



November 7, 2017

Mr. Sam Wade, Branch Chief, Transportation Fuels Branch  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Sent via email: [LCFSworkshop@arb.ca.gov](mailto:LCFSworkshop@arb.ca.gov)

RE: September 22, 2017 Workshop to discuss proposed amendments to the Low Carbon Fuel Standard (LCFS) regulation

Dear Mr. Wade:

Renewable Energy Group, Inc. (REG) appreciates the opportunity to comment on proposed amendments to the LCFS. REG is a leading provider of cleaner, lower carbon intensity products and services. We are an international producer of biomass-based diesel, a developer of renewable chemicals and are North America's largest producer of advanced biofuel. REG utilizes an integrated procurement, distribution, and logistics network to convert natural fats, oils, greases, and sugars into lower carbon intensity products. With 14 active biorefineries, a feedstock processing facility, research and development capabilities and a diverse and growing intellectual property portfolio, REG is committed to being a long-term leader in bio-based fuel and chemicals.

#### *Rulemaking Timeline*

REG appreciates the rulemaking timeline that ARB has provided throughout this process. As we started to compile our comments and review other comments, we realized that there is still much work to be done, but we are unsure why the staff report & analyses needed to be done before the end of 2017 if the rule wouldn't be made effective until January 1, 2019. Therefore REG wanted to propose that the report and analyses be finished by the end of Q1 or Q2 2018 to allow additional time to provide adequate comments to ARB on the various parts of this rulemaking.

#### *§95481. Definitions and Acronyms*

REG suggests the following edits to the definitions:

- “Animal Fat” means the ~~inedible~~ fat that originates from a rendering facility as a product of rendering the by-products from meat processing facilities including animal parts, fat and bone. The primary animal fats used in the biofuel industry include ~~inedible~~ tallow from processing cattle, ~~inedible~~ choice white grease from swine processing, and ~~inedible~~

poultry fat. ~~“Yellow grease” must be characterized as animal fat if evidence is not provided to the verifier or ARB to confirm that it is solely UCO.~~

- “Yellow Grease” means a commodity produced from a mixture of: (1) used cooking oil, and (2) rendered animal fats that were not used for cooking. This mixture often is combined from multiple points of origin. Yellow grease must be characterized as “animal fat” if evidence is not provided to the verifier or ARB to confirm ~~that it is solely~~ the amount of UCO present.
  - REG recommends simplifying the Animal Fat definition to align with industry standard terminology.
  - Also, we recommend editing the Yellow Grease (YG) definition to allow producers and/or feedstock suppliers to develop a way to prove out the amount of UCO contained in yellow grease.
  
- “Used Cooking Oil” (UCO) means fats and oils originating from commercial or industrial food processing operations, including restaurants, that have been used for cooking or frying. UCO does not contain any other fats, oils, or greases that were not previously used for cooking or frying operations.
  - REG recommends a separate definition for brown or trap grease since the AAFCO definition for UCO excludes that feedstock.
  - A brown grease definition for consideration: “Brown Grease” means an emulsion of vegetable and animal oil, fat, grease, solids and water. It is separated from the wastewater in a grease interceptor (grease trap) from where it can be collected for different purposes<sup>1</sup>.
  
- “Chain-of-custody evidence for feedstocks” means either: (1) delivery records that show shipments of feedstock type and quantity directly from the First-collection Point ~~point of origin~~ to the fuel producer or (2) information from material balance or energy balance systems that control and record the assignment of input characteristics to output quantities at relevant points along the feedstock supply chain.
- “First-collection Point” means the facility that aggregates and stores or treats feedstock materials collected from a point of origin.
  - REG is not sure whether ARB meant point of origin or First-collection Point in the definition of Chain-of-custody evidence for feedstocks. We think that it should be First-collection Point for a number of reasons. One, there is no definition for point of origin whereas there is one for first collection point. Two, First-collection Point is more feasible from a commercial perspective for a producer especially with a feedstock like UCO. Three, using “point of origin” here may be unduly restrictive to prospective market participants and

<sup>1</sup> <http://lipidlibrary.aocs.org/OilsFats/content.cfm?ItemNumber=40320>

disincentivize use of these commodities. Fourth and lastly, as the European Commission noted in a letter to RED voluntary schemes like ISCC back in 2014, “...the risk of fraud committed at the level of restaurants can be considered to be relatively low. The risk will be higher at later stages of the chain of custody, e.g. for collectors of UCO, traders, or large producers where the waste oil is a considerable source of income. This should be reflected in the auditing rules. Several voluntary schemes have developed approaches where the focus of the auditing effort at the origin is placed on the collectors of UCO.<sup>2</sup>”

