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March 10, 2017

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Air Resources Board

1001 I Street Sacramento, CA 95814

Electronic submittal only via: [LCFSWorkshop@arb.ca.gov](mailto:LCFSWorkshop@arb.ca.gov)

RE: RPMG Comments on January 31, 2017 ARB Ethanol in LCFS Workshop

Dear Sam and Jim,

We would like to thank you and your staff for taking the time to hold workshops and receive comments on potential changes to the Low Carbon Fuel Standard Regulations (LCFS or Regulation). This informal process allows Renewable Products Marketing Group (RPMG) the opportunity to comment on the variety of important, and far reaching, staff proposals.

RPMG is a biofuel marketing company currently representing our owner and marketing partner ethanol facilities located throughout the Midwest, and is an active stakeholder in the California fuels marketplace. We support clean transportation fuel policy, including California's LCFS, which diversifies fuel supply, incentivizes innovative technology and advanced renewable fuel selection, creates jobs, and, most importantly, improves the environment. Our track record of providing RPMG members with unparalleled compliance services is a key aspect of our business. RPMG participates in greenhouse gas (GHG) reduction and alternative transportation fuel programs throughout the nation and the world. These comments are based on two decades of multijurisdictional experience.

The January 31, 2016, workshop focused on Ethanol facilities. RPMG has taken additional time to review the staff presentation and coordinate with our member plants on the issues and ideas presented. Below are our written comments, we look forward to discussing these and other issues with you as well.

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## Fuel Pathway Evaluation: Tier 1 Pathways for Starch-Derived Ethanol

RPMG understands it is staff's proposal to simplify the Tier 1 pathway application forms in anticipation of enhanced monitoring and verification (MVS) procedures. The envisioned simplified form would replace the CA-GREET 2.0 Tier 1 Calculator required for use in Tier 1 applications today. RPMG supports the proposed change and the supplied rationale of facilitating pathway CI applications, evaluations and verification. The expressed purpose is to provide user input fields in a simplified form such that only the inputs provided are subject to verification, including the entries made as their specific unit of measurement, basis or conversion method. Thereby necessitating the accounting methods used or conversions performed by the pathway holder to be applied consistently from period to period. Verifiers would also need to understand those accounting methods, or standardization conversions in order to be able to replicate and verify the inputs. The standardization referenced here is not the direct conversion of data to CA-GREET inputs. It is understood that ARB staff would design those elements as built into the tool and eliminate that as an intermediate step to calculating a final Carbon Intensity (CI) score.

Upon review of the draft form, RPMG and our affiliated producers have noted the following trends in design. ARB staff desire a level of standardization in data entries to achieve its goal of simplifying the form and inputs collected, while balancing the reality of accommodating varied operational, accounting method and data access practices throughout industry today. RPMG's experience in working with 20 plus ethanol and coproduct producers at any given time has shown that each producer has some level of dynamic and unique needs. To address that reality, we encourage and appreciate flexibility. RPMG recommends ARB staff provide clarity around expected value inputs by inserting an instruction sheet or best practice guide to the simplified form. We are not suggesting ARB dictate all standardization conversions or require explicit methodologies unilaterally across the board, but rather we would most value expressed general guidelines of what standardized measurements are sought.

Some examples include the variety of ways members record their grain inventory:

- gross receipt non-moisture compensated quantity, which would then rely on the tool to calculate based on a single standard (15% moisture reduced, 15.5% moisture reduced), or

- quantities reduced for entries of actual moisture measurements upon receipt.

Each facility may record these “accounting record” inputs differently. If ARB needs a standardized quantity reported from all ethanol pathway holders RPMG is pleased to work with our members and ARB staff to determine an approach to standardize.

RPMG believes the previewed simplified form is in need of two additional data capture fields:

1. For co-products the first month beginning inventory value needs to be expressed, but was not in the draft form presented.
2. We further recommend capturing inventory adjustments to all various input classes.

RPMG also supports the stakeholder suggestion made during the workshop to enter co-product and ethanol shipments for the period rather than co-product and ethanol “sales.” See attached revised example form for suggested modifications to accommodate these items.

