



South Coast Air Quality Management District

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April 2, 2021

Staff Comments on Proposed Advanced Clean Fleets Regulatory Concepts

South Coast AQMD staff appreciates the opportunity to comment on CARB's concepts for the Advanced Clean Fleets (ACF) regulation. We appreciate the hard work that CARB staff is putting into this effort, and with the ongoing dialogue. This is a tremendously important rulemaking as it addresses the trucks which form South Coast AQMD's largest source of NO_x emissions. In addition, this appears to be the last major regulation CARB is planning to pursue for the foreseeable future to address this source of emissions. As you are aware, CARB has committed to reducing more than 100 tons per day of NO_x emissions beyond the baseline by both 2023 and 2031 to meet federal air quality standards. This rulemaking is one of the most meaningful regulatory measures towards achieving those near-term goals. If these air quality standards are not met on time, in addition to the most important consideration – continued poor public health outcomes – we may face multiple layers of federal action that could significantly and adversely affect our region.

We urge CARB to focus on these immediate federal air quality standards – and its previous commitments. We recognize and appreciate that CARB is charged with meeting many goals, including those associated with climate. However, federal air quality standards are unique in that they are the only 'goals' that have specific sanctions codified in law and have near-term requirements. In light of this pressing need, we recommend that the proposed regulations be updated to include the following: 1) allowing fleets to use trucks that meet CARB's lowest Optional Low NO_x standards to comply with ACF, 2) advancing the timelines to bring greater emission reductions forward, 3) expanding the applicability of the rule to cover more of the truck fleet, and 4) addressing potentially significant enforcement challenges with the current concept, in particular with the drayage truck concepts and with the sub-hauler provisions. Details on the comments are included on the following pages.

We appreciate that CARB is pursuing this regulation quickly, and we are available to assist in identifying mechanisms to solve the challenges presented in this letter. If you have any questions about these comments, please contact Ian MacMillan at (909) 396-3244, or imacmillan@aqmd.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Wayne Natri".

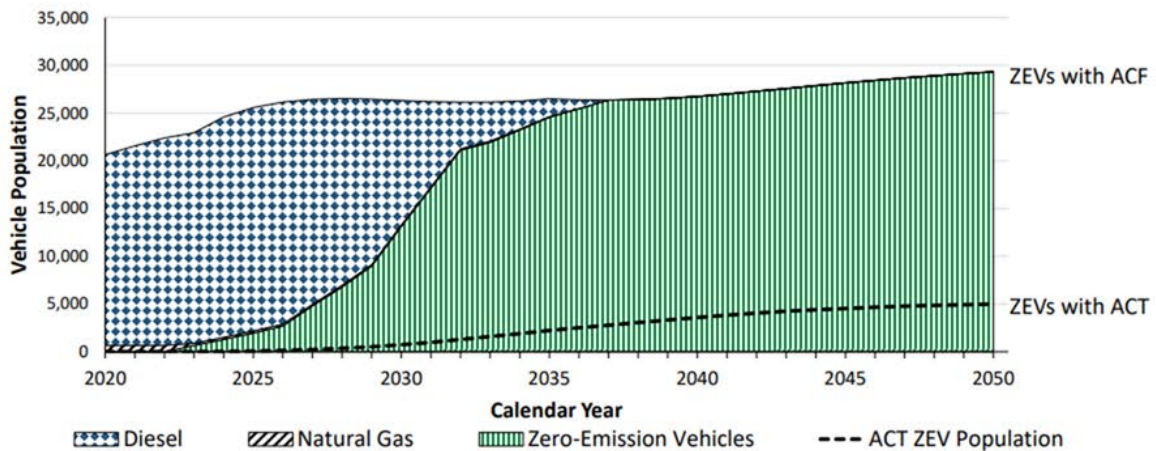
Wayne Natri,
Executive Officer

Use of Optional Low NOx Standards

Zero emissions technology clearly will have suitable and ideal uses in many duty cycles, including in the near-term, and we support its adoption in those cases. However, the current regulatory concepts overlooks the years of work that CARB, South Coast AQMD, and others have undertaken to develop commercially viable near-zero technologies. These technologies reduce NOx emissions at least 90%, and toxic diesel particulate matter emissions 100% below that associated with current conventional diesel trucks. These are technologies that are commercially available today and are considerably more cost effective and affordable than zero emissions technologies – a crucial consideration when considering how to deploy technology widely. Meanwhile, while we wish it were not the case, zero emission trucks for many applications are frankly not here today. They can be ordered, but getting them delivered and deployed at scale will not happen in the short-term. Their current purchase price also remains out of reach for many, especially in comparison with near-zero emission trucks. We fully expect that zero emissions trucks (both electric and hydrogen) will get to the point where they can be deployed in a few years, and that their prices will go down over time. However, they may not be cost competitive for many years for some truck types, and near-zero technologies allow for substantial “bang for the buck” Today, for every non-zero emissions truck that is sold, there is a lost opportunity to reduce emissions using currently available technology.

