is derived from the amount of material it produces for sale and as noted in the ISOR, "Mining operations in California are varied, with operations ranging from fleets with a handful of vehicles at a single mine employing dozens of employees operating one shift a day to those operating hundreds of vehicles and employing hundreds of employees around the clock at numerous mines throughout the state."⁶

Particularly for the mines operating multiple shifts but for other mines as well, the active regeneration requirement of VDECS along with safety concerns for our employee's and employer liability under the Mine Safety and Health Act which is a strict liability statute. Those concerns make using VDECS undesirable for some when compared to repowers and new purchases which will not have the same safety or production disruption concerns. While Staff can cite the Swiss construction retrofit program it does not appear to be reflective of the equipment used by our industry.

By extending credit for early repowers and retirements to the PM BACT requirements the Board will enable mine operators who have been proactive in replacing and repowering equipment to continue that practice without installing untested VDECS for our applications prior to then replacing or repowering that equipment.

Requested Change 2449(d)(2)(A)3 – Order of Turnover

While we understand the intent of this section to ensure the retirement of the oldest and most polluting equipment first, we would like to request that it be modified slightly as the result of including the option of determining your fleet average based upon actual usage of equipment. Our suggested modification is as follows:

"Order of turnover -- All engines in a fleet that were not subject to a PM standard for new engines (Tier 0 and Tier 1 with no PM standard, i.e., Tier 1 engines between 50 and 174 horsepower) must be turned over before turnover of any other higher tier engines may be counted toward the turnover requirements in 2449(d)(2)(A) or toward accumulating carryover turnover credit unless it meets the criteria below.

a. The fleet is calculating it's index pursuant to 2449(d)(1)(D) and can demonstrate that the turnover it made decreased their PM and NOx emissions more than replacing the engine not subject to a PM standard."

We do not believe this change should be controversial as it is only available to a fleet in limited circumstances and only when the decision made by the fleet manager has a positive emissions reduction benefit which will clearly be evident in their inventory. It will allow fleets to temporarily bypass support equipment that serves a limited hour function that exceeds the hours of use requirement for a low-use piece of equipment that when weighted for hours of use still emits less than other high use equipment an operator may desire to turnover earlier in order to reach the fleet averages sooner.

⁶ ISOR, P. 26

Requested Change 2449(d)(10)B – Compliance After The Final Compliance Date:

Some of our members have expressed concern with this provision of the rule. The concern is that after modeling their fleets using CARB's calculator, they have noticed that the lower horsepower equipment, which typically has a shorter lifetime, will be required to have VDEC's installed even though they will be retired shortly.

We would therefore request that the language be changed to not require additional retrofits for large and medium fleets to March 1, 2025 from March 1, 2021.

Requested Addition to 2449(e):

We would like to request that a new section be added to 2449(e) special provisions. Considering the untested nature of the VDECS that will be required to be installed as a result of this rule, we strongly believe that it is not only prudent but necessary for the Board to grant the executive officer authority to authorize the removal of VDECS from equipment already retrofit pursuant to the rule should the Executive Officer become aware of safety issues with the VDECS in question. This authority could be exercised if the Executive Officer becomes aware of multiple failures of the VDECS in specific or broad applications which are resulting in injury, death or significant damage to equipment or production capacity.

Both the safety and economic aspects of this provision are important to us and we believe both must be represented in such an addition. The safety concerns are obvious to everyone in terms of preventing injuries or fatalities to employees. For the mining industry we have the added layer of MSHA oversight and strict liability as well as Cal-OSHA obligations. Should we become aware of a serious safety issue with VDECS upon our equipment that endangered our employees, we would be required to remove that threat to our employees immediately. Should we fail to do that our responsible persons could face jail sentences as well as severe penalties in addition to the threat to our workers safety. We do not believe this addition should be controversial as an exemption is already granted for safety defects identified prior to installation. It simply recognizes such knowledge may be revealed in field use of such modified equipment and provides a prudent safety valve.

The production side is no less important. Currently there are three VDECS available for installation under the rule meeting level 3 VDECS requirements. With a requirement for 20% per year retrofit significant numbers of equipment vital to maintaining California's construction and mining economy and jobs will be in the field. In our case, with a predominance of large equipment the individual value of equipment is quite often over \$300,000 dollars and for some over a million dollars a piece. Likewise with rollover and repower provisions implementing simultaneously any significant engine damage caused by one of these three VDECS could take a long time for operators to replace and regain production capacity. This could have devastating financial impacts on both individual companies as well as the state's economy in a worst case scenario. Therefore we request that the executive officer be granted the authority to authorize the removal of VDECS under appropriate circumstances.