Most units of measurement labeled in the form are appropriate for the examples given, including: bushels for grain inventory, tons for distillers grain and syrup, pounds for corn oil, tons for biomass and kWh for electricity. It is worth noting, natural gas is prevalently invoiced by utilities as an expressed energy value unit in High Heating Value (HHV). In our experience this is most often MMBtu, but could be joules, calories, decatherms or others. For a small number of producers, natural gas is invoiced by utilities as standard cubic feet (scf). RPMG recommends the fuel pathway holders would specify in their compliance monitoring plan what unit of measurement is expressed for natural gas consumption pertinent to their utility records. We support, for the purposes of verification, reviewing the utility invoices which display the HHV energy measurement as a direct comparison for the verifier. However, RPMG would like to confirm future calculations plugged into the proposed simplified form will continue to convert energy consumption to the LHV property of the natural gas consumed just as the CA-GREET model in use today is designed to handle. Upon that confirmation, it would be worthwhile for fuel pathway holders to consistently enter the MMBtu quantity from utility bills as the simplified form input. If a smaller population of producers first need to convert one thermal energy value to MMBtu prior to entry in the form, this conversion would also need to be communicated in the compliance monitoring plan. The complexity here shows more understanding on the part of stakeholders and dialogue with ARB is warranted on this topic.

Temperature readings of ethanol volumes are commonly taken at the time of shipment (load out), but are not universally taken at intermittent production or inventory phases. For this reason, converting to a standard 60 degrees Fahrenheit for all ethanol readings may not be strictly and reliably available for all ethanol pathway holders. We recommend entering ethanol shipments as a temperature corrected 60 degrees net volume to remain consistent with potentially corresponding RIN volumes and invoiced shipment quantities. However, for production, beginning, and ending inventory values we suggest entry of a gross non-temperature corrected value. As this value is a gauge of available inventory and subject to regular shrink, gain and true-up adjustments. Also, as plants regularly maintain a volume of inventory on hand, impacts to comparing gross inventory to net shipment volumes will be minimal. Likely only resulting in a meaningful final adjustment if a plant were to cease production for an extended period or drain a tank for repairs or decommission.

Staff has proposed to revert chemical and enzyme inputs to default values for all Tier 1 ethanol producers. While we appreciate staff's explanation that these inputs have a relatively small overall impact to CI values, within our group we do have producers who feel quite strongly they wish to maintain their ability to claim the associated reductions from their responsible and conservative use of these operational necessities. For that reason, RPMG recommends to allow an option to be utilized for such producers. This could be accomplished by providing a separate simplified form for this target audience or building it into this simplified form. In either case, a new tab for selecting either default values or entering actual plant data values to then be linked into CI calculations could be developed. The producers who wish to continue to use actual usage data are comfortable with the additional work burden this represents to their administrative staff. Still others appreciate the reduction in workload using defaults would represent.

Staff is proposing grain truck transport defaults-- 50 miles Midwest and rail default of 1,400 + 100 miles truck for California? RPMG would like to seek clarity, and or compliance guidance, if a producer draws beyond default?

Because denaturant is assessed separately in the CI calculation, recording ethanol inventory should be done as an undenatured value. As with other inputs, each producer has slightly different circumstances. However, calculating production as either a denatured or an undenatured volume should be achievable by all. In this instance, the CI calculation integrity should be the driving force.

Industry adherence to a maximum ethanol denaturant limit of 2.49% by volume is standard practice due to qualifying for RIN generation, terminal leasing agreements and agreed upon contract specifications. Having said this, normalizing to a denaturant factor of 2.50% will penalize all ethanol producers two fold. First, a normalizing co-efficient of 2.50 is higher than the maximum used in practice of 2.49. Second, actual denaturant inclusion rates are uniformly lower than the maximum of 2.49 far more often than they are at the maximum rate. Our producers adhere to the accepted range of 1.96 to 2.49 according to EPA, TTB and IRS rules and determinations of rounding and significant digit thresholds. This range is determined to round to 2%. Our recommendation is to use a standard value of 2.0% as a better representation of the accepted range of 1.96 to 2.49% by volume.

For any change discussed here and in staff materials, RPMG wishes to call attention to the very important topic of continuous plant evolution. Plants are ever striving to be more efficient, better able to meet market demands and to employ creativity in pursuing these objectives. This simplified form or any future changes to the application process and on-going compliance monitoring need to allow for, and be flexible enough, to accommodate future changes to operations where the plant remains at or below their certified CI value(s). These tools cannot become unforeseen operational constraints or hand cuffs to innovation and new technology. We recognize ARB's desire to anticipate as many changes as can be foreseen now, and we look forward to continuing this discussion with ARB staff to better understand how such technologies and pathway elements can be addressed.