- “Biodiesel” means a fuel ~~as defined in California Code of Regulations, title 4, section 4140(a) comprised of mono-alkyl esters of long chain fatty acids derived from nonpetroleum renewable resources, designated B100, and meeting the specifications set forth by the ASTM International in the latest version of Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels D6751.~~
  - REG recommends having a biodiesel definition included in the regulation. We simplified the definition listed in in CCR Title 4, Section 4140.
  
- “Renewable Hydrocarbon Diesel” means a diesel fuel conforming to the most recent revision of ASTM D975 Standard Specification for Diesel Fuel Oils that is produced from nonpetroleum renewable resources but is not a mono-alkyl ester and which is registered as a motor vehicle or fuel additive under 40 Code of Federal Regulations part 79.
  - REG recommends that D975 be incorporated into the renewable hydrocarbon diesel (RHD) definition similar to Oregon to ensure RHD is not lumped in with other renewable diesels that do not meet D975.
  
- “Biomass-based Diesel” means ~~a biodiesel (mono-alkyl ester) or a renewable hydrocarbon diesel, that complies with ASTM D975-14a, (2014), Specification for Diesel Fuel Oils, which is incorporated herein by reference. This includes a renewable fuel derived from co-processing biomass with a petroleum feedstock.~~
  - REG recommends simplifying the definition of biomass-based diesel to refer to the biodiesel and RHD definitions already defined and to remove co-processed biomass. We believe including co-processed biomass in the definition could cause confusion since it does not match other existing regulatory language. Specifically, the definition of biomass-based diesel in the California Code of Regulations Title 4, Section 4140 and in 40 CFR 80.1401 both exclude co-processed biomass. Furthermore, under newly draft language for Table 8 under 95488.8, the temporary fuel pathway codes (TFPCs) for biodiesel and RHD are combined into

<sup>2</sup> [https://ec.europa.eu/energy/sites/ener/files/documents/2014\\_letter\\_wastes\\_residues.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/2014_letter_wastes_residues.pdf)

a single category now called biomass-based diesel. Under the current definition of biomass-based diesel, this would allow co-processed diesel fuel to qualify for TFPCs. If ARB wishes to have a TFPCs for co-processed diesel fuel, then REG recommends a separate definition and a separate TFPC on Table 8 for clarity to all stakeholders.

*§95482. Fuels and Regulated Parties*

REG supports the addition of alternative jet fuel and renewable propane as opt-in fuels and removing the exemptions for military tactical vehicles and aircraft. We would ask ARB to consider treating locomotives and ocean-going vessels similar to jet fuel (i.e. exempt petroleum fuels and allow for opt-in status for low CI fuels) and consider adding RHD as an applicable fuel like Oregon did in its rulemaking earlier this year for clarity and alignment.

*§95483 – 95483.2. Fuel Reporting Entities, Opt-in Entities and LCFS Data Management System*

REG requests clarification with regard to the term, “uploaded”, as it pertains to alternative jet fuel. Perhaps, it might be simpler to clarify that the importer or producer of the alternative jet fuel reports and claims the credits unless contracted otherwise.

We support the drafted renewable propane rules and recommend generating credits against the diesel baseline. Recent discussions with propane stakeholders indicate that propane for transportation uses is generally used in fleets and farm tractors substituting for natural gas or diesel engines.

*§95484. Average CI Requirements*

REG suggests ARB utilize the existing benchmark established for diesel rather than develop a new benchmark for alternative jet fuel (AJF). We believe that having a jet fuel baseline line significantly lower than both gasoline and diesel will disincentivize production and supply of AJF to the state of California. The producers of AJF also produce on-road, drop-in fuels with a higher LCFS incentive, unless the incentives for both fuels are made equal, economics will lead producers to stick to on-road fuel production.

*§ 95486. Generating and Calculating Credits and Deficits*

REG supports adding energy densities for alternative jet fuel and propane to Table 4 assuming there isn't a wide variation on energy densities for the different alt jet fuels and that credit generation for renewable propane would utilize the same energy density as propane. We request adding naphtha assuming that renewable naphtha would have the same energy density as well. ARB may already have data on these products from the different RHD producers in their

pathway applications. If not, REG is willing to assist in the calculation of these energy densities using real world data.

