



California Biodiesel Alliance	National Biodiesel Board
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May 13, 2013

Alexander "Lex" Mitchell
Air Pollution Specialist
California Air Resources Board
State of California
Via electronic mail to amitchel@arb.ca.gov

Re: California Biodiesel Alliance and National Biodiesel Board Comments on ADF Regulatory Concepts White Paper, Alternative Diesel Fuel Rulemaking

Dear Mr. Mitchell:

On behalf of the California Biodiesel Alliance and the National Biodiesel Board, we are pleased to provide these written comments on the "White Paper—Discussion of Conceptual Approach to Regulation of Alternative Diesel Fuels" dated February 15, 2013 and discussed at the recent ARB workshop April 23, 2013. We look forward to future workshops and to future discussions and opportunities to clarify these comments with ARB staff as the rulemaking makes its way through the traditional regulatory process.

The California Biodiesel Alliance (CBA) is a not-for-profit trade association promoting the increased use and production of high quality, renewable biodiesel fuel in California. CBA represents biodiesel feedstock suppliers, producers, distributors, retailers and fleets. Since 2006, CBA has championed the cause of biodiesel in California and has worked on every important issue faced by our industry in this state and at the national level.

The National Biodiesel Board is the national trade association that represents the biodiesel industry as the coordinating body for research and development in the U.S. It was founded in 1992 and has developed into a comprehensive association that coordinates and interacts with industry, government, and academia. The NBB's membership is comprised of: biodiesel producers; state and national feedstock producer and processor organizations; fuel marketers and distributors; and technology providers.

We would like to begin by noting our view that NOx Mitigation for B20 in California is unnecessary. As discussed at the April 23, 2013 workshop, any impact of B20 on NOx -- either positive or negative -- is small and will be eliminated through New Technology Diesel Engines (NTDE). NTDEs will reduce NOx by over 90% with both B20 and ULSD petroleum diesel compared to 2004 model year diesel engines. Fleet turnover mandates required by California law will provide significant NOx reductions over the next ten years. Other non-ARB generated data shows no measurable impact of B20 and lower on NOx emissions. Independent air shed modeling completed by Environ covering the South Coast Air District shows no measurable ozone impact from B20 use in the entire southern California fleet on days when a well-known ozone event occurred. We do not believe there is solid justification for requiring biodiesel NOx mitigation under these circumstances.

If a mitigation program is required, it should not be burdensome or expensive, and requirements should be proportionate to the expected benefits. Experience in another state has demonstrated that improperly

conceived NOx mitigation strategies can have a devastating impact on the biodiesel industry. It is therefore recommended that if mitigation is required:

- a. No mitigation should be necessary for B5 and below, as discussed in the white paper.
- b. Use of blends higher than B20 and up to B100 should be allowed on a case-by-case basis without mitigation, as with biodiesel users groups using B100 or fleets with advanced diesel emission control technology.
- c. Mitigation of biodiesel blends over B5 and up to B20 should:
 - i. Be based upon multiple approved additives that are reasonably priced (add less than \$.01 per gallon of blended fuel);
 - ii. Be capable of being blended at the biodiesel producer, distributor, rack, or refinery level;
 - iii. Not require conformity testing for each batch, but may be subject to random testing;
 - iv. Be vetted by an industry working group, and;
 - v. Include “sun setting” in the rulemaking when New Technology Diesel Engines have been implemented which provide 90% less NOx with both B20 and petrodiesel.
- d. To ensure new fuels are operating under the same rules as existing fuels, the use of the current 1991 Detroit Diesel Series 60 engine should be allowed as an accepted means of certification under the regulation.
- e. ARB staff should allow the use of emissions certification data with additives from other states using similar testing protocols, with appropriate staff review, in lieu of new testing.