Pathway holders should be allowed to identify records available to substantiate each data reference point within their anticipated Compliance Monitoring Plan. This should result in both producer and verifier pre-established expectations for documentation that can be provided and reviewed. Some values are calculated from other present data-- production or ending inventory. These fields are understood to be dependents of their input references. It is our expectation other individual entries can be substantiated through comparable records.

RPMG supports the following stakeholder comments made during the workshop:

- Allow for month-end closing timing and adjustments needed for true-ups.
- The form should allow for separate pathways based on feedstock and co-product allocations.
- Seasonality of production conditions must be recognized.

To summarize this section of comments, it is important for staff to bear in mind that each producer will have unique attributes and circumstances when compared to others. A goal of simplification is appreciated by RPMG

and our affiliated plants, but we advocate strongly to maintain a reasonable level of flexibility for those unique attributes as well as the ability to continually improve efficiencies and plant operations.

#### Fuel Reporting: Non-Regulatory Enhancements and Regulatory Amendments

RPMG supports staff's recommendation for fuel volumes reported in the LCFS to be adjusted to standard temperature conditions of 60 degrees Fahrenheit. This objective of standardizing shipment volumes leaving a Midwest production facility is in use today. This topic may have greater impact to terminals and rack operations downstream of producers or pathway holders. We look forward to working with market counterparties to identify any such limitations.

Staff is considering placing automated holds on any credits related to unreconciled fuel transactions, allowing only the reconciled fuel transactions to generate credits. As this issue effects between 1-1.5% of all fuel transactions in the system today, and presumably far less when considering just ethanol transactions, RPMG believes this level of activity is not material in the grand scheme of transactions. On principle RPMG does not support "automated holds on any credits." Counterparties should continue to engage with one another. Further, it does not seem appropriate for a good actor conducting outreach and communication efforts to be penalized for counterparty unresponsiveness. It seems far more effective to modify contract and payment terms directly with such parties.

#### Third Party Verification: Considerations for Starch-Derived Ethanol

Staff proposals reference validation completed on a calendar year basis. RPMG recognizes this holds certain benefits in keeping all verification schedules fairly consistent. Please note, a full 12 months of representative, steady state operational data is a minimum time frame needed to capture all seasonality constraints, maintenance and downtime. Where an existing plant transitions to a new pathway mid-year, or a new facility comes on-line mid-year, a solution to addressing these scenarios needs to be discussed. RPMG looks forward to engaging further with ARB staff on this matter. Also note, verifiers' time and resources will be in high demand therefore, holding all pathway holders program-wide to the same timeline for verification will place constraints on those limited resources. To overcome this obstacle, RPMG recommends flexibility be maintained with regard to deadlines and time requirements for completing verification.

To inform site visit frequency (quarterly, semiannual, annual, triennial), staff is seeking stakeholder feedback regarding the frequency with which activities most likely to impact compliance can potentially change. The factors with the greatest impact to grain ethanol CI values are: feedstock allocations, process energy, co-product allocations, and transport distance. These factors do not drastically change day to day, week to week, month to month, quarter to quarter, or year to year for mid-west ethanol producers. It is RPMG's position site visits do NOT need to be conducted with greater frequency than every three years, matching RFS2 registration update and engineering review minimum mandates. Where a producer has made a material change to any of these parameters in an interim site visit period, it would be appropriate to communicate that change with ARB and undergo a new site visit to review that change. Conducting site visits more frequently than every three years, absent of special circumstances, does not add value to the pathway holder nor does it result in greater assurance of valid credits than verification of CI pathways and documentation undertaken as part annual verification efforts.

### Conclusion

RPMG appreciates the open dialogue opportunities being presented by ARB. The key to success in ARB's current efforts are to strike the right balance between transparency, simplicity and flexibility. RPMG is committed to assisting ARB in finding that balance for the benefit of the program and its participants.

We look forward to the continuation of this open and ongoing dialogue. If you have any specific questions about these comments, please contact me at [jwhoffmann@rpmgllc.com](mailto:jwhoffmann@rpmgllc.com).

Sincerely,



Jessica W. Hoffmann  
Regulatory and Compliance Manager

Attachment:

Revised Simplified CI Application Form