We remain **adamantly opposed** to credits being generated on the day after the reporting deadline unless those deadlines are moved up. REG, and likely other stakeholders, have already invested a significant amount of time and resources on education of the timing of LCFS credit revenue recognition in our financial statements relative to fuel sales with both internal and external (i.e. the investor community) parties. Currently, there is a 1 quarter delay between fuel activity and credit generation (i.e. Q1 fuel sales generated credits in Q2). Under the proposal being considered, the delay would be 2 quarters (i.e. Q1 fuel sales wouldn't generate credits until July 1 or Q3).

One day makes a materially significant difference for financial reporting purposes especially considering the new revenue recognition rules being implemented by the Financial Accounting Standards Board beginning January 1, 2018. We would effectively be reporting LCFS credit revenue two quarters after the fuel that generated the credit has been delivered to our customer, creating a timing mismatch and introducing additional complexity in other regulatory filings and risk of confusion in our public financial reporting (i.e. SEC reporting). Therefore, we strongly encourage ARB staff to keep the system as is or to consider moving up the 45 day reconciliation periods to 35 days or 30/45 days if this proposal is included in the updated regulation.

*§ 95487. Credit Transactions*

REG is confused by the new language under credit transfers in 95487(c). We could put a transaction agreement date into LRT. However, we generally don't contract 10 days or less in advance which is how we understand the language. For example, it looks to us in (1)(B)(1) like if we agree to a single LCFS Credit contract on October 1<sup>st</sup> then we would have to transfer the credits by October 10<sup>th</sup>. We do not believe this is common marketplace activity. If that is not ARB's intention then we recommend the following edits below:

(B) The credit transfer request must identify the type of transaction agreement for which the transfer request is being submitted, selecting one of the following two types:

1. The transaction agreement covers a single delivery of LCFS credits in the LRT-CBTS; ~~which is taking place no more than 10 days from the date of agreement;~~
2. The transaction agreement covers multiple credit deliveries, ~~or at least one of the deliveries is taking place—or will take place—more than 10 days from the date of agreement.~~

Furthermore, we are confused as to what ARB is looking for with the new information requested in (1)(C)(10)-(11) [(8) & (9) under 110617 draft reg text]. The termination date concept in (10) is confusing at best, dangerous at worst. Today, contracts close when the trade is completed – generally during a transfer window (i.e. Q1). Requiring an anticipated termination date may require companies to assign a date arbitrarily resulting in some form of missed compliance should a contract close just before or after the entered termination date. We suggest this provision is unnecessary and should be removed.

For the same reasons as mentioned above in (10), we also recommend removing (11) as well.

Lastly, related to the comments above on adding fields, we recommend allowing credit transfers to be done via Excel and/or XML file to automate the process and reduce errors. Other programs we transact in allow for trades like this to be uploaded via Excel and/or XML file similar to how fuel transactions can be done in LRT currently. However, on credit transfers, we have to manually fill out the form each time we do a transfer which leaves the whole process prone to error. We are not aware of functionality in LRT that would allow for one person to prepare a transfer and another to review it prior to transfer. So while this process has not been too onerous so far due to the limited number of fields, adding additional fields that are not straight forward will lead to mistakes. As you know, even if mistakes are realized quickly, an email is automatically sent to counterparties and credits can be accepted within seconds with those mistakes. Therefore, we again recommend allowing credit transfers to be done via Excel and/or XML.

With regard to Exchange Clearing Services, REG is still considering the idea.

While ARB continues to ponder the idea of an Exchange Clearing Service, REG would like to reiterate our support of ARB considering an integrated LCFS Credit market with Oregon and British Columbia similar to discussions and developments within Cap’N’Trade.

#### *§ 95488. Entities Eligible to Apply for Fuel Pathways*

REG is supportive of the opportunity to pursue joint applications. We believe that allowing individual entities to retain confidential data while pursuing joint registrations will allow the value chain to deliver more, lower-carbon fuel to the state of California.

#### *§ 95488.1. Fuel Pathway Classifications*

REG disagrees with the requirement to use a simplified calculator for Tier 1 applications. The proliferation of calculators within the LCFS will lead to confusion, and ultimately, incorrect and

unrepeatable carbon intensity calculations. This was the experience applicants faced when using the current Tier 1 and Tier 2 calculators. GREET is a recursive model and will not benefit from having pathways in silos from one another. We strongly encourage ARB to abandon this approach.

