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December 14, 2020

VIA E-MAIL: pfine@aqmd.gov

Philip M. Fine, Ph.D.
Deputy Executive Officer
Planning and Rules
South Coast Air Quality Management District
21865 Copley Drive
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Re: Supplementary Comments on South Coast Air Quality Management District Staff's 1109.1 Proposed Rule Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Industries Revise Rule Language Released to the Public on Friday, November 20, 2020

Dear Dr. Fine,

Torrance Refining Company LLC ("TORC") is pleased to submit comments to the South Coast Air Quality Management District ("District") in response to staff's Proposed Rule 1109.1 Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Industries ("PR 1109.1") revised rule language released on November 20, 2020 ("Revised Language"). This supplements TORC's comment letter submitted to the District on November 20, 2020 concerning the initial rule language released on October 23, 2020.

BARCT Compliance Alternative Plan

B-CAP Submittal (PR 1109.1(k)(1))

In the Revised Language, PR 1109.1 arbitrarily requires affected Refineries to submit a BARCT Compliance Alternative Plan ("B-CAP") within six months after rule adoption, if PR 1109.1 is adopted. As the District should know based on prior Refining sector comments and our November 20th letter, each Refinery equipment component currently targeted by PR 1109.1 is unique and will require its own engineering, designing, permitting, procurement and construction effort in order to meet technologically feasible and cost-effective BARCT levels, which are not currently presented in PR 1109.1. Because each equipment component must be analyzed on its own in order to prepare an appropriate B-CAP, it is unlikely that the specific technical resources necessary to conduct many such analyses across the South Coast Air Basin would be able to produce proper results within six months of rule adoption.

Furthermore, the planning and timing for BARCT level emission control projects will have to coincide with the turnaround schedules for the particular Refinery Process units associated with

December 14, 2020

Page 2

each targeted Refinery equipment component. Refinery turnarounds require three to five years of planning and are subject to change for a variety of reasons, some of which are not controllable. Flexibility in turnaround scheduling is necessary to address market conditions, availability of resources, including highly-skilled trades, and unforeseen events.

However, despite the realities of proper turnaround planning and scheduling, the Revised Language infeasibly requires the Refining sector to lock-in and broadcast its turnaround schedules for the next 15+ years, which defies accurate forecasting, presents anti-competitive issues, and importantly, would require Refineries to hasten turnaround planning outside of established industry best-practices at the expense of the careful, highly technical attention-to-detail employed to prevent process and personnel safety incidents.

Therefore, TORC urges that Revised Language be further revised collaboratively with Refinery turnaround experts to provide the affected Refineries adequate time to prepare a B-CAP that takes into account the critical turnaround timing necessary for the currently targeted Refinery equipment under PR 1109.1. TORC urges that before any further B-CAP submittal deadlines are arbitrarily included in any future revised rule language, District staff meet with each affected Refinery to obtain and include their input on this critical issue.

B-CAP Calculations

The Revised Language mandates an implementation schedule in arbitrary phases to which an affected Refinery is required to retrofit their currently targeted Refinery equipment under PR 1109.1. While the District may believe that this provides flexibility for an affected Refinery to plan its BARCT level emission control projects, it forces the PR 1109.1 implementation schedule to be in line with emission reductions versus a specific turnaround schedule that an affected Refinery may have, i.e., because of uncontrollable external influences alone, such as skilled trades resourcing, the B-CAP target may not be in line with the scheduled turnarounds over the next 15+ years forcing a Refinery to perform an out of cycle shutdown of a process unit.

Due to the heightened risk that such out of cycle turnarounds create, **TORC believes that such phasing should be eliminated from PR 1109.1.** The District cannot ignore the personal and process safety risks associated with any phasing of BARCT level emissions controls as they are of paramount importance to Refinery workers and the community.

Moreover, these currently mandated arbitrary implementation targets overly complicate what PR 1109.1 is intending to do, which is to obtain further NOx reduction in lieu of RECLAIM. This can be achieved, assuming the adopted rules includes technologically achievable and cost-effective BARCT levels, by providing affected Refineries with the necessary flexibility to adjust turnaround schedules and the timing of BARCT level emission control projects as each Refinery's unique circumstances dictate.

December 14, 2020

Page 3

Accordingly, TORC believes these arbitrary B-CAP implementation targets are counter to the intent of RECLAIM sun setting and should be eliminated from PR 1109.1 to provide much needed and critical flexibility necessary to ultimately meet the intent, should the rule be adopted.

B-CAP Review Process

The B-CAP submittal and review process in the Revised Language specifies the timing for a Refinery to submit or resubmit the plan. However, it does not specify how long the District has to review and approve the plan, which constitutes a critical milestone in any technically complex project plan. Based on other recent rule adoptions that require plan submittal, it has been TORC's experience that it sometimes takes the District years to approve plans that are less complex than what we believe the B-CAP plan would entail. In the case of PR 1109.1, and for TORC's 20+ unique Refinery equipment components that would be included in its B-CAP, even a six month approval cycle by the District would not provide enough time for TORC to timely submit permit applications for the first phase as currently proposed in Table 4, let alone the other two phases. This would be further complicated if the B-CAP were to be incorporated into the Refinery's Title V Permit. TORC opposes the incorporation of the B-CAP into Title V Permits as such incorporation would more likely entail multiple Variance and Alternative Operating Condition applications before the District Hearing Board as it is highly likely emission control projects timing will be altered due to various unforeseen circumstances, further burdening the District and hampering progress towards the desired goal.