Given the above, we are very concerned that CARB is seeking to exclude consideration of anything besides zero emissions technologies as part of this regulation. CARB’s stated rationale is that anything short of requiring zero emissions as part of this regulation will hinder their ability to meet California’s zero emissions goals in 2035 or 2045. The unfortunate reality is that this approach sacrifices public health today, and the unintended consequence will be the continued use of diesel technology if - as is the current case - zero emission technology is not widely available or feasible. The competition is not between zero emissions technology and technologies that meet the lowest Optional Low NOx standard, it is between diesel technology and everything else. This is clearly exhibited in CARB’s own drayage truck inventory graph, which concedes that the majority of trucks on the road between now and 2035 will be diesel, even with the proposed zero emissions requirements in ACF.

Drayage Truck ZEV Population

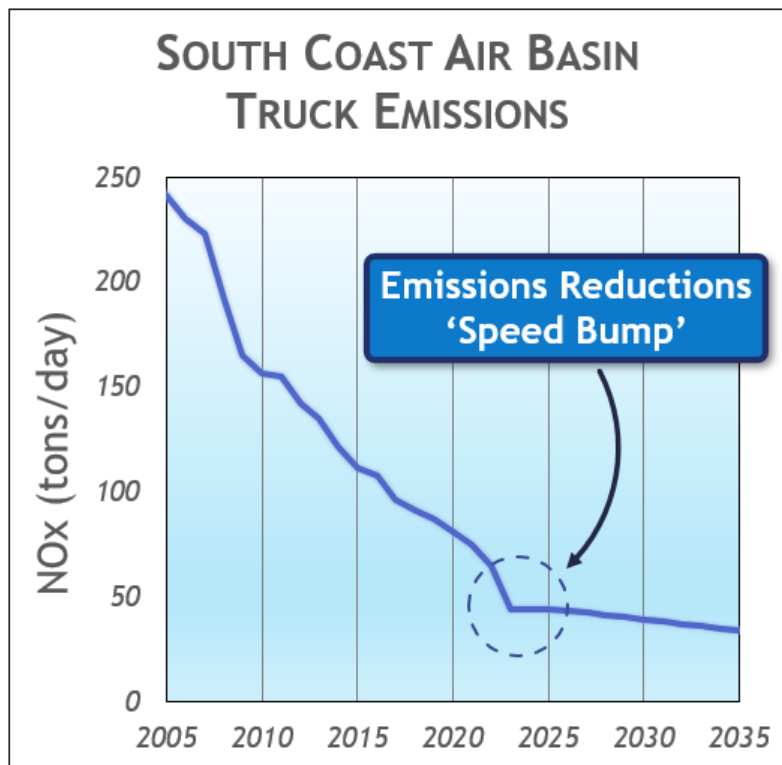


Reference: Advanced Clean Fleets March 2/March 4 Working Group (slide 7)
https://ww2.arb.ca.gov/sites/default/files/2021-03/210302emissions_ADA.pdf

We strongly encourage CARB to reconsider this position, and pivot to include pathways for commercially available technologies that meet the existing lowest Optional Low NO_x standards (currently 0.02 g/hp-hr). As part of this approach, it may be helpful to develop criteria for when zero emissions (ZE) technologies should be considered instead of technologies that meet the lowest Optional Low NO_x standard [called near-zero emissions (NZE) in this letter]. As an initial suggestion, when comparing ZE and NZE technologies with each other these could include: reasonable cost-effectiveness and affordability, comparable availability of charging/fueling infrastructure, comparable ability to handle the duty cycles for particular applications, comparable manufacturing capacity, and comparable maintenance and service network availability.