Request for change 2449(e)(8) – Exemption for vehicles awaiting sale

We would like to request a change to this section to ensure that our members are not found out of compliance as a result of not being able to remove vehicles from their facility due either to space constraints at sales yards or inability to locate transportation for the equipment. Unlike construction companies that need to constantly move their fleets most mines do not have the heavy trucks to move their equipment from location to location on their own. Likewise, the large scale of equipment replacement required by the rule makes us skeptical that we will always be able to find a sales yard with room for our retired or replaced equipment. We therefore request this change;

“Exemption for Vehicles Awaiting Sale - Vehicles in the possession of dealers, financing companies, or other entities including fleet owners who do not intend to operate the vehicle nor offer the vehicle for hire, that are operated only to demonstrate functionality to potential buyers or to move short distances while awaiting sale, transport to a sales yard or for maintenance purposes are exempt from all requirements in section 2449.”

We would appreciate consideration in this matter as we do not wish our members to end up violating the rule as a result of logistical issues resulting from the large number of equipment entering the used equipment market in other states and any resultant inability to get the equipment off site prior to the March 1st compliance date.

Requested Addition Compliance Clarification

We would like to request that CARB specify within the rule that one is in compliance should they meet the BACT requirements instead of the fleet average. We believe this clarification is necessary to ensure that fleets complying with BACT particularly in initial years are clearly in compliance even if their fleet average exceeds what might be construed by some as a Clean Air Act standard with the NOx and PM targets leading to costly legal disagreements.

Comments on ISOR:

Compliance

On page 58 of the Initial Statement of Reasons staff states that, “If ARB inspectors find vehicles that are subject to the regulation that are not labeled with an EIN, then that would be an immediate indication of noncompliance.” We disagree with this statement as one has 30 day’s to apply for an EIN from CARB pursuant to (f)2 of the proposed rule. As such it would be an indication the inspector should verify the date the equipment was added to the fleet and that an EIN had been applied for within the 30 day period granted.

Costs

We disagree with the cost assessment conducted by CARB staff and believe the M.Cubed cost assessment prepared on behalf of the Construction Industry Air Quality Coalition is a more accurate assessment. We hereby incorporate that study into our comments by reference.

Reporting Assistance Tools

On page 25 of the ISOR staff notes, "Staff plans to develop and provide fleets with a set of electronic tools for reporting and for determining compliance planning and tracking." We would like to thank staff for what will be an important activity. As staff notes this is a complicated rule and providing tools to impacted industry especially smaller businesses who may struggle to develop such tools independently is important.

Concern over Availability of Fleet Information

Recognizing the importance of CARB inspectors having accurate fleet information to determine compliance and manufacturers of equipment and retrofits to have knowledge of the total fleet in California, we would like to express our concern that individual fleet specifics never be released in such a way that would allow unfair business competition in the marketplace. Knowledge of a company's fleet is knowledge of that businesses capacity to produce minerals in the case of the minerals industry and in the case of the construction industry it could be used to determine the capability to bid various public works and private jobs. With the nature of our states open bidding process such specific information could be used to gain a unfair competitive advantage by knowing both what projects and customers a business was already serving one could determine if a competitor had the physical resources to compete for new projects or customers coming into the marketplace. In determining one was not likely to face competition on a bid a potential bidder would then be able to charge a premium for their services. As such we would request that CARB ensure that detailed fleet information not be available on a company by company basis and that even if it were allowed on a regional basis CARB should first ensure that enough businesses were in the region to prevent anyone from identifying a specific fleet.

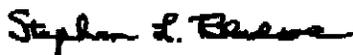
EPA Authorization Clarification

On page 31 of the ISOR, staff notes that they must obtain authorization from the EPA administrator prior to the in-use emission standards of the regulation become effective. To ensure there is no misunderstanding between the regulated community and CARB we ask that staff specifically identify which provisions they consider subject to this requirement.

We would like to thank the Board and Staff for working with us on this important regulation over the past several years. We are appreciative of the changes which have been made which should be helpful for our membership including the inclusion potential for fixed site electrically operated alternatives to be used to offset the trucks they may replace.

Should you have any questions on this letter please do not hesitate to contact us.

Sincerely,



Stephen L. Bledsoe
President