Graham Noyes
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KEYES, FOX & WIEDMAN LLP

February 19, 2015

Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Comment of North Star Biofuels Regarding Alternative Diesel Fuel Regulation

Dear Chairwoman Mary Nichols and Members of the Board,

Thank you for the opportunity to provide comments regarding the proposed alternative diesel fuel regulation ("ADF"). This letter is submitted on behalf of my client, North Star Biofuels LLC ("North Star"). North Star is a leading California producer of high quality biodiesel with a production facility located in Watsonville, California. As is further described in this letter, North Star has developed and deployed a proprietary technology that enables its facility to produce biodiesel that demonstrates improved emissions performance as compared with conventional biodiesel. In particular, North Star's biodiesel has been rigorously tested at up to B20 blend levels and found to have equivalent nitrogen oxides ("NOx") emissions and substantially reduced particulate matter ("PM") emissions as compared to conventional CARB diesel. As a result, North Star is requesting that the Board revise the ADF regulatory language slightly to ensure that NOx solutions based upon production technology are clearly recognized and enabled under the ADF.

We have been engaged in discussions with Alexander Mitchell, Manager of the Emerging Technologies Section, and ARB staff regarding the issues raised in this letter. We have found these discussions to be very constructive. We recognize and appreciate the substantial efforts of the Board, ARB staff, Mr. Mitchell, and Executive Officer Richard Corey to receive input from the business community of low carbon fuel producers in California, and to craft the ADF regulation in a manner that enables California businesses to provide innovative commercial solutions that facilitate the achievement of California's air quality objectives.

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12-2-3

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North Star's Technology and CE- CERT NOx Testing Results

North Star is a joint venture between R Power Biofuels LLC and AB Bioenergy LLC (a subsidiary of Agri Beef Co., a vertically integrated meat company based in Boise, Idaho and producers of Snake River Farms and Double R Ranch high-quality meat products). North Star's Watsonville production facility has a nameplate capacity of 1,000 barrels (40,000 gallons) per day, making it one of the largest biodiesel production facilities in California. Over the past seven years, R Power and North Star have developed a biodiesel production technology that delivers commercial-scale biodiesel with exceptional purity, clarity, performance, and emissions reduction characteristics. The technology, for which the company was recently awarded a patent by the United States Patent and Trademark Office, is a fully automated, continuous flow biodiesel production technology.

Recognizing that NOx emissions are a crucial issue in California, North Star funded and undertook a testing program at UC Riverside's Center for Environmental Research and Technology ("CE-CERT") to demonstrate that the tailpipe emissions from blends of North Star biodiesel up to B20 are equivalent to CARB Diesel and that PM reductions are even greater than typical from biodiesel blends. Dr. Tom Durbin has been the principal investigator for North Star. Dr. Durbin has also served ARB as the primary resource in its technical review and analysis of biodiesel NOx performance that underpins the ADF. As a result, Dr. Durbin is very familiar with both the body of technical literature pertaining to biodiesel blends, and the protocols proposed in the ADF for certifying NOx neutrality.

Dr. Durbin's CE-CERT report on the testing conducted in December 2015 concluded that North Star's AFME-2 biodiesel blend showed NO_x neutrality with CARB Diesel for both the B10 and B20 blends, and PM emission reductions of 29% compared with CARB Diesel. Dr. Durbin has further advised that while the testing done for North Star was consistent with the ADF's protocols, the testing was not as comprehensive as the regulation requires in terms of repetition, sequencing of tests, and controls. Therefore, North Star is not asserting that the company has sufficiently fulfilled ARB requirements to receive certification for equivalency at this point. Instead, North Star is seeking a regulatory revision that will ensure that the ADF regulation clearly enables the certification of North Star's biodiesel blends once the company has completed fully compliant testing.

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ADF Regulatory Analysis as Applied to North Star

Under the ADF, biodiesel is treated as the first alternative diesel fuel. Biodiesel is effectively deemed to have completed stages one and two of the ADF requirements, and found to have adverse emissions impacts that cannot be eliminated by offsetting measures. As a result, in-use requirements for biodiesel are established pursuant to 17 CCR §2293.6 which states that, "ADFs which have been determined to have adverse emissions impacts after accounting for offsetting factors shall have a sub-section under this section listing appropriate in-use requirements including pollutant emission control trigger levels."

Section 2293.6(a) establishes in-use requirements for biodiesel phased in as follows:

1. Beginning January 1, 2016, reporting requirements are imposed.
2. Beginning January 1, 2018, pollutant control levels are imposed. These are variable based on whether the biodiesel is low saturation (unadditized cetane number below 56) or high saturation (above 56 cetane). Blends above specified levels are subject to in-use requirements.

Based on the results of the CE-CERT testing, North Star Biofuel has developed an innovative technological solution that enables the company to eliminate the NOx increases from biodiesel blend use while maintaining the particulate matter and other emissions benefits that biodiesel blends provided. It is our request that production technology solutions be explicitly integrated into the certification portion of the regulation, Appendix 1. This is easily achieved within the existing framework of the regulation.

The following method would achieve this purpose (proposed new language in bold):

Appendix 1. In-use Requirements for Pollutant Emissions Control[1]
(…)
(a) Biodiesel:
(…)
(2) Certification of Alternative Diesel Fuels Resulting in Emissions Equivalence with Diesel
(…)
(B) The candidate fuel.
The candidate fuel to be used in the comparative testing described in (a)(2)(F) of

[1] The relevant section may be found in the rulemaking package, Appendix A, Proposed Regulation at page A-32/A-39.

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this appendix shall be one of the following:

> 1. ADF formulation: The candidate fuel shall be the fuel blendstock or fuel blend that the applicant is attempting to certify. If the applicant is attempting to certify a fuel blend **such as a biodiesel with a heightened fuel specification or biodiesel produced utilizing a specified production technology,** that blend shall consist of the fuel blendstock blended to 20 percent with the Reference CARB Diesel.
> The applicant shall report all of the candidate fuel properties under (a)(3)(C) of this appendix for the candidate fuel.
> (…)

We request that the Board include this language in the final version of the ADF regulation that it approves. Please advise if any further explanation would assist in your review of this request.

Sincerely,

Graham Noyes
Keyes, Fox & Wiedman LLP
Attorney for North Star Biofuels

Cc: Alexander Mitchell, Manager of Emerging Technologies Section
Michael Doyle, CEO, North Star Biofuels