We understand that a significant part of building the simplified calculator was to assist verifiers with their audits and to also make the CI calculation process easier for applicants. REG believes both of these goals can still be achieved while relying solely on CA-GREET 3.0.

We recommend that staff maintain the data input sheets built for the new, simplified calculator. However, rather than having these input sheets built to individual calculators, they could easily be connected to the model by macro. We look forward to the upcoming workshops in order to discuss and deliberate this idea further.

#### *§ 95488.3. Calculation of Fuel Pathway Carbon Intensities*

Purdue University has done excellent new research on fuel pathway carbon intensities. Therefore, we recommend that ARB review the new information from Purdue University and include it within the current rulemaking.

#### *§ 95488.5. Tier 1 Fuel Pathway Application Requirements and Certification Process*

Staff is seeking stakeholder input on giving the option to use standard processing energy inputs (covering UCO treatment, tallow rendering and vegetable oil extraction processes) instead of facility-specific data. Standard values would not be subject to verification and would be fixed in the CI calculator. Would stakeholders accept standard treatment energy values if the options were offered?

REG supports ARB's development of new standard values and refining existing standard values, as long as they are grounded in a best available science approach. We believe this is an appropriate improvement over the current model, which has upstream factors indicated as yellow cells in Excel, including data points such as soy oil extraction rate. We encourage ARB to employ updated information on existing standard values such as tallow rendering energy.

Staff is seeking input on tracking shipment/collection of feedstock directly to a fuel production facility without transferring to a collection/treatment facility?

REG supports this step. It is common for producers to receive feedstock directly from the site of generation without going through an intermediate step. This is more common in both UCO and animal fats, rather than in virgin vegetable oils, which will always require some extraction from the oilseed. In animal rendering, it is very common for slaughtering and rendering to happen in



an integrated facility thus removing the intermediate transportation step accounted for in CA-GREET 2.0.

Staff is seeking stakeholder feedback related to allowing disaggregation of a single feedstock type sourced from multiple regions to account for varying energy mixes and transport distance, rather than aggregating the feedstock and requiring conservative energy mixes and transport distances. Staff is also seeking feedback on allowing disaggregation of feedstock based on differences in upstream processing energy (e.g., UCO and tallow).

Could substantiality thresholds be used to limit the number of distinct pathways that an applicant may apply for? For example, the difference in the CI scores must be at least X gCo<sub>2</sub>e/MJ, or Y%, to disaggregate by feedstock source. In this case feedstocks could be grouped by region (those within a transport radius) to meet the threshold.

REG looks forward to supporting ARB in the effort to further refine pathways. We believe that by allowing for the application of regional difference, producers will be able to generate more a granular CI score which more closely reflects the actual emissions associated with each gallon of renewable fuel. However, we caution ARB against creating an unwieldy amount of pathways as with ethanol pathways which accounted for moisture content in their DDGS. We suggest that ARB promulgate some form of substantiality requirement. However, REG believes that the current 20% threshold is too high to determine the eligibility of a regional pathway, and would generally support a reduced, and more realistically attainable threshold.

Staff is seeking stakeholder feedback on whether distillate bottoms, free fatty acids, naphtha or purge gas should be considered co-products and suggestions for requirements to ensure yields and reported volumes associated with each of these co-products are verifiable.

REG fully supports CARB's efforts to provide the option for producers to include the above mentioned co-products in a Tier 1 application. We also encourage ARB to add jet fuel as a co-product of RHD production. However, we strongly believe it appropriate for ARB to design a Tier 1 application that allows producers to add additional co-products beyond what is being suggested here. Biorefineries are moving toward the corn wet-mill model, meaning that a single refinery is able to further separate its co-products into additional, higher value constituents. ARB should not restrict producers from taking credit for any efficiency gains that are made.

When verifying co-product production amounts for inclusion in a carbon intensity calculation, ARB should take a similar approach to that of finished fuel, *requiring* producers to report and document the volume of the co-product produced and the *agency* should apply a standard energy density. This relatively straightforward approach would be applicable for Free Fatty Acids (FFA), Naphtha, and LPG since these products have more consistent properties. However,



products such as distillation bottoms and purge gas require that producers continually monitor their energy content, as it can be variable.

