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April 21, 2009

Mary D. Nichols
Chair
California Air Resources Board
Headquarters Building
1001 I Street
Sacramento, CA 95812

Dear Chair Nichols:

I am writing to share a number of suggestions members of the National Biodiesel Board (NBB) believe would enhance the "Proposed Regulation to Implement the Low Carbon Fuel Standard," published March 5, 2009. Thank you, in advance, for your consideration of our industry's recommendations.

First, I would like to express our appreciation for the high level of cooperation shown by the Air Resources Board (ARB) staff up to this point in time. While we continue to believe the implementation schedule for diesel is unnecessarily back loaded and we continue to have one significant difference of opinion on the lifecycle assessment for soy-based biodiesel, when taken as a whole, we feel the ARB is doing a commendable job, particularly in light of the immensely challenging time constraints the agency has been given. So it is on this basis, and with the understanding that ARB staff will continue to work collaboratively on potentially difficult issues like indirect lifecycle greenhouse gas (GHG) impacts, that we offer our support for moving forward with the draft regulation.

With regard to specific comments, the NBB wishes to communicate the following points related to issues that will be considered by the board for approval this week:

1. We continue to be puzzled by the ARB's resistance to accelerating the diesel implementation schedule, particularly in light of a study we forwarded to staff which conclusively shows price and supply should not be concerns. It is important to note that, under the current schedule, the low carbon fuel standard (LCFS) will not begin requiring more biodiesel to be sold in the state than is currently sold until at least the fourth year of the program. And California biodiesel plants' current production capacity will likely not be exceeded until the fifth year of the program. Ultimately, this overly cautious implementation schedule will only serve to delay development of a California-based industry that has significant potential for improving the environment and supplying green jobs during a historically challenging economic time.

2. With respect to the CA-GREET model for soy-based biodiesel, the ARB should, in our view, use a consistent co-product allocation method. Employing the displacement method

for corn-based ethanol and the energy allocation method for soy-based biodiesel defies logic given their inherent and rather obvious similarities. No other government does it this way. This decision is particularly harmful because the chosen methods result in the worst possible assessment for each fuel. And in the case of soy-based biodiesel, the error is compounded because the ARB adds GHG emissions associated with the inefficiency inherent in livestock feed uptake to the oil/biodiesel side of the equation. This is illogical since the amount of energy that animals metabolize has nothing to do with the oil/biodiesel side of the GHG assessment; those GHG emissions should be counted on the meal side since they are related 100 percent to livestock feeding within the animal production industry. Further, it is important to understand that soybean oil has historically been viewed by the soybean industry as a by-product rather than a co-product. Even with the development of biodiesel, the majority of the value of a soybean continues to reside in the meal. As such, it is common knowledge that farmers grow soybeans for the meal and not the oil. This makes it doubly inaccurate to add GHG emissions associated with meal/livestock feed to oil/biodiesel.

3. With respect to the lifecycle analysis for direct emissions related to petroleum-based diesel production, it is difficult to understand why the ARB would only assess the fuels that are produced in-state, since these fuels merely comprise one-third of the fuels sold in California. It has been said that this data is difficult to obtain, so one is left to conclude that the default value in GREET is simply being used by the ARB for the sake of convenience. Given that many view GREET's assessment of petroleum to be favorable to that industry, we urge the ARB to reconsider its decision to not conduct a full lifecycle assessment of petroleum-based diesel fuels produced outside California.

4. We wish to point out that the "system boundaries" of the direct emissions models for petroleum-based diesel and soy-based biodiesel are inconsistent in so far as GHG emissions related to oil exploration and oil well drilling are not included in the ARB's assessment while GHG emissions associated with soybean planting are included in the ARB's emissions figure. Clearly, a direct parallel exists between oil well drilling and soybean planting. Unfortunately, this goes unrecognized in the ARB's model, compromising its accuracy. As such, we respectfully request that this difference in system boundaries be remedied by adding GHG emissions associated with oil exploration and drilling to the petroleum-based diesel total.

Regarding issues related to indirect impacts associated with GHG lifecycle analysis that were included in the draft regulation but will not be considered for approval by the board this week, we have the following comments.

1. We respectfully urge the ARB to take its time with regard to work on indirect land use change (ILUC) modeling. While we support investigating this issue fully, and wish to participate in and contribute to the effort in any way possible, we are keenly aware that the data and models needed to properly assess this issue are not yet available. Since the LCFS is not, in a real sense, implemented until 2011, and more biodiesel will not be required until 2014 than is currently sold in the state, we see no reason to rush to judgment on this issue in the very near term. Rather than prematurely publishing a half-baked result, we recommend investigating ILUC until January of 2011 when the LCFS is actually implemented but could still be met quite easily with California-produced ultra low carbon biodiesel from recycled cooking oil. This approach would be much more in keeping with generally accepted scientific principles. It is also interesting to note that the European Commission is

employing just such a strategy by moving forward with implementation of its renewable fuels mandate, but not including a factor for ILUC until 2017. While we are not advocating for the ARB to wait until 2017 to address ILUC, we do feel strongly that a one-year deferral would inform thought on this issue significantly by providing more time for data gathering and model improvement and development.

