

April 23, 2018

Clerk of the Board
California Air Resource Board
1001 I Street
Sacramento, CA 95814

Re: Andeavor comments on California Air Resource Board proposed Low Carbon Fuel Standard regulation amendments

Dear Chairwoman Nichols and Honorable Board Members:

Andeavor appreciates this opportunity to provide comments to the California Air Resource Board (CARB) proposed Low Carbon Fuel Standard (LCFS) regulation amendments. Andeavor is refiner and marketer of the types of transportation fuels for the people in the state of California regulated by the LCFS program. Additionally, Andeavor is a member of the Western States Petroleum Association (WSPA), we support and incorporate by reference the comments provided on behalf of WSPA.

Andeavor is pleased CARB is clarifying the regulation and look forward to continuing to work with staff to ensure the regulation is practical and cost effective. Given our visibility with the customers that rely on our transportation fuel, we feel Andeavor is well positioned to contribute to the LCFS dialogue and appreciate CARB's willingness to consider our input.

- The LCFS program poses many challenges, Andeavor supports CARB's decision to modify the 2019 and 2020 Carbon Intensity (CI) targets. We agree this change will help to address some near term challenges the LCFS program presents given the current lack of adequate credit generating fuel supply or infrastructure to meet the goals set forth in the last rulemaking. Despite the moderated near-term targets, we believe a CI reduction of 1.25 (gCO₂e/MJ) per year from 2020 to 2030 for both gasoline and diesel will prove to be a significant challenge for the producers of transportation fuels and low enough carbon intensity fuels, given the amount of time required to invest in logistic systems and construct facilities with technologies sufficient to meet these targets. We do not believe that the near-term targets (through 2020) proposed are a sustainable base given the current supply of credit generating fuels.
- Because the proposed obligation reduction schedule is non-sustainable a strong mechanism for cost containment of credit prices is needed. Unfortunately, the current cost containment provisions create a substantial compliance liability, punitive to regulated parties; and may not actually contain costs. Andeavors concerns and recommendations to strengthen the program are as follows.

Concerns:

- Deficits are rolled over for up to five years with an interest penalty of five percent annually, after the initial five years CARB has not detailed a mechanism for resolution of that liability.

- Any entity participating in the LCFS program with a deficit is named along with their deficit volume, this exposes the named company to unnecessary financial risk given the competitive nature of the program.
- No buyer liability for purchasers of credits. Buyers may be forced to buy credits from parties they deemed credit unworthy in the normal market with no protection should those credits later be invalidated.

Recommendations:

- Revise the credit clearance market provisions to enable CARB to adjust or freeze targets in the face of growing, systemic deficits due to inadequate supply of credit-generating fuels. We recommend this occur after deficits remain unresolved after two consecutive credit clearance markets. Obligated parties would be required to clear any deficits incurred but, would be provided time with a sustainable credit supply to resolve the deficits. This would also allow time for the needed production or infrastructure advancements in the credit-generating fuels to catch-up to the demand.
 - Allow for obligated parties to fund credit-generating projects as approved by CARB as an alternative to resolving the deficit through credit purchases. This approach was one of the original five cost containment concepts reviewed by CARB. Andeavor believes that adding this option, if designed properly, could incent the types of projects that would provide long-term, sustainable credit generation that would bring stability to the program. There are many ways this program could be designed and Andeavor will provide CARB with additional detail on this concept in the near future.
 - CARB to provide near-term program reviews. Such reviews would probably best occur every two years and would really only forecast credit supply in the one to three-year range. This would not be a re-visitation of the longer-term program goals every two years. This would be a very focused review to make sure that any near-term credit supply problems are discovered early where CARB could take proactive steps to address the problem and protect market participants and consumers from credit price volatility.
 - Name the entity with a deficit but do not disclose the deficit volume. This will allow obligated parties to purchase credits for compliance in a manner that does not expose them to premium credit prices.
 - Require the seller of credits in the Credit Clearance Market to retain the environmental and financial liability if deemed invalid.
- Co-processing of low CI fuels in a petroleum refinery is a novel means of utilizing existing infrastructure and technologies to support the goals of LCFS. The refining industry has a history of people with very strong technical skill required to operate, optimize and manage the facilities. Based on this experience, we support the use of mass/carbon balance methodologies to accurately and reliably predict gasoline and diesel yields attributable to co-processing low CI fuels at levels less than ten percent of total process unit charge rates. It is also our opinion that use of C14 is not applicable for all co-processing conditions and will result in inaccurate CI calculations of the resulting fuel. To note, this opinion was presented as recently as the February 7, 2017 Public Working Meeting by James Rekoske of Honeywell/UOP and Michael Talmadge with Helena Chum of NREL.

Additionally, Andeavor would like to thank CARB for taking the steps in the proposed regulation to clarify the Refinery Investment Credit Program (RICP). The changes allow for refineries to evaluate and justify capital expenditures for projects to reduce the CI of fuels produced. Andeavor specifically endorses WSPA's position on this topic.

Further, we support CARB's buffer account concept as a way to reduce buyer liability in the market. As indicated above we believe there is more to do in this space but, as proposed, the concept further reduces buyer liability in the event credits are invalidated and the responsible party cannot be held accountable for credit replacement.

Andeavor appreciates the opportunity to submit comments on the LCFS regulations 45-day proposed amendments. Please contact me at 310.872.4436 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian McDonald", written in a cursive style.

Brian McDonald

Policy and Regulatory Affairs Manager