

## Comment Letter #106



### Tesoro Refining & Marketing Company LLC

A subsidiary of Marathon Petroleum Corporation

Los Angeles Refinery – Carson Operations  
2350 E. 223<sup>rd</sup> Street  
Carson, California 90810  
310-816-8100

October 7, 2022

VIA Certified Mail and eMail ([wnastri@aqmd.gov](mailto:wnastri@aqmd.gov))

Certified Mail No. 7022 0410 0001 4246 1732

Return Receipt Requested

Wayne Nastri  
Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

**Re: Comments on SCAQMD 2022 Revised Draft Air Quality Management Plan  
Proposed Measure L-CMB-07: Emission Reductions from Petroleum Refineries**

Dear Mr. Nastri:

On behalf of Tesoro Refining & Marketing Company LLC, a wholly-owned subsidiary of Marathon Petroleum Corporation (collectively, "MPC"), MPC appreciates this opportunity to provide South Coast Air Quality Management District (SCAQMD or District) with comments on the Proposed Measure L-CMB-07: Emission Reductions from Petroleum Refineries ("Proposed Measure L-CMB-07" or "L-CMB-07") associated with the 2022 Draft Air Quality Management Plan ("Draft AQMP").<sup>1</sup> In September 2022, SCAQMD issued a Revised Draft 2022 AQMP along with comments and District Staff's responses to comments. This set of comments supplements MPC's comments submitted to SCAQMD on June 17, 2022.

**1. Next Generation Ultra Low NOx Burners (ULNB) have not been demonstrated to be technically feasible**

Proposed Control Measure L-CMB-07 considers next generation ULNBs as a pathway to achieve further reductions for boilers and process heaters greater than or equal to 40 MMBtu/hour. As previously outlined in our June 17, 2022 comment letter, MPC maintains its serious concerns regarding the technical feasibility of requiring next generation ULNB as Best Available Retrofit Control Technology (BARCT). In SCAQMD's response to comments, the agency claims that next generation ULNBs resolve the inherent limitations of installing or retrofitting "traditional" ULNBs in refinery applications. However, SCAQMD also acknowledges that multiple issues still need to be addressed before requiring next-generation ULNB as BARCT, including the following:

<sup>1</sup> Accessed at <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan>

Mr. Wayne Natri  
 October 7, 2022  
 Page 2

- Technical feasibility
- Cost effectiveness and incremental cost effectiveness
- Existing requirements of Rule 1109.1
- Potential safety concerns
- Whether next generation ULNB can be installed safely and in compliance with API safety standards 535 and 560.
- If next-generation ULNB cannot be installed in compliance with API safety standards 535 and 560, then whether it is possible to update API safety standards to address next generation ULNB installations or require installation per an alternatively safe manner.
- Challenges in operating air preheaters with next generation ULNBs

Further, simply pointing out that some pending permit applications for projects where next generation ULNB will be installed will “prove the technology” as the District has done, is not evidence of successful retrofits, or that the technology can safely operate over a wide range of operating conditions that exist within refinery process heaters, or that this technology has been demonstrated to meet the proposed emission limits on a continuous basis. Additionally, it would be premature for SCAQMD to force the adoption of next-generation ULNB before their safety has been fully assessed. Yet, SCAQMD continues to incorrectly conclude that next generation ULNBs are technically feasible.

As MPC has explained previously, the feasibility of retrofits must be evaluated on a unit-by-unit evaluation. It is not possible to make a blanket conclusion regarding the feasibility of retrofits on every unit in the air basin. We ask that SCAQMD withdraw this conclusion until all the factors identified above have been addressed.

## **2. Installing Selective Catalytic Reduction (SCR) may not be feasible for all units**

Despite the District recognizing that SCR is not technically feasible when there is an operational challenge such as space constraints, it is continuing to conclude SCR as a feasible option. (See Response to Comment 59-22). MPC has continued to point out, first during Rule 1109.1 rulemaking and again during the Draft 2022 AQMP public comment period, that space constraints and foundational support infrastructure can deem the installation of SCRs on most existing heaters and boilers at a refinery infeasible. Indeed, MPC has preliminarily concluded that SCR cannot be installed on 52% of the existing units already subject to Rule 1109.1 at its Los Angeles Refinery (LAR) due to space constraints in the existing process unit.

During Rule 1109.1 development, the District’s own third-party engineering consultant, Fossil Energy Research Corporation (FERCO), prepared a report<sup>2</sup> that acknowledges the obstacles space constraints can pose. FERCO states in its report that “The implementation of SCR NO<sub>x</sub> control on refinery heater systems can be challenging for many reasons. First and foremost, the physical spaces around these heater units are typically very congested. These space constraints can significantly limit the distance available between the AIG and the SCR catalyst itself. As discussed previously, achieving very high levels of SCR NO<sub>x</sub> removal (90% to 98%) requires exceptionally good mixing of the ammonia into the flue gas stream ahead of the catalyst.”

In order to meet the proposed 2 ppmv NO<sub>x</sub> standard, a combination of SCR and ULNB (next generation or otherwise) would be required at MPC’s LAR. Therefore, SCAQMD must evaluate the technical feasibility and cost effectiveness of a pathway that involves using an SCR and next-generation ULNB

<sup>2</sup> Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1109.1/ferco-report.pdf?sfvrsn=6>

Mr. Wayne Nastri  
 October 7, 2022  
 Page 3

combination and not just a next-generation ULNB installation.