B-CAP Implementation Schedule

The Revised Language (k)(4), Table 5 (*revised proposal 12/10/20*), phased implementation approach currently mandates that each Refinery submit permit applications for their equipment that represents 50% of their net 2017 emission reductions (i.e., facility base year 2017 RECLAIM emissions minus the base year 2017 emissions with BARCT levels applied) by July 1, 2022. Subsequently, permit applications for an additional 25% of equipment for each affected Refinery is required to be submitted by July 1, 2024. Finally, the remaining 25% of permit applications would be due by July 1, 2026.

The phased implementation schedule mandated in Table 5 (*revised proposal 12/10/20*) is infeasible as it does not take into consideration the multiple and dynamic turnaround scheduling efforts that will be required by affected Refineries to implement hundreds of BARCT level emission control projects through the South Coast Air Basin, assuming that the BARCT levels are technological feasible and cost-effective. As noted, the meticulous planning, scheduling, and procurement processes necessary to safely conduct a turnaround takes three to five years depending on complexity. For TORC, implementing 20+ projects under PR 1109.1, if adopted, will require multiple turnarounds over 15+ years which is infeasible even assuming rapid approval of related permit applications, which, given the typical 12 to 18 month permit review and approval cycle is historically improbable.

December 14, 2020

Page 4

Therefore, the (k)(4), Table 5 (*revised proposal 12/10/20*), phased approach is counter to the goal in that it severely and unrealistically restricts necessary scheduling flexibility in that the schedule mandates that 100% of the proposed BARCT emission control projects be permitted and constructed within approximately nine years of rule adoption, if a six-month extension is granted, which does not provide sufficient time to even perform the pre-engineering required to substantiate July 2022 permit applications submission.

For TORC to meet the (k)(4), Table 5 (*revised proposal 12/10/20*), phased implementation approach, it would have to submit 20+ BARCT level emission control project permit applications over a three-year period. However, during this period, not only would TORC be submitting dozens of permit applications, but the other affected Refineries would each be submitting hundreds of applications as well. Accordingly, this would require the District to simultaneous review and presumably approve all of these permit applications during the same period of time, which does not appear remotely realistic based historically on long it takes the District to review and approve Refinery permit applications.

Moreover, during this very short and condensed time period, all affected Refineries will be required to have engineering and construction performed, forcing the competing for the same design, engineering, permitting, procurement, construction, and turnaround resources. Even if it were possible for each affected Refinery to adjust their turnaround schedules to meet the (k)(4), Table 5 (*revised proposal 12/10/20*), phased implementation schedule, all the Refineries would end up with similarly scheduled turnarounds for the next five years. This would likely anti-competitively drive up the costs for materials and skilled construction resourcing and have an impact on the state and local economy. **The District must address this potential impact in the required BARCT cost-effectiveness and socioeconomic impact analyses.**

Finally, (k)(4), Table 5(*revised proposal 12/10/20*) Revised Language does not take into account District Rule 205 and the limited time allowed for modification or construction of the equipment in the South Coast Air Basin. Rule 205 only allows for a permit to construct to be valid for one-year with the ability to extend it for typically an additional year in order to complete construction and operate it under the permit to construct, until the permit to operate is issued. The current Revised Language would not allow an affected Refinery to utilize an extension for a second year for construction because of the mandate to achieve final compliance with the BARCT levels, assuming they are technologically feasible and cost-effective, within 18 to 24 months after a permit to construct is issued. As noted earlier, due to potential changes in turnaround schedules and timing of the implementation of BARCT level emission control projects, an affected Refinery may need to request an extension on one or multiple permits to construct and utilize the full amount of construction time permitted under Rule 205. Even with the (k)(5) six-month extension provided for in the Revised Language, this is unlikely to provide enough time to fully demonstrate final compliance with the BARCT levels. Additionally, with the uncertainty of having to combine two emission control technologies (i.e., Selective Catalytic Reduction and Ultra Low NOx Burners) that have not yet been proven to work together and in combination to meet very low BARCT

December 14, 2020

Page 5

levels, design, engineering, permitting, procurement, construction, turnaround scheduling, and demonstrating final compliance is not feasible in the time allowed under the (k)(4), Table 5 (*revised proposal 12/10/20*), phased approach.

Therefore, TORC believes that such phasing should either be eliminated altogether from PR 1109.1 or established by collaboration with industry in order to produce a realistic phased plan.

