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Alexander Mitchell
California Air Resources Board
P.O. Box 2815
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Via email to: amitchel@arb.ca.gov with cc: to Jim Aguila (jaguila@arb.ca.gov)

RE: Official written comments from biodiesel producer Crimson Renewable Energy (Crimson) regarding the Alternative Diesel Fuel (ADF) Rulemaking Workshop held on October 20, 2014

Dear Mr. Mitchell:

As California's largest in-state producer of biodiesel, we attended the Alternative Diesel Fuel (ADF) Rulemaking Workshop held on October 20, 2014 and listened carefully. This rulemaking will have a profound impact on the California biodiesel market and on the ultimate viability of production operations at our Bakersfield biodiesel plant. Before diving into our comments on this week's Alternative Diesel Fuel (ADF) Rulemaking Workshop, I would like to thank you and other members of the Air Resources Board for working with us and other industry stakeholders on the forthcoming ADF regulations. We appreciate the time you and other ARB staff members have taken and the positive relationships we've developed. I hope that we can continue to assist ARB in its efforts to improve California's air quality and protect its environment.

To echo comments made by our trade associations, the California Biodiesel Alliance and the National Biodiesel Board, biodiesel is a solution to very specific problems associated with petroleum diesel's emissions profile – namely the well-known toxics, particulates, and carcinogens that are currently causing unacceptable levels of respiratory illness in California, especially among California's children and elderly and its economically disadvantaged communities (such communities tend to be concentrated near industrial areas where truck traffic is disproportionately higher than in other communities). Indeed, "Biodiesel's reduction in PM emissions and associated risks" were acknowledged in the ARB staff presentation at this week's ADF Workshop and some air districts in California are out of compliance for PM reductions. So when considering this and the fact that biodiesel provides very large reductions in carbon/GHG emissions that are critical to California's landmark carbon/GHG emission reduction requirements, we find implementation of an ADF regulatory proposal that would severely limit the volume of biodiesel in California to be perplexing and inappropriate. Additionally limiting biodiesel and its various emission benefits during a period when New Technology Diesel Engines (NTDEs, which reduce all tailpipe NOx emissions by 90% regardless of type of fuel) are being phased in due to existing California law makes little sense.

We ask that ARB staff consider the following points as it continues deliberations in its ADF rulemaking process.

1. **Impact on California Biodiesel Industry** – We believe in light of biodiesel very significant per gallon carbon reduction and thus its potential role as an important compliance option within the Low Carbon Fuel Standard (LCFS), the proposed ADF regulations will unnecessarily limit growth in California's

biodiesel industry. California is expected to consume 80-100 million gallons of biodiesel in 2014 when only a 1 % carbon reduction is required under LCFS. National biodiesel production in 2013 was 1.7 billion gallons and is projected at 1.5 to 1.6 billion gallons for 2014. According to the National Biodiesel Board (NBB), domestic biodiesel production capacity has grown from <200 million gallons in 2007 to 2.4 billion gallons in 2014. By 2018 when LCFS carbon reduction will reach 6% to 7% and 2020 when the mandated reductions reach 10%, biodiesel consumption in California can easily exceed 400 million gallons, which equates to an approximate overall B10 blend level. Certainly the domestic production capacity is available today, even assuming no future growth. The proposed ADF regulations would limit biodiesel's contribution to less than B7.5 (although B10 may be allowed in the Nov-April period, this period is also when diesel consumption is lower than the remainder of the year). For these reasons and considering biodiesel's other significant emission and health benefits noted on page 1 and the lack of absolute certainty concerning the recent ARB test data (see immediately below), we urge ARB staff to consider a B10 year-round cap / safe harbor threshold before any mitigation is required.