The current mitigation strategies based upon “biodiesel-ready diesel” blending with renewable diesel or use of Di-Tertiary Butyl Peroxide at the 1% level in finished B20 (5% level in B100) are difficult, expensive, and appear to be impractical based on discussions with our own members and members of the engine manufacturing and petroleum refining communities. If NOx mitigation moves forward, sufficient phase-in time will be needed to identify and develop several workable options so that market distortions and disruptions do not occur.

Regarding the proposed biodiesel specifications, staff mentions in the white paper, “Some of these diesel fuel substitutes legally exist in commerce today and are controlled through industry consensus standards. Such fuels-related industry consensus standards seek mainly to address both vehicle performance and fuel production quality issues.” This is the case for biodiesel, which has been used for more than 20 years in the U.S. market. Biodiesel has ASTM standards for B100 (ASTM D6751, first approved 12 years ago), blends of B5 and lower (ASTM D975) and blends over 5% up to 20% biodiesel (ASTM D7467), which were both approved five years ago. Blends above 20% biodiesel up to 99% biodiesel are traditionally handled in a similar way to how blends of No. 1 and No. 2 diesel fuel are handled -- if the two parent fuels meet their specifications, the fuels can be blended and used in diesel engines upon consultation with the OEM.

ARB staff proposes to add several parameters for pure biodiesel, or as a ‘Reference B100’, that are not contained in D6751. These include API gravity, FAME content or volume percent, and nitrogen content. We do not believe it is appropriate to specify these additional parameters for B100 under this regulation. The specific gravity of biodiesel meeting all the other parameters in D6751 does not vary substantially, so there is no need to specify it separately. This is the reason it was not added to D6751, as described in the D6751 appendix. Biodiesel contains virtually no nitrogen so there is no need to specify and measure nitrogen and there is little basis for the 10 ppm value suggested. There is no FAME content or volume percent parameter in D6751 as the definition of biodiesel (i.e. mono-alkyl ester of long chain fatty acids) and the other parameters in the specification sufficiently characterize the fuel so that it is fit for purpose for diesel engines per OEM recommendations. This along with the fact that the analytical variation of the test method is significantly larger than the specification proposed, were the main reasons this parameter is not part of the current ASTM specification. We strongly recommend ARB continue to rely on the ASTM consensus process for fuel specification purposes and that the specific gravity, FAME content, and nitrogen content proposed requirements be removed.

In addition to the above, there are two other technical corrections suggested on the proposed specifications for "Reference B100" used for additive demonstration. The flash point specification should be 93 degrees C (200 degrees F), not 266 F proposed. The flash point specification of 266 F only applies if flash point is also used as the means to control methanol content. The test method for distillation should be changed to vacuum distillation D1160 which is contained in ASTM D6751 rather than the atmospheric distillation D86. The high boiling point of biodiesel makes it difficult to get consistent results with atmospheric distillation and use of D86 is not recommended for pure biodiesel. The limit should also be modified to match that of the ASTM standard, which is 680 F maximum, rather than the range which is proposed.

In conclusion, biodiesel is an abundant, inexpensive, and practical compliance option for attaining the goals set forth under the LCFS. NOx mitigation regulations, however, have the potential to negatively impact the viability of the biodiesel industry and the LCFS program since additization, in particular, can be burdensome, expensive, and ultimately unworkable. In light of NOx modeling and air shed analysis that has been conducted, it is our recommendation that no NOx mitigation requirements be adopted at this time. We would, however, support continued research and monitoring of biodiesel's NOx impacts as the LCFS targets increase and fleet turnover continues.

We would like to express our sense of optimism about the future of the LCFS and the role biodiesel can play within the policy. Should your schedule allow, we would appreciate the opportunity to meet with you in person to discuss these issues further. Thank you, in advance, for your consideration of our request.

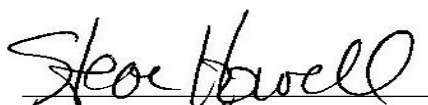
Sincerely,



Russell Teall

President

California Biodiesel Alliance



Steve Howell

Technical Director

National Biodiesel Board