As TORC has previously commented, it believes it will take 15+ years for it to complete the 20+ projects for all of the targeted Refinery equipment categories, assuming they are technologically feasible and cost-effective. **TORC urges that before any further final compliance deadline is included in any future revised rule language, District staff meet with each affected Refinery to get their input on this critical issue.**

B-CAP Time Extensions

As with any long-term planning that extends years into the future, due to market conditions, resources, and unforeseen events, continual and multiple changes to turnaround scheduling is normative, and in this case, that reality influences the timing of BARCT level emission control projects. Although (k)(5) of the Revised Language allows for one six-month extension per project from the (k)(4), Table 5 (*revised proposal 12/10/20*) implementation schedule, one six-month extension is unlikely to suffice given the very short six-month mandate for submittal of the B-CAP. Because of this, the inability of affected Refineries to properly plan turnaround schedules intrinsically linked to the B-CAP is untenable.

Accordingly, **TORC believes that there should not be any limit to the number of extensions that might necessary over a 15+ year period to implement 20+ emission control project to meet PR 1109.1 BARCT levels, assuming they assuming they are technologically feasible and cost-effective.**

B-CAP Modifications

To have any practical value, the B-CAP must be designed as and considered an evergreen document that will require many adjustments over its lifetime. Because the B-CAP could be revised multiple times over its life, the (k)(6) Revised Language must not restrict the revisions that will be needed to be made in order to meet affected Refineries' turnaround scheduling and the timing of BARCT level emission control projects.

B-CAP Fees

As the District is now no doubt aware, PR 1109.1 will have a greater economic impact to a single industry, the Refining sector, than any District rule ever proposed and/or adopted. Currently, PR 1109.1 affects hundreds of Refinery combustion equipment, and by the most conservative of estimates, will be the most expensive rule the District has ever adopted, costing affected Refineries multiple **billions of dollars** to retrofit or replace existing equipment to meet the BARCT levels, even assuming they are technologically feasible and cost-effective. With

December 14, 2020

Page 6

permitting fees likely costing millions of dollars for the hundreds of BARCT level emissions control project permit applications that will be required to be submitted under the Revised Language, (k)(7) would also now require affected Refineries to pay Rule 301 plan fees for the B-CAPs as well. Since there could be multiple submittals of and revisions to the plan over its lifetime, **the District should only require the plan fees to be paid for the initial B-CAP submittal.**

* * *

In closing, TORC believes that the B-CAP and the arbitrary phased-in implementation schedule as currently proposed in the Revised Language are infeasible and due to the currently proposed very short and condensed time periods raise significant operational integrity and process and personnel safety concerns.

All affected Refineries will be competing for the same design, engineering, permitting, procurement, construction, and skilled trades resources leading to significant and unexpected delays and costs with potential anti-competitive implications.

Therefore, TORC requests that the Revised Language phased-in requirements in (k)(1) and (k)(4) be removed from PR 1109.1 or collaboratively evolved with industry experts. TORC also requests that Revised Language in (k)(1), (k)(2), and (k)(4) that unrealistically and arbitrarily limits affected Refineries' flexibility to adjust turnaround scheduling and timing of BARCT level emission control projects also be eliminated or collaboratively evolved with industry experts.

Finally, TORC urges that before any further B-CAP or final compliance deadlines are included in any future revised rule language, District staff should meet with all affected Refineries to obtain and include their input on such deadlines. This step is fundamentally necessary in determining a feasible and reasonable construct for deadlines and process for meeting the BARCT levels for the targeted Refinery equipment, assuming these levels are technologically feasible and cost-effective in the first instance.

Because of the numerous critical issues that need to be resolved with the PR 1109.1 rulemaking as presented in TORC's letter dated November 20, 2020 and the issues identified with the Revised Language in this letter, TORC repeats its request that the District pause or further delay its PR 1109.1 rulemaking process so that all the critical issues can be addressed in a thoughtful, dispassionate, and fully informed manner to assure that the rule that will not unduly impact the regional economy, or California residents.

Thank you for the opportunity to submit comments on the Revised Language. We stand ready to work diligently with District staff and other stakeholders to address the complex issues associated with PR 1109.1.

Phillip M. Fine, Ph D., Re: Supplemental Comments to South Coast Air Quality Management District's Proposed Rule 1109.1 Rulemaking

December 14, 2020

Page 7

Please note that in submitting this letter, TORC 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 PR 1109.1 rulemaking process.

We incorporate by reference into this letter the relevant comments previously submitted by Western States Petroleum Association on December 4, 2020.

If you have any questions regarding TORC's comments, please call or email me or John Sakers. Our office phone numbers are 310-212-4500 (Steve) and (310) 212-4292 (John).

Sincerely,



Steve Steach
Refinery Manager

cc: **District Staff - via e-mail and overnight delivery**

Wayne Nastri	Executive Officer
Susan Nakamura	Assistant Deputy Executive Officer
Michael Krause	Planning and Rules Manager

cc: **District Refinery Committee Members - via e-mail and overnight delivery**

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Hon. Ben Benoit	Governing Board Vice-Chair and Refinery Committee Member
Hon. Larry McCallon	Governing Board Member and Refinery Committee Chair
Hon. Judy Mitchell	Governing Board and Refinery Committee Member
Hon. Lisa Bartlett	Governing Board Member and Refinery Committee Member

cc: **District Governing Board Members - via overnight delivery**

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