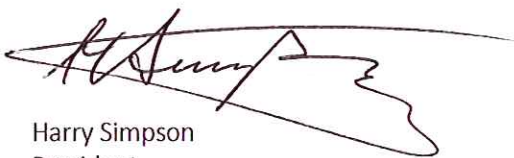
2. Test Results and Data – We believe that the recent ARB preliminary data and any preliminary conclusions reach by ARB staff related to a NOx increase at the B5 and B10 level are not absolutely conclusive (i.e. cannot be 100% absolutely certain). The test results for B5 and B10 using soy biodiesel are within the natural variability in NOx emissions for the CARB diesel used in the testing. It appears that ARB staff are choosing to ignore previous data from ARB testing showing inconclusive results for NOx increase at the B5 levels, and also ignoring lower data points generated during the most recent ARB testing. As noted in an analysis by U.S. Department of Energy's National Renewable Energy Laboratory, the data does not show statistically significant increases in NOx at low blend levels.
3. Mitigation options / Di-tert-Butyl Peroxide (DTBP) – As noted in earlier meetings between ARB staff, California biodiesel producer and the NBB, DTBP is not a realistic mitigation option due to (i) the final biodiesel blend with DTBP additive would not meet the ASTM D6971 biodiesel specification for oxidative stability (using a peroxide compound as an additive makes stability much worse), (ii) safety concerns due to DTBP's extreme flammability, unstable nature, and toxicity, and (iii) extremely high cost for the treat rates that would be required (at a 5% treat rate, DTBP delivered cost fo \$16+ /gallon, and accounting for amortization of investment in specialized DTBP storage and additive injection systems, this would render any biodiesel treated with DTBP as economically non-viable in the marketplace).
4. Mitigation Options / need for other additive solution – While additives are certainly not the preferred path for any sort of NOx mitigation, due to added cost and infrastructure requirements, we urge ARB staff to consider other additive options. There is a distinct possibility for enhanced cost tolerance if LCFS drives biodiesel demand to the point that an additive can be economically feasible and necessary to accommodate higher biodiesel blends levels. We would ask that CARB strongly consider the use of other additives such as cetane enhancers as these have proven to be much more economically viable (as evidenced by their use in the Texas biodiesel market for NOx mitigation) compared to DTBP and can be employed without negatively impacting the ability to meet ASTM biodiesel specifications.
5. Phase-in timeline – The proposed ADF regulations will require significant change within the industry, including new labeling at each retail dispenser and the joint development of new compliance and

tracking mechanisms. Also, other agencies such as the Division of Weights and Measures will require time to adapt their biodiesel related regulations (there may be a need to change the current California labeling requirements for biodiesel blend levels at retail dispensers). Additionally, time is required for ARB and industry participants to conduct testing and complete approval processes for additives such as the cetane enhancers noted above (2 years will not be sufficient for this). Thus we urge ARB staff to allow at least 3 years prior to implementing the biodiesel blend caps.

6. Accounting for NTDE and Sunset Provisions - Compared to 2004 model year diesel engines, NTDEs reduce NOx emissions by more than 90 percent when using biodiesel and/or petroleum diesel fuels. NTDEs already make up 25%+ of the current heavy duty diesel fleet in California and will grow to 95% by 2023 as required by ARB fleet turnover regulations. We urge that ARB staff consider adding a provision to the ADF regulations that will require accounting for NTDE adoption in the California heavy duty diesel fleet population each year starting in 2020 and allow for upwards adjustment in the biodiesel blend cap/safe harbor threshold if NTDE penetration attains certain levels. For example if the ADF regulations go into effect with a B10 cap and this essentially factors in a current NTDE penetration of 40% at the time the regulations take effect and then in 2020 the actual penetration rate is 65%, then the biodiesel blend cap will be upwards adjusted in Jan 2021 to reflect the increase in NTDE adoption. We also urge ARB staff to consider a provision to sunset the ADF regulations when NTDE penetration reaches 80% instead of 90%.
7. Light and Medium Duty Fleets – As suggested by the ARB presentation in the ADF Rulemaking Workshop, we urge ARB staff to include an exemption for light and medium duty diesel vehicles

We greatly appreciate this opportunity to comment, and hope and trust that our comments will receive serious attention and consideration. Please feel free to contact me should you have any questions.

Sincerely yours, ↵



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