2. In our view, the fact that the ARB has indicated it will not perform an assessment of indirect GHG impacts associated with petroleum-based diesel represents a flaw in the agency's analysis. While ARB staff are on record indicating this information is difficult to find and would likely result in only minor modifications to petroleum's GHG reduction assessment, the same statements could also be made about soy-based biodiesel as it relates to global land use changes and the causes of those changes. In the latter case, rather than using a factor of zero as the ARB has for petroleum-based diesel, the agency has, in truth, simply ventured a guess to derive a "temporary" number – a number which, by the way, is quite large. Ultimately, this is clearly an instance in which petroleum diesel and biodiesel are treated very differently, resulting in a less accurate analysis, in general, and a less favorable analysis for biodiesel, in particular.

3. The ARB does not include historical yield trends in its modeling. With all due respect, this is a catastrophic error that could distort the modeling results by a factor of 80 percent or more. At the most recent ARB public workshop, John Sheehan from the University of Minnesota presented data from a model he developed with the Natural Resources Defense Council which showed that once a historical yield trend is included in the analysis, the ILUC factor becomes zero because the higher productivity of agricultural land means there is more than enough crops available to address both energy and food needs. The NBB, as strongly as possible, encourages the ARB to reconsider its position on this issue. Although the ARB's current approach is simpler and easier, it distorts the final results immensely, perhaps to the point of needlessly cancelling the only compliance pathway capable of meeting the ten percent diesel reduction target.

4. As a follow-on to point number three above, the ARB should recognize the GTAP model's major weakness – that it assumes supply and demand are always in equilibrium. The ARB should address this shortcoming by adding a component to the model that can account for increasing yields, which would allow the model to show greater supply than demand over the long-term. Since substantial data exists showing supply and demand in the agriculture industry are never in balance, it is difficult to understand why the ARB would use this model for long-term forecasting. (Notably, one of the ARB's own peer reviewers made this same point in his recent response to the draft regulation by stating that GTAP should not be used for forecasting periods longer than 15 years). This limitation of the GTAP model is precisely why the ARB was unable to verify its ILUC model against 2001-2007 corn data. Of course, this is not entirely unexpected since the GTAP model was never intended for the purpose for which it is being used by the ARB.
5. Page X-4 of the proposed regulation states that "The lowest cost way for many farmers to take advantage of these higher commodity prices is to bring non-agricultural lands into production." This assumption causes the ILUC model to predict that a significant amount of new land will be brought into agricultural production, artificially increasing the ILUC factor and thus decreasing biodiesel's GHG benefits. We would be interested in seeing any data the ARB has that shows clearing land for additional plantings is less expensive than improving agricultural practices such as purchasing higher quality seed varieties. Based on

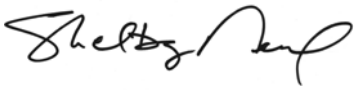
our calculations, the math does not come close to supporting this assumption, meaning the ARB believes farmer-businesspeople will consistently – and on a long-term, worldwide basis – make decisions counter to their economic best interest.

6. With respect to GHG modeling, the ARB mentions the words "full transparency" in the draft regulation on multiple occasions. We are pleased to state that this has been the case with regard to the direct emissions model, CA-GREET. To date, however, this has not been the case with respect to ILUC/GTAP modeling. ARB staff have indicated at public meetings that the GTAP model is publicly available. Unfortunately, this is only technically true because to gain access to the model one has to pay Purdue University a sum of approximately $9,000. And even if one musters the financial resources to access the GTAP model data, he or she still would not know what assumptions had been changed by ARB staff and contractors because that information has not been made available to the public. Given the extreme importance of the ILUC modeling effort to the biodiesel industry and the fact that the ARB appears to be moving forward on this issue at a very rapid pace, we would hope all data related to this work would be made publicly available in the very near term so that organizations such as ours could participate meaningfully in the effort. As it stands currently, we have contracted with a noted expert in the field to analyze ARB's work who is unable to do so because no significant information has been released.

7. While we have a high level of confidence in the intellectual integrity of the ARB, we cannot help but note that most governments and organizations which employ a peer review process mismanage it by hand picking a few like-minded junior professors from a small set of geographically diverse institutions. Typically, these exercises have the effect of rubber stamping the agency's views rather than informing the process. As such, we urge the ARB to be exceptionally thoughtful with regard to how it manages the peer review process. Specifically, we suggest a fully transparent and unbiased process that focuses on soliciting opinion from the premier North American experts in this area.

Thank you, in advance, for your kind consideration of our comments. Again, we very much appreciate the cooperation of ARB staff and the opportunity to work with the agency on this important policy. If you should have any questions, I hope you will feel free to call me at any time.

Sincerely,



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