### 3. A cost effectiveness threshold of \$325,000/ton of NOx should not be used

The updated “Cost Effectiveness” subsection of the Revised Draft 2022 AQMP identifies two potential options for thresholds. The first option is based on previous costs of control technology as well as inflation of costs over time. As a result, SCAQMD would adjust the threshold put forward in the 2016 AQMP from \$50,000/ton of NOx to \$59,000/ton NOx. This option reflects the approach used for recently adopted and amended rules and what was used in previous AQMPs. The second option is a significant divergence from recognized past assessments by solely considering the “potential monetized health benefits of reducing pollution.” This health-based option would result in a threshold of \$325,000/ton NOx, which is more than six times the \$50,000 per ton cost-effectiveness threshold established by the SCAQMD Governing Board in the 2016 AQMP. As we explain further below, this second approach is not a viable alternative and is not the most cost-effective approach.

As the District states, the second approach utilizes a benefit-cost analysis as a screening threshold instead of a cost-based approach. The California Health and Safety Code (HSC), however, explicitly requires the District consider costs or economic considerations. HSC Section 40920.6(a) makes it very clear that prior to adopting a rule as BARCT, the District must take into consideration the costs, in dollars, while also taking into consideration the local public health and clean air benefits to the surrounding community.

Establishing an across-the-board threshold of \$325,000/ton NOx precludes the BARCT-required analysis of economic achievability and conflicts with the District’s response to comment 41-1, which stated that the District would identify “industry-specific affordability issues” during rule development.<sup>3</sup> Further, BARCT is defined as “an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.” (HSC § 40406). When determining whether a proposed BARCT measure is achievable, SCAQMD must consider the economic impacts by each class or category of source. The proposed threshold assumes that increasingly expensive measures are broadly achievable across all classes and categories of source, which conflicts with both the language of the HSC Section 40406, and the District’s historical approach to determining whether a measure is cost effective. As stated in the draft AQMP “[t]he cost-effectiveness thresholds established in previous AQMPs have been developed specifically in consideration of costs that stationary sources are anticipated to face.”<sup>4</sup> In order to achieve a threshold of \$325,000/ton and assuming a 25-year project life, the District would conclude that investments of over \$60 billion to achieve a 22 ton/day reduction from stationary sources are “cost effective”. This is in contrast to a \$10 billion investment at a threshold of \$50,000/ton. This extreme cost would be well beyond the total cost of previous AQMPs and would result in additional socioeconomic impacts. Accordingly, it is not appropriate to use a monetized benefit-per-ton value as an across-the-board threshold to find that a measure is cost effective.

While the District’s proposed approach to estimating a dollar value for public health benefit may be considered as part of the cost-effective analysis when determining if a proposed measure is BARCT, it is not the only factor the District is required to assess. The District’s current process, identified as Option 1, takes into consideration all of the requisite factors under the HSC and would use a cost-effectiveness threshold of \$59,000 per ton, which would still allow the District to adopt measures which exceed the threshold. The District would hold a public meeting to discuss emission standard options with a cost-

<sup>3</sup> Accessed at: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/revise-draft-2022-aqmp/revise-draft-2022-aqmp-comments-and-responses-to-comments.pdf?sfvrsn=6>

<sup>4</sup> Accessed at: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/revise-draft-2022-aqmp/revise-draft-2022-aqmp-chapter-4.pdf?sfvrsn=4>

Mr. Wayne Nastri  
October 7, 2022  
Page 4

effectiveness at or below the threshold, in addition to options above the threshold. This approach ensures a thorough and public process before adopting increasingly expensive measures. MPC respectfully objects to the implementation of a \$325,000 per ton NO<sub>x</sub> cost effectiveness threshold and reserves the right to submit additional comments on this proposal.

### **Conclusions**

Proposed Control Measure L-CMB-07 considers technologies and emission limits that have not been achieved in practice and are not technically feasible. SCAQMD should remove L-CMB-07 from the 2022 AQMP and allow refineries to continue focusing on implementing the significant control technologies already required under Rule 1109.1.

Please note that in submitting this letter, MPC reserves the right to supplement its comments as it deems necessary, especially if additional or different information is made available to the public regarding the proposed measure.

Thank you for the opportunity to provide comments. We are glad to discuss this further and look forward to continued dialogue.

Sincerely,



Brad Levi  
Vice President – Los Angeles Refinery

cc: **SCAQMD**  
Sarah Rees – Deputy Executive Officer  
Susan Nakamura – Chief Operating Officer  
Michael Krause – Assistant Deputy Executive Officer

cc: **SCAQMD Governing Board**  
Hon. Ben Benoit – Governing Board Chair  
Hon. Michael Cacciotti – Governing Board Member  
Hon. Vanessa Delgado – Governing Board Vice-Chair  
Hon. Andrew Do – Governing Board Member  
Hon. Gideon Kracov – Governing Board Member  
Hon. Sheila Kuehl – Governing Board Member  
Hon. Larry McCallon – Governing Board Member  
Hon. Veronica Padilla-Campos - Governing Board Member  
Hon. V. Manuel Perez – Governing Board Member  
Hon. Nithya Raman – Governing Board Member  
Hon. Rex Richardson – Governing Board Member  
Hon. Carlos Rodriguez – Governing Board Member  
Hon. Janice Rutherford – Governing Board Member

Mr. Wayne Nastri  
October 7, 2022  
Page 5

ecc: 2022-10-07 MPC Comment Letter on 2022 AQMP  
Jamie Bartolome, MPC RE  
Ruth Cade, MPC RE  
Chris Drechsel, MPC RE  
Luis Martinez, MPC LAR  
Robert Nguyen, MPC LAR  
CP Patsatzis, MPC LAR  
Robin Schott, MPC LAR  
Vanessa Vail, MPC LAW