John R. Braeutigam
VP Strategic and Regulatory Development

Mach 21, 2016

To: Sam Wade

Sent VIA EMAIL to Samuel.Wade@arb.ca.gov

Re: Valero Comments on ARB's Proposed Framework for the LCFS Monitoring and Verification Program Workshop held on March 8, 2016

Dear Sam;

In addition to being one of the major refiners in California, Valero is also a major alternative fuels producer, owning and operating 11 ethanol plants (four of which have approved initial demonstration of physical pathways), with a combined operating capacity of 1.4 billion gallons per year. Valero is also the co-owner and operator of the Diamond Green Renewable Diesel plant which has a capacity of 11 MBPD or 167 million gallons per year (which began shipments to California in December, 2015). Thus, Valero has a unique perspective on the LCFS regulation as we essentially are impacted by both sides of the rule.

As an alternative fuel provider, Valero is concerned about the potential costs of third party verification audits. As an alternative fuel purchaser, Valero is concerned about the validity of an alternative fuels CI and the cost of any validation and verification program. The LCFS is not like the U.S. EPA RFS program which has an embedded fundamental risk of biodiesel fraud by allowing the D4 RINs to be separated from the biodiesel before blending by non-obligated parties. The LCFS program does not have RINs and compliance is based on the volumes of alternative fuels used in California. This difference results in a much lower risk factor for the LCFS compared to the RFS. Unlike the RFS program, Valero is not aware of any fraudulent CI values or LCFS credits. Therefore, Valero strongly urges ARB to take an 80/20 approach to minimize the cost of any Validation and Verification program. We urge staff to make sure that they are not developing a solution that is in search of a problem.

Valero has several suggestions which are listed below and discussed in more detail in the Appendix to this letter. Our suggestions are:

General
ARB Should Minimize the cost off the Validation/Verification Program
ARB Should Build Flexibility into the Regulations Concerning Validation and Verification

Validation

Current Regulatory Requirements for Validation are Sufficient

Staff-Re-Certification of Legacy Type 2A Pathways Should Allow Multiple CI Values Per Facility

Verification

ARB Should Stagger the Audits to Minimize Costs

ARB Should Develop a Risk Based Protocol to use to Determine the Audit Frequency of an Alternative Fuel Production Facility or a Credit Generation Protocol/Project

ARB Should Allow a Variance of the Audit Findings from the Actual Pathway Application

ARB Should Hold the Alternative Fuel Producers and the Credit Generation Protocol/Project Owners Responsible for Deficits Resulting for Failed Audits

Valero believes that these suggestions, if incorporated into the proposed regulations/protocols will improve the LCFS regulation and minimize costs to all parties involved, including the ultimate consumer of transportation fuels.

If you have any questions please feel free to contact me at (210) 345-2922.

Sincerely,

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Valero

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Valero Comments on ARB's "Proposed Framework for the LCFS Monitoring and Verification Program" Workshop on March 8, 2016

General

ARB Should Minimize the cost of the Validation/Verification Program
To minimize costs to alternative fuel producers and credit generators, alternative fuel buyers, and the ultimate consumer, an 80/20 approach should be taken for both the validation and verification portions of the proposed regulatory changes. Validation covers the alternative fuel or credit generation process when an alternative fuel's initial or revised CI value or a credit generation protocol/project is approved by staff. Verification covers the on-going process when third party auditors confirm that the CI of the alternative fuel or the credit generation protocol/project has not changed significantly.

ARB Should Build Flexibility into the Regulations Concerning Validation and Verification
Rather than fixing the audit frequency and other program variables, Valero suggests that staff build flexibility into the regulations so that staff (or the Executive Officer) can fine tune the audit requirements based on lessons that will be learned from the audits. For example, rather than calling for a third party audit every three years, Valero recommends that staff use regulatory language such as, "Third party audits must be conducted at a frequency set by staff, based on a risk management protocol, based on an initial frequency of once every three years." Staff should publish the risk management protocol. In addition, Valero also suggests that staff build flexibility into the initial validation part of the regulations for the same reason. For instance, in the previous LCFS regulation order concerning the Evidence of Physical Pathway in Section 95484 (c)(2), flexibility was built into the regulations through the use of terms and phrases such as: "must include documentation of sufficient detail for the Executive Officer to", and "the evidence may include, but is not limited to". To adhere to the 80/20 principle above, Valero recommends that the regulatory listing of requirements for Validation and Verification be minimized and specific requirements be listed in protocols developed and published by staff so they can be modified as needed based on lessons learned from the Validation and Verification process.

Validation

Current Regulatory Requirements for Validation are Sufficient
Based on the lack of any announced CI validation issues, and the current stringent nature of the pathway application process outlined in the LCFS regulation, Valero does not believe that any changes to increase the requirements or the addition of third party auditing of the applications are necessary. Based on the rigorous nature of staff's current review process, Valero does not believe that any additional requirements would be risk or cost effective. Valero does however, suggest that due to the large number of documents involved to cover all feedstock, chemical, product and co-product sales for a two year period (over 120,000 pages for one of Valero's ethanol plants), that staff amend 95488 (c)(3)(A)3 to also allow the option of staff randomly

selecting a statistically based sample of the documents covering the two year period, in conformance with widely accepted auditing protocols followed in fields from accounting to environmental compliance. If staff chose a month during the two year period and checked those invoices versus the stated feedstock and production levels, this could still entail 5,000 records. Valero recommends that instead of checking and adding up all of a month's records for each feedstock and product or co-product, that staff randomly check a statistically significant portion of the invoices over the two year period to ensure that the volumes correspond to the volumes listed in the spreadsheet provided by the applicant as required by the regulation in section 95488(c)(3)(A)2. Valero recommends using the sample size that the U.S. EPA has established for its Attestation Requirements for RFG at 40 CFR 80.127(1) which calls for the following:

