August 28, 2009

Mary D. Nichols, Chair
California Air Resources Board
Headquarters Building
1001 I Street, P.O. Box 2815
Sacramento, CA 95812

Re: Request for Comments on Establishing New Fuel Pathways and Proposal for an Expert Workgroup

Dear Ms. Nichols:

We welcome the opportunity to comment on California Air Resources Board (CARB) staff proposals regarding the creation of a Low Carbon Fuel Standard (LCFS) Expert Workgroup (August 3, 2009) and on Procedures and Guidelines for Regulated Parties to Establish New Fuel Pathways (August 4, 2009). We applaud the public process that CARB is utilizing to review the process for new pathway development and for the selection of Expert Workgroup members. Only with this type of identification of the expertise needed, and a public selection process to ensure all appropriate qualified candidates are identified, can a group be established that can deliver a work product with the scientific quality and integrity expected of the CARB.

Establishing an Expert Workgroup

We agree wholeheartedly with the Board's decision to establish an Expert Workgroup to provide the necessary expertise to address import unresolved issues which cloud adoption of the proposed LCFS. We are hopeful that the charge to an Expert Workgroup will include suggested improvements that were provided to CARB during the initial public comment period ending April 22, 2009 and the subsequent public hearings ending April 23-24, 2009. Because of the wide divergence of scientific opinion concerning indirect land use value determinations, it is imperative that the Expert Workgroup be allowed to complete its work before the ILUC component of the CI value determination is implemented. In short, we believe that the work of the Expert Workgroup needs to be structured in such a manner as to address the requirements outlined in CARB Resolution 09-31 and to ensure that the LCFS pathways identified by CARB are an accurate reflection of current Carbon Intensity (CI) values:

Priority One: Harmonization of Indirect Land Use Efforts

Most important, the group must harmonize its efforts with other studies to study and establish the effects of indirect land use. CARB specifically indicated that CARB staff is to "coordinate this effort with similar efforts by the U.S. EPA, European Union and other agencies pursuing a low carbon fuel standard." With international and federal experts suggesting that additional time and scientific rigor are required to provide the appropriate framework and accurate data for indirect land use determinations, California should seize this opportunity to coordinate its studies with theirs, rather than pursue its own separate and abbreviated path. As we have previously indicated to CARB, at a minimum, inaccurate assumptions have been made regarding yield, yield changes over time, intensification, US versus rest of world yields, land resolution, and co-product credits that significantly impact the indirect land use contribution. Broader scientific agreement on the framework and boundaries of indirect land use and

the appropriate treatment of emission factors, elasticity, and time accounting are all important to ensuring quality science leading to quality decisions for the public good.

Priority Two: Address Current Direct CI Pathway Value Errors and a Means for Keeping Data Current. The group must update the current direct components of the pathways in the proposed LCFS model. The model should reflect current and accurate data with provision for annual updates. The use of inaccurate or dated information in the determination of CI values falsely represents the relative benefits of various fuels, processes and technologies. Accuracy is critical to incent the correct behavior and to achieve the desired global warming reductions. This applies, at a minimum, to the following areas: fertilizer use, water use, co-product treatment, crop yields, ethanol plant production values (e.g. energy and yield) and on farm fuel use.

Establishing New Fuel Pathways

To encourage continued optimization and innovation, it is critical that current pathways be updated annually, as mentioned above, to reflect current industry practice. Second, new pathways will serve to lower barriers to entry. Provision must also be made to assure the confidentiality of proprietary technology developments and for proposals by parties other than regulated parties for the addition of new pathways. Finally, indirect land use changes that are demonstrable via direct land use reduction, should not require Board review.

Priority One: Current pathways must be updated annually. Continued progress will occur in the reduction of fertilizer use, the reduction of on farm fuel, the increase in crop yields per acre, the retention of on farm biomass, and the efficiency of ethanol plant production processes. The beneficial adoption of technical innovation must be fostered by means of annual updates to the pathways. This also assures CARB staff of its ability to quantify CI reductions reflective of the current state of renewable fuel production. This also raises the importance of national generation of this information on an annual basis, reinforcing the importance of CARB working with federal agencies to ensure an efficient and effective process is developed for generating and providing this information.

Priority Two: New pathways which reflect indirect land use changes that are demonstrable via direct land use reduction should not require Board approval, as has been proposed. Applicants who are able to demonstrate that direct and measurable reductions in required crop production land resulting from their proposed pathway or pathway modification should not be subjected to a delayed review process requiring board versus staff involvement. Examples of technologies that would provide this ready demonstration of reduced land use are: front end fractionation to food grade corn oil and ethanol yield per bushel increases.

Priority Three: Pro-active establishment of new pathways must be encouraged. Non-regulated parties should be allowed to propose new pathways, and the confidentiality of proprietary technology must be protected. Incenting CI value reduction via technology innovation is critical for California to achieve its CI intensity reduction goals. Adoption of new technologies is accelerated when the CI benefits are made evident. By pre-approving a number of additional pathways which could be recommended as a group, the work of CARB staff is minimized.

The opportunity for non-regulated parties to submit new and/or improved pathways will further ensure a rapid pace of innovation and will again allow for a pathway to be submitted, reviewed and approved that could be applicable to multiple producers. These parties are better able to have the expertise and

resources to develop the raw data and quantification of data required by CARB staff. Finally, however, there must be a means of protecting data that is proprietary in nature. If data transparency is required, innovations will be both narrowed to those which are patentable and delayed by the requirement for a patent process. A means by which outside independent technology consultants could be used to provide independent assessments of the technology, similar to the process utilized by banks in financing determinations, would provide an alternative means of obtaining necessary information without disclosing proprietary data.

Thank you for the opportunity to submit these comments. We stand ready to work with CARB staff in the further development of these proposals, and to nominate individuals who are well-qualified to serve on the Expert Workgroup. We believe that thoughtful deliberation by the Workgroup on these topics, and the adoption of an accessible protocol for the recognition of new pathways will contribute significantly to achievement of the Board's LCFS objectives.

Sincerely,

John S. Hickman, Ph.D., Director, Biorenewable Energy and Life Sciences, Deere & Company

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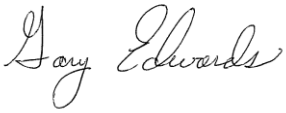

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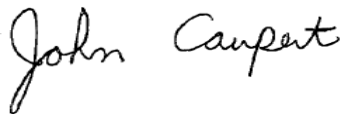

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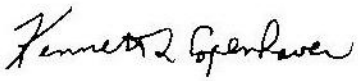

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