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September 4, 2020
Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento, California 95814

Submitted electronically

Re: **AB617 Community Emission Reduction Plan (CERP) for Wilmington, Carson, and West Long Beach (WCWLB)**

Marathon Petroleum Corporation (MPC) appreciates this opportunity to comment on the community emission reduction plan (CERP) for the Wilmington, Carson, and West Long Beach community (WCWLB).¹

Assembly Bill 617 (AB 617) was enacted to help environmental justice communities in California improve their exposure to air pollution.² AB 617 requires that the local air districts, partnered with residents and stakeholders, produce a CERP and/or community air monitoring plans (CAMP). The California Air Resources Board (CARB) identified ten of the state's communities for inclusion in the first year of activity under the Bill – included in this list is the WCWLB community, which is home to Marathon's Los Angeles Refinery and an associated sulfur recovery plant.

The South Coast Air Quality Management District (SCAQMD) has approved a CERP for the WCWLB that includes discussions of emission sources, a source attribution approach (i.e., an approximation of how much each source-type influences emissions in the community), and proposed emission reduction targets.³ The source-types of greatest concern were poorly characterized using an approach with the lowest level of detail available to the SCAQMD – a simple comparison of emission inventories. This attribution approach is inappropriate

¹ "2018 Community Recommendations Staff Report", Community Air Protection Program, California Air Resources Board, September 2018, https://ww2.arb.ca.gov/sites/default/files/2018-09/2018_community_recommendations_staff_report_revised_september_11.pdf

² Assembly Bill No. 617, An act to amend Sections 40920.6, 42400, and 42402 of, and to add Sections 39607.1, 40920.8, 42411, 42705.5, and 44391.2 to, the Health and Safety Code, relating to nonvehicular air pollution., Approved and filed on July 26, 2017, https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB617

³ Wilmington, Carson, and West Long Beach Community Emissions Reduction Plan <https://ww2.arb.ca.gov/sites/default/files/2020-01/Final%20CERP%20WCWLB.pdf>



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is inappropriate for the WCWLB community.⁴ The SCAQMD established a Technical Advisory Group (TAG) that recommended this simple emission inventory comparison for identifying the sources which contribute to emissions in the WCWLB.⁵ However, this approach disregards any notion of atmospheric transport or chemical reactions within the atmosphere. Furthermore, the attribution does not include any influence of sources outside of the WCWLB—again disregarding atmospheric transport using the results of this attribution analysis, in conjunction with the emission inventory, the WCWLB CERP suggests actions that are designed to reduce air quality pollution within the community but neglects to make a direct relationship between the emission inventory, the exposure, the attribution, and the proposed actions.

The components of the CERP—the emissions inventory, the source attributions techniques, and the proposed emission reduction measures—each contribute to the influence that the CERP may have on the community's businesses going forward. This letter highlights concerns regarding the WCWLB CERP.

1. The source attribution approach that was employed provides no detail of actual exposure or risks

The California Health and Safety Code directed CARB to provide a "methodology for assessing and identifying contributing sources" and "an estimate of their relative contribution to elevated exposure to air pollution".⁶ However, while the WCWLB methodology identified contributing sources, the emission inventory approach fails to estimate relative contributions of exposure in an appropriate way. The pollutants emitted across a region do not equate to pollutant exposures. This is especially true for the WCWLB where a predominant wind is present and secondary formation of pollutants is prominent.

The proposed CERP conducted its source attribution by following the lowest level of detail option recommended by CARB, but we would stress that the communities identified as the most highly impacted—the first-year communities—warrant a much greater level of review and analysis. Table 1 of the CARB recommended source attribution approaches provides limitations of each method. However, the limitations identified by CARB for the community inventory ratio approach excludes some of the most important limitations, including consideration of emission release parameters, chemical reactions, and, importantly, formation of secondary pollutants.

⁴"AB 617 Recommended Source Attribution Technical Approaches", Office of Community Air Protection, California Air Resources Board, August 22, 2018, https://ww2.arb.ca.gov/sites/default/files/2018-08/ab617_recommended_source_attribution_technical_approaches.pdf

⁵"Methodology for Source Attribution Analyses for the first year AB 617 Communities in the South Coast Air Basin (Technical Report)", South coast Air Management District, July 2019, Draft Version 071719, <https://www.aqmd.gov/docs/default-source/ab-617-ab-134/technical-advisory-group/source-attribution-methodology.pdf?sfvrsn=8>.

⁶ California Health and Safety Code § 44391.2 (b) (2)



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The WCWLB source attribution documentation states, "In the South Coast Air Basin, including in this community, the majority of ambient PM_{2.5} is formed by secondary chemical reactions in the atmosphere rather than directly emitted from local sources." This statement should serve as a strong indication that an inventory-based approach is an inadequate solution for assessing exposure, especially for PM_{2.5}.

The relationship between emission sources and downwind receptors is complex. Simplifying this relationship as one-to-one is inappropriate and a more detailed source attribution should be conducted, even if it requires updating the CERP next year once completed. The MATES V data will be useful in revealing actual chemical exposures throughout the community and a detailed source apportionment study, using both deterministic modeling and receptor-based modeling, could serve to tie these exposures back to the region's emission sources. By having a detailed understanding of the source-receptor relationship, more effective actions can be developed to produce rapid improvements in community health.

