



October 15, 2020

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Mr. Ryan Schauland, Mr. Syd Partridge  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814  
*Submitted Electronically via email to: [ghgreport@arb.ca.gov](mailto:ghgreport@arb.ca.gov)*

**Re: "Reporting of Co-processing and Renewable Gasoline Emissions under MRR"**

Dear Mr. Schauland and Mr. Partridge,

Phillips 66 appreciates the opportunity to comment on the September 16, 2020 Air Resources Board webinar and presentation "Reporting of Co-processing and Renewable Gasoline Emissions under MRR". We appreciate this proactive step by ARB to consider amendments to the GHG Reporting (MRR) and Cap-and-Trade (C&T) regulations to better recognize and encourage development of renewable fuels for California.

Phillips 66 recently announced plans (link to news release below) to transition our Rodeo, California refinery from petroleum processing to renewable feedstock processing, with the primary product being renewable diesel fuel. Planning, engineering and permitting for this transition are underway. We look forward to aligning with ARB on how to manage this transition within the context of the MRR, C&T and Low Carbon Fuel Standard (LCFS) regulations. We agree that regulatory amendments are needed to recognize the biogenic (zero carbon) aspects of renewable fuel processing and consumer end-use.

As ARB continues to develop its 2020 Mobile Source Strategy and consider corresponding regulations, we encourage ARB to more fully incorporate the critical role that renewable liquid fuels can and will play in California's transportation future. ARB presentations that focus almost solely on accelerating ZEV implementation understate the value of renewable liquid fuels in future clean transportation.

We look forward to sharing further details of our project with ARB in coming weeks. Due to the confidential nature of the project, our comments here are general in nature.



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## **Alignment of Regulations and Requirements**

Refineries must develop Monitoring Plans to establish an LCFS carbon intensity (CI) for renewable product(s). These Plans may include requirements for monitoring feedstocks, energy use (e.g. refinery fuel gas or RFG, electricity, etc.) and finished products and include requirements for volume measurement, sampling and analysis. MRR and C&T requirements should be aligned with these LCFS requirements. They should not be duplicative or overlapping.

## **Variability in Renewable Feedstock Processing**

Much of ARB's presentation discussed "Co-processing" where petroleum and renewable feedstocks are mixed and/or combined for subsequent processing and resulting products are a mix of biogenic and non-biogenic product. Phillips 66 requests that the regulations also include provisions that would recognize 100% renewable feedstock processing in individual process units and/or the full facility.

Processing could occur in various units (e.g. FCCU, hydrotreaters). Processing at times could be via co-processing or with 100% renewable feed. The regulations should acknowledge and incorporate this flexibility.

## **Facility GHG Emissions under MRR and C&T**

Phillips 66 recommends that ARB establish at least 4 options in MRR for determining GHG "stack" emissions from renewables processing:

- Measurement of fuel gas quantity/quality (workshop slides 10-11)
- CEMS (workshop slides 10-11)
- New Alternative Method Concepts (2): Determine and report in MRR the yield (volume and composition) of biogenic light hydrocarbons (e.g. C1-C4) that are produced during processing of renewable feedstocks and diverted to the broader refinery fuel gas (RFG) pool. This is also done to establish the GHG credit of the biogenic product(s) in product carbon intensity (CI) determination. For MRR, the facility could then report that volume of biogenic RFG and resulting GHG emissions as the total biogenic "stack" emissions. This would be done in lieu of sampling at the multiple RFG combustion points across a refinery. This alternative reduces the number of calculations and could be more accurate for determining overall facility biogenic GHG emissions. Data sources could be:
  1. Assume biogenic light hydrocarbon yield used in CI determination.
  2. Periodic sampling.

## **Facility Allowance Allocation (e.g. refinery CWB or other)**

The workshop did not include discussion of how to report refinery CWB (Complexity Weighted Barrel) throughput in MRR for refinery units processing renewable feedstock. We recommend the following options be considered:

- Use existing CWB factors in Section 95113 (Petroleum Refineries)

- Create new CWB factors in Section 95113 for refinery units where energy consumption is higher due to the more severe processing requirements for some renewable feedstocks.
- Create a distinct and separate benchmarking and allocation methodology for renewable feedstock processing units and/or facilities. For example, create a methodology outside of Section 95113 similar to how hydrogen plants are addressed in Section 95114 or how coke calcining is addressed that don't utilize the CWB structure.
- If 100% renewables processing existed in a unit or facility and there was only biogenic "stack" emissions, there would potentially be no emissions with C&T obligation.

### **Biogenic Carbon Analysis of Products**

ARB's webinar discusses C14 analysis. Phillips 66 encourages flexibility of different approaches (e.g. engineering estimation, laboratory analysis) to determine the biogenic content of gaseous and liquid streams. The flexibility will minimize the safety, quality and logistical risks associated with certain laboratory test methods and will ensure that facilities comply with the monitoring requirements.

### **Renewable Products**

ARB's webinar highlighted that only ethanol, biodiesel and renewable diesel are called out in the MRR (and C&T) regulations as having no CO<sub>2</sub> obligation. This is problematic and needs addressing at the earliest possible opportunity, perhaps via expedited rulemaking.

Other renewables products that should be considered biogenic and without C&T obligation for CO<sub>2</sub> emissions include those below. Phillips 66 recommends that ARB add these products to the MRR and C&T lists of fuels as being "biogenic" under MRR reporting and without CO<sub>2</sub> emission obligation under C&T:

- Renewable naphtha and gasoline
- Renewable refinery fuel gas (when sold as product)
- Renewable propane
- Renewable butane
- Renewable jet (aviation fuels do not have obligation under C&T but can receive credits under LCFS)

### **Renewable Products – Volume Determination**

ARB's webinar discussed determining renewables production volumes via tank sampling for co-processing. Phillips 66 recommends the following options be included in regulation:

- Tank sampling (workshop slide 16)
- Product metering from unit (e.g. if processing 100% renewable feed)



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## **EPA MRR Reporting**

Any new MRR reporting methodologies should be acceptable to EPA for parallel EPA MRR reporting.

**Thank for this opportunity to submit comments. You can reach me at 832-765-1779 or [steven.d.smith@p66.com](mailto:steven.d.smith@p66.com).**

**Best Regards,**

**Steven D. Smith**

Link to Phillips 66 News Release:

<https://investor.phillips66.com/financial-information/news-releases/news-release-details/2020/Phillips-66-Plans-to-Transform-San-Francisco-Refinery-into-Worlds-Largest-Renewable-Fuels-Plant/default.aspx>



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