Sample Size Based Upon Population Size	
No. in Population (N)	Sample Size
66 and larger	29
41-65	25
26-40	20
0-25	N or 19, whichever is smaller

Staff-Re-Certification of Legacy Type 2A Pathways

Valero strongly urges staff to calculate individual CI's instead of re-calculating an average facility CI when existing individual Type 2A CI's exist. Valero believes that this approach is more equitable since the parties involved already submitted documentation and obtained multiple CI's under the previous LCFS regulation order. If the previous CI certifications were based on the factor method, then staff should allow the producer to supply natural gas usage at the dryers and thermal oxidizers and steam production at the thermal oxidizer. If the producer provides this data, then staff should re-certify a pathway for wet DGS and dry DGS for the facility. Requiring parties that already submitted documentation to obtain multiple CI's for a facility to re-apply and start the process from scratch and submit the most recent two years of operating data when the process has not changed is not risk or cost based justified. Staff could conduct this re-certification of multiple CI's after it has completed the initial approval of the ethanol CI pathways.

Verification

ARB Should Stagger the Audits to Minimize Costs

Assuming that ARB sets an audit frequency greater than one year, Valero strongly suggests that ARB stagger the audits so there is an even demand for third party auditors from year to year, rather than peaks in demand which could have adverse impacts on the ability to schedule audits within the compliance window as well as the cost of the program. For example (assuming the revised regulations take effect January 1, 2017), if the average risk management based audit period for corn ethanol plants is once every three years, then staff should select one third of the plants to have their initial audit in 2019, one third in 2020, and one third in 2021. This staggering of audits should also apply to other alternative fuels producers and credit generation

protocols/projects. Please note that many biofuel facilities are located in remote locations and audits of these facilities may be difficult to staff.

ARB Should Develop a Risk Based Protocol to use to Determine the Audit Frequency of a Alternative Fuel Production Facility or a Credit Generation Protocol/Project

Valero recommends that staff start with an initial three year audit frequency and apply a risk based assessment protocol (formula), to determine an individual facility's or credit generation protocol/project's audit frequency. The risk based audit frequency could be more than once every three years or greater than once every three years based on the outcome of the risk based protocol's analysis. The formula could be a series of terms which add up to the frequency of the audit or a series of terms that are multiplied by 3 to calculate the frequency of the audit. The audit should look at the factors that have the greatest impact on the CI of the alternative fuel or the credit generation protocol/project. Valero suggests the following terms/factors be included in the risk analysis as applicable:

1. Is the fuel's CI above or below the current standard?
2. The magnitude of the fuel's CI delta from the standard.
3. Does the process have more than one feedstock?
4. Does the process have more than one co-product?
5. Does the process have more than one source of fuel?
6. Did the previous Verification audit result in a finding that the actual CI was 5.5% higher than the approved pathway CI for CI's > 20, or the actual CI was less than 1 CI above the approved pathway CI for fuels ≤ 20. (See section 95488(c)(4)(G)2.a.i and ii).

Ideally this approach would result in corn ethanol plants using only natural gas for heating, and producing wet and dry DGS and corn oil having an audit frequency greater than three years (assuming they did not fail the previous audit). An alternative fuel plant with a low CI and multiple feedstocks would have an audit frequency of three years. An alternative fuel plant that failed its previous audit would have an audit frequency of less than three years.

Since an alternative fuel's market value is based on its CI value versus the standard, this should be a major factor in the audit frequency calculation in order to level the audit cost among alternative fuel producers.

Staff will need to use the results of the audit frequency calculation to ensure that the number of audits is uniform from year to year and staff should publish the risk based protocol.

Alternative fuel producers should not be held accountable for factors that are outside of their control such as the corn yield per acre or starch content. These factors should be handled by updates to the GREET model if changes are needed.

Staff should also publish the scope/content of the proposed audits after holding public workshops to develop them.

ARB Should Allow a Variance of the Audit Findings from the Actual Pathway Application

Many factors can impact the day to day or month to month actual CI value of an alternative fuel or the volumes involved in a credit generation protocol/project that staff has approved. To account for this, Valero strongly suggests that the audit be based on the last 12 months when the plant or project was in operation at 80% of capacity or greater. In addition, Valero suggests that staff use the substantiality requirements in section 95488(c)(4)(G)2.a.i and ii to determine if a plant/project passed or failed the audit. For example, if the plants approved CI is > 20 then no action should be taken if the actual CI from the audit is no more than 5.5% above the approved pathway CI. Or if the plants approved CI is ≤ 20 then no action should be taken if the actual CI from the audit is no more than 1 CI above the approved pathway CI.

ARB Should Hold the Alternative Fuel Producers and the Credit Generation Protocol/Project Owners Responsible for Deficits Resulting for Failed Audits

If an alternative fuel producer or a credit generation protocol/project user fails an audit, then staff should calculate the metric tons based on the lower CI versus the audited CI and volume shipped or used in CA since the last audit or metric tons over generated by the credit generation protocol/project since the last audit, and require that deficit to be made up by the producer (the offender can purchase LCFS credits to do this), during the current year that the audit is finalized. If a party fails its initial audit, the calculation of the deficit should begin when the audit regulations take effect or when the pathway or protocol/project was approved, if later. Staff should allow producers to opt for a more frequent audit frequency if they choose this approach to minimize their risk.