Near-Term Emission Reductions are Needed

As proposed, ACF would achieve most of its emission reductions only after the early 2030's. This long lead time on the only regulatory effort the CARB is undertaking on the existing truck fleet effectively guarantees that South Coast AQMD will not meet federal air quality standards for 2023 or 2031. There is a long history of reducing emissions from trucks that has significantly improved air quality in our region, however the single-minded pursuit of zero emission technology has substantially slowed those reductions. In fact, right when the pace of emission reductions needs to increase and we need to 'step on the throttle', everything is slowing down for a regulatory speed bump while we wait for ZE trucks (see graph below). The ACF must include more provisions to get early emission reductions.



Expanded Applicability of ACF

Based on recent data presented by CARB staff at a South Coast AQMD Air Quality Management Plan working group, about 72% of the truck fleet will not be addressed by this regulation.¹ Given the significance of this emissions source, and the opportunities available with both ZE and NZE technologies, the scope of ACF should be expanded to encompass a wider portion of the fleet. We recognize that truck activities are not a one-size-fits-all, and identifying groupings of truck activity presents challenges, especially given the secondary market where truck uses may change from their original purchaser to the used truck owner. There are two approaches that may help to expand the applicability. First, by providing a pathway for NZE trucks, the regulation could expand the duty cycles that could be required to turn over by ACF (likely in a more cost effective manner in the near term). Second, Senate Bill 1 (2017) placed limits on the pace of truck turnover that CARB could require (with thresholds of 13 and 18 years, and 800,000 miles). This could be used as a simple framework to more broadly apply to truck fleets. For example, all trucks could be required to be turned over once that useful life limit is reached. In addition, although SB 1 places limits on mandated turnover, options could be included in the regulation for turnover that provides ‘extra credit’ for earlier turnover. As an example, if a fleet uses NZE trucks earlier than ZE requirements, they could then be guaranteed in the rule an SB 1 ‘useful life’ for those vehicles until they are required to turn over to ZE trucks.

¹ <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/carb-epa-presentations---hd-trucks-03-24-21.pdf>, slide 7

Structure of ACF Will Lead to Significant Enforcement Challenges, Which Will Reduce Emission Reductions

There are two parts of the proposed concept for ACF that may lead to significant enforcement challenges. First, the current concept for drayage trucks prevents new non-ZE trucks from entering the drayage registry after 2023. Because the drayage market is composed of a significant fraction of used trucks, there will be a significant cost differential between a new ZE truck, and an existing diesel truck. The most likely outcome is that used diesel trucks in the registry will be used as long as possible (up to 18 years) to avoid the cost of purchasing a new ZE truck. As occurred during the previous drayage rule, short distance dray-offs will be the most likely mechanism of compliance. In this case, that would mean that the oldest diesel drayage trucks would shorten their trips out of the port to avoid racking up miles and hitting the 800,000 mile threshold for turnover. Diesel trucks would then be able to continue the drayage trip to its ultimate destination. This approach will ensure that the dirtiest trucks continue to call at the port for as long as possible, all while a ZE regulation is in place. There is no proposal we are aware of that would address how to enforce the optimistic emission reductions envisioned during the working group meetings. This outcome is entirely foreseeable given recent history, but it is not inevitable. Other approaches could be used to turn over the fleet, including to NZE trucks, that would avoid this outcome. We recommend revising this portion of the regulatory concept to avoid this expected outcome.

Second, the rule currently includes sub-haulers in the ‘high-priority fleets’ definition. We appreciate that a mechanism is being pursued to expand the applicability of the rule, however as described it is not clear how CARB will be able to track and enforce this provision. CARB staff has already indicated that it doesn’t yet know how to evaluate the sub-hauler provision. This is expected given the dynamic nature of this industry and the wide use of third parties and brokers with shifting business relationships. It is uncertain then how CARB intends to enforce ACF with respect to sub-haulers to ensure that the zero emissions goals it seeks actually occur. In particular, if there is a shift to even more broadly diffuse brokerages through app-based systems (similar to the profusion of transportation network companies in light duty), the tracking and enforcement of ACF will become even more difficult. CARB should describe in detail its plan for enforcing this part of the proposed rule, what resources are needed to ensure compliance, and where the funding for this compliance program will come from. Absent a strong compliance program, it is unlikely that the proposed regulatory concept will achieve the proposed emission reductions.

Emissions Estimates

As part of the emissions analysis conducted for ACF, we recommend that CARB staff update the estimates to a) account for the anticipated benefits of the upcoming Heavy Duty Inspection and Maintenance Regulation (in particular for the drayage truck analysis), and b) provide estimates of the benefits of previously incentivized NZE trucks.