As with other co-products, applicants would be *required* to determine the volume produced, but they should have a conditional default available for the energy density. If a producer wishes to seek a site-specific value, it should be able to do so without meeting a substantiality threshold. This allows producers to determine the most accurate carbon intensity possible, thus generating the appropriate amount of credits. Any site-specific factor generated by a producer should be auditable and verifiable. The methods for determining this value and sampling technique should be documented in the producers CI monitoring plan.

Staff is also seeking feedback regarding current uses for co-products of BD/RD production. Is the requirement for demonstrating sales (invoices and receipts) a feasible option?

The co-products produced at biorefineries have a wide variety of uses, including feed, energy, and chemical precursors. REG believes validation of invoices to prove the sale of these products is a reasonable request, comports with the validation of biodiesel invoices. Furthermore, we believe ARB should consider the high co-product credit associated with certain displacement methodologies when developing sampling techniques for co-product invoices.

Staff is seeking stakeholder feedback on the CI allocation methodology for co-products.

ARB should be cautious in determining the allocation method for co-products, as this may have a significant effect on the actual carbon intensity. We encourage staff to work with neighboring jurisdictions, such as British Columbia and Oregon, in an effort to harmonize allocation methodologies. We do not believe that a one size fits all approach is appropriate for all the co-products that ARB is proposing to include. REG believes the following co-products should be accounted for accordingly:

- FFA should be allocated on the basis of mass or energy. These products are generally used either as feed, or feedstock for chemical conversions
- Naphtha, LPG, and Jet Fuel, due to their natures as fuels, should be accounted for on an energy basis. This allows the option for these fuels to become credit generating fuels in Oregon or California, garnering the same CI score as RHD.
- Purge gas should be accounted for on an energy basis. While displacement is also logical, it may be difficult to ascertain the actual fuel it is displacing. If the gas is introduced into an integrated refinery, that refinery process may not be fueled by pure natural gas; rather, it is more likely fueled by internally produced purge gas from other integrated processes.
- Distillation bottoms have a wide range of uses. Accordingly, producers should have flexibility to select the most appropriate allocation method, provided that they have appropriate request data and the approval of the executive office. REG envisions three

possible allocation methods for distillation bottoms. First, producers could select a mass allocation, essentially increasing their yield at the facility. This is appropriate for producers who are not selling their product for its energy value. Second, producers could utilize an energy allocation. In this scenario, producers could use either a conditional default for the energy density of the product, or they could opt for a site-specific factor that would be auditable and verifiable. Finally, producers should have the option of displacing a fossil-based fuel. While this would give the greatest co-product credit to the finished biodiesel, this is the only method that accounts for the biogenic carbon associated with combustion. To claim a displacement allocation, producers would be required to meet several criteria. The producer must test and verify the energy content of the product. The customer consuming the distillation bottoms must certify the fossil fuel they are displacing, and ARB should then require that the distillation bottom is not capturing another environmental credit for the biogenic carbon combustion, such as an REC, California Cap'N'Trade allowance, or any other extra judicial credit.

Lastly, staff is also seeking stakeholder feedback regarding density values for co-products and feedstocks. For every input listed in pounds, what are the preferred density values for converting gallons to pounds for co-products and feedstocks? Stakeholder input will be considered when standardizing conversion factors to be applied in all gallon-to-pound calculations for these CI inputs.

REG believes that ARB should work with stakeholders to develop standard densities and energy values for alternative jet fuel, renewable naphtha, renewable LPG, and FFA. These co-products have relatively consistent densities and energy contents. REG believes ARB staff should develop conditional defaults for the density and energy content of distillation bottoms and purge gas, as these products have significantly more variables than the previous mentioned co-products. REG also believes that there should be no threshold for the application of site-specific values, as this would ultimately lead to the most accurate carbon intensity score.

Staff is seeking stakeholder feedback on the suggestion to remove process chemical inputs from the CI application and apply standard values to determine the CI impact.

REG believes that process chemicals should retain site-specific values. Chemicals such as hydrochloric acid, citric acid, and sulfuric acid can be significantly carbon intensive. If default or conditional default values are offered, producers will not have an incentive to reduce their overall fossil chemical usage. In fact, they may have a perverse incentive to only use the conditional default. This combination of default and site-specific values has been the source of much of the over-optimization under the European Renewable Energy Directive (RED) allowing entities to try and “game the system.” Allowing these aspects of the system to be exploited would be contrary to accomplishing the statutory goals of the LCFS.