2. The air quality priority topics cannot be directly related to the source attribution or associated graphics

The CERP is organized around the air quality priorities (e.g., refineries) identified by the Community Steering Committee (CSC), but the emission inventory and associated plots are not. Instead, the emission inventory and plots are organized by National American Industry Classification System (NAICS) codes and, in some cases, aggregated such that it is left to the reader attempt to disaggregate the NAICS-based emissions to isolate emissions from the CSC priority sources.

As an example, consider that Chapter 3b states, "Approximately 32% of the total VOC emissions in this community are attributed to processes related to petroleum refining", but the basis for this number is unclear and unsubstantiated. A review of the 2017 emissions in Appendix 3b indicates that the refinery-related emissions (classified as "40 Petroleum Refining (Combustion)" and "320 Petroleum Refining") are only 17% of the VOC emissions. Furthering this example, if we group all oil and gas related emissions (NAICS 30, 40, 310, 320, 330, 340), the VOCs total to approximately 25% of the VOCs in the WCWLB region. Clearly, the emission sources totaled to arrive at the 32% of the VOCs should be defined. Moreover, each code of the emission inventory should be related to one of the CSC priority areas to help the community understand the influence of each air quality priority and whether those priorities are the most effective.

The graphics provided in Figure 3b-1 should be improved to depict the air quality priorities instead of the broad source types. This would allow the community to visually understand if the selected priorities, and associated actions, are aligned with the community emissions. For example, the community could then ask the question, "What are



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the total NO_x, PM, and VOC emissions from the priority sources versus other sources in the community?" or, "What is the cancer risk from each air quality priority area versus the other sources in the area?" Importantly, this provides the CSC and the community the information they need to make sure their priorities are appropriate.

3. Proposed actions should have quantified goals that relate to the community priorities and appropriate source attribution results

Chapter 5b of the CERP describes the proposed actions to reduce community air pollution from refineries. The chapter suggests that these actions were developed by the CSC and are based on the air quality priorities. However, it is not clear whether the actions were developed using the source attribution results. The WCWLB community developed air quality priorities well before the publication of the WCWLB source attribution results, which suggests that the source attribution did not contribute to the priorities. Further, the actions for the refineries in the WCWLB were published prior to the publication of the source attribution results, suggesting that the proposed actions are largely the product of the CSC and community perceptions of impacts from the region's sources, rather than the actual impacts. The CERP would be more technically sound if there was a clear connection between the community priorities, the source attribution, and the priority actions. In its current form, the CERP does not provide these connections, potentially degrading the efficacy of the CERP for the WCWLB community. We encourage the development of a revised CERP to include the priority-attribution-action connection.

It would also increase the clarity and effectiveness of the proposed actions if they were tied to specific emission reduction targets or reduction in health risks. For example, for refinery Action 1 (improved refinery flaring notifications), several questions should be asked to clarify the usefulness of the action:

- What emission or exposure reductions can be expected from Action 1 for the refineries?
- What are the total emissions from refinery flaring in the community? From non-refinery flaring?
- Does literature support the concept of increased notification as an effective method of reducing exposure?

Additionally, specific concerns were identified in the text that, in our view, should be revisited. These concerns include:

- The first sentence in Chapter 5b identified refineries as among the largest stationary sources, but it does not put the total emission in context with the broader emission inventory and highlight that mobile sources are, by far, the largest emission sources.
- The inclusion of a flaring image is needlessly inflammatory – there is no similar image of vehicle exhaust plumes.



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- If remote optical sensing is less accurate than existing emission estimates, but produces lower emissions, does this count as an emission reduction?
- One goal is to reduce flaring events and/or emissions by 50% "if feasible". The CERP should be clarified with criteria as to what is feasible.

4. The Addition of Emission Reduction Targets is Inappropriate

One week before the scheduled SCAQMD Governing Board vote on the CERP, NOx, VOC, and SOx emissions reduction targets were added for refineries. There is no evidence that SOx emissions are causing health impacts in the Community, as it is in compliance with the State and National Ambient Air Quality Standards, and no analysis of chemical reactions involving SOx has been provided. For SOx, NOx, and VOC, there is no baseline established from which the emission reductions could be measured, no analysis of the impacts of these pollutants, and no analysis as to how these emission reductions could be achieved. These targets should be removed from the CERP, or the appropriate analyses done prior to adoption.

The efforts put into the CERP are appreciated, but we hope that the concerns described in this letter will be taken under consideration prior to board adoption of this CERP. Additionally, it behooves the community to pursue a more detailed source attribution study to gain a more detailed understanding of the origins of their pollutant exposure burdens, which will aid in the creation of actions that can achieve the greatest improvement in community health. In particular, we would like CARB to help facilitate an improved source attribution analysis in an amended CERP for this community.

Sincerely,

A handwritten signature in black ink, appearing to read 'Miles Heller', with a long horizontal flourish extending to the right.

Miles Heller
Director, Policy and Regulatory Affairs