Staff is seeking stakeholder feedback regarding the preliminary proposed feedstock transport distance estimation methodology. For known sources of oilseed derived feedstock, is calculating a weighted average feasible? For the same feedstock from unknown sources, what are reasonable conditional default transport distances for truck and rail for vegetable oil feedstocks?

REG supports the use of weighted average calculation for feedstock transportation distance. However, a well-documented, auditable system *must* be a prerequisite before any weighted average can apply. We believe that ARB could reasonably calculate an oilseed average based on the data it has received from applicants. However, rather than estimating a distance, ARB could also consider a default CI value, such as 5g/MJ, for oil transport. Such a score is high enough to encourage producers to work with suppliers to better refine their data, but would allow producers to pursue and apply for a second pathway.

Staff is seeking stakeholder feedback on the preliminary proposed feedstock transport distance estimation methodologies. Are there any unintended consequences from applying these strategies?

Staff could look at existing application data from producers. ARB could also estimate the average distances between oilseed crush facilities and LCFS-registered biodiesel facilities.

What is the current practice for sourcing feedstocks from vegetable oils? Do most fuel providers source directly from the processing facility, or is it common to purchase from traders/brokers? How likely are traders/brokers to withhold listing locations of feedstock sources on bill of ladings?

Much of the virgin vegetable oil consumed in biodiesel is sourced as part of integrated production. However, brokers would be extremely reluctant to provide their feedstock source on their bill of lading, for fear of being cut out of the market. It may therefore not be commercially reasonable, or possible in some circumstances to provide this information as proposed.

Is it reasonable to require information on point of origin for UCO and tallow?

REG believes that it is reasonable to require point of aggregation for UCO. If the UCO is self-collected, the producer should know its original origin. Similarly, we believe it is reasonable that the producer should be able to identify the slaughterhouse or renderer that is providing the animal fat. However, product purchased from a broker will be devoid of origin, so ARB would likely need to plan, or make allowances, for those situations.

Staff is seeking stakeholder feedback on a methodology for calculating upstream transport emissions for UCO from the point of origin to the treatment facility or directly to the fuel production facility.

REG agrees that staff should offer a default or site-specific zero option for UCO rendering. When developing a default score, staff should continue to rely on the updated GREET model, academic journals, and stakeholders input. When calculating transportation distance, if a producer is self-collecting, a site-specific value is appropriate.

*§ 95488.6. Tier 2 Fuel Pathway Application Requirements and Certification Process*

Staff is seeking input on the suggestion to require modeling of CI for facility-specific feedstock processing energy to be performed under Tier 2 classification.

REG encourages staff to take a similar approach to data requirements for upstream suppliers as it does for producers with Tier 2 pathways. Upstream facilities willing to provide their data to support a lower value should be allowed to do so given the following requirements:

- 1) Their process leads to a decrease that meets a materiality threshold set by CARB.
- 2) The data is auditable and verifiable.
- 3) Suppliers have the option for provisional and certified process energy.

*§ 95488.7. Fuel Pathway Application Requirements Applying to All Classifications*

Thoughts on Trueing-up to CI

REG is still thinking through the max CI required from the attestation letter and related feedback at the workshop around the buffer account. We think the +/- 5% range is better than a max CI, but the idea of trueing-up to the actual CI on annual basis like other ARB programs is interesting. The challenge is will likely be how practical this will be able to accomplish especially if the amount of credits available begins to tighten, audit deadlines, the relationship to the credit clearance market (CCM), etc.

Staff is seeking stakeholder input on the suggested accounting methodology for allocating fuel volumes by feedstock.

REG is supportive of measures attempting to allocate fuel volumes by feedstock, so long as the process allows for flexibility. Feedstocks and mixtures of different feedstocks can change frequently at production facilities equipped to handle multiple feedstocks. REG advises ARB to be aware of the difficulty involved in attempting to track or verify these allocations, and asks that any added burden on producers should not be disproportionate to the benefit realized through lower CI allocations. Any new processes or fine-tuning of existing processes must not create a system biased towards single feedstock production facilities which may effectively dis-

incentivize the multi-feedstock production model which is otherwise beneficial to GHG reduction.

*§ 95488.8. Special Circumstances for Fuel Pathway Applications*

As noted above in the definitions section, REG recommends a separate temporary fuel pathway codes (TFPCs) for co-processed diesel fuel versus lumping biodiesel/RHD/co-processed diesel fuel under the biomass-based diesel TFPC. We think the processes are different enough to warrant such a distinction and would provide clarity to the marketplace.

Furthermore, we are concerned with including co-processed biomass in the definition of “biomass-based diesel” along with biodiesel and RHD because that is different from other definitions and could cause confusion. The definition of biomass-based diesel in the California Code of Regulations Title 4, Section 4140 and in 40 CFR 80.1401 both exclude co-processed biomass.

REG supports substitute Fuel Pathway Codes (FPCs), but would recommend a small edit to the proposed language to maintain the progress already made in the supply chain that has helped many smaller customers. “*Substitute FPCs.* If a fuel reporting entity is unable to determine the FPC at the Transaction Date for reporting a fuel transaction type listed in subsection (1) below...”

The reason for the suggested edit is that most buyers who buy without obligation want to be able to record the FPC and other LRT info at the time of purchase. Prior to the substitute FPCs, many of our customers expressed frustration at having to wait up to 4-5 months for a final FPC for their LCFS reports. Now, they can record that information more efficiently and effectively at the time of receiving the LCFS PTD which is often with an invoice.

*§ 95488.9. Maintaining Fuel Pathways*

Regarding record retention, REG recommends a bifurcation on the requirements like MRR (95105) where some parties have a five year requirement and some have a ten year requirement versus a blanket ten year requirement for all parties. REG recommends five years for all parties except those parties that have been subject to an ARB enforcement action (not just LCFS) or an adverse verification statement.

*§ 95491 – 95491.1. Fuel Transactions and Compliance Reporting, Recordkeeping and Auditing.*

As noted 95486, REG would prefer to keep the credit generation system as is. However, if it is changed so that no credits can be generated until after the reporting period is over, then we recommend changing the reporting frequency and deadlines from 45/45 to 30/45 or 35/35 to avoid financial statement impacts.

With the exception of option #3 under temperature correction, REG supports the drafted language for the biodiesel temperature correction formula options since they align with the ones used for the US RFS. REG believes potential new biodiesel temperature correction formulas within (B)(3) would in fact create a backdoor opportunity to facilitate less rigorous future outcomes.

*§ 95500. Requirements for Validation of Fuel Pathway Applications, Verification of Annual Fuel Pathway Reports, Quarterly Fuel Transactions Reports, Quarterly Crude Oil Reports, and Project Reports*

On the Triennial Verification section, REG recommends 25,000 credits during a calendar as a threshold to mirror MRR versus 6,000. Related to this, the threshold for reporting to LRT could then be 10,000 credits similar to how the reporting requirements for MRR work. This would apply to the same entities/transactions as those under the substitute FPCs which are often smaller entities with limited resources. Those entities often wish to buy fuel without obligation taking the discount on the fuel.

REG has continued to have very strong concerns about firm rotation. Rather than repeat them here, we will simply support the comments submitted by our RFS attest auditors, Christianson & Associates, have already submitted.

*§ 95501. Requirements for Validation and Verification Services*

Regarding verification services, we would like to be able to have our auditor start reviewing documents as soon as is feasible. We are not sure how possible that is if a notice has to be submitted to ARB every year prior to conducting the audit. For example, under a RFS attest for 2017, REG has the attest start sometime in Q2 2017 to help spread out the testing throughout the year and into early 2018 so that the audit is done by the end of May. This benefits both REG by having quicker feedback to correct issues sooner and our auditors so they can spread the work out more evenly throughout the year.

Regarding site visits, REG thinks an initial site visit is appropriate, but the next site visit shouldn't be for another 2-3 years unless the risk from the production facility or an FPC goes up. Generally, there is no need to keep visiting the site unless a material change has occurred especially since the RFS engineering reviews do a site visit every 3 years.

Regarding data checks, under (D)(1), REG recommends tracing data back to First Collection Point versus Point of Origin for reasons identified above (i.e. risk for UCO isn't at restaurant; it is at the point of aggregation).

Thank you for your consideration of our comments. Please feel free to contact us with any questions or comments.

Sincerely,

Handwritten signatures of Curtis Powers and Scott R. Hedderich. Curtis Powers' signature is on the left, and Scott R. Hedderich's signature is on the right.

Curtis Powers and Scott R. Hedderich